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# LIST OF ACRONYMS

AT Assurance Team

CoST Construction Sector Transparency Initiative

DFID Department for International Development

MDF Malawi Defence Forces

MHC Malawi Housing Corporation

MMSG Malawi Multi Stakeholder Group

MPI Material Project Information

NCIC National Construction Industry Council

NRWB Northern Region Water Board

ODPP Office of the Director of Public Procurement

OFID Opec Fund for International Development

PEs procurement Entities

RA Roads Authority

# Template for collecting Material Project Information from procuring entities

This template has been developed to assist Multi-stakeholder Groups in collecting Material Project Information from procuring entities on projects that are included in the on-going disclosure process. The template could be available on line and the procuring entity be asked to update it on a regular basis.

	list of MBI		
Stage of project cycle	List of MPI to be disclosed	Project name: Construction of 62 No. Houses at Area 49/1B Phase III;	Key Findings by the Assurance Team
		Project No. MHC/2008/03/Lilongwe	
		Procuring Entity: Malawi Housing Corporation	
		Client (if different)	
Project identification	Project purpose	To provide suitable rental properties to residents of Lilongwe	
	Location	Area 49, Lilongwe	
	Intended Beneficiaries	Residents of Lilongwe	
	Specification	Construction of low cost housing comprising brick footings, screed laid on full bricks laid flat on 25mm sand on compacted earth; 26 Gauge IBR roof 200x50mm purlins; 230mm brick walls.	
	Budget	MK172,500,000	
Funding	Financing agreement	Own Source of Funds	
	Engineer's estimate	MK172,500,000	
Tender process (contract for	Tender procedure	Direct labour, in-house contract	

EMC JATULA ASSOCIATES 3 August 2010

Stage of project cycle	List of MPI to be disclosed	Project name: Construction of 62 No. Houses at Area 49/1B Phase III; Project No. MHC/2008/03/Lilongwe Procuring Entity: Malawi Housing Corporation Client (if different)	Key Findings by the Assurance Team
project supervision)	Number expressing interest	N/a	
	Number shortlisted	N/a	
	Number submitting tender	N/a	
Tender process (main contract for	Tender procedure	In-House Direct Labour Contract	
works)	Number expressing interest	N/a	
	Number shortlisted	N/a	
	Number submitting tender	N/a	
	List of tenderers	N/a	
	Tender evaluation report	N/a	
Contract award (project	Name of main consultant	Malawi Housing Corporation	
supervision)	Contract price	MK172,500,000	
	Contract scope of work	Supervision of the Construction of 62 No. low cost housing in Lilongwe	
	Contract programme	Start: 21 May 2009	

EMC JATULA ASSOCIATES 4 August 2010

Stage of project cycle	List of MPI to be disclosed	Project name: Construction of 62 No. Houses at Area 49/1B Phase III; Project No. MHC/2008/03/Lilongwe Procuring Entity: Malawi Housing Corporation Client (if different)  Completion: 28 February	Key Findings by the Assurance Team
		2010	
Contract award (main contract for	Name of main contractor	Malawi Housing Corporation	
works)	Contract price	MK172,500,000	
	Contract scope of work	Construction of 62 No. low cost housing in Lilongwe	
	Contract programme	Start: 21 May 2009 Completion: 28 February 2010	
Contract Execution (project supervision)	Significant changes to contract price, programme, scope with reasons	<ul> <li>Unable to determine whether there has been significant changes to the contract price as at time of study.</li> <li>Works were not completed by original Completion Date of 28 February 2010.</li> </ul>	Reasons for not being able to examine the costs: The project has no baseline estimate breaking down the elements of the buildings into individual cost centres  Reasons for delays:  Poor communication between project team members
Contract Execution (Main contract for works)	Individual significant changes to the contract which affect the price with reasons	No significant changes to the contract price as at time of study.	

