



The Memorable Words of John Garang: Roads, Roads, and Roads - The Three Top Priorities for The Development of South Sudan¹

EXECUTIVE SUMMARY

- 1. Both Government of Southern Sudan (GoSS) and Government of the Republic of South Sudan (GRSS) have had allocated significant amount of resources for the construction of roads since the year 2005;**
- 2. The average cost of a tarmac road in South Sudan is \$1.8 million/kilometer and the GRSS allocates annually more than 80 percent of the Gross Fixed Capital Formation (GFCF) for roads construction;**
- 3. According to the Africa Infrastructure Development Index (AIDI) 2022 produced by African Development Bank (AfDB), South Sudan scored 6.51 points (scale of 0-100) compared to 5.80 in 2021, which represents an improvement;**
- 4. Weak system of public procurement is the major driver of the low returns to South Sudan's investment in the road subsector of the infrastructure sector; and**
- 5. The emerging consensus on weak procurement system is also consistent with the priorities of the Public Financial Management Reforms Strategy (PFMRS), which is being implemented by RTGoNU.**

I. The Context

The late Dr. John Garang de Mabior, the first Chairman of the Sudan People's Liberation Movement (SPLM) was asked in April 2005 at the Oslo Donors' Conference for the Sudan about what were his three top priorities? He responded unambiguously: **roads, roads, and roads**. His response was consistent with the SPLM top priorities for the Interim Period as expressed in the **SPLM Strategic Framework for War-to-Peace Transition**, issued in August 2004. The section dealing with infrastructure states that²:

¹ Prepared by VEST, Ebony Center.

² The SPLM Strategic Framework for War-to-Peace Transition, issued in August 2004 by the SPLM Economic Commission

The role of physical infrastructure in the life of a nation is well established. The movement of people, goods and services in Southern Sudan/New Sudan is severely constrained by undeveloped infrastructure. The overall vision of the SPLM and GOSS regarding transport infrastructure is based on three levels of connectivity: (a) transport networks linking Southern Sudan/New Sudan with Northern Sudan and with the countries of the Region, such as Kenya, Uganda, Ethiopia and DR Congo; (b) transport networks linking the Regions/States of Southern Sudan/New Sudan; and (c) transport networks linking Counties, Payams and Bomas in each Region/State. The first two transport networks shall be the responsibility of the GONU and GOSS, while the third shall be a State level responsibility.

A critical point of departure was provided by the above passage to the then Government of Southern Sudan (GOSS) to embark on an ambitious program aimed at rehabilitating and reconstructing **10,000 kilometers of road** by the end of the Interim Period on **8th July 2011**. The program was pursued soon after independence by the Government of the Republic of South Sudan (GRSS), evidenced by the formulation of an Infrastructure Action Plan (2011 – 2020). This Action Plan was prepared with the support of the African Development Bank (AfDB) at a projected cost of **\$6.2 billion**. Moreover, the Revitalized Transitional Government of National Unity (RTGoNU) has been, since 2018, allocating **10,000 – 30,000 barrels** of crude oil per day for roads construction in its annual budgets. For instance, **\$475.1 million** has been allocated to the road subsector in the FY2023/2024 budget. This constitutes about **80.4 percent** of the Government's Gross Fixed Capital Formation (GFCF) in the FY2023/2024 budget.

The GFCF accounts for **26 percent** of the total budget and **9 percent** of the Gross Domestic Product (GDP) in the FY2023/2024 budget. Hence, the annual budgetary allocations to the road subsector demonstrate a clear commitment, on the side of the Government, to Dr. John Garang's top priorities. But then why the country continues to face formidable challenges in achieving a relatively functioning network of roads? The apparent inability to achieve the target is what has motivated the convening of a development policy forum (DPF) discourse, which was held on 18 November 2023. The focus of the discourse was on the following questions: **What are some of the challenges facing the management of the oil for roads fund? How many kilometers of road have been tarmacked? How many kilometers of road and number of bridges are planned to be constructed before the end of the second decade of independence?**

The main outcome of the DPF discourse is that the lack of a transparent and accountable system of procuring public goods and services, is the primary factor underpinning the poor returns to our investment in the road subsector of our infrastructure development program. This consensus provides the central message of the Ebony Policy Brief number 2023-5, which is the imperative of **accountability and transparency in the use of public resources**. The emerging consensus is also consistent with the priorities of the Public Financial Management Reforms Strategy (PFMRS), which is being implemented by RTGoNU. One of these priorities is the call for the establishment of the Public Procurement and Disposal of Assets Authority (PPDAA), which has been partially established this year (i.e. 2023).

II. It is Time for Transparency and Accountability in the Use of Oil for Roads in South Sudan

The GRSS has honored one of the objectives of the liberation struggle that prioritizes roads in the development process of South Sudan. And as they say, numbers don't lie, the budgetary

allocations for roads by both the GoSS and GRSS is a true reflection of this commitment. For instance, GoSS /GRSS' records, according to the World Bank,³ show that **\$1.3 billion** had been spent on roads during the period **2005 -2014**. This amount could have constructed at least **1,000 kilometers** of tarmac roads if the average cost per a kilometer (single lane) is assumed to have been **\$1,300,000**. Yet, South Sudan does not have more than 500 kilometers of paved roads. In this regard, we would say that the returns to this ambitious investment have been disappointing in terms of the number of kilometers of paved roads constructed. This is due mainly to the non-existence of a public procurement system that is grounded on the principles of transparency and accountability.

