



FINAL REPORT BY THE ASSURANCE TEAM
ON
THE MATERIAL PROJECT INFORMATION PROVIDED
BY
THE ROAD DEVELOPMENT AGENCY
ON
THE PERIODIC MAINTENANCE OF SERENJE VIA MUKUKU
BRIDGE TO SAMFYA ROAD

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List of Acronyms

AT	Assurance Team
ARE	Assistant Resident Engineer
BCHOD	Brian Colquhoun Hugh O'Donnell and Partners
BoQ's	Bill of Quantities
CoST	Construction Sector Transparency Initiative
ICB	International Competitive Bidding
IPC	Interim Payment Certificate
GRZ	Government of the Republic of Zambia
MOE	Ministry of Education
MOH	Ministry of Health
MPI	Material Project Information
MSG	Multi Stakeholder Group
MWS	Ministry of Works and Supply
NCB	National Competitive Bidding
NCC	National Council for Construction
NRFA	National Road Fund Agency
PEs	Procuring Entities
QCBS	Quality and Cost Based Selection
RDA	Road Development Agency
SATCC	Southern Africa Transport and Communications Commission
ZMK	Zambian Kwacha
ZPPA	Zambia Public Procurement Authority

1. EXECUTIVE SUMMARY

- 1.1. The Construction Sector Transparency Initiative (CoST) is a multi-stakeholder initiative aimed at increasing transparency and accountability in the construction sector through improved disclosure of material project information.
- 1.2. CoST is being piloted in seven countries; Ethiopia, Malawi, Philippines, Tanzania, United Kingdom, Vietnam and Zambia and is supported by the Department for International Development (DfID) of the United Kingdom.
- 1.3. In Zambia, four institutions involved in infrastructure development and maintenance; Ministry of Education, Ministry of Health, Buildings Department under the Ministry of Works and Supply and Road Development Agency, were selected for the pilot study.
- 1.4. The Government of the Republic of Zambia (GRZ) wishes to apply Road Fund revenues as managed by the National Roads Fund Agency (NRFA) to finance a project in support of the Road Sector Investment Programme (ROADSIP).
- 1.5. The Government, through the Road Development Agency (RDA) is embarking on a broad Road Sector Investment Programme (ROADSIP). The key objective of RoadSIP being to construct, maintain, rehabilitate and improve or upgrade roads. The focus is on improving the Core Road Network (CRN) which has been identified as taking into account such aspects as connectivity (international or provincial linkages), poverty alleviation and agricultural marketing activities. The Road Development agency (RDA) is carrying out periodic maintenance of Serenje via Mukuku Bridge to Samfya Road to provide safe, fit for purpose accessible road network in order to spur socio-economic growth.
- 1.6. The Serenje via Mukuku Bridge to Samfya Road is a 323km stretch of road on the D235 linking Luapula Province and Central Province. The road is mainly critical to trade and agriculture between the two provinces.
- 1.7. The decision to carry out period maintenance the Serenje via Mukuku Bridge to Samfya Road followed the deterioration of the road which greatly affected the efficient movement of traffic and consequently business.
- 1.8. The RDA generally follows the Public Procurement Act, 2008, in the award of contracts for consultants and contractors except where funding is provided by a Cooperating Partner or Multilateral lending institution which

requires adherence to its procurement procedures such as the World Bank, African Development Bank and the European Union. Further, RDA operates procedures for contract management to ensure cost quality of work and time are in accordance with the contract. RDA has made full and accurate disclosure of documents showing the procedures it used for the award of the contracts for this project.

- 1.9. The appointment of the consultants followed an invitation for expressions of interest and only those firms deemed to have the necessary expertise were shortlisted and invited to submit technical and financial proposals. This approach ensured that only capable, qualified and consultants would undertake the assignment.
- 1.10. The appointment of the contractor followed open bidding procedures.
- 1.11. The contracts with the consultants and contractors are based on the FIDIC standard contract documents which are widely used in the construction industry.
- 1.12. During construction of works, monthly meetings are held with the aim of monitoring progress, quality of work, costs and resolving potential threats to the successful completion of the project. These monthly meeting are critical to the efficient and effective management of the contract in accordance with the form of contract used and RDA procedures and the success of the project.
- 1.13. On the basis of the information disclosed and the site visit, the quality of the works from visual inspection was satisfactory. The progress in terms of completion was not established because of change of scope of work which is dependant on funding.
- 1.14. The major source of concern is has been delayed payments on Interim payment certificates due to inadequate funding of the works.