EMC JATULA ASSOCIATES 5 August 2010

Stage of project cycle	List of MPI to be disclosed	Project name: Construction of 62 No. Houses at Area 49/1B Phase III; Project No. MHC/2008/03/Lilongwe Procuring Entity: Malawi Housing Corporation Client (if different)	Key Findings by the Assurance Team
	Individual significant changes to the contract which affect the programme, with reasons	The works programme has been delayed.	<ul> <li>Uncompetitive labourer wages</li> <li>Delays in procurement of materials due to cumbersome centralised purchasing</li> </ul>
	Details of any re- award of main contract	n/a	
Post contract	Actual contract price	Not yet completed	
completion details (main contract for works)	Total payments made	Roads, sewer, water, electricity – MK15,081,011.28 Housing - MK136,674,402.37	
	Actual contract scope of work	No change from original scope	
	Actual contract programme	Works are delayed, revised completion date unknown	
	Project evaluation reports (on completion and ongoing)	Site meeting minutes disclosed  No monthly reports disclosed  No post completion report as project is on-going	

EMC JATULA ASSOCIATES 6 August 2010

Stage of project cycle	List of MPI to be disclosed	Project name: Construction of 62 No. Houses at Area 49/1B Phase III; Project No. MHC/2008/03/Lilongwe Procuring Entity: Malawi Housing Corporation Client (if different)	Key Findings by the Assurance Team

Documents disclosed	Disclosure status
Feasibility study	Not disclosed
Financing agreement	In-house funding
Specification	Disclosed
Tender evaluation report	N/a
Project evaluation reports	Actual cost report and site meeting minutes disclosed

EMC JATULA ASSOCIATES 7 August 2010

## **EXECUTIVE SUMMARY**

This report summarises the initial findings by EMC Jatula Associates; who were selected as the Assurance Team (AT) to collect data from participating procurement entities (PEs) in the CoST Initiative. Malawi Housing Corporation participated in the study whose aim is to increase transparency and accountability in the Malawi construction sector.

The AT collected as much data on this project as was possible. However, due to the fact that this was an in-house project, the data collected could not be verified from other sources. The completeness and accuracy of information thus collected on this project cannot therefore be assured.

**Procurement Entity: Malawi Housing Corporation** 

Project: The Construction Of 62 No. Houses At Area 49/1B Phase III;

Contract No. MHC/2008/03/Lilongwe, Malawi

The consultant had difficulty collecting data from Malawi Housing Corporation (MHC) due to the fact that files were initially not ready for examination. Following this, the AT was given access but the available data was mostly incomplete on the two projects that the AT was examining at this institution.

This project is for the construction of 62 No. houses at Area 49 in Lilongwe, Malawi. It is being funded, constructed and supervised in-house by Malawi Housing Corporation. As such, the AT found that the available data was not sufficient to carry out a thorough analysis of the project in terms of cost control and programme. Also, as project was done in-house there were no other sources of information against which to check information that was provided by the MHC.

The AT found that baseline estimates were based on cost per square metre and actual costs were being monitored by using selected cost groups which did not relate to any original pre-determined budget lines.

In addition, the buildings as seen during the site visit are low cost and some fundamental design elements have been omitted from the structure. For instance, concrete foundation footings have been replaced by common brick footings in the design, floor slab has been omitted and in its place there is only a screed laid on hardcore, ring beams have been omitted, and so are lintels. All these non standard design changes call for the integrity of these buildings into question. It would be interesting to obtain an engineering opinion on the stability of these structures.

EMC JATULA ASSOCIATES 8 August 2010

### 1.0 INTRODUCTION AND STUDY BACKGROUND

This report covers the work carried out by EMC Jatula associates as the selected Assurance Team to collect Material Project Information (MPI) from selected Procurement Entities (PEs). It highlights all the activities carried out by the Assurance Team during the period under review and includes both achievements and constraints.

The Construction Sector Transparency (CoST) Initiative is an international multi-stakeholder programme which is designed to increase transparency and accountability in the construction sector. The programme is supported by the UK Department for International Development (DFID) and the World Bank.

Malawi was selected to undertake a pilot for this programme as one of seven countries in the world. The programme is being administered by the National Construction Industry Council (**NCIC**) on behalf of the Construction Sector Transparency Initiative (CoST) Malawi Multi Stakeholder Group (MMSG).

The programme aims at enhancing the accountability of Procuring Entities (PEs) and construction companies for the cost and quality of public sector construction projects. Each PE selected to provide data will do this by disclosing to the public 'Material Project Information' (MPI) at all stages of the construction project cycle, from the initial identification of the project to the final completion.

The main aim for CoST is about increasing transparency through the release of project information into the public domain. It is however recognised that the disclosure of this information may not be sufficient on its own to achieve greater accountability as some of the information is most likely to be complex and not easily understandable to the general public.

