



FINAL REPORT BY THE ASSURANCE TEAM

ON

THE MATERIAL PROJECT INFORMATION PROVIDED

BY

**THE BUILDINGS DEPARTMENT, MINISTRY OF WORKS AND
SUPPLY**

ON

**THE CONSTRUCTION OF A SIX STOREY OFFICE BLOCK FOR
THE MINISTRY OF WORKS AND SUPPLY**

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LIST OF ACRONYMS

AT	Assurance Team
ARE	Assistant Resident Engineer
BoQ's	Bill of Quantities
CoST	Construction Sector Transparency Initiative
ICB	International Competitive Bidding
GRZ	Government of the Republic of Zambia
MPI	Material Project Information
MSG	Multi Stakeholder Group
MWS	Ministry of Works and Supply
NCB	National Competitive Bidding
NCC	National Council for Construction
PEs	Procuring Entities
QCBS	Quality and Cost Based Selection
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 Construction of the six storey office block was one of the projects selected under the buildings Department of the Ministry of Works and Supply.
- 1.5. The Ministry of Works and Supply like most other Government Ministries faces an acute shortage of office accommodation. This necessitated the construction of the six storey office block.
- 1.6. The six storey office block is being constructed along Independence Avenue in the Ridgeway area close to the existing Head office for the Ministry of works and Supply and Cabinet Office.
- 1.7. The design was undertaken by the Buildings Department at the Ministry of Works and Supply. It is worth noting that the design is similar to that for the offices of the National Road Fund Agency in Lusaka which is nearing completion. The design is based on the Standard Method of Measurement Ver. 7 which is widely used in the construction sector.
- 1.8. The supervision of the works is also being undertaken by Buildings Department. The appointment of the contractor, China Jiangxi Corporation followed an open bidding process in accordance with the provisions of the Public Procurement Act, 2008.

- 1.9. The fixed price contract signed by the Ministry of Works and Supply and the contractor is based on the standard Form of Contract as approved by the Zambia Institute of Architects and widely used in the industry. The contract in the amount of K22,209,786,503.00 is for a period of 86 weeks from 30 March 2009 to 30 November 2010
- 1.10. There seems to have been a great hurry to start construction even when design was not finalised. This resulted in soil investigations not being undertaken, fire escape staircase being left out of the design and changing the finish from terrazzo to aluminium cladding. These works will result in an increase of more than 40% in the contract price.
- 1.11. The information disclosed describes fully and accurately the appointment of China Jiangxi Corporation as contractor for the construction of the office block.
- 1.12. On the basis of the information disclosed, the discussions held with the contractor and supervisor, and the qualitative visual inspection, we are satisfied with the progress made on the project and the quality of work.
- 1.13. The major issue of concern on the project is delayed payments.

2. INTRODUCTION

2.1. 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, Philippines, Tanzania, United Kingdom, 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 the Construction of a Six Storey Office Block for the Ministry of Works and Supply is one of them.
- 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 Buildings Department in the Ministry of Works and Supply on the Construction of the Six Storey Office Block for the Ministry of Works and Supply.

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 project involves the construction of a six storey office block with associated external works in the Ridgeway area of Lusaka along the Independence Avenue.

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 ON THE PROJECT

3.1. Meetings with Stakeholders

- 3.1.1. The Assurance Team had a meeting with representatives of the Buildings Department lead by the Chief Architect at which the Assurance Team explained the objective of the study and the information that needed to be disclosed on the four projects that had been selected.
- 3.1.2. It was agreed during the meeting that the Department would provide the Team with material project information and documentation in whatever form available. A template of the material project information which needed to be disclosed was given to the Department.
- 3.1.3. It was further agreed during the meeting that the Architect in charge of the supervision of a particular project would be the contact person for any information and documentation required.
- 3.1.4. Two follow-up meetings on the construction of the six storey office block were held with the project Supervisor and Procurement Unit in order to obtain a better understanding of the procedures followed by the Department in the development and execution of projects.

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 made available by the Buildings Department.
- 3.2.3. 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, between the Procurement Unit, the Quantity Surveyors and the Architects.

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 with the Contractor, in the presence of the Supervisor on 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.

4. DATA VERIFICATION

4.1. Project Identification and Budgeting

- 4.1.1. The Ministry of Works and Supply is responsible for infrastructure development, supplies, Government transport in Zambia. Other activities falling within the ambit of the Ministry are the Road Development Agency, The National Road Fund Agency, the Hostels Board which operates a number of lodges around the Country and the Government Printing Department.
- 4.1.2. The Buildings Department is the Buildings Authority and is mandated to build and maintain government buildings including those of parastatal and statutory bodies. In the development of these construction and maintenance projects, the Department uses both internal and external resources for the design and supervision of the projects.
- 4.1.3. Office accommodation for the Ministry of Works and Supply, like many other Government Ministries, has for a number of years been in adequate resulting in staff not only being accommodated in non-conducive environments but also being spread in a number of buildings. This made management of the Ministry difficult. This necessitated the construction of a modern office block to accommodate all Head Office Staff.
- 4.1.4. The budget for the project was K25billion.