2. INTRODUCTION

2.1 The Construction Sector Transparency Initiative

2.1.1 The Construction Sector Transparency Initiative (CoST) is a multi-stakeholder initiative aimed at increasing transparency and accountability in the construction sector. CoST intends to ensure that national governments, affected stakeholders, and the wider public get what they pay for in public construction projects, by increasing transparency in the construction sector. It is expected that greater transparency, through greater disclosure of project information, will yield benefits to government, industry, civil society, and ordinary citizens.

2.1.2 It is, however, recognised that the disclosure of this information may not be sufficient on its own to achieve greater accountability. This is because some of the information is likely to be complex and not easily intelligible to the general public. For example, there are many reasons for time and cost overruns on construction projects that may be quite legitimate and not necessarily an indication of poor governance of the procurement process.

2.1.3 CoST is being piloted in seven countries; Ethiopia, Malawi, Tanzania, United Kingdom, Philippines, Vietnam, and Zambia and is supported by the Department for International Development.

2.1.4 In Zambia, the National Council for Construction, on behalf of the Construction Sector Transparency Initiative (CoST) Zambia Multi Stakeholder Group (MSG) contracted an Assurance Team in May 2010, to undertake assurance services on selected public construction projects ranging from roads to health and school infrastructure to ensure that the information released is both accurate and in a form that can easily be understood by stakeholders.

2.1.5 A total of 17 projects have been selected for the pilot and includes the periodic maintenance of Serenje via Mukuku Bridge to Samfya Road

2.1.6 The Assurance Team comprises four specialists in construction working together to obtain, verify and assess material project information and provide reports. This report has been prepared by the Assurance Team in accordance with its Terms of Reference and gives the activities undertaken and its opinion on the material project information (MPI) released by the Road Development Agency on the periodic maintenance of the Serenje via Mukuku to Samfya Road.

2.2 Objectives of the study

2.2.1 The Zambian pilot has four objectives:

- to learn lessons to help in the development of CoST
- to learn lessons on improving transparency through the disclosure of project information
- to gain an improved understanding of construction project costs amongst public sector clients
- to learn and share lessons on the management and control of publicly-funded construction projects.

2.2.2 The Assurance Team has been contracted to carry out the following tasks on the project:

- Collect the material project information;
- Verify the accuracy of the material project information;
- Report on the extent and accuracy of the information which has been released;
- Analyse the material project information and make informed judgements about the cost and quality of the project;
- Report on the findings regarding the cost and quality of the project and highlight any outstanding issues of concern.

2.3 Project description and location

2.3.1 The periodic maintenance of D235: Serenje via Mukuku Bridge to Samfya road (323km) in Central and Luapula Provinces including sections of road D94 (Samfya to Mansa). The scope includes pothole patching, crack sealing and edge-break repairs; rehabilitation of existing shoulders; resealing works; reconstruction of selected sections of existing pavement and; permanent signage.

2.3.2 The road project is located in Central and Luapula provinces and links the two provinces.

2.4 Approach to Pilot Study

2.4.1 The approach taken by the Team generally involved:

- (i) Hold an initial meeting with the procuring entity to introduce the objectives of the study and submit the list of information (MPI) the entity was expected to disclose;
- (ii) Agree and identify the contact person on behalf of the procuring entity to provide the MPI and the timeframe for providing the information;
- (iii) Receive and analyse the initial information disclosed;
- (iv) Seek clarifications and further information where this was deemed necessary; and

- (v) Undertake a site visit to get an appreciation of the project and obtain clarifications, confirmations etc from the contractor and/or supervisor on issues not clear to the Team.

