

Assurance Team Report

Adigoshu – Lugdi Road Upgrading Project

Pilot Study on Road Sector

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Abbreviations

AC	Asphalt Concrete
AT	Assurance Team
BOQ	Bill of Quantities
BPR	Business Process Reengineering
CAC	Contract Award Committee
CoST	Construction Sector Transparency Initiative
DBSD/DBST	Double Bituminous Surface Dressing/Treatment
DFID	Department for International Development
DRE	Dispute Review Expert
EIA	Environmental Impact Assessment
EOI	Expression of Interest
ERA	Ethiopian Roads Authority
ETB	Ethiopian Birr
FEACC	Federal Ethics and Anticorruption Commission
GCC	General Conditions of Contract
GoE	Government of Ethiopia
HDM	Highway Development Manual
ICB	International Competitive Bidding
ICT	International Consultants and Technocrat
ICTE	International Consultants and Technocrats of Ethiopia
IPC	Interim Payment Certificate

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JV	Joint Venture
MSG	Multi Stakeholder Group
MPI	Material Project Information
MoU	Memorandum of Understanding
PE	Procuring Entity
RFP	Request for Proposal
SIA	Social Impact Assessment
STD	Sexually Transmitted Disease
TAC	Tender Analysis Committee
TCTEL	Transcomm Technologies Ethiopia Ltd
TYA	Tigray Youth Association
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

- 1.1.1. Construction Sector Transparency Initiative (CoST) is a multi-stakeholder initiative designed to increase transparency and accountability in the construction sector in order to enhance the accountability of procuring bodies and construction companies for the cost and quality of public sector construction projects.
- 1.1.2. As a result, CoST – Ethiopia engaged a Team of Consultants to assess the feasibility, cost and benefit of the assurance process on a single completed project which has been subjected to cost and time overruns. In line with this requirement, Shire-Shiraro-Humera –Lugdi Road Upgrading Project, contract 2: Adigoshu-Lugdi 157 km was selected for the study.
- 1.1.3. This is a two lane carriageway asphalt concrete road 157 km long, passing through Tigray Regional State of northern Ethiopia. The Road construction project consists of the upgrading of the existing gravel surface road, to a two lane asphalt concrete road of carriageway width 7m and 2m gravel shoulder on each side. In town sections, 3.5 m parking lane and 1.5 m footway width on both sides is provided instead of shoulder. The Feasibility Study, Environmental and Social Impact Assessment and Detail Engineering Design and Tender Document preparation for proposed works was prepared by an international consulting firm, International Consultants and Technocrats Pvt. Ltd. (ICT) in association with International Consultants and Technocrats Ethiopia Plc. (ICTE) and Transcomm Technologies Ethiopia Ltd (TCTEL).
- 1.1.4. The Employer is Ethiopian Road Authority (ERA). A two-stage process was used for the appointment of the Consultants. It means that Technical Proposals of bidders were evaluated first; the Financial Proposals of those bidders who were found responsive in the technical evaluations were evaluated next. The technical and the financial proposals were evaluated out of 100; the results of the technical and financial evaluations were multiplied by 0.8 and 0.2, respectively, to comply to their allotted weights (i.e. 80 % for technical proposal and 20 % for financial proposal) as per the Evaluation Criteria of the RFP.
- 1.1.5. Similar to the above, a two- stage process was used for the appointment of contractor for contract works. Tender procedure of the works contract was conducted through International Competitive Bidding (ICB) that was prepared in line with the World Bank’s Standard Bidding Document, May 2006 revised March and April 2007, the “Standard Bid Evaluation from Procurement of Goods or Works” published in 1996.
- 1.1.5. The Ethiopian Roads Authority is constructing the Shire-Shiraro-Humera-Lugdi Upgrading Project (Contract 2: Adigoshu-Lugdi Road Project) to reduce poverty and to accelerate economic development in the vicinity of the project. Besides accelerating economic development, the road upgrading will enhance the administrative and social coverage in the region. It is also believed to reduce the operating cost of vehicles following the completion of the project. Adigoshu-Humera-Lugdi road intends to establish the nearest

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international transport link with the Port of Sudan on the Red Sea, and the Tigray region of Ethiopia.

- 1.1.6. The Employer entered into a contract with Hunan Haunda Road and Bridge Corporation at a contract price of ETB 627,709,145.85 for a period 1280 calendar days including 6 months of mobilization period. But, the mobilization period is more than the usual 3 months
- 1.1.7. CORE consulting Engineers PLC in JV with Metaferia Consulting Engineers PLC was awarded the Supervision Consultancy Service at a contract amount of ETB 12,978,497.50 (including 15 %VAT). The consultancy agreement was signed on 25 June 2007.
- 1.1.8. 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 as the number of the firms for contract works and services were few in number. Not only this, 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.
- 1.1.9. The construction works commenced on July 10, 2007, which was the effective start date of the project. The project is supposed to be completed in 1280 calendars days in which the completion date is set on January 09, 2011.
- 1.1.10. Time elapsed up to the end of June 2010 is 1082 days, i.e. about 84.53% of the contract time and the work planned up to the end of June 2010 is 88.3 % of the total work, whereas the actual progress stands at 22.87% . The slippage is 65.43% compared to the plan amount as per revised work schedule submitted on March17, 2008.
- 1.1.11. The work planned for the fiscal year alone was 37.38%. Nevertheless, only 5.67% was performed in the fiscal year, which was far behind from the annual schedule.
According to the correspondences and the annual progress report No 03, the contractor has not mobilized fully all equipment, plants, materials and manpower, both skilled and semi-skilled, to date.
- 1.1.12. Two Variation Orders (VO) for additional payment amounting to ETB 13,363,970.37 were forwarded to the contractor. Both VOs were approved by the consultant and the client.
- 1.1.13. ETB 11, 699, 748. 71 were also paid up to the end of July 2010 for price adjustment due to change in legislation in accordance to sub-clause 70.8 of the contract agreement.
- 1.1.14. The contractor has submitted intent of claims for extension of time and additional financial reimbursement related to the occurrence of landmine incident at the project site in which the client and the consultant did not accept it. As per the Engineer's assessment and the Employer's approval, the Employer has no liability in relation to the occurrence of such incident in accordance with the contract and hence, the requested time extension and compensation cost is not accepted.

2. Introduction

2.1. Background

- 2.1.1 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.
- 2.1.2 The Construction Sector Transparency Initiative (CoST) is a multi-stakeholders 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.
- 2.1.3 The Construction Sector Transparency Initiative aims to increase the accountability of public sector organization and construction companies for their construction projects. It will do this by disclosing information at all stages of the construction project cycle, from the initial identification of the project to the final completion.
- 2.1.4 It is, however, recognized that the disclosure of this information may not be sufficient on its own to achieve greater accountability. This is because some of the information is likely to be complex and not easily intelligible to the general public. To ensure that the information that released is both accurate and available in a form that can easily be understood by stakeholders, it is verified and interpreted by experts appointed for this purpose – the assurance team.
- 2.1.5 A number of road projects have been identified for pilot studies in Ethiopia. Shre-Shraro-Humera-Lugdi Upgrading Project (contract 2: Adigoshu-Lugdi Road Project) is one of the selected projects.
- 2.1.6 The Ethiopian pilot studies are financially supported by the Department for International Development (DFID) and the World Bank and technically by the International CoST Secretariat.
- 2.1.7 This report has been prepared by Ato Beadegew Mengesha, Assurance Team Member who carried out the Adigoshu-Lugdi Road project information under the supervision of Ato Ahmed Salih, Assurance Team Leader.