EMC Jatula Associates Consulting Engineers were therefore selected to undertake this study to ensure that the information that is released is both accurate and available in a form that can easily be understood by stakeholders. Part of our brief is to ensure that the disclosed information must be verified, analysed and interpreted by experts as an 'Assurance Team' appointed specifically for this purpose. The major role to be played by EMC Jatula Associates as the consultant on this pilot project is to act as an interpreter at all the assurance processes to help make raw data disclosures more understandable to all stakeholders.

Hence the objectives of the pilot programme to be achieved by EMC Jatula Associates are as follows: -

- To assist the MMSG to liaise with the Procuring Entities (PEs) of projects involved in the CoST initiative to ensure the publication of the relevant Material Project Information (MPI);
- To verify the accuracy and completeness of MPI disclosures on all or a subset of projects involved in the CoST initiative, as required by the MMSG;

EMC JATULA ASSOCIATES 9 August 2010

- > To analyse the disclosed and verified data on all or a subset of projects involved in the CoST initiative in order to make informed judgements about the cost and quality of the built infrastructure;
- > To produce reports that are clearly understandable to the non-specialist, outlining the extent and accuracy of information released on projects involved in the CoST initiative and highlighting any causes for concern that the analysed information reveals.

EMC JATULA ASSOCIATES 10 August 2010

## 2.0 METHODOLOGY

# 2.1 Selection of Projects

The Malawi MSG selected 3 (three) institutions which are participating as PEs to provide MPI under the CoST Initiative. The following are the institutions together with a list of the respective projects for which information has been released:

# Malawi Housing Corporation (MHC):

- 1. MHC/01/09 Chilumba
- 2. MHC/2008/03/Lilongwe

# Northern Region Waterboard (NRWB)

- 1. NRWB/W/01
- 2. NRWB/W/01B

#### Malawi Roads Authority (RA):

- 1. 4T/PP/NR/RU/KA/09
- 2. 3T/RM/CR/KU/DA/MC/NS/09
- 3. 4T/PP/SR/BLK,MH,MHG,ZA/09
- 4. 102U/REHAB/SR/BTC/08 LOT 2
- 5. 121U/REH/CR/LLC/08 LOT 3

# 2.2 Data Collection

# **Malawi Housing Corporation**

The consultant had difficulty collecting data from Malawi Housing Corporation (MHC) due to the fact that files were initially not ready for examination during the week of 20<sup>th</sup> to 26<sup>th</sup> June 2010. Hence this caused the consultant to work out of sequence by visiting Blantyre three times to collect data when the plan was to capture data from both the Roads Authority and Malawi Housing Corporation during one visit.

It took a lot of time to get the MHC to provide the data. The AT had to request the CoST Secretariat to impress upon the MHC the importance of providing the data as they had indicated at the outset their willingness to participate in the study.

It was only during the week of July 11<sup>th</sup> 2010, that the Malawi Housing Corporation indicated that the project MHC/2008/03/Lilongwe had many sub-projects and needed clarification as to which projects should be audited. The matter was referred to the client for guidance. The AT was advised by the CoST Secretariat that only the buildings sub-project for the above project was to be examined.

FINAL REPORT

Following this clarification, the consultant made an appointment for 26th July 2010 with MHC with the aim of collecting data for both the above Lilongwe Project and Project No. MHC/01/09 – Chilumba. The data was deemed to be available at Head Office in Blantyre.

The consultant spent two days at MHC but was only able to collect minimal data on this project.

MHC advised the AT that the information requested would be released by 30<sup>th</sup> July 2010. However, partial information was only ready on 3<sup>rd</sup> August 2010.

The AT discovered that this project is administered and constructed in-house by MHC. The records available were not sufficient to carry out a full analysis of the project. The AT therefore wrote to the MHC requesting additional information on 29<sup>th</sup> July 2010.

### 2.3 Data Verification

EMC Jatula Associates were given the responsibility to collect data and verify that the MPI is both complete and accurate. The AT therefore collected as much information as possible from the three participating institutions:

Malawi Housing Corporation (MHC)

Construction of 62 No. Houses at Area 49/1B Phase III;

Project No. MHC/2008/03/Lilongwe Contractor: In-house Direct labour

The AT visited MHC to collect and verify data collected for the above project for construction of 62 Houses in Lilongwe, Area 49. However, the information on file shows that there is a need for the institution to improve its record keeping. This project is being implemented by MHC as a Direct Labour Contract. Hence, it is not possible for the AT to scrutinise the project using other sources other than MHC itself.

