BMAU BRIEFING PAPER (25/17) May 2017

The Roads Sub-Sector Contribution to Sustainable Development Goals: What are the hindrances?

OVERVIEW

The 17 Sustainable Development Goals (SDGs) were born at the United Nations Conference on Sustainable Development in Rio de Janeiro, Brazil in 2012. The objective was to produce a set of universal goals that meet the urgent environmental, political and economic challenges facing our world. SDG Number 9 is "*To build a resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation*".

To demonstrate commitment, Uganda's second National Development Plan 2015/16-2019/20 (NDP II) was drafted with interventions focused towards achieving the SDGs. One of the NDP II target for the roads sub-sector is a "*Developed road network infrastructure to improve transport connectivity, effectiveness and efficiency to comparable levels of the developed countries with an average of paved road density of 100km per 1,000 Sq. km by the year 2040.*"

The road network is the backbone transport system in Uganda (90 % of freight and human movement). Although there have been significant efforts to improve the stock of paved roads by 27% (from about 4,364km to 5,227km) in six years, the country's road transport network is very small by international standards. It is further characterised by:

Being short-lived: The roads deteriorate before half of their design life, for example the Mbale-Soroti road (103km) and Mukono-Jinja highway (52km).

Having inadequate serviceability*:* The roads are exclusive in nature, as they lack cyclist lanes and pedestrian walkways especially in urban areas.

Being accident prone*:* Uganda has the highest fatality rate in East Africa at 26 per 10,000 vehicles, *(MoWT, 2016).*

Being heavily trafficked: The travel time has remained constant at 1.15 minutes/km on national roads for the last six years while for Greater Metropolitan Kampala Area (GMKA) at 2.5 minutes/km for five years and even increased to 2.9 minutes/km in 2016 *(MoWT, 2016).*

Being weather prone: This applies to the unpaved roads. When it is too dry, they are dusty and when it is wet, they are too muddy making some roads almost impassable like in the Sebei, Bugisu and Karamoja region.

With the above characteristics in place, it is doubtable that we can achieve NDPII targets and SDG No.9. This **briefing paper** highlights the causes and effects that are responsible for the above phenomena, and recommendations to overcome them**.**

KEY ISSUES

- Poor planning at both design and implementation stages.
- Budget constraints due to budget cuts and delayed payments.
- Weak construction capacity for both government entities and private sector contractors.

Introduction

Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development has three pillars; social equity, economic growth and environmental protection which must be balanced to achieve it.

Uganda's road network is categorised into three:

- **National roads network** which is managed by the Uganda National Roads Authority (UNRA) with two programmes i.e. the National Roads Construction/Rehabilitation (NRC) for paved roads-4,157km (20%) and National Roads Maintenance (NRM) for unpaved roads-16,388km (80%).
- **District, Urban and Community Access Roads (DUCAR) network-** broken down into; **District roads-** 5,566km maintained by District Local Governments; **Urban roads-** 12,000km under Urban Local Governments; and **community access roads-** 80,000km maintained by the sub-counties.

The Government of Uganda (GoU) has prioritised roads in the National Budget since Financial Year (FY) 2008/09 peaking at 18.2% of the total budget in FY 2015/16. This allocation to the sub-sector has more than tripled in the past six years to match with the NDP which emphasizes the importance of transport, and particularly roads, in the achievement of national development goals. However, the finished road works have low serviceability, and are affected by extreme weather conditions, which reduces the roads lifespan and also contributes to the high rate of accidents.

The following are some of the key reasons to explain the causes and effects of such phenomena.