2.2 Objective of the pilot study

- 2.2.4 The CoST- Ethiopia pilot has the following objectives :
- ✚ To learn lessons to help in the development of CoST
 - ✚ To learn lessons on improving transparency through disclosure of project information
 - ✚ To gain an improved understanding of construction project costs amongst public sector clients
 - ✚ To learn and share lessons on the management and control of publicly – funded construction projects.

2.2.5 On the project, the assurance team has been appointed to carry out the following tasks:

- ✚ Collect the project information
- ✚ Verify the accuracy and completeness of the information
- ✚ Report on the extending and accuracy of the information which has been realized
- ✚ Analyze the information and make informed Judgment about the cost and quality of the project.
- ✚ Report on the findings regarding the cost and quality of the project and high lighting any outstanding question

2.3 Study Approach

2.3.1 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.

2.3.2 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.

2.3.3 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. In between 05, 06, 10, August 2010, technical and financial bid evaluation reports together with contract document for supervision service and work contracts and prequalification evaluation report for works contract have been collected.

2.3.4 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

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coordinating the document disclosure process sufficiently. Following this meeting, latest payment certificate, variation orders, latest monthly report, and claims have been availed on 18, 19 and 20 August 2010. A detailed schedule for documents disclosure with descriptions is annexed as Annex 6 in this report.

- 2.3.5 The Assurance Team has been reviewing the information availed with a view to assessing the feasibility, cost, and benefit of the assurance process 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 services during the implementation phase.

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

- 2.3.6 The documents disclosed fall in to the following categories:
- ✚ Document dealing with Feasibility study, Environmental and Social Impact Assessment and Detail Engineering Design and Tender Document Preparation for Shire- Shiraro- Humera Upgrading Project. The feasibility study describing the need for upgrading the road into asphalt concrete, identifying costs and benefits of various options.
 - ✚ Documents dealing with selection and the appointment of Consultancy Service of Construction Supervision of contract 2: Adigoshu-Lugdi Road Project.
 - ✚ Document dealing with the selection and appointment for the Construction Works of Shire-Shiraro-Humera-Lugdi Road Upgrading Project Contract 2: Adigoshu- Lugdi Road project.

2.4 The Adigosu-Lugdi Road Upgrading Project

- 2.4.1 It consists of the upgrading of the existing 157 km gravel road to asphalt concrete, with a 7 meters carriageway width and shoulder width of 2 meters on each side. In town sections, 3.5 m parking lane and 1.5 m footway on both sides is provided instead of shoulder. The work also involves the improvement in geometric condition, drainage provisions and structures and all other ancillary works that constitute part of the project. Adigoshu- Lugdi Road Upgrading Project is located in Tigray Regional State, Northern part of the country. The objective of the project is to accelerate economic development, enhance poverty reduction, ease administrative and social issues and reduce operating costs of vehicles within the vicinity of the project. The road will also establish a smooth link between Sudan and Ethiopia providing an alternative access to Port Sudan.

The project road consists of two stretches: Adigoshu-Humera road and Humera-Lugdi road, with lengths of 111 km and 46 km respectively. The first one is a continues stretch from Adigoshu to Humera, where as the

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second one, Humera- Lugdi road continues after a jump of 10 km along Humera- Gonder road from Humera town at the junction of Humera-Gonder road and Humera-Metema road. Humera –Lugdi Road is under upgrading with 7m wide gravel road from the former existing earth track. The road is completed and the client has provisionally accepted. It is 46 km long and is located in the Western Tigray Zone of Tigray National Regional State of Ethiopia.

2.4.2 The road provides connectivity to Shire, Axum, Adwa, Adigrat and Mekele with Humera, on one hand, and to Gondar on the other hand.

The basic objectives of developing the transport network are poverty alleviation, economic development and easing administrative and social infrastructures accessibility.

2.4.3 The project road traverses through varying ground elevations the highest of which is about 1100 m around at Adigoshu, and the lowest at Humera, around 600 m. Lugdi has an elevation of about 680 m. The overall terrain type of the project is summarized as mainly flat which accounts for about 75.35%; the rest is 15.80% rolling, and 8.85% mountainous terrain.

2.4.4 ERA has appointed Consultants for feasibility study, design and supervision.

The Feasibility Study and EIA, Detailed Engineering Design and Tender Documents were carried out by an International Consultant, ICT in association with (TCTEL) and (ICTE). CORE in JV with Metaferia Consulting Engineers PLC has been appointed to carry out the supervision of Construction Projects.

2.4.5 It has also appointed contractors to carry out construction works. The Construction of the project is being carried out by Hunan Haunda Road and Bridge Corporation of China.

2.4.5 According to the correspondences and Annual progress report No3, the progress of the construction work has been lagging by 65.43% until end of June 2010. The delay for construction works, stipulated in the consultant's progress reports, are caused by:

- ✚ Suspension of the project works due to the contractor's financial problem ,
- ✚ Failure to mobilize resources as per the schedule,
- ✚ Failure of the contractor to commence pavement works,
- ✚ Late commencement of structure works ,
- ✚ Shortage of water for construction activities,
- ✚ Other problems:
 - ❖ Poor delivery and production of construction materials
 - ❖ Lack of key staffs in the project resulting lack of good and responsible management in the project
 - ❖ Poor scheduling and monitoring of the works
 - ❖ Restriction of working hours (before 7 am and after 6 pm) due to security problems

3 Validation and Analysis of Documents

3.1 Ethiopian Roads Authority (ERA) Procurement Procedures

- 3.1.1 The first stage in a construction project is the preparation of a “Project Appraisal Report” to identify the need for the project and obtain the international and local financial support for the project.
- 3.1.2 Dividing larger projects into lots, and tendering each lot separately, is a common practice in ERA. Such bids are tendered on either International Competitive Bidding (ICB) basis or National competitive Bidding (NCB) basis. The selection of bidders for construction of larger projects is based on the pre- qualification process.
- 3.1.3 Prequalification is followed by a competitive bidding procedure in which only those firms meeting specified prequalification criteria are invited to submit a bid. All potential applicants meeting the specified criteria shall be allowed to bid.
- 3.1.4 According to ERA’s practice, supervision consultants are appointed to assist ERA in construction supervision of road projects. For larger projects, most likely international consulting firms in association with local consultants are appointed to supervisory consultancy services.
- 3.1.5 For international competitive bidding, The Ethiopian Road Authority invited submissions of proposals expression of interest, (EOI) to all companies which wish to bid for the work through national newspaper for three consecutive days, and also posts online on UN Development Business Website. Whereas, for NCB through national newspaper at least for three consecutive days.
- 3.1.6 The design review consultant, the supervision consultant, and contractor were selected through the above procedures.

