



Maintenance of National Roads: What are the key challenges?

Overview

Uganda has a total road network of 146,000Km of which 21,544km (14.8%) are national roads. These are under the management of Uganda National Roads Authority (UNRA). Of these, 4,551Km (22.2%) are paved, while 16,003Km (77.8%) are unpaved. National roads host more than 80% of the average daily road traffic on the Ugandan road network and are a strong driver for social-economic development. To sustain this development and realize long term benefits, it is essential that national roads are adequately maintained.

The Government of Uganda (GoU) has made deliberate efforts to ensure that roads are maintained. In 2010, GoU established the Uganda Road Fund (URF), with an overall purpose of ensuring that all public roads are maintained at all times through the provision of adequate and stable financing to implementing agencies.

Maintenance of national roads is funded through the National Roads Maintenance Programme (NRM) which is implemented by UNRA using both Force Account and contracting. UNRA has recorded some achievements, but under a constrained environment.

This policy brief presents the implementation gaps in the maintenance of national roads using force account and contracting, and highlights recommendations.

Background

From the FY 2010/11 to FY 2017/18, the national road network has increased from 20,384Km to 21,544Km. This network forms the backbone of Uganda's road transport system which is the dominant mode of transport. It carries over 90% of passengers and freight in the country.

Key Issues

1. UNRA stations lack adequate and reliable equipment to effectively maintain the national road network under force account.
2. Administrative inefficiencies still exist in the procurement process that cause delays in the implementation of force account and contract maintenance works.
3. Weak local construction industry with limited financial and technical capacity, cannot adequately handle major maintenance works.

To ensure that the national roads are in good condition, the URF funds their maintenance through the NRM Programme implemented by UNRA through 23 stations in different regions of the country.

The NRM Programme is carried out through either force account (FA) or contract intervention. The UNRA stations execute FA activities which involve routine manual, and routine mechanized maintenance. In addition, they undertake supervision services for maintenance contracts.

The NRM Programme aims at improving and maintaining interconnectivity of the national road network across the country. This is done by reducing the rate of deterioration, lowering vehicle operating costs and travel time, as well as ensuring safety of road users and ferry services.



Implementation gaps in maintenance of national roads

This section discusses the gaps in maintenance of national roads under force account and contracting.

1. Force Account

‘Force account’ is the use by a government agency such as UNRA, of its own labour force and equipment to perform work, in this case road construction, and maintenance. The effectiveness of FA is largely dependent on four main success factors; 1) availability of equipment; 2) availability of materials; 3) adequate supervision; and 4) efficient procurement system within the implementing organization. However, UNRA still has gaps in these factors which affects the effectiveness of FA units at the stations.

a) Lack of adequate and reliable equipment

Force account activities require a set of key road equipment including a grader, roller, dump truck (tipper), backhoe excavator, wheel loader, and water bowser, all in good mechanical condition. In consideration of the sizes of the road networks maintained by UNRA stations, it was estimated that each station requires at least two sets of such equipment in sound condition for effective maintenance.

A survey of the equipment inventory of eight UNRA stations (Gulu, Lira, Moroto, Fort Portal, Moyo, Masaka, Mbarara, and Luwero) revealed that none of the stations had two complete sets of the key equipment in good condition. Only 37% of the stations had at least one complete set of key equipment in good condition. Hence, the

available equipment does not match the maintenance needs of the road network under their management. In addition, the equipment was associated with frequent mechanical break downs and high maintenance costs. This affected the timely and adequate execution of maintenance works.

UNRA stations also lacked modern and specialized equipment to undertake major maintenance works (resealing, overlays, and base repairs) on paved roads. None of the eight surveyed stations had a paver; only Mbarara station had a bitumen boiler; and two stations (Mbarara and Fort Portal) had a pavement cutter in good condition. This affected the extent of maintenance interventions executed on paved roads and the quality of works. As a result, the maintenance works at the station were limited to simple patching works.

Lack of timely equipment repair and maintenance also worsened the situation. UNRA stations have one or two mechanical technicians who do minor repairs and servicing works. For major equipment repairs such as engine overhauls, the stations procure a private supplier. This procurement is often bogged down by the many approvals required resulting in long lead times. Consequently, the equipment remains grounded for a long time, which affects road maintenance activities.

