CoST – ETHIOPIA, First Pilot Study

Assurance Team Report

Irba Moda – Wadera Road Upgrading Project

Pilot Study on Road Sector

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Preface

This report has been written following the verification and analysis of the information provided by the employer, Ethiopian Roads Authority, by an independent Assurance Team consultant. The information has further been verified from the consultant and the contractor data for the completeness and accuracy in accordance with the construction sector transparency initiative guidelines.

The report consists of five chapters and six appendices. The first chapter summarises the findings of the study followed by chapter two that explains the background and objective of the study together with the study approach and specific project descriptions. Chapter three provides the verification part of the disclosed information whether the disclosure made by the procuring entity is complete and accurate as verified by the Assurance Team. In this chapter, all the core information related to the tendering and implementation stages of the project are discussed without adding any subjective interpretation as it will provide some basis for the analysis part of the report. It is then followed by chapter four that is dedicated to the analysis and discussion of the information verified in chapter three. This chapter describes the shortcomings observed on the procurement and implementation phases of the project. The interpretations and self-reflection by the Assurance Team on the procurement and contract management of the project are included in this chapter. The analysis has been made based on the facts verified in chapter three together with the standards and provisions of the procurement and contract requirements. The last chapter, chapter five, highlights the causes of concern as found in the study and recommends ways of addressing the problems and improving the system.

Abbreviations used throughout the study report have been shown in the next pages. Some words that need definitions and explanations have been provided in the form of glossary in order to improve the understanding of audiences on technical terminologies. Tables are referred to with numbers under each chapter, as for example, Table 3.1 refers to the first table in chapter three. The study teams would also like to note that words indicating one gender while referring to a contractor, engineer, or employer include all genders. Moreover, the word “engineer” used in the report stands for an entity engaged for supervision and contract administration of the project and includes all related professional teams for supervision and contract administration services.

Finally, the Assurance Team would like to express its gratitude and acknowledgements for all participants that directly or indirectly contribute to this study.

Abbreviations

AADT	Annual Average Daily Traffic
AC	Asphalt Concrete
AT	Assurance Team
APL	Adapted Programme Lending
ARE	Acting Resident Engineer
BoQ	Bill of Quantities
BPR	Business Process Reengineering
CAC	Contract Award Committee
CoST	Construction Sector Transparency Initiative
CRBC	China Road and Bridge Corporation
DBSD/DBST	Double Bituminous Surface Dressing/Treatment
DFID	Department for International Development
DRB	Dispute Review Board
DS3	Design Standard Three
DS4	Design Standard Four
EIA	Environmental Impact Assessment
EI	Engineer's Instruction
EIRR	Economic Internal Rate of Return
EOI	Expression of Interest
ERA	Ethiopian Roads Authority
ETB	Ethiopian Birr
FEACC	Federal Ethics and Anticorruption Commission
GoE	Government of Ethiopia
ICB	International Competitive Bidding
IDA	International Development Association
JV	Joint Venture
MSG	Multi Stakeholder Group
MPI	Material Project Information
MoU	Memorandum of Understanding
NPV	Net Present Value
PE	Procuring Entity
RAP	Resettlement Action Plan
RC	Reinforced Concrete
RFP	Request of Proposal
SBD	Standard Bidding Document

SEMP	Site Environmental Management Plan
STD	Sexually Transmitted Disease
TAC	Tender Analysis Committee
TOR	Terms of Reference
UN	United Nation
UK	(the) United Kingdom
USD	United States' Dollar
VAT	Value Added Tax
VO	Variation Order
WB	(the) World Bank

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1. Executive Summary

1.1 The Irba Moda-Wadera road upgrading project is located entirely in the Oromia National Regional State in the southern part of Ethiopia. The road was initially constructed during the Italian occupation with Telford base and penetration macadam where the entire road has deteriorated due to insufficient maintenance.

1.2 The project consists of upgrading construction of about 109km two lane asphalt concrete road of a DS4 standard with 2x3.50m=7.0m carriage way width and 1.50m gravel shoulders on each side in the rural section and in the town section the road would have a 3.5m additional parking lane.

1.3 A detailed feasibility study including environmental & social impact analysis needed to establish a fully substantiated detailed economic justification for alternate types, levels of upgrading measures, and appropriate investment strategies had been conducted by BCEOM (international) and AEC and reviewed by BKS Group in association with Beza consulting Engineers.

1.4 Ahmet Aydeniz-KMC JV is constructing the project and supervision and contract administration services are being carried out by Grontmij/Carl Bro A/S (international) in association with Gondwana Engineering plc.

1.5 Up to October 2010, the project progress is reported to be around 10% and about its 50% of the initial completion period has elapsed. The initial contract price of the project is ETB 617,731,977.13 with an initial completion period of 36 months including 3 months mobilization period.

1.6 The focus of this study includes review of the procurement procedures for design review service, supervision service, and works with further focus on the implementation of the project with respect to the works and supervision service contracts. The coverage on the procurement review might be wider than the coverage on the implementation phase and the reason for this is that the project has only been accomplished to its 10% of the total works activities at the time of this study.

1.7 From the findings of the study, the procuring entity is advised to increase the competition levels on the procurement of both services and works contracts in order to get what is paid on the investment. It is also further advised to consider the financial offers obtained through the tenders in that it is reasonable and adequate economic returns would be obtained from the investment. This requires closely analysing the costs considered in the feasibility study rather than comparing a “forecasted engineering cost estimate” with the offers of the competing firms.

1.8 The project is under substantial delay from the approved work programme where both parties to the contract and the Engineer are required to solve the problems hindering the progress of the works and the contractor is expected to increase the progress of the project in order that it would be completed within the contract completion period.

1.9 Both parties to the contract and the Engineer are required to exhaust all possible options to address social and some environmental aspects of the contract which seems to be overlooked in the project execution.

1.10 Except for some documents, the disclosure of the information by the procuring entity has been verified from other sources of the consultant and the Assurance Team believes that the disclosure is complete and correct.

2. Introduction

2.1 Background

1.1.1 Public sector infrastructure projects make a major contribution to the economic growth and poverty reduction of a nation. However, mismanagement and corruption during the planning and implementation of construction projects can undermine the expected social and economic benefits.

1.1.2 The Construction Sector Transparency Initiative (CoST) is a multi-stakeholder initiative designed to increase transparency and accountability in the construction sector. It is funded by the Department for International Development (DFID) of the UK and the World Bank and is currently being piloted in seven countries; i.e. in Ethiopia, Malawi, the Philippines, Tanzania, the United Kingdom (UK), Vietnam, and Zambia.

1.1.3 The aim of the CoST initiative is to enhance the accountability of procuring bodies and construction companies for the cost and quality of public sector construction projects. It achieves this aim through the public disclosure of key project information at all stages of the construction project cycle, with specific focus on the period from the award of the main contract for construction until the final build (implementation phase).

1.1.4 It is, however, recognized that the disclosure of this information on its own may not be sufficient to achieve greater accountability. This is because some of the information is likely to be complex and not easily intelligible to the general public. An independent Assurance Team (AT) is therefore appointed by the Multi Stakeholder Group (MSG) who will be responsible for assessing the adequacy and reliability of disclosed project information and audit processes, highlighting any causes for concern that the information reveals. Through periodic reporting, the Assurance Team will provide an interpretative role in helping to make data disclosures intelligible to the stakeholders.

1.1.5 A number of projects from building, water, and road/transport sectors have been identified by the MSG of CoST-Ethiopia following a base line study. This report is prepared for one of road sector project, the Irba Moda – Wadera road upgrading project and it is prepared by the Assurance Team Member, Kasiem Seid, under the supervision of the Assurance Team Leader, Ahmed Salih.

2.2 Objectives of the Pilot Study

1.1.6 The main objectives of the pilot study include:

- improving governance of infrastructure/construction projects through a more transparent procurement and contract administration process
- generating an improved understanding of project costs amongst public sector clients
- supporting an improvement in the quality and management of public construction projects
- gaining Government and industry acceptance of the concept of greater transparency in procurement through the disclosure of project information, and
- learning lessons to help the development of CoST

It is anticipated that achieving these objectives will lead to improved public confidence in the delivery of publicly funded infrastructure projects.

1.1.7 On the project, the Assurance Team has been appointed to carry out the following tasks:

- to collect the project information, i.e. Material Project Information (MPI)
- to verify the accuracy and completeness of the information
- to report the extent and accuracy of the information which has been released
- to analyse the information and make informed judgments about the cost and quality of the project, and
- to report on the findings regarding the cost and quality of the project highlighting outstanding matters

2.3 Study Approach

1.1.8 CoST-Ethiopia has signed a memorandum of understanding (MoU) with different sector offices to identify projects for disclosure of the Assurance Process. One of these memorandums of understanding has been signed between the Ethiopian Road Authority (ERA) and the Federal Ethics and Anticorruption Commission (FEACC), on behalf of CoST-Ethiopia.

1.1.9 Following the appointment of the Assurance Teams, CoST-Ethiopia has carried out its second induction on the transparency initiative on 29 July 2010 for all stakeholders. ERA has then availed some documents such as letter of acceptance, annual progress report, financial bid evaluation report for works, financing agreement, feasibility study (in soft copy) for some projects, and draft material project information (MPI) prepared by ERA on the same day.

1.1.10 On 30 July 2010, FEACC had addressed an introduction letter on the appointment of Assurance Teams to ERA. However, the required documents could not be availed by ERA as the authority was implementing BPR (business process reengineering) and the staffs being overloaded by the process. For this reason, each Assurance Team was required to contact all responsible staffs from procurement and contract implementation divisions for collection of copies of the required documents. Moreover, as the photocopy machine of ERA was not functional, the Assurance Teams were required to collect documents from ERA; make photocopies outside and return the documents the same day the documents were availed.

1.1.11 As all the required documents could not be availed sufficiently, CoST-Ethiopia held meetings with the Deputy Director General of ERA on 10 August 2010, and the next day (11 August 2010), including all responsible regional directors and procurement division head with the aim of coordinating the document disclosure process sufficiently. Following this meeting, the other documents have been collected from the procuring entity whose detailed schedule for documents disclosure with descriptions is annexed as Annex 1 of this report.

1.1.12 The Assurance Team has been reviewing the information availed with a view to assessing the feasibility, cost, and benefit of the project at the initial identification during the planning stage; compliance with procurement procedures during the tendering stage; and compliance with contract administration of works and consulting supervision services during the implementation phase.

Documentation was then carried out to record, assess, analyse, and report findings with recommendations obtained from the study.

2.4 The Irba Moda – Wadera Road Upgrading Project

1.1.13 The Irba Moda-Wadera road upgrading project is located in the Oromia National Regional State in the southern part of Ethiopia. The road was initially constructed during the Italian occupation with Telford base and penetration macadam where the

entire asphalt pavement has virtually been deteriorated due to insufficient maintenance.