3.2 Project Identification and Budget

- 3.2.1. A project appraisal report for Shire-Shiraro-Humera Upgrading Project was prepared by Intercontinental Consultants and Technocrat Pvt. Ltd (ICT) in association with Transcomm Technologies Ethiopia Ltd (TCTEL) and International Consultants and Technocrats’ of Ethiopia Pvt. Ltd (ICTE) in 2004. This Feasibility Study Report analyzed the road situations and consequently its problems through careful study of the socio-economic profile, traffic Survey, expected base year traffic demand and future traffic growth scenarios. The study identified alternative routes, compared costs and benefits of each option and made recommendation in which the upgrading of the Shire-Shiraro-Humera Road is economically viable for:-
- ✚ A double bituminous surface treatment (DBST) for 267 km, and

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- ✚ An Asphalt Concrete (AC) for the first 45 km, from km 0 to km 45 and from km 238 to km 267 i.e. at the beginning and end segment of the project due to the result of economic evaluation during feasibility studies.
- 3.2.2 The Draft Final Report for the Feasibility Study (Vol. 1 & 2), together with the Draft Final Report for Environmental and Social Impact Assessment (Vol. 3), were submitted to ERA on August 29, 2005.
- 3.2.3 The total project cost for the 267km long road is ETBs 518.6 million, (i.e. 519 million), and the average cost/km is 1.94 million ETBs for all DBST surfacing. On a section-wise basis, the cost/km varies in 1.84-2.16 million ETB range. For the DBST and AC surfacing options, the total and average per km costs are 534 and 2.00 million ETB respectively (with per km costs varying in 1.84-2.38 million ETB).
- 3.2.4 However, the invitation for bids for works contract comprises of upgrading of the road from its present condition to Asphalt Concrete (AC). The DBST option was not considered during the bidding for works contract.
- 3.2.5 The budget for the construction works have been covered by the Government of Ethiopia.
- 3.2.6 No document has been availed for the disclosure of tender process for consulting service of the Feasibility and EIA studies, and the Design Consultant, i.e. for the detailed engineering design and tender document preparation by ICT in association with TCTEL and ICTE.
- 3.2.7 Also, no documents have been availed for Feasibility and EIA Studies, Detailed Engineering Design and Tender Document preparation and consequently a project appraisal report for part of the road, Humera-Lugdi section.
- 3.2.8 The supervision consultant for this contract was selected through local competitive bidding.
- 3.2.9 The disclosure on this subject has been verified by the Assurance Team to be complete except for the disclosure of tender process for the consulting services and lacking the Feasibility and EIA Studies, Detailed Engineering Design and Tender Document preparation and consequently a project appraisal report for part of the road, i.e. Humera-Lugdi Road Upgrading Project.
- 3.3. **Appointment of Design Consultant for Feasibility Study, Environmental and Social Impact Assessment, Detail Engineering Design and Tender Documents Preparation.**
- 3.3.1 No document has been availed for the disclosure of tender process for consulting service of the existing Feasibility and EIA studies, and the Design Consultant, i.e. for the detailed engineering design and tender document preparation by ICT in association with TCTEL and ICTE.
- 3.3.2 According to the Terms of Reference (TOR) prepared by the Ethiopian Roads Authority (ERA) and issued to Consultants, the road is proposed to be

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- upgraded as a two-lane paved road, having 7m wide carriageway provided with asphaltic surface dressing and 2.00m wide gravel shoulders.
- 3.3.3 From the Feasibility Report and contract documents, it is understood that the consultancy contract between ERA and ICT was signed on December 22, 2004 and the consultant commenced the services on January 21, 2005. The Draft Final Report for Feasibility Study together with the Draft Final Report for Environmental and Social Impact Assessment was submitted to ERA on August 22, 2005. The Final Report for Feasibility Study was submitted on August 29, 2005.
- 3.3.4 The following documents have been provided in relation to the appointment of ICT in association with TCTEL and ICTE for Consultancy Service of Feasibility Study, Environmental and Social Impact Assessment and Detailed Engineering Design of Shire- Shiraro- Humera Road Upgrading Project.
- ✚ Contract Document for Feasibility Study, Environmental and Social Impact Assessment, and Detailed Engineering Design of Shire-Shiraro- Humera Road Upgrading Project, December 2004.
 - ✚ Project Appraisal Report (soft copy) for Feasibility Study, Environmental and Social Impact Assessment and Detailed Engineering Design for Shire-Shiraro-Humera Road Upgrading Project, Ethiopia, August 2005.
- 3.3.5 ICT Ltd in association with TCTEL and ICTE engaged in Consultancy Service for Feasibility Study, Environmental and Social Impact Assessment, and Preparation of Detailed Engineering Design and Tender Documents. The cost of this study amounts to ETB 3,821,763.00 and USD 230,080.00.
- 3.3.6 The project was divided in to two distinct phases, namely :
- PHASE I- Feasibility Study and Environmental and Social Impact Assessment
 - PHASE II- Detailed Engineering Design (including surveys, investigations and preparation of Tender Documents).
- 3.3.7 The Draft Final Report for Feasibility Study (vol. 1 and vol. 2) together with the Draft Final Report on Environmental and Social Impact Assessment (vol. 3) were submitted to ERA on August 2, 2005.
- ✚ VOLUME 1 : FEASIBILITY STUDY – MAIN REPORT
 - ✚ VOLUME 2 : FEASIBILITY STUDY – ANNEXURES
 - ✚ VOLUME 3 : SOCIAL AND EIA.
- 3.3.8 The consultants prepared the Final Report for the Feasibility Study taking into account and complying with ERA's comments dated August 29, 2005 on the Draft Feasibility Report.
- 3.3.9 This Feasibility Study Report analyzed and presented the existing road features physical and environmental conditions, national and regional setting for the project, socio- economic profile, traffic survey, expected base year traffic volume, future growth of economic scenarios, equivalent standard axle

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loads for pavement design, preliminary engineering design, project costing and economic evaluation by means of Highway Development Manual (HDM) IV software package which is well-known and widely used tool for economic evaluation of road project in the developing countries.