- **Poor planning;** This is manifested in the following ways:

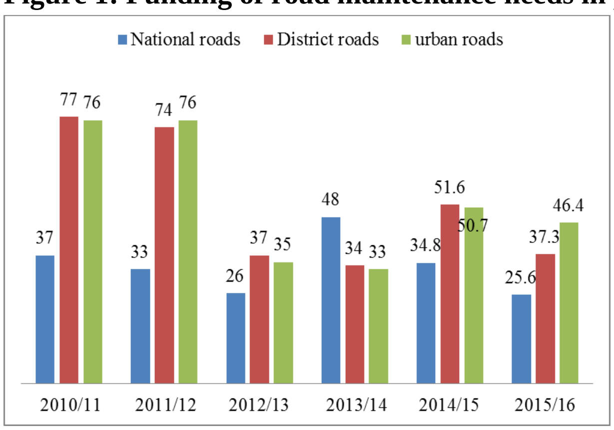
Delayed land acquisition: Acquisition of the Right of Way (RoW) is delayed leading to slow implementation. On the Ishaka–Kagamba road, the RoW acquisition had not been finalised 200% into the contract time, while for Ntungamo–Mirama Hills, 6km of the RoW had not been handed over to the contractor by 89% of contract time.

Procurement of contractor preceding that of supervision consultant: In some incidences**,** contractors report on site before the supervision consultants are on site. During this period, the contractor's equipment is idle since the consultant who would have issued instructions to commence work has not yet reported. The result is claims for compensation for idle equipment which makes road works expensive. The Acholibur–Kitgum–Musingo road (86.4km) and Olwiyo (Anak)-Gulu road (70.3km) had a two months lag between the contractor's and supervision consultant's start dates.

Delayed implementation of designs: Upon finalization of the road designs for rehabilitation projects, their implementation takes a considerably long time (usually two years) due to budget constraints. Thereafter, at the time of implementation, the road conditions have changed and reconstruction is applicable rather than the pre-planned maintenance, hence leading to increased costs. This has happened on the Mukono-Jinja (52km) and Kawempe-Kafu (199km) roads.

Failure to priotise maintenance: The current financing trends focus more towards new road construction with little consideration for maintenance leading to accumulation of maintenance backlog and consequently, investments are likely to be lost if roads are not well maintained. Figure 1 shows the extent of funding to the road maintenance requirement for the last six years.

Figure 1: Funding of road maintenance needs in percentages for the last six FYs



Source: (MoWT, 2016)

Figure 1 elucidates that not all the maintenance needs were financed up to 100% in the last six FYs. FY 2012/13 had the largest budget cut as on average only 32.7% of the needs were financed. National Roads Maintenance Program suffers the highest budget cuts as not more than 50% of its maintenance needs were financed in the last six FYs. This was mainly attributed to the fact that Uganda Road Fund (URF) has not realized the direct transfer of all funds accrued from Road User Charges (RUCs) from Uganda Revenue Authority (URA).

Inadequate designs

Road works are tendered before finalization of the designs and omission of critical items leading to increment of contract prices after design reviews. On the Namunsi-Sironko-Kapchorwa (65km) and Rehabilitation of Nakalama-Tirinyi-Mbale (102km) roads, the designs were found to be inadequate and both roads have been repackaged into two lots hence, doubling the contract price. In the same way, Kyenjojo–FortPortal road (50km) was tendered without a design but rather a strip map; following the design review, the quantities for earthworks and drainage works almost doubled. Additionally, the designs of Ugandan roads are usually not inclusive of cyclist lanes and pedestrian walkways especially in urban areas. A typical inclusive road section is illustrated in Figure 2.

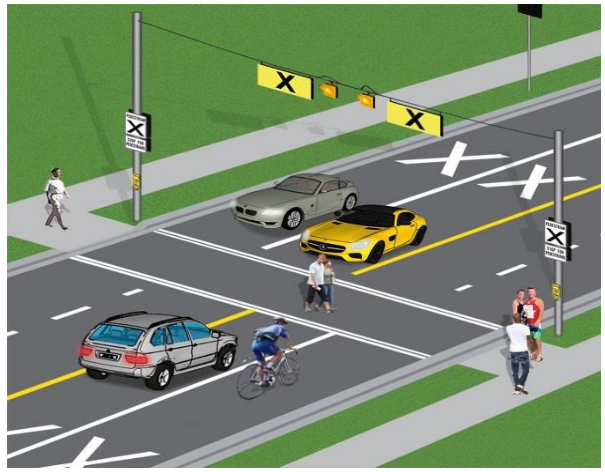


Figure 2: An artistic impression of an inclusive road with pedestrian walkways and cyclist lanes

- **Budget constraints** evidenced as;

Budget cuts: The sub-sector has failed to realize full funding for the various programmes in the past FYs which hampers achievement of annual targets as illustrated in Table 1. The Works and Transport sector was allocated 18.2% of the total GoU budget in FY 2015/16. This was aligned to the NDPII however, 74.3% was released by the end of the FY, with the Ministry of Works and Transport (MoWT) getting the smallest release of 20.7% which affected the achievement of annual targets. Absorption of funds was excellent (above 98%).