2.4.2 The findings were then compiled into this report.

3. ACTIVITIES UNDERTAKEN

3.1 Meeting with Stakeholders

- 3.1.1** The Assurance Team and the MSG Zambia Coordinator had a meeting with the Management of the RDA. The Meeting was used to introduce the Assurance Team and to discuss the material project information that needed to be disclosed. The RDA appointed the Manager, Procurement to be the contact person for any information required for all the eight selected projects.
- 3.1.2** A more detailed meeting was held with the Manager, Procurement at which meeting it was agreed that the RDA would email whatever information it had in electronic form and hard copies where electronic means were not available. A template showing a schedule of the material project information which the RDA needed to disclose was given to the Manager, Procurement.
- 3.1.3** After the initial set of information was released by RDA, the Team undertook a site visit to talk to the contractor and supervising consultant and get an appreciation of the project. The site visits were aimed at verifying the existence of the projects and making a qualitative assessment of the state of completed projects or progress at the time of the site visit. The assessment was based on visual inspections, verbal and written documentation on the project.

3.2 Collection and Analysis of Data

- 3.2.1** The material project information disclosed is given at Appendix I. The documents which were disclosed to the Assurance Team are listed in Appendix II.
- 3.2.2** The Team analysed the data as and when provided by the RDA
- 3.2.3** Obtaining the necessary documents proved to be more difficult than initially envisaged. This was largely due to the way in which the documentation is being managed.

3.3 Site Visit

- 3.3.1** After the initial information had been released, the Team undertook a site visit in order to have an appreciation of the project and also discuss issues which were not clear in the documents and/or information disclosed.
- 3.3.2** The Team also used the site visit to collect additional/missing information and carryout a qualitative visual inspection of the works.

3.4 Collection and Analysis of Data

- 3.4.1** We analysed the information disclosed and held further meetings with other staff from RDA to obtain missing information and get clarifications on certain issues and processes, determine the accuracy and completeness of the information and appreciate how the project was being managed.
- 3.4.2** The material project information which the RDA was expected to disclose is given in Appendix I and II
- 3.4.3** Obtaining the necessary documents proved to be more difficult than initially envisaged. This was largely due to the fact that the documents were lying in various places and offices.

3.5 Site Visit

- 3.5.1** After the initial set of information was released by RDA, the Team undertook a site visit June 2010 to talk to the contractor and supervising consultant and get an appreciation of the project.
- 3.5.2** The contractor was working on the road patching up potholes between km245 to km270.

4. DATA VERIFICATION

4.1 Project identification and budget

The project was identified and budgeted for under the RDA Work plan for 2009. However, the total budget in the 2009 AWP was only K29.0billion, financed under NRFA-Road Fund.

4.2 Procurement Procedure

From the documents disclosed it is clear that the procedures for procurement of works were followed.

4.2.1 The procurement of the consultant was carried out before that for the works. This enabled the consultant to review the tender documentation for the works contract.

4.2.2 The procurement of the Contractor followed the NCB.

4.2.3 The contract documentation including communication with RDA and the contractor is filed at the Regional Engineer's Office.

4.2.4 The RDA procurement thresholds are as follows:

- Procurement and Contract award are executed by RDA except those above K40billion which have to be authorised by the Central Tender Committee.
- Variations up to 25% of the original contract sum can be authorised by the RDA Procurement Committee.
- Variations above 25% have to be approved by the Zambia Public Procurement Authority (ZPPA).

4.3 Procurement Process

4.3.1 Design and Supervision

4.3.1.1 The procurement for consultancy services was based on Quality and Cost Based Selection I (QBCS). One bid was received.

4.3.1.2 The scope of services included review and updating of the contract document and preparation of construction drawings.

- 4.3.1.2 The project supervision is undertaken by Ng'andu UWP Consulting Engineers Consulting at the contract amount of ZMK 4,324,480,000.00 Vat Inclusive.

4.3.2 Works

- 4.3.2.1 The procurement for Works followed the National Competitive Bidding and three (03) contractors submitted bids.
- 4.3.2.1 The Three bids were evaluated in accordance with the solicitation document and the contract was awarded to China Henan International at a contract sum of ZMK 153,388,530,960.24 on 14th September 2008.
- 4.3.2.2 The Scope of Works included pothole patching, crack sealing and edge-break repairs; rehabilitation of existing shoulders; resealing works; reconstruction of selected sections of existing pavement and; permanent signage.