- 3.3.10 The study assessed alternative routes and considered the costs and benefits of each option and made recommendations in which the upgrading of the Shire- Shiraro- Humera Road is economically viable.
- 3.3.11 Alternative options were weighed against engineering, environmental, economic and social parameters. The most preferred option was estimated to cost ETB 534 million.
- 3.3.12 Environmental Impact Assessment (EIA) was carried out for Adigoshu-Humera and the study showed that most of the environmental impact would be of temporary and reversible; the impact can be reduced to acceptable level using good construction practice.
- 3.3.13 Social Impact Assessment (SIA) was carried out along the preferred route. Sufficient space is reserved on either side of the road centerline, which would provide space for widening the road and for accommodating traffic diversions during construction. Thus, the proposed road improvements would not require any significant acquisition of agricultural lands or houses.
- 3.3.14 Whereas, the supervision consultant has mobilized the project Environmentalist starting from January 13 to January 21, 2010 for project works and the mobilized staff has performed the Environmental and Social activities during his stay on the project. During his stay on the project, the Environmentalist has found that excluding activities related to the asphalt plant, as it is yet to start, and HIV/AIDS- related activities, as they are conducted by the Sub-Contractor, the overall Environmental, Social and Safety performance of the contractor is POOR.
- 3.3.15 Furthermore, the Environmentalist recommended that the Engineer should also give adequate emphasis to the implementation of Environmental alleviation measures as per the provisions in the Contract Document. Therefore, the consultant by his letter dated April 14, 2010 advised the contractor to improve his poor performance on Environmental protection work and keep his commitment as per the approved Environmental Management Plan.
- 3.3.16 The consultant more or less discharged his obligations in carrying out Feasibility Study, Social and EIA, and Detailed Engineering Design and Tender Document Preparation except for the following which incurred additional costs to the client.
 - ✚ Changes on structures as a result of study during design review - costs an extra amount of ETB 10,376,782.91. These structure changes are extension, replacing, providing new and additional culverts at 89 different stations of the subject project.
 - ✚ Construction of one new Bridge Structure at station 153+906 as replacement for the existing 3.5meter by 2.5 meter double cell box culvert structure due to the computed design discharge is beyond the

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capacity of the existing structure which costs extra amounts of ETB 2,987,187.46.

- ✚ The design consultant has not given more attention for Environmental and SIA

3.4 Appointment of Supervision Consultant

3.4.1 The following documents have been provided in relation to the appointment of CORE Consulting Engineers PLC in JV with Metaferia Consulting Engineers PLC for Consultancy contract Supervision of Adigoshu-Lugdi Road Upgrading Project.

- ✚ Technical Evaluation Report Ref. No. S/24/07, May 2007
- ✚ Financial Evaluation Report Ref. No. S/24/07, June 2007
- ✚ Contract Document for Consultancy Service of the Construction Supervision of Shire- Sheraro-Humera- Lugdi Road Upgrading Project, Contract 2: Adigoshu-Lugdi Road, June 2007
- ✚ The scope of the service for appointment of Supervision Consultants

3.4.2 The project was first tendered on November 22, 2006 and the following short listed firms were invited to submit their proposals:

- i. SABA Engineering PLC
- ii. Comptran Engineering and Planning Associates
- iii. CORE JV with Metaferia Consulting Engineers
- iv. ICT in association with ICTE
- v. Mouchel Parkman in association with Civil Works Consulting Engineers
- vi. NET CONSULT Consulting Engineers and Architects PLC
- vii. Consulting Engineering Service (India) Ltd

The dead line for submission of proposals was on May1, 2007 at 2:30 pm but for some reasons it was postponed to May 2, 2007 at 2:30 pm.

All the invited firms have submitted their proposals except Mouchel Parkman in association with Civil Works Consulting Engineers and ICT in association with ICTE

3.4.3 After evaluation of the proposals of firms, Net Consulting Engineers and Architects had been found successful but this firm withdrew from negotiation. As the price difference between the successful bidder and the second bidder was found to be 80%of the successful bidder's offer, the project re-tendered.

3.4.4 The project was retendered on April 3,2007 and the following short listed firms were invited:

- i. CarlBro A/S in association with Gondwana Engineering PLC
- ii. Consulting Engineering Service (India) Ltd
- iii. Comptran Engineering and planning Associates in JV with Beza Consulting Engineers PLC
- iv. ICT in association ICTE
- v. SABA Engineering PLC
- vi. SAI Consulting Engineers

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- 3.5.5 Proposals were received from six firms before the dead line for the submission of proposals except Carl Bro A/S in association with Gondwana Consulting Engineers PLC
- 3.4.5 During technical examination of proposals, SABA Engineering PLC was found to be substantially non- responsive and not further evaluated the proposal according to Terms of Reference (TOR) and Instruction to Bidders (ITB) clause 23.2 (c).The reason is, the firm has not attached declaration of interest with all the CVs of the proposed personnel; however it is clearly stated in the RFP that CVs without declaration of interest will not be considered.
- Clause 23.2 says that a substantially responsive proposal is one that conforms to all the terms, conditions, and requirements of the Request for Proposals without material deviation, or omission.
- 3.4.6 As per Sub-Clause 17.1 part 1 Instruction to Bidders of the RFP, a two stage procedure is adopted for the evaluation, with the Technical Proposals evaluation first and the Financial Proposals of the technically responsive to be carried out next. The technical responsive proposals, the corresponding financial proposals will also be evaluated out of 100 and then the evaluation results will be multiplied by 0.8 and 0.2 respectively to adjust their contribution for the selection, i.e. 80% for Technical evaluation and 20% to financial evaluation as per Clause 2 and part 3 Evaluation Criteria of the RFP.
- 3.4.7 The procedure adopted for detail analysis of proposal is each member of the Tender Analysis Committee (TAC) independently examined the technical proposal of each firm and rated in accordance with the predetermined evaluation criteria and allotted points. After completion of the evaluation, the TAC members came together and discussed on their findings to see if there were any major discrepancies between individual ratings, deviations or omissions in any individual proposals. After the discussion, the average technical evaluation scores of the firms were determined.
- 3.4.8 The Evaluation Report on technical proposals concluded that five of the six firms were qualified each having attained more than the required minimum of 75% specified in the RFP.
- 3.4.9 The Technical Proposals Evaluation Report was endorsed by the Contract Award Committee (CAC) and approved by the Director General; the financial proposals were opened on June 1, 2007.
- 3.4.10 Based on the Combined technical and financial evaluation, CORE Consulting Engineering PLC in JV with Metaferia Consulting Engineers PLC emerged the highest ranked and, therefore, it was awarded the supervision contract in the total amount ETB 12,997,300.00 including 15% VAT and the funding is the Federal Government of Ethiopia. The contract agreement was signed on 25 June 2007 and the service commencement date was June 27, 2007.

Table 3.4.1 – Corrected financial proposals and Aggregate scores of bidders of consultants for supervision services

No	Name	of	Financial offer	Technical	Financial	Total	Ranks
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	consulting firms	(ETB)	score out of 80	score out of 20	score out of 100	
1	CORE in JV Metaferia	12,997,300.00	75.2	20.0	95.2	1
2	Comptran in JV with BEZA	14,457,183.31	75.0	18.0	93.0	2
3	SAI Consulting in assoc. with National Engineers	15,613,445.95	71.8	16.6	88.4	3
4	ICT in assoc. with ICTE	20,551,196.20	68.4	12.6	81.0	4
5	Consulting Engineering Services (India) PLtd.	22,834,918.98	61.0	11.4	72.4	5

3.4.11 Disclosure on the subject is complete, except the following, related to the procurement of consulting service for supervision, have been noted:

- i. There were no records that show whether the Tender Notice was issued on national newspaper for three consecutive days.
- ii. The dead line for submission of proposals was on May1, 2007 at 2:30 pm but for some reasons it was postponed to May 2, 2007 at 2:30 pm and there were no justified records which explained why it was postponed.
- iii. After evaluation of the proposals of firms, Net Consulting Engineers and Architects had been found successful but this firm withdrew from negotiation. However, there were no records for the disclosure of financial offers of the first bidders & the reasons for withdrawal of Net Consulting Eng. PLC, as it is difficult to judge what was gained/ lost because of rebidding.