The breakdown of any of the key equipment like a grader or roller in most cases renders the rest of the equipment idle.

b) Delay in procurement of supplies

All UNRA stations were affected by delayed procurement of supplies especially culverts.



It was noted that the Ug shs 5 million threshold for micro procurement at stations was too low compared to the value of the required supplies. This prompted the stations to initiate macro procurements handled at regional level. However, these procurements are affected by long lead times due to tardiness in consolidation of requirements and delay of the regional Procurement and Disposal Unit (PDU) members to convene from the different stations in the region.

In one case raised during the Budget Monitoring and Accountability Unit (BMAU) semi-annual monitoring FY2017/18, the procurement of culverts took so long that the Best Evaluated Bidder turned down the offer citing increase in the price of cement and other inputs compared to his earlier price quotation.

c) Scarcity of materials

Scarcity of locally sourced materials like gravel, sand and aggregate was also raised as one of the issues of concern by the force account units. Some of the material sources are getting depleted and it is becoming increasingly hard to obtain them. The haulage distances have considerably increased and so have the prevailing market prices which have outstripped the prices approved by Public Procurement and Disposal of Public Assets Authority (PPDA).

d) Lack of demarcated road reserves

One of the activities funded by URF under NRM is road reserve demarcation. However, this particular activity has consistently underperformed. Over the last five FYs, UNRA has demarcated about 555Km (32% of the planned output over the five years).

Much of the national road network remains without demarcated road reserves especially on unpaved roads.

The road reserve plays a big part in the provision of drainage and subsequently the life span of a road. The reserves have the mitre drains, side drains, catch water drains, all of which contribute to the longevity of the road. However, construction of such drainage structures is close to impossible because the reserves have been encroached upon by commercial and agricultural activities. These activities have resulted in the blockage of mitre drains and side drains leading to flooding of road sections.

e) Poor quality control and supervision

Maintenance works under force account are usually of low quality and this is partly because the same entity prepares the work plans, executes, supervises and monitors its own works. This partly results in the assessment of work being biased. In addition, the stations lack quality control equipment to ensure good quality of works. None of the stations have a materials lab for testing materials or equipment for pavement condition assessment.

2. Contracting for maintenance works

In this approach UNRA procures contractors from the private sector to execute maintenance works. The Authority undertakes a number of contracts including periodic maintenance, term maintenance, and recently framework contracts. These contracts are managed at UNRA headquarters and supervised by the stations. Here are some of the gaps identified in this approach.



i) Delayed procurement of maintenance contractors

Procurement of maintenance contracts has been characterized by delays. According to the PPDA Annual Report, in FY2016/17, UNRA implemented 51% of its procurement plan and this was attributed to administrative inefficiencies in the procurement process that caused delays.

These delays in procurement of contractors overstretch the FA maintenance programmes of the stations. This is because FA works tried to fill the gap of contractors that delay to start maintenance activities.

ii) Weak local construction industry

Most of the local contractors have inadequate technical and financial capacity to adequately handle major maintenance works. Their supervision and quality assurance practices are weak and this has had a negative impact on the quality of maintenance works delivered.

Conclusion

The National Road Maintenance Programme is essential for the improvement of the national road network which is vital for development of the country. However, the programme suffers from several implementation gaps in both force account and contracting approaches. In order to realize long term benefits of the programme, these gaps need to be addressed to ensure efficiency and effectiveness.

Recommendations

- UNRA should adequately equip its stations with modern equipment in order to enhance efficiency and effectiveness of force account operations.
- UNRA should decentralize procurement of force account supplies to the stations in order to reduce the long lead times associated with procurements at the regions and headquarters.
- UNRA should prioritize the demarcation and protection of road reserves on all national roads.
- Ministry of Works and Transport should foster the development of the local construction industry through increasing access to equipment, credit and work.

References

- Semi-Annual Report FY 2018/19, Budget Monitoring and Accountability Unit
- Annual Report FY 2017/18; Budget Monitoring and Accountability Unit
- Annual Performance Report FY2018/19; UNRA
- Annual Performance Report 2018, Office of the Auditor General – Uganda
- PPDA Annual Report, FY2016/17

For more information, contact
Budget Monitoring and Accountability Unit (BMAU)
Ministry of Finance, Planning and Economic Development
Plot 1-12 Apollo Kaggwa Road
P.O.Box 8147, Kampala
www.finance.go.ug