Table 1: Financial and physical performance of selected road sub-sector programmes for FY 2014/15 and FY 2015/16

Descriptions		***Budget (Ug shs billion)***	***Release (Ug shs billion)***	***% Release***	***Expenditure (Ug shs billion)***	***% Expenditure***	***Annual Targets Achieved (%)***
2014/15	MoWT	122.364	108.11	88.4	107.64	99.6	70.0
	NRC-UNRA	1,728.495	1,832.165	106.0	1,829.66	99.9	83.3
	NRM-UNRA	274.44	274.44	100.0	271.54	98.9	90.0
	DUCAR	164.44	164.44	100.0	145.04	88.2	78.0
2015/16	MoWT	928.025	191.755	20.7	190.372	99.3	62.0
	NRC-UNRA	1,802.35	1,789.441	99.3	1,769.011	98.9	76.2
	NRM-UNRA	270.44	190	70.3	190.0	100.0	50.0
	DUCAR	140.44	71.18	50.7	70.68	99.3	71.5

Source: MFPED/BMAU Annual Monitoring Report FY 2014/15 and FY 2015/16

Delayed payments to contractors and consultants caused mainly by budget constraints. This has attracted interests which cause cost over runs. For instance construction of the new Mbarara Bypass (13.875km) and reconstruction of existing Mbarara–Ntungamo section (26.6km) attracted interest amounting to EUR 62,810.96 due to delays in payment of 13 Interim Payment Certificates.

- **Scarcity of construction materials:** This has been caused by over exploitation and poor land tenure system which makes accessibility of materials very challenging and expensive. Numerous Low Cost Seal (LCS) technologies were developed by the MoWT with support from the Danish International Development Agency (DANIDA) but they have not yet been rolled out for implementation.

- **Weak construction capacity**

Private sector: The contracting firms especially the local ones lack adequate technical and financial capacity to undertake huge capital and technical intensive projects and as such they are awarded to foreign companies which usually are not keen on passing on skills to the nationals. This has also caused increased capital freight.

Government agencies implementing roads sub-sector activities lack full sets of equipment and will therefore continue not to achieve their targets even though the Government steps up the budget. This affects all levels i.e. from the Central to Local Governments when implementing force account activities. The equipment available is aged, inadequate and usually breaks down which leads to spill over of planned works.

Conclusion

The Government of Uganda has priotised funding for construction, maintenance and rehabilitation of roads by allocating them the largest proportion of the budget for the last six FYs, however hindrances in planning, financing and implementation are dragging the progress. To this effect, incidences of early deterioration of finished works, low serviceability, and high rate of accidents occur and remain a threat to the vision and the ultimate SDG 9.There is therefore need for the Government and other key sector players to devise better ways of service delivery in order to foster resilient road infrastructure and innovations.

Recommendations

- The MoWT should ensure that due diligence is given to planning such that the designs tendered for works are adequate and inclusive. In addition, the MoWT and UNRA should procure supervision consultants before the contractors commence works.
- The Ministry of Finance, Planning and Economic Development (MFPED) and MoWT should fast track distribution of the newly acquired road equipment from Japan, not forgetting to step up the maintenance budget to march the increment in the fleet of equipment.
- The MFPED should mobilise additional resources to adequately finance the approved budget for the sub-sector, settle payments and maintenance needs.
- The MoWT should fast track the rolling out of the adopted LCS technologies and map sources of construction materials to curb scarcity.
- The UNRA and MoWT should enhance capacity of the local contractors through partnerships with multi-national companies. In addition, the GoU should fast track the enactment of the Uganda Construction Industry Commission (UCICO) Bill.

References

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