1.1.14 In order to meet the requirements of the increased socio-economic activities along the project road corridor thereby improving the general condition of Ethiopia's road network, the upgrading and construction of the project was proposed.

Prior to final decision for realization of the project, a detailed feasibility study including environmental & social impact analysis needed to establish a fully substantiated detailed economic justification for alternate types, levels of upgrading measures, and appropriate investment strategies had been conducted by BCEOM (international) and AEC and reviewed by BKS Group in association with Beza Consulting Engineers.

1.1.15 The project consists of upgrading construction of about 109km two lane asphalt concrete road of 2x3.50m=7.0m carriage way width and 1.50m grave shoulders in the rural section and there is additional 3.5m parking lane in the town sections. The upgrading of the road from its present condition to asphalt concrete includes improvement in vertical & horizontal alignment, construction of drainage structures, and rehabilitation & construction of road structures along the project route.

1.1.16 Ahmet Aydeniz-KMC JV is constructing the project and supervision and contract administration services are being carried out by Grontmij/Carl Bro in association with Gondwana engineering Plc.

Up to October 2010, the project progress is reported to be around 10% and about its 50% of the initial completion period has elapsed. The initial contract price of the project is ETB 617,731,977.13 with an initial completion period of 36 months including 3 months mobilization period.

3. Verification of Documents – Accuracy and Completeness

3.1 ERA's Tendering Procedure

1.1.17 The Irba Moda-Wadera road upgrading project is partly financed by the International Development Association (IDA). A Standard Bidding Documents (SBD) and procedures have been prepared by the World Bank to be used for the procurement of admeasurements (unit rate) type of works through International Competitive Bidding (ICB) in projects that are financed in whole or in part by the World Bank.

1.1.18 There are two optional procurement procedures: bidding following prequalification (two-stage bidding) and bidding without prequalification where the latter being exceptional that requires the Bank's approval.

1.1.19 The Bank's guidelines require prequalification to be applied for all large and complex works contract to ensure, in advance of bidding, that invitations to bid are confined to capable firms.

1.1.20 Prequalification is followed by a competitive bidding procedure in which only those firms meeting specified prequalification criteria are invited to submit a bid (financial bid). However, it should not be used for limiting competition to a predetermined number of potential bidders. All potential applicants meeting the specified criteria shall be allowed to bid.

1.1.21 The process of prequalification is required to follow the procedures indicated in the Bank's Standard Procurement Document for the Prequalification of Bidders.

1.1.22 Hence, for the above reasons, the Ethiopian Roads Authority (ERA) followed this approach for this and other three road projects that were floated concurrently.

3.2 Project Identification and Budget

1.1.23 A review of the feasibility study and detailed engineering design for the upgrading of the Aposto-Wondo-Negele road was undertaken by BKS Group in association with Beza Consulting Engineers in 2006 (2006 – Review Study). The Irba Moda – Wadera road is a section in this road upgrading project that covers the route from 92.2kms to 201.36kms (a total of about 109kms). The first feasibility study and detailed engineering design was undertaken by Sheladia Associates Inc. in association with Pan African Consultants Plc. three years before the review was made, i.e. in 2003 (2003 – Feasibility Study).

The 2003 Feasibility Study included a road upgrading project from Aposto to Dolo, a total of about 600kms distance route while the 2006 – Review Study covered the first 268kms route (from Aposto to Negele).

The 2006 review of the feasibility study provided the following two road upgrading options:

i) Base alternative, gravel road that includes re-gravelling, grading, cleaning of drains, etc.

ii) Improved alternative, paved road that includes resurfacing of double seal surfaces for some part of the road section and resurfacing of asphalt surfaces for the other parts of the road with other related works

1.1.24 An economically justified level of investment in road improvement project is dependent on the discount rate (the opportunity cost of capital for the project) applied in the economic analysis. An appropriate discount rate, the opportunity cost of capital

in the public sector, is measured by the marginal rate of return on public sector investments. Based on recent discount rates consistent with international practices (between 10% and 15%), the review consultant applied a discount rate of 12% for the economic analysis of the investment. The investment would be economically viable when the net present value (NPV) is greater than zero and the economic internal rate of return (EIRR) is greater than the discount rate applied in the economic analysis, i.e. 12%.

1.1.25 The economic analysis was made for three scenarios (pessimistic, realistic, and optimistic) and the average EIRR over the whole 268kms route was 9.4%, 13.3%, and 17.5% for the pessimistic, realistic, and optimistic scenarios respectively.

1.1.26 The review of the feasibility study has then revealed that, the investment in the proposed improvement/upgrading of the Aposto-Wondo-Negele road (of which the Irba Moda-Wadera road is part of it) is economically feasible for the realistic and optimistic scenarios, i.e. for the improvement of the whole road to a double seal surface (DBST) on flat terrains and to an asphalt concrete (AC) surface on the mountainous terrain is economically viable.

However, two road sections (Aleta Wendo - Irba Moda and Irba Moda – Kibre Mengist that cover 75.8kms and 55.4kms of the road section respectively) result in lower performance measures for their higher costs and lesser benefits. The net present values (-4.62 and -1.14 respectively) and EIRR (10.1% and 11.5% respectively) derived from the economic analysis were inadequate to assure the economic viability of the investment on these two road sections.

1.1.27 As the 2003 – Feasibility Study was made three years before the review was made, the review consultant used most of the information that was applied in this feasibility study and some kind of correlation was expected between the information and the findings of the 2006 – Review Study.

However, the estimated EIRR rates in 2006 – Review Study were much less than the rates estimated by the 2003 – Feasibility Study. The 2003 – Feasibility Study estimated EIRR of 45.5% and 27.8% for the Aposto-Wendo and Wendo-Negele road sections respectively where the primary reason for this difference was reported to be the sharp price escalation in recent construction rates during the three years period.

1.1.28 Similar to the above, the construction costs used in the economic analysis were 80%, 60%, and 40% higher than the 2003 – Feasibility Study for the pessimistic, realistic, and optimistic scenarios respectively.

1.1.29 The estimated construction costs in the 2006 – Review Study for the Irba Moda – Wadera (109.16kms) was ETB 460,736,668.00 (ETB 4.22 Million/km), ETB 409,543,706.00 (ETB 3.75 Million/km), and ETB 358,350,742.00 (ETB 3.28 Million/km) for the pessimistic, realistic, and optimistic scenarios respectively.

1.1.30 The draft final engineering cost estimate prepared by the design review consultant was submitted to ERA in March 2007 and was reported to be ETB 497,361,173.15. Corrected engineering cost estimate for the Irba Moda – Wadera road upgrading project is ETB 529,457,990.25 according to the Revised Bid Evaluation Report (October 2007). The initial engineering cost estimate was not supplied by the procuring entity, but was derived from the revised bid evaluation report.

1.1.31 The budget for the construction works have been covered partly by the Government of Ethiopia and the other portion through a credit received from the International Development Association (IDA), the World Bank.

1.1.32 No document has been availed for the disclosure of tender process for consulting service of the 2003 – Feasibility Study Consultant. However, as the procuring entity has disclosed the procurement details for the design review consultant, it can be taken as sufficient disclosure in as far as the work has been constructed by the

reviewed design and feasibility study. The disclosure on this subject has been verified by the Assurance Team to be complete for this reason.

3.3 Tender Process for Consultancy Service for the Review of Feasibility & EIA Studies, Detailed Engineering Designs, & Tender Document Preparation

1.1.33 Some of the main objectives of this consulting service include:

- to review and update the feasibility study for the proposed road
- to review EIA study; including analysis, verification and updating of the recommendation of the EIA in terms of mitigating the negative impacts
- to prepare RAP for the proposed road project; to provide Government and Donor's partners with sufficient and adequate information as to the likely social impacts of the proposed road project, including the extent of involuntary resettlements
- to review ***the detailed engineering design*** and tender documents prepared by the design consultant; to make all amendments and carry out additional studies necessary ***to assume full responsibility for the soundness and sufficiency of the detailed engineering design*** and tender documents

1.1.34 The procuring Entity doesn't disclose information regarding Notice for Expression of Interest (EOI) for interested potential bidders. The number of firms who submitted their EOI, the advertisement for the submission of EOI, and the procedure for shortlisting has not been reviewed for this reason. The summary of Technical Evaluation Process indicates that the request for expression of interest has been published in a national newspaper and international website.

According to the Technical Evaluation Report (June 2005) and the Combined Technical and Financial Evaluation Report (September 2005), the following six (6) firms, shown in Table 3.1 below, had been shortlisted by ERA and approved by the World Bank together with the request for proposal (RFP) document. These shortlisted firms were then invited to submit their technical and financial proposals on 22 March 2005 to be submitted on 19 May 2005.

Table 3.1 – List of shortlisted firms for design review

Item No	Name of Consulting Firm	Country
1	BKS Group (Pty) in association with Beza Consulting Engineering	South Africa/Ethiopia
2	Consult 4 International in association with Highway Engineering Consultants	South Africa/Ethiopia
3	Dar al – Handasah in association with SABA Consulting Engineering	Lebanon/Ethiopia
4	Feedback Turkey in association with Yerer Engineering	India/Ethiopia
5	TECHNIPLAN SpA	Italy
6	WSP International Management Consulting	United Kingdom

Pre-proposal meeting was conducted on 19 April 2005 as indicated in the RFP and the minutes of the pre-proposal meeting with clarifications and Addendum No 1 was

sent to all invited firms on 06 May 2005 and Addendum No 2 was sent on 12 May 2005 that postpones the date of submission of the proposal to 01 June 2005.

Among the six (6) invited firms, WSP International Management Consulting of the UK has informed ERA that it will not submit the proposal while the remaining five (5) firms submitted their proposals before the deadline for the submission of proposals.

1.1.35 A two – stage procedure was adopted for the selection of the consultant, with the technical proposal evaluation first and the financial proposal evaluation of the technically responsive firms next. Financial evaluation will be carried out for the technically responsive firms with technical score of 75% and above and after receipt of the World Bank's "No objection" on the technical evaluation report. The technical and financial scores weigh 80% and 20% of the total score respectively.

1.1.36 For detailed examination of the technical proposals, each of the three members of the Tender Analysis Committee (TAC) independently examined the technical proposal of each firm and rated in accordance with the predetermined evaluation criteria, allotted points, and incompliance with the evaluation procedures and practice used by ERA for service contracts. Then, following discussion between the member's findings, average points would be considered for final technical evaluation score of the firms.

1.1.37 Four main criteria was considered for the technical requirements where specific experience of the firm(s) related to the assignment has been given 10 points; adequacy of the proposed work plan and methodology has been given 30 points; qualification and competence of the proposed personnel for the assignment has been given 55 points; and local participation (knowledge transfer) represented by nationals has been given 5 points.