The disappointment is further illustrated by looking at some of the indicators with respect to road construction. According to the Africa Infrastructure Development Index (AIDI) 2022, which is produced by AfDB, South Sudan scored 6.51 points (**on a scale of 0.0 -100**) compared to a score of 27.52 for Kenya (see Table 1 below). The AIDI is, in our view, not the most appropriate index for our comparative analysis of the RTGoNU's investment in the road subsector. This is because the AIDI is a composite index that comprises of four components: (1) transport infrastructure; (2) electricity production (including the energy imported from abroad); (3) information and communication technologies (ICT) development; and (4) access to water and sanitation. We would instead use the Road Quality Index (RQI), which is:

one of the components of the Global Competitiveness Index published annually by the World Economic Forum (WEF). It represents an assessment of the quality of roads in a given country based on data from the WEF Executive Opinion Survey, a long-running and extensive survey tapping the opinions of over 14,000 business leaders in 144 countries. The road quality indicator score is based on only one question. The respondents are asked to rate the roads in their country of operation on a scale from 1 (underdeveloped) to 7 (extensive and efficient by international survey of business leaders standards). The individual responses are aggregated to produce a country score⁴.

The RQI (2019) global average is 4.1 based on a survey of business leaders in 141 countries. Singapore has the highest score of 6.5 and Chad has the lowest score of 1.9. The same survey covered 38 African countries of which the top ten countries with the highest scores (i.e. best performers) are shown below (Table 1). Namibia tops the list with a score of 5.3 followed by Egypt (5.1) and Rwanda (4.8). It is interesting to note that three – Rwanda, Kenya, and Tanzania – on the list are members of the East African Community (EAC). South Sudan is not covered in the Global Competitiveness Index (GCI) of which RQI is drawn from. It is, nevertheless, important that we examine some of the possible indicators behind the reasons why 14,000 business leaders in 141 countries (of which 38 are African) rated ten African countries that had high quality roads in 2019.

We have settled on the worldwide governance index (WGI) as a potential explanatory variable behind the performance of countries with respect to the construction of roads (see Table 1). By way of contextualizing the WGI, we have added other relevant indicators, such as the total length of road network in kilometers, the percent of paved roads, the total population, and total surface area in square kilometers. The influence of these additional indicators on the quality of governance as well as of roads is not conclusive.

³ As presented by the World Bank South Sudan Country Team Retreat, May 28 – 30, 2014 at Windsor Resort, Nairobi, Kenya

⁴ Cited from: (https://www.theglobaleconomy.com/rankings/roads_quality/Africa/)

Table 1: South Sudan Compared to Top Ten African Countries with High Quality of Roads Index⁵

Country	RQI	AIDI	WGI⁶	Total Length of Road Network (km)	% of Paved Roads	Total Population (million)	Total land area (square km)
1. Namibia	5.3	30.53	+0.29	48,399	9.3	2.6	823,290
2. Egypt	5.1	89.91	-0.76	65,050	73.8	112.7	995,450
3. Rwanda	4.8	22.66	+0.03	4,700	33.0	14.1	24,670
4. Mauritius	4.7	80.44	+0.76	2,248	98.0	1.3	2,030
5. Morocco	4.7	68.16	-0.28	57,334	79.0	37.8	446,300
6. South Africa	4.5	81.67	-0.11	750,000	21.0	60.4	1,213,090
6. Kenya	4.1	27.52	-0.49	177,800	8.0	55.1	569,140
7. Senegal	4.1	31.37	-0.09	16,665	37.0	17.8	192,530
8. Tanzania	4.1	16.27	-0.49	87,581	11.0	67.4	885,800
9. Algeria	4.0	60.00	-0.79	141,000	83.0	45.6	2,381,740
South Sudan	NA⁷	6.51	-2.05	15,560	3.2	11.1	644,329

Source: Constructed by VEST from various sources

Mauritius has the highest WGI score of +0.76 out of +2.5 and a total length of road network of 2,248km of which paved roads constitute 98 percent in a country of 1.3 million inhabitants on a surface area of 2,030 square kilometers. Namibia comes second with a population of 2.6 million inhabitants on a surface area of 833,290 square kilometers and only 9.3 percent of 48,399 km of roads is paved. Rwanda maintains a third position/rank with respect to both RQI and WGI. Rwanda has a population of 14.1 million inhabitants on a surface area of 24,670 square kilometers and a road network of 4,700 km of which 33.0 percent is paved. But Egypt, which is second to Namibia with respect to the quality of roads has a negative WGI (i.e. relatively poor governance) and a high percent (73.8) of paved roads.