3.4.12 Except for what is noted in 3.5.11 above, the procurement was generally done in fair and transparent manner and incompliance with evaluation stated in the RFP.

3.4.13 A project supervision consultancy is needed to look after the Ethiopian Road Authority's interests in the construction project. This consultancy service supervises the construction work by working closely with the contractor on programming, payment, risk management and control of any changes that arise.

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3.4.14 The contract between Ethiopian Road Authority and CORE in JV with Metaferia Consulting Engineers PLC has been made on a time charge basis. This means that the supervision consultants are reimbursed for all the time expended on the project at a fixed rate for people. Hence, the contract period for this service contract is 52 months including 12 months defects liability period.

3.4.15 From the referred documents or reports, the Assurance Teams understand that the consultant put pressure on the contractor to take appropriate and tangible measures so as to expedite the progress of works, to submit revised work program and to deploy competent staffs and to mobilize equipment, plants, materials, skilled and semi- skilled manpower etc. on time.

Moreover, the consultant also took extra pains to expedite removal of obstructions and instructed the contractor to work in areas with no obstructions. On the other hand, the consultant has advised the Employer by his numbers of letters that to remove the obstructions and at the same time to effect compensation payments as soon as possible for smooth progress of the works. Moreover the consultant has also advised the Employer by his letter that to pay foreign portion of the delayed payment of IPC No. 11.

3.4.16 Since the slippage is progressing high from time to time, the consultant has given the contractor a default notice as per Sub Clause 46.1 of the conditions of particular application through his letter dated January 31, 2009 to expedite the progress of the work so as to comply with the time for completion.

3.4.17 Due to the financial problem, the contractor finally suspended the whole works since beginning of September 2009 to the end of December 2009 for four months. The Engineer has instructed the contractor to resume the suspended work immediately through his letter dated October 19, 2009.

3.4.18 Since the slippage is progressing high from time to time even after the resumption of the suspended work, the Engineer has again instructed the contractor through his letter dated April 30, 2010 to take appropriate and tangible measures so as to expedite the progress of the work.

3.4.19 The Employer and the Engineer have repeatedly forwarded their concerns about the slow progress of the work and requested to provide realistic and feasible proposal with the work programme to the contractor. However, the proposals submitted by the contractor are not consistent and it is difficult even to estimate when the contractor will complete the project.

The Minister of the Ministry of Works and Urban Development , His Excellency Dr. Kassu Ilala and Director General of Ethiopian Roads Authority Ato Zaid Woldegebreeel have visited the site on February 22 and 23, 2010 and conducted a meeting in the presence of the Engineer's and Contractor's representatives to review the progress of the works. During the meeting they expressed their disappointment on the progress of the project

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and informed him to expedite the progress of the work otherwise they will be forced to take appropriate contractual measure up to termination.

- 3.4.20 Regarding to the slow progress of the project, the consultant has been notified the Employer through his letter dated July 9, 2010 in which the Employer has two options, which are either to pressurize the contractor consistently to curbe this large slippage and complete the works within the reasonable period of time or to take appropriate contractual measures timely pursuant to Clause 63.1 of the General Conditions of Contract. The consultant has analyzed the two options with their advantages and disadvantages and recommended to the Employer the first option i.e. to pressurize the contractor at higher management level.
- 3.4.21 As Assurance Teams (AT) have got the information from the consultant's Senior Claims Expert, based on this recommendation, the Employer has been written a numbers of letters to the Embassy of china, the Director of Hunan Province Road Authority and the Company Manager of HHRBC to expedite the progress of the project works. As a result of this, by this time there is a change in the progress of the project work due to the mobilization of the resources from Dansha-Humera Upgrading Road Project.
- 3.4.22 The consultant also requested the Employer to arrange a joint meeting at head office level in the presence of the Employer's, Engineer's and Contractor's top management representatives to discuss on the slow progress of the project and solve the outstanding problems timely.
- 3.4.23 The consultant has mobilized the project Environmentalist starting from January 13 to January 21, 2010 for project works and the mobilized staff has performed the Environmental activities during his stay on the project. During his stay on the project, the Environmentalist has found that excluding activities related to the asphalt plant, as it is yet to start, and HIV/AIDS-related activities, as they are conducted by the Sub-Contractor, the overall Environmental, Social and Safety performance of the contractor is POOR.
- 3.4.24 On his report also, the Environmentalist has suggested that the Engineer should follow up on the implementation of HIV/AIDS related activities, including convincing the contractor to fulfill his contractual obligations.
- 3.4.25 Therefore, the consultant by his letter dated April 14, 2010 advised the contractor to improve his poor performance on Environmental protection work and keep his commitment as per the approved Environmental Management Plan.
- 3.4.26 The consultant has also mobilized Senior Claims Expert to the project site from April 20-23, 2010 after getting ERA's approval as per the requirement for mobilization of Intermittent Staffs to the project sites. After his visit, he has prepared a Contract Status Report and the consultant submitted this report to the Employer by his letter dated May 27, 2010.
- 3.4.27 The consultant has submitted the final pavement design review report to ERA by his letter dated March 30, 2010 for further consideration. Moreover, the works contract of the project does not include the last 4 km section of the road after Lugdi up to Sudanese border and the said consultant has

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submitted the detail design of this section of the road with his letter dated February 29, 2008 with the Draft Design Review reports.

- 3.4.28 The consultant took proper contractual measures on the quality of materials delivered or fabricated on site to ensure that the required specifications are met. The consultant reported the construction progress to the client on monthly, quarterly, yearly basis.
- 3.4.29 The Assurance Team believes that the Engineer is more or less undertaking his contractual service with the required professional standards and contractual requirements except the dalliance in issuance of some of the modified road designs on time.

3.5 Appointment of Contractor for works and its Implementation

- 3.5.1 The following documents have been provided in relation to the appointment of Hunan Haunda Road and Bridge Corporation:

- ✚ Combined Technical and Financial Evaluation Reports , dated December 2006
- ✚ Post Qualification Evaluation Report Ref. No. W/53/06, dated December 2006.
- ✚ Notification of Award, Ref. No. AH/113/12-2414 dated March08, 2007.
- ✚ Contract document for Construction Works of Shire-Shiraro-Humera-Lugdi Road Upgrading Project, Contract 2: Humera- Lugdi, Volume I, dated April 2006.
- ✚ Annual Progress Report No.03, dated June 2010
- ✚ Approved two variation orders: Ref. No.SSHL2/0863/09 dated May 25, 2009 and Ref. No. CORE/449/2010, dated April 28, 2010.
- ✚ Engineer's Assessment for contractor's Claim Analysis, Ref. No. CORE/Sup/013/08 dated May 07,2008
- ✚ Latest Interim Payment Certificate (IPC) No.13 including approved Price Adjustment dated July 31, 2010.