1.1.38 All of the five (5) firms, who submitted their proposals, passed the preliminary and detailed examination of the technical proposals. As shown in Table 3.2 below, these firms scored from 82.9% to 93.9% and were qualified for their financial proposals to be opened. However, following ERA's request for the World Bank's "no-objection" on the technical score evaluation and subsequent approval for the opening of the financial proposal opening, ERA received a number of comments from the World Bank Group suggesting revision of the whole of the Technical Evaluation Report on 22 July 2005. Accordingly TAC has revised the report and ERA has got the World Bank's "No Objection" or approval to proceed the opening of financial proposals on 31 August 2005.

1.1.39 As shown in Table 3.2 below, TechniPlan Spa was over scored by the Tender Analysis Committee from 83.0% to 90.5% (7.5 points difference) while for the other three firms, the difference was 0.90%.

The comments given by the World Bank Group for the revision of the technical evaluation report was not disclosed.

It is the ERA's practice to list deficiencies and different proposals that do not materially deviate from the RFP so that it would be addressed to ERA's satisfaction during pre-contract negotiation, if the firm is found successful with the overall evaluation of the proposals for contract award.

1.1.40 The financial proposals of the technically responsive firms had then been opened on 06 September 2005 (after getting the firms' agreement on the opening date through telephone as the duration for opening of the financial proposal was short) and were examined in accordance with the procedures. Based on aggregate score of technical and financial scores, i.e. total score, BKS Group (Pty) in association with Beza Consulting Engineering was recommended for award of the service contract with remarks noted for negotiation before award. Table 3.3 below shows the corrected financial proposals together with the technical and total scores of the competing technically responsive firms.

1.1.41 The total cost for this service is a foreign portion of USD 285,500.00 and ETB 2,216,500.00 (total amount in ETB is 4,714,682.10) ***excluding taxes***.

Table 3.2 – Revised technical Score of proposals [design review]

Item No	Name of Consulting Firm	Technical Score Before Revision	Revised Technical Score
1	BKS Group (Pty) in association with Beza Consulting Engineering	**93.9%**	**93%**
2	Consult 4 International in association with Highway Engineering Consultants	**82.9%**	**82.9%**
3	Dar al – Handasah in association with SABA Consulting Engineering	**88.1%**	**87.2%**
4	Feedback Turkey in association with Yerer Engineering	**90.6%**	**89.7%**
5	TECHNIPLAN SpA	**90.5%**	**83.0%**

Table 3.3 – Corrected financial proposals and aggregate score of consultants

Item No	Name of Consulting Firm	Financial Offer (ETB)	Technical Score (Revised)	Total Score (80% tech. score & 20% financial score)
1	BKS Group (Pty) / Beza	4,714,682.10	**93%**	91.0% [1st rank]
2	Feedback Turkey / Yerer Engineering	4,223,864.60	**89.7%**	90.3% [2nd rank]
3	Consult 4 International / HEC	3,905,824.68	**82.9%**	86.3% [3rd rank]
4	TechniPlan Spa	5,639,219.50	**83.0%**	80.3% [4th rank]
5	Dar al – Handasah /SABA	10,319,635.90	**87.2%**	77.4% [5th rank]

1.1.42 Among other issues subject to discussion during negotiation before award of the contract, TAC advised ERA to deduct the cost of review of one extra bridge as the firm assumed two bridges while there was only one bridge in the subject project of Aposto-Wondo-Negele road. As the cost of the review of a bridge was not separately indicated the firm's financial proposal, TAC has analysed the financial and total scores of the firm based on the submitted financial offer, i.e. ETB 4,714,682.10.

1.1.43 The Assurance Team has assessed the completeness of the disclosure on this subject based on the information prepared by the procuring entity, revised technical and financial evaluation reports. The disclosure on this subject is complete except for lacking disclosures on the shortlisting procedure.

3.4 Tender Process for Consulting Service of Construction Supervision

1.1.44 Some of the main objectives of the supervision consulting service include:

- to fulfil the role of the Engineer to the highest professional standards as defined under the works contract and to supervise the construction the works on behalf of the Employer
- to ensure that the road is constructed in accordance with the general and particular conditions of contract, the technical specifications, engineering drawings and any amendments thereto
- to optimise the use of available material resources to minimize costs to the Employer, to maximize the quality of works, or to expedite the construction progress
- to ensure that the road is constructed within the contract price and time for completion allowed under the contract or any agreed amendments there to

1.1.45 According to the Revised Technical Evaluation Report (June 2008) and Revised Financial Evaluation Report (July 2008), notice for Expression of Interest (EOI) was posted online on UN Development Business website on 29 May 2007 and on the Ethiopian Herald newspaper on 29, 30, & 31 May 2007. The deadline for the submission of EOI was 12 June 2007.

ERA has supplied AT the revised evaluation reports for this procurement and from the correspondences annexed in these reports, AT understands that the revision was made the World Bank Group to review the comments made by the World Bank Group on the disparities observed on the evaluation of key personnel proposals.

1.1.46 The following six (6) consulting firms, shown in Table 3.4 below, had been short listed from those who have submitted their EOI and other necessary documents before the deadline, 12 June 2007. After getting the World Bank's "No Objection" on the shortlisted firms and the RFP on 19 November 2007, ERA invited the short listed consultants to submit their Technical and Financial Proposals on 20 November 2007 and the deadline for the submission of the proposals was on or before 22 Jan 2008.

Table 3.4 – List of shortlisted firms for supervision service

Item No	Name of Consulting Firm	Country
1	(ict) Intercontinental Consultants Technocrats Pvt. Ltd. in association with (icte) Intercontinental Consultants Technocrats Eth. Plc. and Omega Consulting Eng. (Sub consultant)	India/Ethiopia /Ethiopia
2	KOCKS CONSULT GmbH	Germany
3	Gronmij/carl Bro A/S in association with Gondwana Engineering plc (Sub consultant)	Denmark/Ethiopia
4	WSP in association with Associated Engineering Consultant (Sub consultant)	England/Ethiopia
5	MSV International Inc. USA	USA
6	Arab Consulting Engineers	Egypt

1.1.47 All the six (6) invited or short listed firms submitted their proposals before the deadline for submission of proposal. The selection procedure was similar to the above one (item 3.3). During the preliminary examination of the proposals, one of the six (6) firms, KOCKS CONSULT GmbH, had been rejected for establishing a joint venture without prior approval of the employer.

The remaining five (5) firms had been technically responsive with their technical scores ranging from 79.4% to 91.5%. Table 3.5 below provides the corrected financial proposals together with the technical and total scores of the competing technically responsive firms.

1.1.48 Four main criteria was considered for the technical requirements where specific experience of the firm(s) related to the assignment has been given 10 points; adequacy of the proposed work plan and methodology has been given 30 points; qualification and competence of the proposed personnel for the assignment has been given 55 points; and local participation (knowledge transfer) represented by nationals has been given 5 points

Table 3.5 – Corrected financial proposals and aggregate score of consultants for supervision service

Item No	Name of Consulting Firm	Financial Offer (ETB)	Technical Score	Total Score (80% tech. score & 20% financial score)
1	Gronmij/carl Bro A/S / Gondwana	14,812,680.00	91.5%	91.7% [1st rank]
2	(ict)/(icte) / Omega	14,446,677.80	88.2%	89.6% [2nd rank]
3	MSV International Inc. USA	17,424,630.09	82.7%	81.9% [3rd rank]
4	WSP / AEC	13,692,049.48	81.9%	85.5% [4th rank]
5	Arab Consulting Engineers	15,293,783.88	79.4%	81.4% [5th rank]

1.1.49 The International Development Association (IDA) commented on the technical evaluation of key proposed personnel (Structural Engineer, Geotechnical Engineer, and Sociologist)) in one of the technically responsive firms [WSP in association with Associated Engineering Consultant (Sub consultant)], who were rated as “poor”, to be reconsidered as the candidates could be rated “satisfactory” if not more, who fulfil the required qualification criterion. The IDA requested the same to be reflected in the revised technical evaluation.

Following IDA’s request for the review of the evaluation, the structural engineer scored 4.3 points (previous 2.0) out of 5.0 points; the geotechnical engineer scored 2.9 points (previous 1.6 points) out of 4.0 points; and the sociologist scored 2.1 points (previous 1.2 points) out of 3.0 points. In total, additional 4.5 points had been reconsidered for this firm following the IDA’s comments.

1.1.50 The IDA forwarded its “No Objection” to the opening of the financial proposals of all the five technically responsive firms on 16 June 2008 and the financial proposals were opened on 01 July 2008. After analysing the financial proposal and determining the total scores, Gronmij/carl Bro A/S in association with Gondwana Engineering plc (Sub consultant) had got the highest rank and awarded with a total cost of ETB

7,300,000.00 and USD 560,000.00 (total amount in ETB is 14,812,680.00) ***exclusive of local taxes***.

1.1.51 The Assurance Team has assessed the completeness of the disclosure on this subject based on the information prepared by the procuring entity, revised technical and revised financial evaluation reports. The disclosure on this subject is complete except for lacking disclosures on the shortlisting procedure.

3.5 Tender Process for Works Contract

1.1.52 Pursuant to the procurement notice posted on the United Nations Development Business Journal (dgmarket) on 09 September 2007, and on the Ethiopian Herald Newspaper on 7, 8, & 9 September 2007 for the construction works of Irba Moda-Wadera Road upgrading project (including other three contracts), Nineteen (19) applicants collected the prequalification document, which was prepared in accordance with the World Bank's standard document, "Prequalification Document for Procurement of Works".

1.1.53 The procuring entity doesn't provide Prequalification Evaluation Report for this project. In the Revised (Financial) Bid Evaluation Report (October 2008), however, only sixteen (16) applicants are listed in Table 2.1.

The following Table, table 3.6, shows the list of the contractors who submitted their applications for the works contract.