Government effectiveness, which is one of the six components of WGI is the likely contributor to the quality of roads. But this would require more studies to establish a credible empirical evidence. We would, nevertheless, recommend that the GRSS should accelerate the implementation of the Public Financial Management Reforms Strategy (PFMRS). This is because

⁵ Ranges between 1 (underdeveloped) and 7 (developed)

⁶ The Worldwide Governance Index (WGI) is an average of six aggregate indicators – (i) voice and accountability; (ii) political stability and absence of violence/terrorism; (iii) government effectiveness; (iv) regulatory quality; (v) rule of law; and (vi) control of corruption - which has been developed by the World Bank cross country comparison for over 200 countries in the world ranges. Its value from approximately - 2.5 (poor governance) to +2.5 (good governance)

⁷ South Sudan is NOT covered in the survey of world business leaders

the PFMRS is premised on transparency and accountability. We believe that South Sudan could have had achieved most of the objectives of the roads program highlighted in the Infrastructure Action Plan (2011-2020) if it had put in place a robust procurement system. The elements of that roads program were articulated as follows⁸:

The proposed roads program is based on implementation of eight-point program in the decade ahead: (i) rehabilitate and upgrade of the entire 7,369 km of inter-state trunk roads; (ii) upgrade of the existing 1,451 km of state primary roads to all-weather standard; (iii) upgrade of the existing 3,822 km of secondary roads to all-weather standard; (iv) upgrade of 2,178 km of tertiary roads to all-weather standard; (v) pave an additional 440 km of urban roads and upgrade 300 km to all-weather standard; (vi) strengthen financial and institutional capacities for regular maintenance of the road network and oversight of the road transport industry; (vii) develop urban transport services; and (viii) implement a comprehensive program for road safety.

The total length of the road network of 15,560 given in Table 1 was taken from the above passage. We have also reproduced Table 7.5 from the Infrastructure Action Plan (2011 – 2020) as Table 2 and which provides the costs of various types of road. The Plan highlighted at that time why road construction costs are among the highest in Africa:

Road construction costs in South Sudan are among the highest on the continent (see Table 7.5). While the average unit cost for a paved standard two lane road is less than US\$ 0.5 million per km in most African countries, it exceeds US\$ 0.9 million per km as reflected in recent road works in South Sudan. Indeed, the engineer's cost estimate for an AC standard was at \$1.6 million per km for the planned Juba-Yei-Kaya, connecting to Uganda and \$1.2 million for Juba-Torit-Nadapal linking to Kenya. The main factors driving up the costs are: (i) inelastic supply in a post-conflict economy due to a limited supply base for construction work; (ii) large costs associated with import of construction materials; (iii) overhaul costs due to lack of or limited local borrow materials; (iv) limited availability and cost of skilled and unskilled labour; (v) very poor condition of existing roads; (vi) a long rainy season with heavy rainfall; and (vii) insecurity and cost of mine-clearing operations in some areas.

The high cost of road construction is, however, not the primary driver of the poor performance of our investment in this critical component of the Infrastructure Action Plan. It is transparency and accountability, stupid!

⁸ **South Sudan: An Infrastructure Action Plan** - A Program for Sustained Strong Economic Growth. AfDB, 2013

Table 2: South Sudan - Road Rehabilitation Construction and Maintenance Costs

Item No	Road Type	Cost (\$/km)	Remarks
1	Paved/asphalt road (two lane)	1 100 000 to 1 300 000	Lower margin for DBST
2	Gravel road (two lane) – gravel road with seal or stabilized	350 000 to 400 000	For staged upgrading of roads to paved road
3	Gravel road (two lane)	170 000 to 250 000	Lower margin applies to tertiary/feeder roads – Class A feeder roads designed for 50 vehicles per day, with adequate drainage structures and pavement
4	Class B feeder roads	100 000	Class B for 30 vehicles per day or less, with critical drainage structures, basic surfacing and variable road width. Cost may vary depending on terrain and natural soil type
5	Class C feeder roads	50 000	Class C for 10 vehicles per day or less, with minor provision of drainage, mainly drifts, and spot improvement along an engineered road alignment. Cost may vary depending on terrain and natural soil type
6	Road maintenance	30 000	Including spot improvement and repair works. In the case of routine maintenance, cost may go down to \$10 000 – 15 000

Source: World Bank Staff

III. Conclusion

We conclude this policy brief by stressing four important points of consensus that emerged from the DPF discourse. The first is **to improve transparency and accountability through strengthening the procurement process by: (a)** prioritizing competitiveness rather than single sourcing; and **(b)** ensuring fiscal consolidation by enforcing the role of oversight institutions- e.g. undertaken audit as required by the law. The second is **Road Development and Maintenance-** by developing a long term integrated strategic approach, including sustainable planning and provision of transport infrastructure consistent with the Revised National Development Strategy (R-NDS). The third is to: **(a)** prioritize corridors that will enhance both internal and regional mobility while facilitating the movement of inputs and outputs between production and market; **(b)** prepare corridor development strategies taking account of railway/waterway development proposals to reduce pressure on the roads network; and **(C)** put in place sustainable corridor management institutions. And the fourth was to create conditions for encouraging private sector participation in the ownership, planning, financing, construction, maintenance, and management of roads. This would promote shared profit opportunities and risk-taking between the government and the private sector, whenever this is economically feasible and appropriate.