4.2. Procurement Procedures

4.2.1. General Guidelines

- 4.2.1.1. Procurement in the Ministry of Works and Supply are governed by the Public Procurement Act, 2008. In accordance with this Act, the Ministry of Works and Supply is supposed to prepare its Annual Procurement Plan based on the approved Annual Work Plan.

- 4.2.1.2. The approved Annual Procurement Plan shows the procurement method and budget for all projects to be undertaken by the Ministry. In accordance with the Public Procurement Act, 2008, the procurement method is generally determined by the estimated value of the procurement.
- 4.2.1.3. The Ministry of Works and Supply has a procurement threshold of K30billion for goods and works and K10billion for consulting services. Procurements with an estimated cost up to the threshold are authorised by the Ministry Procurement Committee. Procurements with an estimated cost higher than the threshold are authorised by the Central Tender Committee.

4.2.2. Procurement of Consulting Services

- 4.2.2.1. The Buildings Department has capacity to undertake the design and supervision of most of its projects as it has architects, structural engineers, quantity surveyors etc. The decision whether or not to undertake a project internally is largely determined by work schedules of the relevant specialists.
- 4.2.2.2. The project was designed by the Buildings Department. The Department is also undertaking the project supervision.

4.2.3. Procurement of Works Contractor

- 4.2.3.1. The estimated cost for the works was K25,000,000,000.00 and therefore required that the procurement of the works be undertaken by open bidding (National Competitive Bidding) in accordance with the Public Procurement Act, 2008.

4.3. Procurement Process

4.3.1. Design and Supervision

- 4.3.1.1. There was no procurement for project design and supervision as these were to be undertaken by the Buildings Department.

4.3.2. Works Contract

- 4.3.2.1. The tender for the Construction of the Six Storey Office Block for the Ministry of Works and Supply was invited using the open bidding process in accordance with the Public Procurement Act, 2008.
- 4.3.2.2. The tender was invited in August 2008 and closed on 12 September 2008. At tender closing, two bids were received from China Jiangxi Corporation for International Technical and Economic Cooperation (Z) Limited and Hua Jiang Investments Limited.
- 4.3.2.3. An evaluation was undertaken in accordance with the solicitation document and the evaluation committee recommended that the contract be awarded to Hua Jiang Investments Limited at its tender price of K24,805,916,186.00 with a completion period of 130 weeks.
- 4.3.2.4. The Central Tender Committee upon review of the evaluation directed that the tender be awarded to China Jiangxi Corporation for International Technical and Economic Cooperation (Z) Limited at its tender price of K22,209,786,503.00 with a completion period of 86 weeks.
- 4.3.2.5. The documents disclosed describe fully and accurately the appointment of China Jiangxi Corporation as contractor for the construction of the six storey office block for the Ministry of Works and Supply.

4.4. Project Execution

4.4.1. Design and Supervision

- 4.4.1.1. The design is similar to that for the offices of the National Road Fund Agency, also in Lusaka, which is nearing completion.
- 4.4.1.2. Lessons learned during the construction of the National Road Fund Agency were used to improve on the quality of this project (building).
- 4.4.1.3. The supervision of the works is being undertaken by the Buildings Department. The department has a lot of experience in the supervision of works.

4.4.2. Works

- 4.4.2.1. The contract between the Ministry of Works and Supply and China Jiangxi Corporation for International Technical and Economic Cooperation (Z) Limited was signed on 19 December 2009
- 4.4.2.2. The contract signed is based on the standard Form of Tender which is commonly used in the construction industry and approved by the Zambia Institute of Architects.

5. DATA ANALYSIS

5.1. Project Design and Supervision

- 5.1.1. As stated earlier, the design of the office block was undertaken by Buildings Department.
- 5.1.2. Two events occurred which affected the design of the office block;
 - 5.1.2.1. A variation was made to change the cladding from Terrazzo finish to Aluminium cladding; and
 - 5.1.2.2. The design did not include a fire escape staircase. The Buildings department had therefore to design a metal fire escape staircase which will run on the outside of the eastern side.
- 5.1.3. The Buildings Department has in place procedures to ensure that project costs, quality and time frame are kept within contract terms and conditions. To this effect monthly site meetings are held to monitor progress.
- 5.1.4. To assure quality of building materials, test samples are taken to independent laboratories at the University of Zambia for testing
- 5.1.5. There seems to have been a hurry to start construction even before the design was fully completed, this could be the reason for leaving out the fire escape in the drawings and the change to aluminium cladding. Further, site soil investigations were not undertaken prior to the start of construction.

5.2. Works Contract

- 5.2.1. The fixed price contract signed with the contractor is based on the standard Form of Tender as approved by the Zambia Institute of Architects and in use for most if not all construction projects in Zambia.