Table 3.6 – List of contractors who submitted their applications for the project

Item No	Name of the firm	Country of Registration
1	Ahmet Aydeniz – KMC JV	Turkey/India
2	Azerkorpu Joint – Stock Company	Azerbaijan
3	China Gezhouba Water & Power (Group) Co. Ltd.	China
4	China International Water & Electric Corporation (CWE)	China
5	China No. 17 Metallurgical Construction Co. Ltd	China
6	China Rail way 7th Group	China
7	China Road & Bridge Corporation	China
8	China Sichuan International Corporation Co. Ltd	China
9	Consolidated Contractors International Company S.A.L.	Lebanon
10	GAMMON INDIA LTD	India
11	Hunan Huanda Road & Bridge	China
12	Keangnam Enterprise Ltd.	S. Korea
13	MAM for Roads and Bridges	Sudan
14	Sinohydro Corporation	China
15	Soma Enterprises Ltd.	India
16	Tecnica General de Construcciones S.A.	Ecuador

1.1.54 According to the Revised Financial Bid Evaluation Report, eleven (11) applicants, listed in Table 3.7 below, were pre-qualified based on the criteria set out in the prequalification document and IDA's "No Objection" was received on 02 March 2008, i.e. the following firms (and the other three additional firms who were not listed in this document) were not qualified to submit their financial bids:

1. Azerkorpu Joint – Stock Company of China
2. China International Water & Electric Corporation (CWE) of China
3. GAMMON INDIA LTD of India
4. Hunan Huanda Road & Bridge of China
5. Tecnica General de Construcciones S.A. of Ecuador

Table 3.7 – List of pre-qualified contractors

Item No	Name of the firm	Country of Registration
1	Ahmet Aydeniz – KMC JV	Turkey/India
2	China Gezhouba Water & Power (Group) Co. Ltd.	China
3	China No. 17 Metallurgical Construction Co. Ltd	China
4	China Rail way 7th Group	China
5	China Road & Bridge Corporation	China
6	China Sichuan International Corporation Co. Ltd	China
7	Consolidated Contractors International Company S.A.L.	Lebanon
8	Keangnam Enterprise Ltd.	S. Korea
9	MAM for Roads and Bridges	Sudan
10	Sinohydro Corporation	China
11	Soma Enterprises Ltd.	India

1.1.55 ERA invited all the eleven (11) pre-qualified applicants to collect the bidding documents on 11 March 2008 to be submitted before the deadline for bid submission, 06 May 2008 (later postponed to 15 May 2008), and all invited applicants collected the bidding documents accordingly. Pre-bid meeting was held on 07 April 2008 as scheduled in the Bidding Document and Addendum No 1 was issued on 15 April 2008; Addendum No 2 issued on 28 April 2008; and the last Addendum No 3 was issued on 03 May 2008.

1.1.56 Among the eleven (11) firms, who collected the bidding documents, two firms (China Sichuan International Corporation Co. Ltd and Consolidated Contractors International Company S.A.L.) submitted their letter of withdrawal not to participate in the bid.

Five of the pre-qualified firms that are listed in table 3.8 below had submitted their bids before the deadline.

Table 3.8 – List of contractors who submitted their bids and the financial offers

Item No	Name of Contractor	Financial Offer (ETB)	Percentage of the offer to the Engineering Cost Estimate	Remarks
1	Soma Enterprises Ltd.	1,241,063,249.00	234%	Engineering cost estimate prepared by the design consultant was ETB 497,361,173.15. ERA has then adjusted the engineering cost estimate to ETB 529,889,304.44.
2	China Gezhouba Water & Power (Group) Co. Ltd.	741,689,187.00 with 39,318,684.00 discount	133%	
3	Keangnam Enterprise Ltd.	712,464,542.55	135%	
4	Ahmet Aydeniz – KMC JV	617,731,977.13	117%	

1.1.57 During the preliminary examination of these five bids, Soma Enterprises Limited (whose financial offer is 234% of the adjusted engineering estimate) does not submit current work commitment, litigation information, required currency proportion and exchange rate, weighting for price adjustment, base price and source of indices, and appendix to bid.

TAC has rejected this bid for the bidder didn't understand the financial bidding requirements and its financial offer is unreliable.

All the other four (4) contractors had satisfied the preliminary examination requirements except Ahmet Aydeniz – KMC JV, who did not submit its JV financial data, and TAC remarked the contract award committee to request the firm to submit the same before the finalisation of the financial bid evaluation.

1.1.58 The engineering cost estimate prepared by the design consultant [BKS in association with Beza Consulting Engineers] was ETB 497,361,173.15 and submitted as draft final engineering cost estimate in March 2007. During the tendering stage, ERA has checked for any arithmetic error and appropriate corrections were made with the following considerations, i.e. the bill items in the draft final engineering cost estimate has been reviewed whether it is consistent with the final bill of quantity of the tender document:

1. Quantities on nineteen items of work has been adjusted; major discrepancy was observed on the quantity of asphalt concrete which was indicated to be 942,540 m^2 in the engineering cost estimate and this quantity was reduced to be 516,375 m^2.
2. Fifteen items of work has been added to the engineering cost estimate as it doesn't consider the same. ERA has taken the average of the four unit rates submitted by the bidders for comparison of the engineering cost estimate to that of the offers made by the bidders.
3. One item of work was omitted from the engineering cost estimate.
4. Some computational errors on the engineering cost estimate with regard to Value Added Tax (VAT) and day work items were also adjusted in a similar manner.

Following all such adjustments and corrections, the engineering cost estimate used for comparison became ETB 529,889,304.44. The following table, Table 3.9, below shows the details of the corrections made on the engineering cost estimate.

Table 3.9 – Correction made by ERA on the engineering cost estimate

Bills of Quantity	Original Amount (ETB)	Corrected Amount (ETB)	Difference (ETB)	%age diff
Bill 1000 - General	25,116,520.01	34,586,613.66	9,470,093.65	130%
Bill 2000 – Site Clearance	2,805,619.49	3,255,774.91	450,155.42	116%
Bill 3000 - Drainage	111,182,956.09	134,451,430.96	23,268,474.87	121%
Bill 4000 – Earth Works	105,835,437.99	99,864,600.67	-5,970,837.32	-94%
Bill 5000 – Sub base, road base, gravel wearing course	88,564,738.04	101,851,381.85	13,286,643.81	115%
Bill 6000 – Bituminous Surfacing	104,455,760.40	73,262,048.07	-31,193,712.33	-70%
Bill 9000 - Ancillaries	10,102,411.12	28,470,171.99	18,367,760.87	282%
Bill D - Day works	4,176,714.27	6,665,580.12	2,488,865.85	160%
Bills Total	**452,240,157.41**	**482,407,602.23**	**30,167,44.82**	**107%**
10% contingency	45,121,015.74	47,481,702.21	2,360,686.47	105%
Total	**497,361,173.15**	**529,889,304.44**	**32,528,131.29**	**107%**

1.1.59 The least evaluated bidder's offer is ETB 617,731,977.20 offered by Messer's ***Ahmet Aydeniz-KMC JV***. This offer is found to be 17% higher than the adjusted engineer's cost estimate, ETB 617,731,977.13.

1.1.60 The Assurance Team has assessed the completeness of the disclosure on this subject based on the information prepared by the procuring entity, revised financial evaluation reports. The disclosure on this subject is seen as incomplete for the technical evaluation report was not provided by the procuring entity and for lacking clarifications on the correct number and names of the applicants who collected the prequalification document.

3.6 Project Implementation – Works Contract

1.1.61 On 24 December 2008, ERA awarded the contract for the construction works of the 109 km long Irba Moda-Wadera road upgrading project to the firm of Messrs Ahmet Aydeniz – KMC JV.

The project commenced on 09 January 2009 and the construction period is 36 months (1095 calendar days) including a mobilization period of three months. The completion date was therefore 31 March 2012.

1.1.62 Based on the approved works programme and considering the completion period, 41.64% (456 calendar days) of the contract time has elapsed to June, 2010.

Up to June, 2010, the contractor accomplished project works amounting to about ETB 46,947,630.26 (7.60%) mainly on general item, site clearance, and earth works where the plan was to reach about ETB 108,226,642.40 (17.52%). The Engineer's progress report doesn't indicate the contractor's accomplishment separately with respect to the permanent and general works.

Based on the contractor's programme, there is ***a delay of 9.92% on the total work and*** the overall per cent accomplishment up to June, 2010 is 43.38% of the programme. Based on the Annual Progress Report No 1 (June 2010), there is a critical time slippage of 34.05%.

1.1.63 During the course of the project, five variation orders were issued to the contractor which are described below:

1. Variation Order No 1: realignment for horizontal and vertical existing road alignment to improve a sharp curve and steep gradient so as a Trailer Truck can manoeuvre easily. The proposed realignment covers 1120 meters and incurred additional cost of ETB 173,233.26 to the employer based on the contract unit rates.
2. Variation Order No 2: replacement of existing 15 Nos corroded, damaged, silted, and blocked steel pipe and arch culvert with new concrete pipe culverts in different locations & including one additional new pipe culvert as relief culvert due to ponding at both sides of the road. This variation incurred additional cost of ETB 1,890,391.68 to the employer.
3. Variation Order No 3: realignment of Inferara mountain for a steep gradient and sharp hair pin bends to minimize traffic accident and to give more access to manoeuvre all types of heavy trucks and long trailers passing through the road particularly during rainy seasons. This realignment covers 4200 meters and variation incurred additional cost of ETB 6,183,363.26 to the employer based on the contract unit rates.
4. Variation Order No 4: contractor's change proposal for capping layer bay natural sub-base material to use 264mm natural sub-base material instead of 200mm sub-base and 64mm capping material for 3800 meters road length coverage. The variation was approved by the employer and issued to the contractor for easy compaction of the layer thickness with no cost implication.
5. Variation Order No 5: proposed realignment of the road centreline to the left side of the original centreline due to a steep and deep side slope at the right side of the road that requires retaining wall. The variation was issued to avert construction of retaining wall that is not included in the contract drawings without cost implication.

These variations were issued without stating the time implications explicitly where the contractor submitted a claim for extension of time for increase in volume of work in relation to variation order no 2.

There are no approved claims by the Engineer to date. However, the contractor submitted thirteen claims and notices to claims to the Engineer whose total cost claimed and number of days of extension of time requested was not summarised in the Annual Progress Report No.1 referred by the Assurance Team.

1.1.64 The contractor has been paid a total of ETB 1,429,247.47 for price adjustment in accordance with clause 13.8 of the conditions of contract up to June, 2010; contractor's interim payment certificate No.06. Also, the contractor has been paid a total of ETB 162,261,322.70 including the advance payment of ETB 123,546,395.44.

1.1.65 The proposed road project would have both positive and negative impacts in terms of social and environmental issues. The positive impacts of the project include; creation of job opportunity to the local people including employment for women; creation of easy access to educational and health facilities and market access; lowering the cost of motorized transport that enables a more steady supply of goods/services in to the area and facilitating the movement of agricultural products to market; reducing vehicle maintenance/operational costs; reducing travel time there by increasing the economy

of the people contributing its share to the overall economic improvement of the country; and reduction of mud and dust emission associated with health impacts.

However, unless appropriate mitigation measures are taken, the road construction project would cause negative impacts on physical, social, and biological environment. The major identified and expected impacts that require mitigation measures include;

- Impact on settlement – several houses, fences, and agricultural lands would be affected in the process of road widening.
- Impact in water resources – changing flow regime, blocking of natural flow, by passing the runoff from the micro water shades etc. would occur during road and culvert construction. Also there will be water quality pollution problems mainly associated with oil and fuel spills, machinery wash and damping of wastes from camp sites. The other related impact is exploitation of community water for road construction purpose that may create shortage of water for the local community.
- Impact on social infrastructure – the road construction may impose on the existing road side infrastructures such as power lines, telephone lines, water points, hand dug wells and water distribution lines. Therefore, some minor woks such as shifting of telephone, water, and power lines have to be done in some places, especially in township areas.
- Impact on human health – specific health impacts on the residents living close to the road construction include dust born, water related, and communicable diseases. Dust and smoke emerging from the road construction process may cause Pneumonia, tuberculosis, cough, and irritation of throat & eye. Sexually transmitted disease (STD) including HIV/AIDS can be increased as the work force come from other areas for job. Different accidents due to explosives and other construction activities may also occur during the construction process. Lack of adequate sanitation facilities in construction camps can also expose the work force for various diseases

According to the Annual progress Report No 1, a relatively good effort has been observed with regard to the environmental management of the construction process. The contractor had prepared environmental management action plan for the purpose of periodically monitoring, sampling, and analysing the environmental impacts resulting from the construction operations. The consultant has also mobilized an environmentalist for pre-studying environmental impacts to incorporate it in the design review and utilization of the same while construction of the permanent activities are undergoing.