- 3.5.2 Tender procedure of the works contract was conducted through International Competitive Bidding (ICB) that was prepared in line with the World Bank's Standard Bidding Document, May 2006 revised March and April 2007, the "Standard Bid Evaluation from Procurement of Goods or Works" published in 1996.
- 3.5.3 Specific Procurement Notice for invitation to bids for the subject project was published on United Nations Development Business Journal on September 14, 2006. The notice was also published for three consecutive days starting

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from September 14, 2006, on local news paper, The Ethiopian Herald. Pursuant to the notice of invitation, 18 applicants have collected the tender documents before the dead line for the submission of applications as shown in Table 3.6.1 here under.

Table 3.5.1: List of applicants who have collected the Bidding Documents

Item No	Applicant	Country of Registration
1	SUR Construction PLC	Ethiopia
2	China Gezhouba Water and Power Group (CGGC)	China
3	AL-Wasit	UAE
4	China International Water and Electric Corporation	China
5	GITTO	Nigeria
6	Saltimonte	Portugal
7	Oreintal Structural	India
8	SMS Infrastructure	Ethiopia
9	China Railway Engineering Corporation	China
10	4 for International Building	Portugal
11	MADHUCUN Projects Limited	India
12	Nasr Tehran Co.	Iran
13	China Road and Bridge Corporation	China
14	IRCON International Ltd	India
15	Hunan Huanda Road and Bridge	China
16	The Third Engineering Group Co.	China
17	SINOHYDRO Corporation	China
18	SABA For General Trading and Construction	Ethiopia

3.5.4 Among the above listed 18 (eighteen) prospective bidders who have bought the tender documents from ERA, only five of them have submitted their

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qualification documents and financial offer in a separate sealed envelope on November 30, 2006, at 2:30 pm, which was the latest date for submission of the bids. Two of the above listed bidders, SUR construction of Ethiopia and GITTO of Nigeria have submitted their bids as a Joint Venture. The Table 3.6.2 below shows the list of bidders who have submitted their respective bids.

- 3.5.5 Accordingly, the pre-qualification documents of each bidder were opened on the same date in the presence of ERA's Contract Award Committee and the representative of the bidders who chose to attend the ceremony.

Table 3.5.2: List of Applicant who submitted their Bids

Item No	Applicants	Country
1	China International Water and Electric Corporation	China
2	China Gezhouba Water and Power Group (CGGC)	China
3	Hunan Huanda Road and Bridge Corporation	China
4	4 FOR International Building -ACE	Portugal
5	SUR-GITTO Joint Venture	Ethiopia/Nigeria
	Total	5

- 3.5.6 Five (5) applicants passed the preliminary examination conditionally, where clarification should be sought from the latter for the shortcomings noted against each of them. No applicant failed the preliminary assessment automatically.
- 3.5.7 Following the detailed examination of qualification documents, all the five contractors were found prequalified conditionally according to the Qualification Criteria for bids of Shire-Shiraro-Humera-Lugdi Upgrading Project, contract 2: Adigoshu-Lugdi except to the extent clarifications may be sought from the latter for shortcomings noted against each of them.
- 3.5.8 The Bids were opened on November 30, 2006 in the presence of ERA's Contract Award Committee and the representative of the bidders, who choose to attend the ceremony.

Table3.5.3: List of Contractors who submitted their bids and financial offers

Item No	Name of contractor	Financial offer (ETB)	Percentage of the offer to the Engineering	Remarks

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			Estimate	
1	China International Water and Electric Corporation	693,201,312.35	130.76%	Engineering cost estimate used for this comparison was ETB 530,141,864.90
2	China Gezhouba Water and Power Group	660,271,125.32	124.55%	
3	Hunan Huanda Road and Bridge Corp.	627,790,620.36	118.42%	
4	4 FOR International Building -ACE	721,583,967.48	136.11%	
5	SUR-GITTO Joint Venture	1,467,479,717.64	276.81%	

3.5.9 Based on the combined results of pre-qualification and financial evaluation, Hunan Haunda Road and Bridge Corporation emerged highest ranked and least bidder of all. Finally, TAC recommended awarding the contract to the lowest evaluated bidder Messer's Hunan-Hunda of China with a ceiling contract amount of ETB 627,790,620.36. It was then endorsed by CAC and approved by the Director General of ERA on 16 Dec.2006 and 18 Dec. 2006 respectively. Therefore, it was awarded the contract at a price of ETB 627,790,620.36 including specified provisional sum, 15% VAT and contingency. The contract agreement was signed on April 10, 2007.

3.5.10 The following shortcoming, related to the procurement of Contract Works, have been noted:

- ✦ Among the above listed 18 (eighteen) prospective bidders, only five of them have submitted their qualification documents and financial offer on November 30, 2006, at 2:30 PM, which was the latest date for submission of bids. However, there were no records why 13 (thirteen) firms withdrew from the bids.

- ✦ There is a discrepancy between the awarded contract amount and the signed contract amount by ETB 81,475.

3.5.11 Hence, the procurement was generally done in fair and transparent manner and in compliance with evaluation stated in the RFP.

3.5.12 The contract period is 1280 calendar days whereas the time elapsed up to the end of June 2010 is 1082 calendar days, which covers 84.53 %of the contract period. However, the total value of works to date is 22.8%of the contact price. As per the revised work program about 88.3% of the total progress on construction was expected by the end of June, 2010, whereas the actual progress stands at 22.87%. The work planned for the fiscal year alone was

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37.38%. Nevertheless, only 5.67% of the annual schedule was performed by the contractor. The delay from the scheduled work load to date is 65.43%. This is considerable and successful completion of the project within the contract timetable is uncertain.

3.5.13 Moreover, up to the end of July 2010, a price adjustment was approved and paid amounting ETB 11,699,748.71. Therefore, according to the consultant's Senior Claim Expert and annual report No: 3, the project cost is expected to be more than ETB 659,282,830.11 on completion of the project.

3.5.14 According to the correspondences and Annual progress Report No: 3, the contractor's work progress against the time elapsed shows very high slippage and the successful completion of the project within the contract period is uncertain. Some of the major reasons/problems for this considerable slippage are the following:

- ✚ Suspension of the project works due to the contractor's financial problem ,
- ✚ Failure to mobilize resources as per the schedule,
- ✚ Failure of the contractor to commence pavement works,
- ✚ Late commencement of structure works ,
- ✚ Shortage of water for construction activities,
- ✚ Other problems:
 - ❖ Poor delivery and production of construction materials
 - ❖ Lack of key staffs in the project resulting lack of good and responsible management in the project
 - ❖ Poor scheduling and monitoring of the works
 - ❖ Restriction of working hours (before 7 am and after 6 pm) due to security problems

3.5.15 The project needs additional resources to be mobilized and deployed to compensate the delay of critical activities. However, the contractor did not act towards this end despite the engineer's repeated advices and instructions.

3.5.16 Non-commencement of drains, channeling, road bases and asphalt surfacing works have adversely affected the progress of the project.

