



THE REPUBLIC OF UGANDA

National Roads Construction/Rehabilitation Programme: Why the consistently high contract price variations?

OVERVIEW

The National Roads Construction/Rehabilitation Programme started in July 2008 with the establishment of the Uganda National Roads Authority (UNRA). It is funded by both the Government of Uganda (GoU) and development partners and it mainly caters for paved roads and bridges. Majorly three categories of projects are funded under this programme: upgrading of gravel roads to paved standards; rehabilitation or reconstruction of paved roads; and periodic maintenance of paved roads. These are usually multi-year projects. The entire development budget of UNRA is allocated to this programme.

The cost of these road projects is one of the most important concerns in roads construction. Important to note is that the final costs of these projects does significantly vary from the initial estimated cost. This has consistently been identified in Budget Monitoring Reports of MFPED as a generic feature of these multi-year road construction projects in Uganda

There is always a 15% price variation ceiling allowed for in contracts. However, some normally exceed this ceiling making projects very costly and in turn leading to delays in implementation. This policy brief reviews the causes of these price variations under the road construction projects in Uganda and gives recommendations for improvement in controlling road construction costs.

KEY ISSUES

- Inadequacy in original designs of the road projects which leads to changes in technical specifications and scope of works during the construction stage and hence calling for redesign.
- Delay in implementation of road projects after design and contract award which culminate into increased scope of works and compensation.
- There are very high costs for relocation of utilities.

Contract Price variations experienced on selected monitored projects between FY 2012/13 and Q2 FY 2014/15

Table 1 shows the different contract price variations experienced on selected monitored projects under UNRA and their causes. The selected projects were in three categories noted above.

Notable projects with high contract price variations include Jinja-Kamuli; Tororo-Mbale; and Mbale-Soroti roads where the variations have reached 68%, 110% and 135% respectively.

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Table 1: Contract Price variations experienced on selected monitored projects under UNRA between FY 2012/13 and FY 2014/15 and their causes

No	Projects	Original Price	Revised price	Variations	Physical progress at the time of variations	Reasons for Variations
	Upgrade from gravel to Bitumen Standard of Ishaka-Kagamba road (35.4km)	Ug shs 97,476,095,241	Ug shs 112,718,570,492 pending approval as at 3rd December 2014	15.6%	50.5%	<ul style="list-style-type: none"> Design review changes requirements as per the site conditions, and The huge cost of shifting utilities.
	Lot D: Staged Reconstruction of Tororo-Mbale Road (49 km)	Ug shs 30,285,508,100	Ug shs 63,804,103,546 as at June 2014	110.7%	98%	<ul style="list-style-type: none"> Change in scope of works Delay in approval of Addendum No.2 (Variation Order No.1) which culminated into large increase in quantities. Existing design review had incorrect topographic data which forced the consultant to redo the topographic surveys and subsequently redesign the vertical and horizontal alignments.
	Lot E: Staged Reconstruction Mbale-Soroti Road (103 km)	Ug shs 46,083,277,750	Ug shs 108,124,833,428 as at June 2014	134.8%	75%	
	Staged Reconstruction of Mukono-Jinja Road (52 kms)	Ug shs 35,985,910,250	Ug shs 41,276,612,800 approved and an additional Ug shs 23,344,166,332 recommended by project manager Totaling to Ug 64,620,779,130 as at June 2014.	14.7%, estimated at 79.86% after approval of new costs	71%	<ul style="list-style-type: none"> Delayed implementation of the contract after tender. Tendering was in October 2009 and the contract was signed in March 2011. This not only brought about the variation of price but also increased scope as the road further deteriorated from that state when it was tendered. Delayed issuance of the possession of site and commencement instructions, as well as the final construction details to the contractor.
	Upgrade of Vurra - Arua - Koboko - Oraba (92 km)	Ug shs 132,123,510,816	Ug shs 138,861,458,345 as at January 2015	5%	95.1%	<ul style="list-style-type: none"> Increase in quantities
	Upgrading of Fort Portal-Bundibugyo - Lamia (104Kms)	Ug shs 168,214,943,915.54	Ug shs 217,842,539,325 as at February 2014	29.5%	98.7%	<ul style="list-style-type: none"> Variation in estimated quantities, increase in scope of works and landslides which resulted into increased scope of works.