Some of the undertakings in this regard include:

- Indigenous trees within the borrow material sources, quarry area, camp site, etc have been retained in as far as the situation allows
- Forest trees within the road limit are retained in as far as the situation allows
- Top soils for disposals have been stockpiled as they are the main sources of unfavourable effect and pollution to the surrounding environment
- Project teams are advised to take relevant precautions and procedures to decrease adverse effects and pollutions to the surrounding environment during the construction period

However, the social aspects of the contract are not yet in effect in the project. The works contract allocates a budget of ETB 1,134,000.00 for STD and HIV/AIDS alleviation measures including the contractor's charges and profit ***(62% of the service cost, ETB 434,000.00)*** associated with the administration of the activity, both

for completion period and Defects Notification Period. An organization that have experience in the sector need to be subcontracted in the alleviation scheme to give the services of creating awareness, distributing condoms, supporting people living with the virus, and others. While 40% of the completion period has elapsed, there was no organization neither subcontracted by the contractor nor nominated by the employer.

1.1.66 The performance security & advance payment guarantee submitted by the contractor are valid as per the contract requirement.

1.1.67 From the Annual Progress Report No 1, the Assurance Team has observed that the contractor has delayed the commencement of the works by three and half months form the date it was required to commence. In addition to this, the contractor was not maintaining the staff requirement and high personnel turnover has been observed. Two project managers of expatriate staff have departed from the project and a third one is managing the project currently. The acting project manager, construction manager, deputy technical office manager, and other fifteen expatriate staff personnel have departed from the project. Similarly, local construction manager, material engineer, senior quantity surveyor, senior surveyor, and junior surveyor have departed from the project.

The Assurance Team is looking for the reason and impact of the personnel turnover from the Engineer and the contractor.

1.1.68 The Assurance Team is waiting for other information on the above queries from the Engineer and the contractor for the verification of accuracy and completeness.

3.7 Project Implementation – Consulting Service Contract

1.1.69 The construction supervision consultancy service has commenced on 25 December 2009 following the agreement between ERA and the consultant J BURROW South Africa (pty) Limited on 25 November 2008 with a contract price of ETB 9,843,800.00 and USD 432,600.00. The period of service is 36 months construction period and 12 months of Defects Liability Period.

1.1.70 There is no variation order to date and the consultant has not been provided with advance payment. The total invoice made to date is ETB 2,273,018.80 and USD 161,150.06.

1.1.71 The Assurance Team has verified from other sources of the consultant that the disclosure on this subject is complete and accurate.

4. Data Analysis

4.1 Tendering Procedure

1.1.72 The tendering procedure adopted for procuring the services and works contract follows the World Bank procedures. The approach in the tendering of design review service, construction supervision service, and the works contract generally fulfils the requirements of the Bank's standard procurement procedures, both for the technical and financial bids.

1.1.73 As for all evaluation processes of the services and works contract require the Bank's approval stage by stage for its "No Objection" and comments, ERA maintained the standard of its procuring system and evaluation practice to fit the demands of the financers and international practices.

1.1.74 In general, the procurement of the above services and works contract are found to be acceptable within the framework of the international competitive bidding procedures.

4.2 Feasibility Study, Engineering Estimate, and Budget

1.1.75 The review of the feasibility study provided two economically feasible options for the proposed improvement/upgrading project investment, the first alternative being a gravel road with regravelling and grading of the existing road. The second alternative, improved alternative, is a paved road of double bituminous surfacing in some parts of the road and asphalt concrete for the mountainous sections of the road.

The latter alternative had been selected for the improvement of the road by the design review consultant. However, it would not practically be feasible to apply this alternative [AC for mountainous sections and DBST for others] section by section for the whole of 268 km road length. For this reason ERA has decided to construct the road using asphalt concrete for the whole of the road length, where Irba Moda – Wadera is part of the road named as contract 2 covering 109km road length. 48% and 26% of this road are classified as rolling and mountainous to escarpment respectively.

1.1.76 Even though the construction cost assumed in the 2006 – Review Study was increased by 80% from the 2003 – Feasibility Study in the pessimistic scenario, the road could not be economically feasible with the economic internal rate of return 9.4% which is less than the discount rate applied for the economic analysis, 12%.

1.1.77 The estimated construction cost used for the economic analysis in the pessimistic scenario was ETB 460,736,668.00 (ETB 4.22 Million/km) while the engineering cost estimate prepared by the same design review consultant was ETB 497, 361,173.15 (ETB 4.56 Million/km). However, ERA has adjusted this engineering cost estimate to ETB 529,889,304.44 (ETB 4.85 Million/km). These cost estimates indicate at the time of the review of the feasibility study that the road is to be constructed in the pessimistic scenario.

1.1.78 Two years later while the project was awarded to the contractor, the project construction cost become ETB 617,731,977.13 and adding the additional costs due to price adjustment (ETB 1,429,247.47) made to date and variation order (ETB 8,246,988.2) issued to date with the total amount of ETB 627,408,212.80 [ETB 5.75 million per km] excluding provisional sums and contingency. This amount is 1.36 times the construction cost estimated during the review of the feasibility study in 2006 where the same has been used for economic viability of the road.

The Assurance Team observes that the project is to be constructed in the pessimistic scenario, as the engineering cost estimate prepared by the design review consultant

simultaneously with the economic analysis was above the pessimistic estimated construction cost. However, as the whole 268kms road project was not found economically viable in the pessimistic scenario, the design review consultant and the procuring entity didn't revise nor take appropriate measure on the feasibility study.

The assurance Team believes that the design review consultant was required to revise the feasibility study incorporating any missed items or exhausting for other alternative economical route selection in order to ensure the economic viability of the road.

1.1.79 The engineering cost estimate and tender document prepared by the design review consultant appears to be negligently prepared. As it is a review of the detailed engineering design of the 2003 study, done only three years later in 2006, the design and the tender document including the "draft" engineering cost estimate was expected to be refined enough for the procumbent of the works.

However, the engineering design and the tender document did not match as observed during the tendering time by the procuring entity and the quantities of some work items were not calculated correctly.

As shown in item 3.5.7 and Table 3.9 of this report, quantities on nineteen items were adjusted by the procuring entity and fifteen new items were added in the tender document. Moreover, one item was omitted and some more computational errors were adjusted by ERA. *There was ETB 104,496,544.10 aggregate plus minus cost difference in the engineering cost estimate* on items Bill 1000 – General, Bill 2000 – Site Clearance, Bill 3000 – Drainage, Bill 4000 – Earth Works, Bill 5000 – Sub base and Road Base gravel wearing course, Bill 6000 – Bituminous Surfacing, Bill 9000 – Ancillaries, and Bill D – Day Works.

1.1.80 Clause 2.6 of the contract agreement between the design review consultant and the procuring entity requires the consultant ***to revise and produce confidential cost estimate and submit it separately***. The consultant is also required to estimate realistic bill rates based on recent similar construction works in Ethiopia taking into account the location and the size of the project as well as the prevailing construction market situation.

Furthermore, clause 2.7 of this agreement requires the consultant to make all necessary amendments to the tender documents and the engineer's estimate for any changes needed to be made following ERA and IDA agreement. Clauses 2.8 and 2.9 also state the consultant to submit daft final reports for approval by ERA and IDA prior to producing the final documents and arrange presentation to ERA on each draft report.

1.1.81 The procuring entity was expected to see such major discrepancies on the submission of the reports rather than adjusting the tender document and engineering cost estimates during tender evaluation periods and the engineering cost estimate during implementation phases. Also the procuring entity was required to request the design review consultant to revise and correct the confidential engineering cost estimate rather than adjusting by the TAC members.

1.1.82 The Revised Bid Evaluation Report (October 2008) indicates that the "draft" engineering cost estimate was submitted by the design review consultant in March, 2007. The contract agreement between ERA and the design Review consultant was signed 09 December 2005 and the design submission period is twelve months that includes the one month mobilization period.

1.1.83 There was a total of ETB 307.34 million short fall of budget for the four contracts, Aposto Wendo Negele Contract 1, Aposto Wendo Negele Contract 2 (Irba Moda-Wadera), Aposto Wendo Negele Contract 3, and Gondar-Debark road upgrading projects which were floated concurrently.

1.1.84 Major roads to be constructed in any country have mainly economic functions and investment on such roads require huge sum of capital. In countries like Ethiopia, where there is severe shortage of budget to implement all required roads, it is fully or partly financed by donors in the form of credit, loan, and grants. Therefore, the responsible body for implementing the programme need to be committed and assure that there would be adequate return from the investment on such major roads in terms of benefit to the country which in turn requires adopting proper planning procedures during rehabilitation, upgrading, and construction of roads in the country.

When looking the above costs of the construction with respect to the feasibility study, it requires the implementing body to devise mechanisms in that these roads would really be economically viable; in order the public gets what is paid on the investment.

4.3 Tender Process for Design Review Consultancy Service

1.1.85 The procuring entity (PE) does not disclose the short listing procedure on how the consultants, who submitted their expression of interest (EOI) & other necessary documents, had been selected. The number of firms who submitted their EOI and the bases for the short listing need to be disclosed in order to assess whether the procurement was carried out in accordance with the procedure and in a transparent way.

1.1.86 The general procedure of evaluating the technical and financial proposals can be said acceptable and interested bidders attended the bid opening procedure. However, considering the number of firms that were short listed (six in number) and those submitted their proposals (five in number), the procuring entity need to reconsider shortlisting procedure and the technical requirements with the aim of increasing competitive environment.

1.1.87 The technical evaluation of the proposals received a number of comments from the World Bank Group and subsequently TAC has adjusted the same as per the given comments. One of the firms (TechniPlan Spa) was over scored by 7.5 points while the other three firms had been over scored by 0.9%, i.e. only one firm (Consult 4 International in ass with HEC) had been has been evaluated correctly. The procuring entity's Tender Analysis Committee (TAC) need to evaluate the technical scores of the competing firms and the Contract Award Committee is required to assess the evaluation made by the TAC members in detail as technical score points have financial implications to the employer and to the public fund in general.