3.5.17 Accordingly, status of progress at the end of June is as follows:

- ✚ Time elapsed : 1082days (84.53%) of the contract time
- ✚ Planned progress : 88.30% (138.63km)
- ✚ Actual progress : 22.87% (35.91km)
- ✚ Slippage : 65.43% (102.75km)

3.5.18 Major delays have been encountered on drainage structures including bridges, earth works, sub-base and base courses and asphalt pavements and seals.

3.5.19 Due to hydraulic inadequacy during the design review, the following two variation orders were received, evaluated by the consultant, forwarded to the client for approval and subsequently approved by the client.

- ✚ Variation order No 1 has been issued to the contractor on May 25, 2009 by consultant letters Ref. No SSHL2/O863/09 for design changes and /or modifications on slab, box and pipe culverts and the aggregate sum of all

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the changes have been estimated to be ETB 10,376,782.91 including 10% contingency and 15% VAT.

- ✚ Variation order No 2 has been issued to the contractor on April 28, 2010 by consultant letter Ref. No CORE/ 449/10 for construction of one new bridge structure at km 153+906 as replacement for the existing 3.5X2.5 meter double cell box culvert structure. The computed design discharge was found beyond the capacity of the existing structure. The value of this variation order as per the estimated quantity and new rates fixed by the Engineer is ETB 2,987,187.46.
- ✚ Furthermore, ERA by his letter Ref. No mm3/167/24-1463 dated 27/08/2010 accepted the contractor's proposals to transfer the Humera town section roads, which is under design, and the Ruwian Bridge works from **Dansha-Humera Upgrading Road Project** to **Adigoshu-Humara-Lugdi Road Upgrading Project**. Moreover, the last 4 km section of the road after Lugdi up to Sudanese border will be included to the Adigoshu-Humera-Lugdi upgrading road project. Therefore, from this the Assurance Team understands that there will be a huge amount of project cost increment and time extension for the said project.

- 3.5.20 ETB 11,699,748.71 was paid to the contractor until the end of July 2010 for price adjustment due to change in legislation (sub-clause of Condition of Contract 70.8). Also, the contractor has been paid a total of ETB 116,923,938.42 and an advance payment ETB 108,946,808.97.
- 3.5.21 According to the correspondences, Claim Expert's report and Annual progress Report No: 3, the contractor submitted intent of claims related to the occurrence of landmine incident at project site, which occurred on December 06, 2007. The contractor's claim was submitted at the end of March 2008, in relation to the occurrence of this landmine incident, requesting an extension of time of 41.5 calendar days and compensation of ETB 5,200,311.86 and USD 22,082.75.

As per the Engineer's assessment and the Employer's approval, the Employer has no liability in relation to the occurrence of such incident in accordance with the contract and hence, the requested time extension and compensation cost is not accepted by the consultant and the client, ERA and the same was communicated to the contractor. The contractor has not mentioned his disagreement on the Engineer's determination and has not notified the Employer that he will refer the case to the DRE. The contractor has not submitted additional claims and there are no pending claims so far.

- 3.5.22 The contractor has instructed to submit the work programme as per Clause 14.1 during the initial meeting held on July 18, 2007 between the Employer, Engineer and Contractor. After several times comments, the first work programme was approved on November 15, 2007. In February 2008, the contractor was instructed to revise the masterwork program due to failure by the contractor to progress as per the earlier schedule. The revised work programme was approved on March 17, 2008. In February 2009, the

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contractor was again re-instructed to revise the master work program for similar reasons. The contractor has not submitted the revised work programme till now.

3.5.23 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 dumping 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 works 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

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3.5.24 The works contract allocates a budget of ETB 1,157,850.00 for STD and HIV/AIDS alleviation measures including the contractor's charges and profit associated with the administration of the activity, both for completion period and Defects Notification Period. Regarding HIV /AIDS awareness and privation campaign of the project, the contractor has proposed sub-contractors for HIV/AIDS and STD alleviation campaign as per the requirement of the contract.

The engineer has evaluated the submitted proposals of the nominated sub-contractors and forwarded to the employer his recommendations on the subject matter for approval. During the month of May 2008, the client has approved the nominated sub-contractor as per the engineer's comments and the engineer accordingly has advised the contractor to proceed with the approved sub-contractor by fulfilling the comments. During the month of July 2008, agreement between the contractor and the approved sub-cotractor Tigray Youth Association (TYA) has signed and the service has commenced accordingly. In accordance with the Annual Report No 3, the sub-contractor has also made the following major activities in relation to the implementation of the contract:

- ✚ Health and education on HIV/ AIDS
- ✚ Promotion and distribution of condoms
- ✚ IEC/BCC materials distribution
- ✚ Peer education
- ✚ Reviewing meeting of facilitators
- ✚ Advocacy meeting with religious persons
- ✚ Continuation of Community conversation dialogues
- ✚ Monitoring and evaluation

3.5.25 However, in accordance with the mobilized Environmentalist report, it has been difficult to conduct the sessions for the contractor's staff due to the reluctance of the contractor to allow workers attend the sessions. Discussion was held with contractor's senior staff on this matter and they have admitted the allegation and promise to allow workers to attend the upcoming awareness sessions. So, the Environmentalist concluded that:

- ✚ The sub-contractor has not done satisfactory work regarding conducting awareness sessions and distribution of IEC/BCC and protective materials (condoms) in both camps;
- ✚ The contractor is reluctant towards the preventions and control of HIV/AIDS pandemic at work places of the project.

From this the Environmentalist recommended that:

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- ✚ The Engineer should follow-up on the implementation of HIV/AIDS and related activities;
- ✚ The client should also give proper emphasis towards the implementations of the activities through assisting the Engineer in all possible ways;

Regarding this, there is a discrepancy between the Annual projects report and Environmentalist's. Therefore, the Employer is advised thoroughly scrutinize other relevant project reports and correspondences carefully before giving a decision on any matter.

- 3.5.26 The local concerned body should also be approached for integrated effort and sustainability of the initiative after project completion. The engineer's representative is doing liaison works with the regional/local authorities including the community regarding the different issues that would arise in connection with implementation of the contract. Regarding security issues, the project to be secured from any damages since the location of the project is at the border area, close liaison has been made with zone administration officers, military commanders, local security affairs officers and police commanders.
- 3.5.27 The performance security was submitted on April 02, 2007 with an amount of USD 7,150,704.86 from Commercial Bank of Ethiopia and the expiry date is 28 days from the date of issue of the taking over certificate or **on the 30th day of October 2010** whichever occurs first.
- 3.5.28 Advance payment guarantee was submitted on April 02, 2007 with an amount of USD 12,410,946.72 and the expiry date is after 80% of the contract price has been certified for payments **on the 30th day of June 2010** which occurs first.
- 3.5.29 The Engineer has advised the contractor through his letter dated April 23, 2010 to renew the advance payment guarantee and performance security as soon as possible. It has been renewed as the AT has got the information from Senior Claims Expert but, no documentation has been availed until to date.
- 3.5.30 After repeated advice and instruction, the contractor has submitted renewed insurance policies for the period January 2010 to January 2011 in the joint name of the Contractor and the Employer for contractor's liabilities including plant and equipment, workmen's compensation, third party and motor comprehensive insurance policies. The contractor has provided all the Insurance Policies from United Insurance Company.
- 3.5.31 The contractor has handed over the Engineer's housing accommodations during the month of October 2008 and the offices on January 2009. The Engineer's permanent laboratory was handed over on January 2010. The contractor has also handed over the Engineer's vehicles, surveying equipment and radio communication to the engineer.