- 5.2.2. The contract price of K22,209,786,503.00 is within the engineer's estimate of K25billion. However, the final contract amount will be higher due to the two variations referred to in 5.1.2.
- 5.2.3. The contractor is the same that constructed the National Road Fund Agency office building and thus gained useful experiences. As a result, the contractor is not facing any problems related to works on this contract.
- 5.2.4. The Team was not given the reason for the change from terrazzo finish to aluminium cladding which alone will result in an increase in price of K9billion or 41% on the original contract amount.
- 5.2.5. Due to the fact that soil investigations were not undertaken prior to the commencement of works, the contractor had to dig deeper than designed in order to find suitable soils for the foundation. This used up most of the contingency funds.
- 5.2.6. As at 30 June 2010, K12billion had been certified and paid.
- 5.2.7. On the basis of the information disclosed, the discussions held with the contractor and supervisor, and the qualitative visual inspection, we are satisfied with the progress made on the project and the quality of work.

5.3. Issues of Concern

- 5.3.1. A major area of concern is inadequate funding as a result of which payment of certificates is usually delayed. This situation has the potential to increase the final contract sum if interest was charged on delayed payments.
- 5.3.2. The Team was not given the justification for changing from terrazzo finish to Aluminium cladding. This variation will result in an increase of about 41% on the original contract sum.

APPENDIX I: MATERIAL PROJECT INFORMATION

Project Name: CONSTRUCTION OF SIX STOREY OFFICE BLOCK FOR MINISTRY OF WORKS AND SUPPLY

1	<i>Project Identification:</i> construction of Six Storey Office Block for the Ministry of Works and Supply	
	Project Specification	Construction of Six Storey Office Block for Ministry of Works and Supply
	Purpose	Office Accommodation
	Location	Ridgeway – Lusaka
	Intended Beneficiaries	Government
	Specification	N/A
	Feasibility Study	None
2	<i>Funding</i>	
	Financing Agreement	Ministry of Finance and National Planning
	Budget	Not available
	Engineer's Estimate	ZMK25 Billion
3	<i>Tender Process for the Contract for Project Design</i>	
	Tender procedure	In-house (Buildings Department, Ministry of Works and Supply)
	Number expressing interest	N/A
	Number shortlisted	N/A
	Number submitting tender	N/A
4	<i>Tender Process for the Contract for Project Supervision</i>	
	Tender procedure	In-house (Buildings Department, Ministry of Works and Supply)
	Number expressing interest	N/A
	Number shortlisted	N/A
	Number submitting tender	N/A
5	<i>Tender Process for the Main Contract of Works</i>	
	Tender procedure	Open Bidding (National Competitive Bidding)

	Number expressing interest	N/A
	Number shortlisted	N/A
	Number submitting tender	02
	List of tenderers	<ul style="list-style-type: none"> China Jiangxi Corporation for International Technical and Economic Cooperation (Z) Limited Hua Jiang Investments Limited
	Tender evaluation report	Available
6	<i>Details of the Contract Award: Project Design</i>	
	Name of main consultant	In-house (Buildings Department, Ministry of Works and Supply)
	Contract price	N/A
	Contract scope of work	N/A
	Contract programme	N/A
7	<i>Details of the Contract Award: Project Supervision</i>	
	Name of main consultant	In-house (Buildings Department, Ministry of Works and Supply)
	Contract price	N/A
	Contract scope of work	N/A
	Contract programme	N/A
8	<i>Details of Contract Award: Main Contract for Works</i>	
	Name of main contractor	China Jiangxi Corporation for International Technical and Economic Cooperation (Z) Limited
	Contract price	ZMK22,209,786,503.00
	Contract scope of work	Construction of Six Storey Office Block.
	Contract programme	86 Weeks

9	Execution of the Contract: Project Supervision	
	Significant Changes to Contract Price, Programme, Scope with Reasons	N/A
10	Execution of Contract: Main Contract for Works	
	Individual changes to Contract which affect the price and reason for those changes	Permanent Secretary gave instructions to finish external surface of building in aluminum cladding. Approximate extra cost is ZMK9 billion.
	Individual changes to the contract which affect the programme and reasons for those changes	None
	Details of any re-award of main contract	None
11	<i>Post Contract Completion Details: Main Contract for Works</i>	
	Actual Contract Price	On-going
	Total Payments made to date	K12billion
	Actual contract scope of work	On-going
	Actual contract programme	On-going
	Project Evaluation Reports	On-going

APPENDIX II: SCHEDULE OF DOCUMENTS DISCLOSED

S/N	Description	Date Released	Comment(s)
1.	Bidding Document	September 2010	
2.	Evaluation Report	September 2010	

APPENDIX III: SCHEDULE OF CONTRACT CHANGES

Not disclosed

APPENDIX IV: PHOTO GALLERY



Plate 1 Main Entrance



Plate 2 View of Office



Plate 3 View top floor beams



Plate 4 View from the entrance