1.1.88 The Assurance Team observes the following from the financial evaluation of the proposals:

- The remuneration for TechniPlan Spa for highway engineer was USD 1 in phase I, where TAC adjusted the same as USD 11,000 taking it as typographical error (impractical) as the firm quoted USD 11,000 for the same personnel in phase II. This correction brought additional rate of USD 10,999 (ETB 96,243.45).
- The winning firm (design review consultant) assumed two bridges for review and quoted accordingly for two bridges while the ERA's document indicate only one bridge. TAC recommended the Contract Award Committee to discuss on this issue as the cost of review of the bridge(s) was not separately indicated in the financial proposal and to deduct the cost of one extra bridge.

  In the Pre-contract award discussion, the design review consultant was requested to clarify and the consultant replied that two bridges were identified during site inspections (at stations 9+900, Kola River, and 16+400) and the cost was prepared accordingly where ERA accepted the consultant's explanation.

However, in the implementation of the project there is no bridge to be rehabilitated nor to be constructed while only 135 culverts are included in the design.

1.1.89 ERA has paid ETB 2,216,500.00 and USD 285,500 for the design review consultant for review of the feasibility & EIA studies, for review of detailed engineering designs, for preparation of tender documents, to make all amendments, and to carry out all additional studies necessary to assume full responsibility for the soundness and ***sufficiency of the detailed engineering designs and tender documents.***

1.1.90 Even if it is a common practice in construction projects to modify and improve the designs issued to the contractor, studies & designs need to address the employer's major requirements and comply with current standards. The design approving body also needs to thoroughly check the compliance of the designs & design reviews with the standards and requirements set in the TOR.

1.1.91 According to the Annual Progress Report No 1 and Variation Orders, the supervision consultant is revising the alignments of the road section at different locations and to date two variations has been made to improve "dangerous" sharp/hair pin curves and steep gradient that have additional cost of ETB 6,356,596.52. The total length of the realignment was 5320 meters.

The Assurance Team is looking for the confirmation of the "dangerous" road alignment from the supervision consultant if it was not designed as per the requirements of a DS4 road standard.

1.1.92 From the same report, AT observes that the design review consultant has not given sufficient information on representing locations of material sources such as possible sources of construction materials, quarry sources for stone, sub base material, natural sand, and borrow materials.

1.1.93 Fifteen corroded, damaged, and silted/blocked steel pipe & steel arch culverts have been replaced and one additional relief culver due to ponding at both sides of the road through Variation Order No 2, with a total cost of ETB 1,890,391.68. The Assurance Team believes that the design review consultant could consider these replacements in as far as the review was made very recently.

4.4 Tender Process for Supervision Consultancy Service

1.1.94 The procuring entity (PE) does not disclose the short listing procedure on how the consultants, who submitted their expression of interest (EOI) & other necessary documents, had been selected. The number of firms who submitted their EOI and the bases for the short listing need to be disclosed in order to assess whether the shortlisting was carried out in accordance with the procedure and in a transparent way.

1.1.95 The earliest date that notice for EOI was posted was 29 May 2007 and the deadline for the submission of the same was 12 June 2007. The procuring entity could increase the possibility of getting more consultants for the service if the duration for the submission of expression of interest is made 21 calendar days as per the guideline of the World Bank documents as 14 calendar days may not be sufficient enough to attract new consultants.

1.1.96 In the comment part of the TOR, the winning supervision consultant noted that the firm would provide survey equipment and all site (temporary) facilities during the mobilization and detects liability period. TAC advised the Contract Award Committee (CAC) to address this issue in the pre-contract negotiation that such facilities would be included or provided in the works contract and the amount fixed for these temporary site facilities would be deducted from the financial proposal of the firm during the financial evaluation of the proposals.

However, neither TAC had deducted the amount from the financial proposal of the firm during its financial evaluation not CAC addressed this issue during pre-contract negotiation. In the financial evaluation report, TAC noted that there was no arithmetic error and the contract was awarded with the read out financial offer without deducting the costs for the provision of survey equipment and all site (temporary) facilities.

1.1.97 Similar to the design review consultant technical evaluation, the World Bank Group requested ERA to revise the technical evaluation of three personnel proposed by WSP/AEC who were under rated by TAC. A total of 4.5 technical score points was added following the comments given by the World Bank Group which cloud be substantial enough to affect the total score of such service contracts. The procuring entity's Tender Analysis Committee (TAC) need to evaluate the technical scores of the competing firms and the Contract Award Committee is required to assess the evaluation made by the TAC members in detail as technical score points have financial implications to the employer and to the public fund in general.

4.5 Tender Process for Works Contract

1.1.98 As described in 3.5.1 of this report, there was a discrepancy on the number of applicants who collected the prequalification documents in the revised financial bid evaluation report. Similar discrepancies have also been observed with the listing of the firms in this document and the evaluation process sorted out only eleven (11) applicants.

The same report indicates that nineteen (19) applicants were received before the deadline for the submission of the applications and sixteen (16) of them were listed in a table. The remaining three applicants were not listed nor prequalified for the project.

1.1.99 The time allowed for preparation and submission of the prequalification document is found sufficient to gather all the information required, more than the minimum six weeks requirement of the World Bank.

1.1.100 As the technical evaluation report was not provided by the procuring entity, no further verification and analysis was possible by the Assurance Team.

1.1.101 While discussing about accommodation of traffic in the methodology part of the bid document, the winning contractor stated that "there is public and commercial traffic between Assosa and Kumruk" where these areas are found in the western part of Ethiopia (Benishangul – Gumuz region). The contractor had been requested to clarify the same and corrected as "… between Irba Moda and Wadera."

As the contractor didn't undertake a project in that area, the methodology has been copied and pasted from other projects and in such conditions the procuring entity is required to ensure the appreciation and completeness of the methodology by the contractor rather than simply changing the names of the places as clarification.

4.6 Project Implementation – Works Contract

1.1.102 As described in 3.6.2 of this report, the project is under delay by 9.92% on the total work programme until June 2010 and there was a critical time slippage of 34.05%. *According to the Resident Engineer's note e-mailed to the Assurance Team, the actual progress achieved up to October 2010 is 9.62% where 52.88% of the contract completion time has elapsed. No extension of time has been approved to date*.

The contractor's progress accomplishment for the last eleven (11) doesn't meet the approved work programmes and for this reason the Engineer requested the contractor to submit a revised work programme reflecting the current situations which

was not yet submitted by the contractor. Those parties to the contract and the Engineer need to exhaust all possible mechanisms in order to catch the project progress of the works to the programme.

The Assurance Team observes that less than 10% of the project (around 7% accomplishment on permanent works) has been executed up to October 2010 while more than 50% of the project completion period has elapsed. This requires the Engineer and the employer to take proper contractual measures in order to ensure timely completion of the project.

The approved working programme was back loaded in that 17.52% of the total work would be executed in 41.64% of the contract completion period up to June 2010. Similarly, up to October 2010, the contractor planned to execute 32.77% of the total work in 52.88% of the contract completion period. The contractor could not achieve its back loaded work programme and the Engineer is required to see the planned detail links and accomplishment programme for each activity when approving a revised work programme to be submitted by the contractor as per the instruction of the Engineer.

While the contractor is required to increase the progress of the works as per the contract requirement, the Engineer noted AT that the contractor promised to recover the delay by subcontracting part of the road section and drainage structures, increasing machinery and manpower resources, through working in shifting, and maintaining good project management.

1.1.103 Initially, the contractor has delayed the commencement of the works by three and half months from the date it was required to commence. In a discussion with the Resident Engineer of the project, it was observed that “slow process under customs authority of Ethiopia” for the imported machineries, “slow registration” of equipment, and other problems were reported to be some of the reasons for delay of the commencement of the project where the contractor is handling the problems currently. These problems, however, could be handled in time had the contractor planned and acted ahead of the commencement of the works, i.e. during the three months mobilization period which is reasonable for other international contractors.

The contractor refused neither to supply information nor to clarify such situations on its part concerning the project stating its reason as “we are not contractually obliged to supply such information for other body” even if the employer, ERA, addressed a letter to allow the firm for the disclosure of the information.

1.1.104 The Engineer believed that the variations ordered to date have no time implications to the employer where the contractor submitted its claim for the extension of time in relation to variation order No 2 (additional works for extra culverts). In future, the Engineer is advised to issue variation orders and other instructions stating the time and cost implications explicitly in that the contractor could state its view on the implications whereby the Engineer and the employer could think over it before issuing and approving the variation orders. This would avoid future claims related to variation orders.

1.1.105 The Resident Engineer (RE) clarified the Assurance Team (AT) on the motivation of the variation orders related to realignment of the road to avoid dangerous sharp curves and to minimize accidents where a trailer truck could hardly manoeuvre upward for shorter radius curves. The motivation for the variation is clearly appreciable on part of the Engineer’s and the employers undertaking to reduce future accidents in using the facilities. The Resident Engineer emphasized the need to realign the road as it requires improvement in reality while the road is under construction where the design review consultant might not consider such particular actual situations.

1.1.106 The Assurance Team is looking for verification information from the Engineer whether variation order No 5 could have cost saving or not. A road section was realigned to avert construction of retaining wall that was not indicated in the contract drawing where the priced bills of quantity included the construction of retaining walls.

1.1.107 According to the Resident Engineer's notes to the Assurance Team, *the contractor submitted 103 notices to claim of which thirteen (13) claims have been submitted with particulars.* Some of them have been rejected by the Engineer and some of them are referred to the Dispute Review Board (DRB). AT is awaiting the summary of the claims to be sent from the project site to assess the probable additional cost and extension of time (EOT).

1.1.108 Similarly, the Engineer noted AT that there would be a probable cost increase of ETB 120 million as the actual work quantity is exceeding from the contract quantity especially on asphalt paving which the Engineer does not yet submitted revised contract price to the employer. The Assurance Team would like to draw the attention of the procuring entity that quantities has been adjusted by the procuring entity itself rather than requesting the design review consultant to revise the same as per their contract agreement.

1.1.109 High personnel turnover has been registered both expatriate and local staffs including main professional teams of the contractor in the Annual progress Report No 1 and the Resident Engineer noted that the contractor is replacing the professional staffs by local ones and he is of the opinion that the local professional staffs are handling the project with good project management.

1.1.110 The employer right of way (ROW) agent is required to work hard in avoiding obstructions such as electric poles, water pipe lines that are still persistent in affecting the continuity of the road construction and that may lead to possible extra cost claims by the contractor. The Engineer is also required to make the employer aware of the obstructions and possible claims time by time.

1.1.111 Social aspects of the contract seem to be overlooked by the Engineer and the parties to the contract while environmental aspect of the contract is give due consideration in the project.

The Engineer is required to instruct the contractor for the usage of the provisional sums in accordance with sub-clause 13.5 of the conditions of contract. For the specified provisional sum in the contract, the engineer may instruct the related work to be executed (including Plant, Materials, or ***services to be supplied)*** by the contractor and be valued in accordance with the variations procedure of the contract.

Even though the contract allocates sufficient budget for STD and HIV/AIDS alleviation measures, there is no undertaking of this service while more than 50% of the contract completion period has elapsed. From discussion with the Resident Engineer, the Assurance Team understands that the Engineer and the contractor are waiting for the nomination of a specialised service providing organisation by ERA who just started inviting organisations for bid lately.