4.4 Project Execution

4.4.1 Project Design and Supervision

- 4.4.1.1 The Consultant carried out the design review and supervision as per contract.
- 4.4.1.2 The Consultant carried out supervision and held meetings as required by then contract.
- 4.4.1.3 The Consultant managed project documentation, including tests results adequately.

4.4.2 Works

- 4.4.2.1 Works were suspended from September 2009 to March 2010.
- 4.4.2.2 After an assurance from RDA that the all the amounts due to the contractor will be paid and included in the AWP of 2010 the contractor resumed work.
- 4.4.2.2 In March 2010 the RDA advised that the scope be reduced mainly to pothole patching, shoulder repair and slurry sealing until further supplementary funds are sourced.
- 4.4.2.3 The contractor was working on the road patching up potholes between km245 to km270.

5. DATA ANALYSIS

5.1 Project Design and Supervision

- 5.1.1** The general procurement guidelines were followed. NCB was adopted; however the amount allocated in the 2009 AWP was ZMK 17 Billion while the amount certified was ZMK 56, 769, 665, 425 .87.
- 5.1.2** The supervision contract was signed after the works contract was in effect. The contract was signed in February 2009 while the works contract was signed on 28th November 2008. Normally the supervision contract is signed before the works contract.
- 5.1.3** The Regional Engineer was not fully involved in the procurement process and execution of projects but attends site meetings. Control of projects is at RDA HQ and not the REs.

5.2 Works Contract

- 5.2.1** The Contractor carried out works as per specifications.
- 5.2.2** Two major bridges and other drainage structures have been constructed to ensure adequate drainage.
- 5.2.3** Following the site visit of 25th June, 2010, the works were assessed to be of good quality, based on visual inspection.

5.3 Issues of concern

- 5.3.1** Poor funding to the project is costing the government a lot of funds. The following claims resulting from delayed payments have been submitted by the contractor
- Interest on delayed payments
The contractor has claimed for interest on delayed payment amounting to ZMK 3,817,825,834.09 which is yet to be agreed upon.
 - Cost of suspending works
The contractor has submitted a claim amounting to ZMK 22, 189,992, 484.29 for the cost of suspending the works from September to March 2010 due to budgetary constraints.
- 5.3.2** Because of constraints in funding the scope as well as the program of works has been revised. The employer advised that the scope be reduced mainly to pothole patching until further supplementary funds are sourced. This has left out other important works.

- 5.3.3** The contractor has applied for extension of time and by end of the time of the report it has not been approved and his initial contract ended 11th June 2010.
- 5.3.4** Language was a serious barrier between the Contractor and the Assurance team as none of the Chinese personnel present on site could speak English or any of our local language.

APPENDIX I: MATERIAL PROJECT INFORMATION

A5 Project Name: D235, T2 SERENJE -MANSA-SAMFYA ROAD

1	<i>Project Identification</i>	
	Project Specification	Periodic maintenance of D235: Serenje via Mukuku bridge to Samfya road (323km) in Central and Luapula Provinces
	Purpose	To carry out periodic maintenance of D235 road via Mukuku bridge to Samfya road (323km).
	Location	Central and Luapula Provinces
	Intended Beneficiaries	General Public
	Specification	SATCC
	Feasibility Study	
2	<i>Funding</i>	
	Financing Agreement	NRFA
	Budget	
	Engineer's Estimate	
3	<i>Tender Process for the Contract for Project Design</i>	
	Tender procedure	QCBS
	Number expressing interest	
	Number submitting tender	
4	<i>Tender Process for the Contract for Project Supervision</i>	
	Tender procedure	QCBS
	Number expressing interest	
	Number submitting tender	1
5	<i>Tender Process for the Main Contract of Works</i>	
	Tender procedure	NCB
	Number expressing interest	
	Number shortlisted	
	Number submitting tender	3
	List of tenderers	(i) Sable Transport Limited (ii) China Henan International Corporation Group Co. Limited (iii) China Geo-Engineering Corporation
	Tender evaluation report	Yes