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	Upgrading of Hoima-Kaiso-Tonya Road (92 Kms)	Ug shs 314,662,891,151	Ug shs 360,000,000,000,000	14.4%	61.43%	<ul style="list-style-type: none"> Increase in the thickness of the asphalt from 50mm to 150/120mm because the first design did not take into consideration the oil traffic which will be high and heavy.
	Reconstruction of priority sections on the Kampala-Mbarara Road, (Northern Corridor-Uganda) - Package C: (Nsangi-Kamengo, Katonga Bridge and Lukaya-Masaka)	Euro 50,779,281.44	Euro 61,180,402.10 as at July 2014.	20.5%	88%	<ul style="list-style-type: none"> Increase in quantities arising from the design changes for works in the swamps.
	Construction of Nakapiripirti-Moroto Road (93.3km)	Ug shs 184,268,818,666	Estimated at Ug shs 203,481,165,989 as at June 2014.	10.4%	33.22%	<ul style="list-style-type: none"> Inadequacies in the original design.
	Construction of Asphalt Overlay on Kawempe - Kafu road (166 km) and Kafu-Kiryandongo Road (43km)	Ug shs 32,462,681,196 and US\$ 30,296,156.44 totaling to (Ug shs 92,750,517,703.78)	Ug shs 140,556,490,385 (pending approval as at June 2014)	51.5% Pending approval as at June 2014)	52.85%	<ul style="list-style-type: none"> Increased scope of works and quantities
	Upgrade of Gulu - Atiak - (74 km)	Ug shs 89,667,759,288.00	Ug shs 96,326,976,658, (70%-USD & 30%-Ug shs) as at January 2015.	7.4%	96.02%	<ul style="list-style-type: none"> Revision of quantities due to the design review.
	Upgrading of Atiak- Bibia/ Nimule (35 km)	Ug shs 37,143,737,673 and USD,391,226.45	Ug shs 53,189,965,610 and USD7,901,518 (Cost projections as at January 2015)	43.20% (for Ug shs) and 46.56% (for USD) components	53.26%	<ul style="list-style-type: none"> Increase in the scope of works as per the design review and additional findings on site conditions.
	Periodic maintenance of Jinja-Kamuli (58 km)	Ug shs 47,486,000,340	Ug shs 79,846,300,359 as at January 2015	68%	98.5%	<ul style="list-style-type: none"> The geotechnical investigation aspect was not given priority under periodic maintenance and hence, the road project was under designed.
	Reconstruction of the Mbarara - Ntungamo - Kabale - Katuna: Lot 3; (65 km)	Euro 65,808,558.08 (including 10% contingencies & excluding RoP)	Euro 74,655,308.12 as at January 2015.	13.4%	79.45%	<ul style="list-style-type: none"> To cater for variations in price and relocations to the weigh bridge.

Source: Author's compilation

Inadequate design issues caused the variations in 56.3% of the selected projects. Other factors such as delays; in approval of addendums by the client (UNRA), issuance of the possession of site and commencement instructions as well as the final construction details to the contractors, and implementation of contracts after tender contributed to 43.7% of the causes of the high price variations.

Project 5 (Upgrade of Vurra-Arua-Koboko-Oraba - 92 km) had the same design and supervision consultant. Its contract price variation was 5% which is much lower than the 15% price variation ceiling allowed for in projects. Hence, there is need to continue exploring such options in future of using the same consultant for design and supervision.

Conclusion

The main cause of price variations is inadequate designs. Investigations and estimates by consultants are not adequately/exhaustively carried out, and so are far from accurate in most cases. A lot of information is not captured at the pre-design stage leading to variations in contract prices during the construction stage.

Delays in approval of documents such as addendums submitted by the consultants to the client (UNRA) usually halt work and lead to compensation claims.

Delayed implementation of projects after design and contract award culminate into increased scope of works and demand for compensation. This is partly due to delays in issuance of the possession of site and commencement instructions as well as the final construction details to the contractors.

Recommendations and Policy Improvement options

- The UNRA should provide ample time and resources for comprehensive investigations during the design stage.
- The UNRA should develop a framework for contractors and consultants (bidders) to compete and be evaluated on the basis of construction time as an additional criteria aimed at sharing the risk of variation of prices of construction.
- The GoU through the MFPED should commit

funds for projects basing on procurement plans so that delays in implementation can be avoided.

- The UNRA should consider employing the same consultant for both design and supervision as it was observed for Vurra-Arua road to minimize variations that arise due to inadequate design.
- The UNRA should expedite the approval of all documents submitted to them by the consultants and contractors for smooth running of the projects.
- In order to encourage comprehensive design reviews, the supervision contract designed by UNRA should bear a clause barring a certain percentage to be paid by the consultant for all variations in works which come after adoption of the design review.

References

- Annual Budget Monitoring Reports FY 2013/14 and FY 2012/13
- Budget Monitoring Reports Q1 and Q2 FY 2013/14 and FY 2014/15 Semi-annual

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