However, the optional nomination of specialised organisation should not justify the delay of the service provision which could be undertaken by the contractor following the engineer's instruction for the same. The matter is still pending and requires early action by the Engineer and the parties to the contract.

1.1.112 The contractor is required to give due consideration for maintaining proper traffic sign boards in order to avoid or reduce possible traffic accidents and inconveniences and to stockpile disposal materials in the approved and designated location. The Assurance Team has observed that the contractor submitted a good environmental management plan which was approved by the Engineer. While this is the case, the contractor would be required to pay due attention for its environmental management

plan when executing all types of the work activities. Even though there is a huge quantity of unsuitable material to be disposed off from the road way area, the contractor needs to avoid environmental pollution by disposing to suitable areas without affecting the natural forestry in the area.

1.1.113 In order to achieve completion of the works within the contract completion period, the contractor is required to assign sufficient personnel and machineries than envisaged in the contract agreement (master work programme) and to divide the project teams and resources in to possibly three groups as the project has been subjected to long delays at the start of the project execution.

1.1.114 The contractor is expected to submit a revised work programme taking into account the delays described in 4.6.1 above as per the Engineer's request and in accordance with the contract provision of sub-clause 8.3 of the particular and general conditions of contract. The revision is required for the actual progress is becoming more inconsistent with the master work programme for the last eleven (11) months.

4.7 Project Implementation – Consulting Service Contract

1.1.115 The Assurance Team believes that the Engineer is more or less undertaking his contractual service with the required professional standards and contractual requirements, the comments given in 4.6 of this report being taken into account.

1.1.116 Special undertakings by the supervision consultant include exercising realignment of the road to make the transport facility free form possible accidents while manoeuvring in rainy seasons; producing contractual documents in time such as manual, reports, design reviews, etc; and locating possible material and quarry sites jointly with the contractor staffs.

1.1.117 The Assurance Team does not, however, observe any cost reduction initiative both from the Engineer and the Contractor; and price optimisation or value engineering was not proposed by the contractor too while executing the works contract. Moreover, the Engineer is required to address working drawings to the contractor timely in that the employer would not be subject to additional cost and EOT claims in relation to delays in instructions and drawings.

4.8 General Remarks

1.1.118 The Assurance Team believes that the except for the comments, discrepancies, and other outstanding matters discussed in the report, the disclosure of the required information is adequate and the public can generally get what is paid for. However, the points covered in the body of this report, if considered for futures projects, could increase the value of the investment.

5. Recommendations

5.1 Even though the procuring entity conducted a detailed feasibility study with review by a second consultant, it doesn't consider the study while procuring for works contract. The Engineering Cost Estimate that is extracted from the Evaluation Reports supplied by ERA doesn't reflect the construction costs adopted for the economic analysis of the investment.

The procuring entity is recommended to get a well-studied feasibility analysis that incorporates all possible scenarios and improvement options in assuring the economic viability of the project. From the start of the review of the feasibility study, the project could be found within the pessimistic scenario of the economic analysis where the procuring entity and the design review consultant was required to assess its feasibility for go ahead.

In relation to this, the procuring entity is recommended to check the correctness and completeness of the feasibility study (including economic viability analysis) and the engineering cost estimate during its submission rather than exercising some adjustments and corrections on the tender document and engineering cost estimate during the tender stage for works contract. Moreover, the procuring entity is advised to request the design review consultant to revise the tender document (bills of quantity) and engineering cost estimate correctly indicating the observed drawbacks rather than adjusting by itself.

5.2 The procuring entity is also recommended to thoroughly check the compliance of design submissions with the design standards and requirements up the submission of the complete design. This will help in reducing variation works that are required for completeness of the project facility during the construction phase of the project.

5.3 Major discrepancies in the engineering cost estimate and tender document has been observed for this project where the quantities in the tender document and engineering cost estimate, thirty five (35) items has been adjusted, added, or omitted and some more computational errors has been adjusted. There was a total plus/minus cost adjustment of more than ETB 104 million as adjusted by the procuring entity from the original engineering cost estimate submitted by the design review consultant. However, as discussed in item 4.6.7 of this report, the Engineer noted the Assurance Team that there would be additional cost of ETB 120 million as the actual quantities of work is getting increasing from the contract quantity which indicates that the adjustment by the procuring entity might not secure the correctness of the tender/contract quantity.

5.4 The tendering process for design review consultant is fairly reasonable. Of course ERA didn't disclose the procedure applied for shortlisting of those firms who submitted their EOI. However, the procuring entity is required to evaluate technical proposals avoiding disparities and inconsistencies where the CAC members of the procuring entity need to see the evaluation of the TAC members before recommending for the opening of the financial proposals or for award of the contract.

A technical score of 7.5 points was added to one of the design review consultants and 4.5 points was deducted from one of the supervision consultants during evaluation process where it was corrected following the World Bank group comments.

5.5 Similar to the above, the procuring entity doesn't disclose the shortlisting process and the number of firms that submitted their EOI for supervision service contract. Six (6) firms had been shortlisted and five (5) of them submitted their technical and financial proposals and competed for financial and total score ranks. In this project a relatively good completion has been observed as five of these firms were technically responsive and their financial offers has been opened.

Hence, the procuring entity is recommended to consider the probable submission of the proposals from the six short listed firms and their technical capacity to ensure financial competence during its shortlisting process as this avoid the limitation of the competing firms in the financial opening.

5.6 The supervision consultant is exercising realignment of the road in avoiding "dangerous" hair pin curves and steep gradients for the sections of the road where the procuring entity has approved the same. This undertaking of the engineer need be appreciated where both the procuring entity and the Engineer need to consider such variations as to the cost and time implications before issuing the variation, i.e. the consent or agreement as to the implication need better be agreed between the contracting parties while proposing the variations.

Moreover, the Engineer is advised to state explicitly the cost and time implications of a variation whereby the contractor would be required to react timely for the implications rather than submitting the claim latter when the variation was already issued.

5.7 The employer is recommended to devise mechanisms that would reduce variation orders in as far as possible as *some of the exercises* in "design improvement" would be subjected to public fund wastages. The employer has paid for the first design consultant together with associated or related studies and the reviewed by a second design review consultant. As the duration between the design review and the works implementation is relatively short, all the design modifications and variations by the supervision consultant might not justify good design submission by the first design consultant and the second design review consultant. Moreover, the procuring entity is paying three times for "design improvement" which calls for mechanisms to reduce the same.

5.8 Both the procuring entity and the Engineer are required to avoid all possible circumstances that may lead to claim and proper handling of the already submitted claims and notices to claims (103 in number) is mandatory to avoid future disputes. The project has only been executed less than 10% of the project (less than 7% with respect to the permanent works) where the contractor files 103 claims all of which are not yet attended by the Engineer or the procuring entity.

5.9 The contractor is required to increase the progress of the works as per the contract requirement and to recover the delay by subcontracting part of the road section and drainage structures, increasing machinery and manpower resources, through working in shifting, and maintaining good project management, as proposed by the contractor itself.

Also, the procuring entity and the Engineer are required to take proper contractual measures and to give due attention in enhancing the progress of the work as major delay was observed in the project and timely completion of the project might not be assured unless special effort is made by all project participants. In addition, it is better to exhaust all efforts required to ensure timely delivery of the project as per the contract requirement at early time the problems would be settled rather than waiting for such long time where the increase in the progress of the work may not secure completion by the project completion time.

5.10 The procuring entity's Contract Award Committee is required to consider all comments made by the Tender Analysis Committee address the same during the pre-contract award negotiation, i.e. before award of the contract. Cost deductions required for provision of survey equipment and site temporary facilities from the financial offer of the supervision consultant was not made despite the TAC comments for the same.

5.11 The contracting parties and the Engineer are required to subcontract the HIV/AIDS prevention service timely in as far as the contract allocates sufficient budget for the service. The procuring entity is also required for the timely nomination of the HIV/AIDS service providing organisation as it was reported by the project participants that it has assumed to nominate the subcontractor. Alternatively, the Engineer may instruct the contractor to subcontract service as per the contract provision for provisional sum. Similarly, the contractor is required to satisfy the requirement of the contract with respect to all social and environmental aspects of the contract.

5.12 Even if the project's accomplishment at the time of this study is minimal, the contractor is expected to enhance the progress of the execution of the works in order to achieve the planned works programme. The contractor need also assign a material engineer that may add its part to the quality of the works and facilitate the progress of the works. The Engineer is also required to take proper contractual measures for such assignments of required professionals and for the social and environmental aspects of the contract.

5.13 In general, the reviewed documents require the procuring entity, the contractor, and the Engineer to exhaust all efforts necessary to complete the project in time with mutual helping of the project participants.

Annexes

1. **Glossary**
2. **Material Project Information [MPI]**
3. **Summary of Causes for Concern**
4. **Summary of Variation Orders**
5. **Summary of Claims**
6. **Schedule of Documents Disclosed**

Annex 1: Glossary

Accountability: CoST's aim is to enhance the accountability of procuring bodies and construction companies for the cost and quality of public-sector construction projects. The core accountability concept is to 'get what you pay for'. The 'you' in this context applies equally to national governments, affected stakeholders and to the wider public.

Budget: an amount of money allocated to a project or scheme

Compensation event/Claim: An event at the risk of the Employer, which may change the programme or price for the project if it occurs.

Competitive Tendering: Awarding contracts by the process of seeking competing bids from more than one contractor.

Construction Sector Transparency (CoST) Initiative: An international multi-stakeholder initiative designed to increase transparency and accountability in the construction sector.

Consultant: An organisation or individual who has made a contract to provide services.

Contract: A binding agreement made between two or more parties, which is intended to be legally enforceable.

Contract Documents: Documents incorporated in the enforceable agreement between the Procuring Entity and the contractor, including contract conditions, specification, pricing document, form of tender and the successful tenderers' responses (including method statements), and other relevant documents expressed to be contract documents (such as correspondence, etc.)

Contractor: An organisation or individual who has made a contract to undertake works, supply goods or provide services.

Contract period: An arrangement for the supply of works, goods or services established for a fixed period of time.

Engineering Cost Estimate: A cost estimate prepared by the buyer of works, goods or services which provides a benchmark or a basis for evaluation and/or negotiation when tenders/offers are received from tenderers. It also serves as an instrument of project planning and budgeting.

Employer: In the context of the CoST initiative, the Procuring Entity awarding construction and consultancy contracts for the project.

Feasibility study: An evaluation of a proposed project to determine the difficulty and likely success and benefits of implementing the project.

Material Project Information (MPI): MPI in this context is intended to indicate that information disclosed on a project is sufficient to enable stakeholders to make informed judgements about the cost and quality of the infrastructure concerned.