6	<i>Details of the Contract Award: Project Design</i>	
	Name of main consultant	Ng'andu UWP Consulting Engineers
	Contract price	ZMK 4,324,480,000.00 VAT Inclusive
	Contract scope of work	Provision of professional and technical services for periodic maintenance of road D235 from T2 junction in Serenje via Mukuku bridge to Samfya, including sections of Samfya to Mansa road (D94)
	Contract programme	18 Months
7	<i>Details of the Contract Award: Project Supervision</i>	
	Name of main consultant	Ng'andu Uwp Consulting Engineers
	Contract price	ZMK 4,324,480,000.00
	Contract scope of work	Provision of professional and technical services for periodic maintenance of road D235 from T2 junction in Serenje via Mukuku bridge to Samfya, including sections of Samfya to Mansa road (D94)
	Contract programme	18 Months
8	<i>Details of Contract Award: Main Contract for Works</i>	
	Name of main contractor	China Henan International Corporation
	Contract price	ZMK 153,388,530,960.24
	Contract scope of work	Pothole patching, crack sealing and edge-break repairs; rehabilitation of existing shoulders; resealing works; reconstruction of selected sections of existing pavement and; permanent signage.
	Contract programme	18 Months
9	<i>Execution of the Contract: Project Supervision</i>	
	Significant Changes to Contract Price, Programme, Scope with Reasons	Due to inadequate funding the scope has been revised
10	<i>Execution of Contract: Main Contract for Works</i>	
	Individual changes to Contract which affect the price and reason	Yes

	for those changes	
	Individual changes to the contract which affect the programme and reasons for those changes	Yes
	Details of any re-award of main contract	
11	<i>Post Contract Completion Details: Main Contract for Works</i>	
	Actual Contract Price	
	Total Payments made	ZMK 53, 160, 114, 460.10
	Actual contract scope of work	
	Actual contract programme	
	Project Evaluation Reports (on-going and on completion)	

APPENDIX II: DOCUMENTS DISCLOSED

Item No.	DESCRIPTION	DATE DISCLOSED
	Bidding documents from contractors	JULY 2010
	Contract agreement (works)	JULY 2010
	Contract agreement (consultancy)	JULY 2010
	Combined technical and financial report	JULY 2010
	Evaluation report (works)	JULY 2010
	Contract agreement (works)	JULY 2010
	Progress report No 11 for period of 1 st Aug to 31st Aug 2010	SEPT 2010
	Works program	SEPT 2010

PAYMENT SCHEDULE

IPC No	CERTIFIED AMOUNT	AMT PAID	DATE SUBMITTED	DATE PAID
1	4,960,689,808.48	4,960,689,808.48		14 May 2009
2	944,955,720.00	944,955,720.00		14 th May 2009
3	1,369, 359, 213.26	1,369, 359, 213.26		3 rd July 2009
4	7,200, 298, 604.96	7,200, 298, 604.96		13 th August 2009
5	2, 523, 099, 972.74	2, 523, 099, 972.74		3 rd September 2009
6	5, 111, 939, 972.74	1, 000, 000, 000.00		11 th January 2010
		3,000, 000, 000.00		16 th February 2010
		1, 111, 939, 316.31		19 th March 2010
7	11, 816, 668, 268.12	3, 888, 060, 684.69		19 th March 2010

		5, 000, 000, 000.00		8 th April 2010
		2, 928, 607, 583.43		16 th April 2010
8	9, 060, 196, 723.49	3, 000, 000, 000.00		6 th May 2010
		5, 000, 000, 000.00		28 th May 2010
		1,060, 196, 723.49		
9	2,492, 479, 438.13	2,492, 479, 438.13		6 th May 2010
10	7, 680, 517, 294.61	Nil		
11	3,609,550,965.77	Nil		
12	10, 814,273,981.36	Nil		

APPENDIX III: SCHEDULE OF CONTRACT CHANGES

Not disclosed

APPENDIX IV: PHOTO GALLERY



Plate 1 Sign post for Samfya Turn-off



Plate 2 Shoulder repairs in progress



Plate 3 Opening up of pot hole before repair



Plate 4 Repaired section of road