The AT also found no basis for comparison between the original estimate and the actual expenditure for the project. Thus far, the AT is therefore unable to do a rigorous verification of the actual costs to determine whether there is a cost over-run or not.

Due to the incompleteness of the available information, the AT has submitted its final report based on this incomplete information.

## 2.4 Data Analysis

Malawi Housing Corporation (MHC)

Construction of 62 No. Houses at Area 49/1B Phase III:

Project No. MHC/2008/03/Lilongwe

Contractor: In-House Direct labour

### **Data Collection**

Malawi Housing Corporation is currently constructing 62 houses at Area 49/1B in Lilongwe using own resources and direct labour. Initially, the institution had planned to obtain capital from financial institutions and tender the works for construction by independent contractors. However, due to budgetary constraints, the MHC decided to garner its own resources and build the project using own labour.

Initially, the budget was as MK335,774,383 for construction of the whole project including utilities and roads. However, due to the foregoing reasons the budget was trimmed to Mk172,500,000. The budget comparison, according to available data is as follows:

Table No. MHC 1 - Comparison of Budget and Actual Expenditure

Item	Description	Original Budget (MK)	Revised Budget (MK)	Actual Expenditure (MK) Up to 19 May 2010
1	Houses	158,492,894		136,674,402.37
Α	Preliminaries			
В	Materials			
С	Wages			
D	Transport			
2	Roads	29,437,934		15,081,011.28
3	Sewage	28,601,892		Included with Buildings
4	Water	15,000,000		3,175,746.99
5	Electricity	15,000,000		6,358,521.00
6	Land cost	5,580,000		
7	Insurance	1,267,943		
8	Loan Interest	82,393,720		
9	Total	335,774,383	172,500,000	161,289,681.64

As can be seen from the above Table No. 1, available information does not break-down the budget items 1-8 into sufficient detail to monitor actual expenditure against budgeted except for Items 4 and 5 which were originally Provisional Sums. These Provisional Sums have been adjusted against actual payments made to the electricity board - Escom and Lilongwe Water Board respectively.

The project commenced on 21 May 2009 and was scheduled for a revised completion date of 15th August 2010. As at the end of April 2010, progress was at 64%. Actual time spent on site is 12 months against planned duration of 15 months representing 80% of the time elapsed. Site meeting minutes indicate that the delays to the project are due to: -

- Slow procurement of materials from head office
- Un-competitive wage levels against the private industry
- Fuel shortages
- Poor communication between project team members; many team members attended meetings with little preparation and this resulted in members contributing very little during meetings.

Records on file show that management is addressing these causes of delay by giving the regional office a higher threshold for local purchasing to mitigate the delays due to slow centralised purchasing system. Management proposed to increase wage levels for labour. Fuel shortages were a national supply problem which seems to have been resolved for now. Management called for project team members to be prepared for meetings and have clear communicating channels.

The data collected included a record of fuel used on the project from commencement. The records show that total fuel purchased was MK15,424,489.19 representing approximately 9% of the value. With no basis for comparison (i.e. original budget provision for fuel), it is not possible to ascertain whether this expenditure is within budget or not. The MPI template for data collected on this project is included herein as **Appendix A (i)**.

### Site Visit

The site visit showed the quality of the houses to be low cost. The drawings show the footing to be in ordinary brick. The floor has no slab; the screed is laid on the hardcore.

EMC JATULA ASSOCIATES 14 August 2010



Photo MHC No. 1 - No Floor Slab



Photo MHC No. 2 - No Floor Slab



Photo MHC No. 3 - project Sign Board at Area 49, Lilongwe



Photo MHC No. 4 - Roof timbers



Photo MHC No. 5 - No concrete Lintel over Windows

Photo No. 4 shows roof purlin joint just over the rafter. The purlin joint is not flush meaning that the two timbers are not the same size at the joint. The two pieces of the purlin being jointed over the support lends some weakness to the roof structure.

Photo No. 5 shows there is no concrete lintels over the window frames.

# 3.0 CONCLUSIONS

Data collection from this institution was a challenge. Although the AT made concerted efforts to obtain all the required data including sending a summary of the findings for the PE to fill in the gaps, the institution was unable to respond.

Analysis was also affected by the non-availability of base line data as the AT was unable to make a comparison of actual against budgeted costs.