Offer: An offer can be the positive answer issued by a tenderer in response to a tender invitation, or an announcement to deliver goods, carry out works and/or services to every or a specific buyer without a specific request or invitation to tender. Also refers to an expression of readiness by a tenderer to enter into a contract.

Procurement: The process of acquiring goods, works and services, covering acquisition from third parties and from in-house providers. The process spans the whole life cycle from identification of needs, through to the end of a services contract or the end of the useful life of an asset.

Procuring Entities (PEs – also referred as clients/employer and contracting authorities): The State, regional or local authorities, bodies governed by public law or associations formed by one or several of such authorities that procure works, goods and services with full or part public funding.

Programme: The projected timing of activities required under the contract.

Supervision contract: A contract with a consultant to oversee the performance of the contractor on the construction work, to give a level of reassurance to the Employer about the quality of the work.

Tender: An official written offer to an invitation that contains a cost proposal to perform the works, services or supplies required, and is provided in response to a tendering exercise. This normally involves the submission of the offer in a sealed envelope to a specified address by a specified time and date

Tender Documents: Documents provided to prospective tenderers when they are invited to tender and that form the basis on which tenders are submitted, including instructions to tenderers, contract conditions, specification, pricing document, form of tender and tenderers responses

Tender Evaluation: Detailed assessment and comparison of contractor, supplier or service provider offers, against lowest cost or most economically advantageous (cost and quality based) criteria.

Transparency: In the context of the CoST initiative transparency relates to the disclosure of material project information on construction projects.

Value for Money: The optimum combination of whole-life cost and quality to meet the PEs and user's requirement.

Annex 2 – Material Project Information [MPI]

Project identification	Project Specification	Construction of 109 Km long Irba Moda-Wadera Road Upgrading project to DS4 standard Asphalt Concrete Road
	Project purpose	To improve the efficiency of transport operation through the reduction of road transport costs, the provision of accessibility to rural areas, & the development of institutional capacity of the road sub-sector at central and regional levels
	Location	Oromia Regional State
	Intended Beneficiaries	People living along the project road corridor, road users because of the improvement, and the Nation as a whole
	Feasibility Study	Carried out in 2003, and review has been carried our in 2006. The whole project (Aposto – Wendo – Negele) was found feasible with a construction cost of ETB 409,543,706.00 and ETB 358,350,742.00 for Irba Moda – Wadera road in the realistic and pessimistic scenario. However, the whole road was found economically infeasible in the pessimistic scenario with a construction cost of ETB 460,736,668.00 for Irba Moda – Wadera road
Funding	Budget	✓ ETB 617,731,977.13, covered by IDA and GOE. ✓ Increased in cost due to variation orders
	Engineering Cost Estimate	✓ ETB 497,361,173.15 (as submitted by the design review consultant) ✓ ETB 529,889,304.44 (as adjusted by the procuring entity during tender evaluation for works contract)
Tender Process (for Design Review Consultant)	Procurement Strategy	
	Contract Type	
	Tender procedure	Quality and Cost based Selection
	Name of main consultant	BKS Group in association with Beza Consulting Engineers
Tender Process (for Supervision Service Consultant)	Tender procedure	Quality and Cost based Selection
	Number expressing interest	***Not disclosed by PE***
	Number shortlisted	6
	Number submitting tender	5
Tender Process (Main Contract for Works)	Tender procedure	Open Tender, ICB with Prequalification
	Number expressing interest	✓ 19, listing 16 [Revised Bid Financial Evaluation Report]
	Number shortlisted	11
	Number submitting tender	4
Contract Award (Project Supervision)	Name of main consultant	Grontmij/Carl Bro A/S in association with Gondwana Engineering Plc

	Contract price	ETB 7,300,000.00 and USD 560,000.00 (Total Amount ETB 14,812,680.00).
	Contract scope of work	To fulfil, to the highest professional standard, the role of the Engineer as defined under the works and services contracts, and to supervise the construction works on behalf of the procuring entity.
	Contract programme	36 months since 09 January 2009 plus 12 months Defects Liability period
Contract Award (Main Contract for Works)	Contractor name	Ahmet Aydeniz – KMC JV
	Contract price	ETB 617,731,977.13
	Contract scope of work	Upgrading of the road from its present condition to asphalt concrete with improvement in vertical & horizontal alignment, and rehabilitation & construction of structures.
	Contract programme	36 months, 09 January 2009 – 31 March 2012 plus one year DLP
Contract Execution (contract for Project Supervision)	Changes to contract price, with reasons	Nil
	Changes to programme, with reasons	Nil
	Changes to scope of work, with reasons	Nil
Contract Execution (Main Contract for Works)	Individual changes to the contract which affect the contract price, with reasons	There is ETB 1,429,247.47 up to June 2010 paid to the contractor for price adjustment in accordance to the contract provision
	Individual changes to the contract which affect the programme, with reasons	Nil
	Variation Orders (VO's)	***1.*** There is one issued Variation Order with a total amount of ETB 173,233.26, ETB 1,890,391.68, and ETB 6,183,363.26. ***2.*** There expected cost increase of ETB 120 million whose cost revision was not yet submitted to the procuring entity.
	Claims, Notice to Claims	***1.*** The contractor submitted thirteen (103) claims and notices to claims whose summarised details was not provided to the Assurance Team. ***2.*** The engineer doesn't approve any of the claims to date.
	Payment certificates	✓ 06 payments were certified by the engineer up to June 2010 at monthly intervals ✓ The contractor has been paid a total amount of ETB 162,261,322.70 including advance payment of ETB 123,546,395.44.
	Details of any re-award of main contract	None

Annex 3 - Summary of Causes for Concern

Stage in Project cycle	List of Disclosers	Causes for Concern
Project identification	Project Specification	The feasibility study had been conducted. However, ERA does not consider the feasibility study for the economic return while awarding the works contract. The project was not economically viable under pessimistic scenario where the engineering cost estimate indicated that the project was under the pessimistic scenario.
	Project purpose	
	Location	
	Intended Beneficiaries	
	Feasibility Study	
Project Funding	Financial agreement	The correct Engineering Cost Estimate was not supplied to the Assurance Teams. However, as observed from the revised bid evaluation report, there was substantial mistake in the engineering cost estimate and tender document prepared by the design review consultant.
	Budget	
	Engineer's estimate	
Tender Process (Main Contract for Works)	Tender procedure	The number of firms that submit financial bids is very small (four in number) where one of them was further rejected during financial evaluation of the bids. ERA need to increase the completion levels for such tenders in order to get a reasonable financial offer.
	Number expressing interest	
	Number shortlisted	
	Number submitting tender	
Contract Award (Project Supervision)	Name of main consultant	It is reasonable, however, the procuring entity is recommended to evaluate technical proposals consistently and correctly.
	Contract price	
	Contract programme	
	Contractor name	
Contract Award (Main Contract for Works)	Contract price	It is reasonable, however, the procuring entity is recommended to evaluate technical proposals consistently and correctly.
	Contract scope of work	
	Contract programme	
Contract Execution (contract for Project Supervision)	Significant changes to contract price, programme, scope with reasons	None,
Contract Execution (Main Contract for Works)	Individual changes to the contract which affect the price, with reasons	There was additional cost for the variation orders issued to date.
	Individual changes to the contract which affect the programme, with reasons	None

Annex 4 – Summary of Variation Orders

No	Date of issue of Variation Order	Reason for Variation	Work required to implement the Variation	Effect on Cost	Effect on Programme/Time	Effect on Quality	Remarks
1.	23 Dec 2009	Realignment of the road for horizontal and vertical alignment		Additional cost of **ETB 173,233.26**	Nil	The realignment will improve the sharp curve and steep gradient of the road	
2.	23 Feb 2010	Replacement of existing damaged 15 No steel pipe culvert and one additional relief culvert		Additional cost of **ETB 1,890,391.68**	Nil		
3.	10 June 2010	Realignment of Inferara mountain for steep gradient and sharp hair pin bends		Additional cost of **ETB 6,183,363.26**	Nil	The realignment will minimize traffic accident and give more access to maneuver	
4.		Change proposal for capping layer		Nil	Nil		
5.		Proposed realignment of the road centerline from the original side to avoid the construction of retaining walls		Nil	Nil		

Annex 5 – Summary of Claims

No	Date of Claim	Reasons for Claim	Amount Claimed	Sum agreed by Employer	Date of Agreement	Effect on Cost	Effect on Programme /Time	Effect on Quality	Remark
1.		Delay in possession of site							This information was extracted from the Annual progress Report No 1, the procuring entity, the Engineer, and the contractor do not provide any information to the Assurance Team.
2.		" "							
3.		Delay in removal of obstruction (Inferara and Melaka)							
4.		Delay in preparation of working drawings for structure							
5.		Delay in preparation of working drawings for road cross section							
6.		Delay in determination for confirmation of site instruction							
7.		Delay in issuing the technical data for realignment proposal							
8.		Increase in volume of work due to replacement of existing damaged steel pipe (VO No 2)							
9.		Delay in removing electric pole (obstruction)							
10.		Delay in land acquisition of capping borrow area							
11.		Disruption and delay caused by							

		weather (EOT claim)							
12.		EOT claim for variation order number 3 (realignment of Inferara Mountain)							
13.		EOT claim for variation order number							
14.									

Title of Document or Report	Date Requested	Date Supplied	Remark
Documents Required During Project Planning Stage			
Feasibility Study	Before 29 July 2010	02 August 2010	
Financing agreement	Before 29 July 2010	03 August 2010	
Tender Evaluation Report [Design Review] ***1.*** Technical Evaluation ***2.*** Financial Evaluation	Before 29 July 2010	 20 August 2010 20 August 2010	
Tender Evaluation Report [Supervision] ***1.*** Technical Evaluation ***2.*** Financial Evaluation	Before 29 July 2010	 20 August 2010 20 August 2010	
Tender Evaluation Report [Works] ***1.*** Technical Evaluation ***2.*** Financial Evaluation	Before 29 July 2010	 Not supplied 20 August 2010	
Documents Required During Project Implementation Stage			
Project Evaluation Report	Before 29 July 2010	N/A	
Audit Report	Before 29 July 2010	N/A	No information was availed whether technical/financial audit is performed
Letter of Acceptance	Before 29 July 2010	30 July 2010	
Contract Document for Supervision Service	Before 29 July 2010	16 August 2010	
Contract Document for Works	Before 29 July 2010	16 August 2010	
Approved Extension Of Time	Before 29 July 2010	N/A	
Rejected Extension of Time	Before 29 July 2010	N/A	
Approved Cost Claims	Before 29 July 2010	N/A	
Rejected Cost Claims	Before 29 July 2010	N/A	
Variation Orders	Before 29 July 2010	23 August 2010	
Payment Certificate	Before 29 July 2010	18 August 2010	
Latest Invoice	Before 29 July 2010	Not supplied	
Annual Progress Report	Before 29 July 2010	30 July 2010	
Latest Monthly Report	Before 29 July 2010	18 August 2010	

Annex 6 – Schedule of Disclosed Documents