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3.5.32 The Assurance Team has verified that the disclosure on this subject is complete and accurate

3.6 **General Remarks**

3.6.1 The Assurance Team believes that 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.

4 Recommendations

4.1 Road design works to be completed in satisfactory way & within the required standards to reduce Variation Works, extra time and over run costs.

4.2 Completion time & cost of the project to be within the contract time & cost as far as possible. Otherwise in worst condition, it is to be completed at a reasonable time & cost.

4.3 The Feasibility Study of the DBST option of the subject project was not considered during the bidding for works of contract. Therefore, Engineering cost estimate that is extracted from the evaluation reports of Feasibility Study

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should reflect the construction costs that adopted for economic analysis of the investment.

- 4.4 For the aforementioned 4.1, 4.2, and 4.3 cases, the ERA is advised to appoint Construction Management Consultants to administer and follow up the project from its initial identification stage of the project to the final completion. Moreover, to invite new consultants to take part in road design and supervision services in order to increase the completion level in quality of works.
- 4.5 Before signing a construction works, ERA is advised to consider the sufficiency of the allocated budget for price adjustment/ escalation due to the rapid change in legislation for construction of materials, fuels etc.
- 4.6 ERA also advised to keep properly all records of Feasibility Studies, Tender process for design & supervision consulting service as well as works contract, by organizing and implementing especial Documentation and Record Section.
- 4.7 ERA is also advised to give more attention and make close liaison with zone administration officers, military commanders, local security affair officers and police commanders as the location of the project is at the border area.
- 4.8 The project accomplishment at the time of this study is minimal (22.87%), the contractor is expected to enhance the progress of the works in order to achieve the planned works program by deploying all the required resources. The ERA is required to pressurize the contractor at higher management level consistently to curve this large slippage and complete the works within reasonable time. The Engineer is also required to take proper contractual measures to expedite the progress the works.
- 4.9 The Environmentalist on his report has concluded that the overall commitment and devotion of the contractor towards environmental protection works and social issues are unsatisfactory, and recommended that the Employer and the Engineer should give adequate emphasis to implementation of HIV/AIDS and related activities, environmental as well as social issues alleviation measures as per the provisions in the Contract Document. Therefore, the Employer and the Engineer are advised to take the same.
- 4.10 Regarding Environmental and SIA, there is a discrepancy between the Annual projects report and Environmentalist's. Therefore, the Employer is advised thoroughly scrutinize other relevant project reports and correspondences carefully before giving a decision

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 organization 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 organization 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.

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 judgments 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.

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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 157 Km long Adigoshu-Lugdi Road Upgrading project to Asphalt Concrete Trunk 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 .Moreover, the road will also establish smooth link with Sudan
	Location	Tigray 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 2005, and the project was found feasible with a construction cost of ETB 518.6 million for DBST of 267 km long and ETB 534 million for DBST-cum-AC surfacing options of the same..
Funding	Budget	<ul style="list-style-type: none"> ✓ ETB 627,709,145.85, covered by Ethiopian Government ✓ Increased to ETB 652,772,864.90 for Variation No 1, No 2 and price adjustment up to the end of in July 2010
	QS's estimate	<ul style="list-style-type: none"> ✓ ETB 518.6 million for DBST ✓ ETB 534 million for DBST plus AC (Draft Final Report for Feasibility Study, August 2005)
Tender Process (for Design Review Consultant)	Procurement Strategy	
	Contract Type	Unit price rate
	Tender procedure	Quality and Cost based Selection
	Name of main consultant	ICT Ltd in association with ICTEL and ICTE
Tender Process (for Supervision Service)	Tender procedure	Quality and Cost based Selection
	Number expressing interest	<i>Not disclosed by PE</i>

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Consultant)	Number shortlisted	6
	Number submitting tender	5
Tender Process (Main Contract for Works)	Tender procedure	Open Tender, ICB with Prequalification
	Number expressing interest	✓ 18
	Number short listed	Not disclosed by PE
	Number submitting tender	5
Contract Award (Project Supervision)	Name of main consultant	CORE Consulting Engineers PLC in JV Metaferia Consulting Engineers PLC
	Contract price	ETB 12,978,497.50
	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 ERA.
	Contract programme	1280 calendars days since 25 June 2007 plus 12 months Defects Liability period
Contract Award (Main Contract for Works)	Contractor name	Hunan Haunda Road and Bridge Corporation
	Contract price	ETB 627,709,145.85
	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. It includes 2x3.50m=7.00m wide carriage way and 2.00m shoulder width in general.
	Contract programme	1280 calendar days, 10 April 2007 – 31 January 09, 2011 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	Individual changes to the contract which affect the	ETB 11,699,748.71 paid up to July 2010 to the contractor for price adjustment in accordance to

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Works)	contract price, with reasons	the contract provision
	Individual changes to the contract which affect the programme, with reasons	Nil
	Variation Orders (VO's)	1. There are two issued Variation Orders with a total amount of ETB. 13,363,970.37
	Claims, Notice to Claims	<p>1. The contractor's claim was submitted at the end of March 2008, in relation to the occurrence of this landmine incident, requesting an extension of time of 41.5 calendar days and compensation of ETB 5,200,311.86 and USD 22,082.75.</p> <p>2. The requested time extension and compensation cost is not accepted by the consultant and the client, ERA</p>
	Payment certificates	<p>✓ 13 payments were certified by the engineer to date at monthly intervals</p> <p>✓ The contractor has been paid a total amount of ETB 225, 870,747.30 including advance payments.</p>
	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 design consultant has not given more emphasized on the study of Environmental and SIA during the Feasibility Study of the road project.
	Project purpose	
	Location	
	Intended Beneficiaries	
	Feasibility Study	
Project Funding	Financial agreement	NIL
	Budget	
	Engineer's estimate	
Tender Process (Main Contract for Works)	Tender procedure	The number of firms that submit financial bids is very small, as only five competing firms have been considered for financial opening.
	Number expressing interest	
	Number shortlisted	ERA need to increase the completion levels for such tenders in order to get a reasonable financial offer.
	Number submitting tender	
Contract Award (Project Supervision)	Name of main consultant	There were no records for the disclosure of financial offers of the first bidders & the reasons for withdrawal of Net Consulting Eng. PLC, as it is difficult to judge what was gained/ lost because of rebidding.
	Contract price	
	Contract programme	
	Contractor name	
Contract Award (Main Contract for Works)	Contract price	Reasonable, but ERA needs to increase the completion levels as only five competing firms have been considered for financial opening.
	Contract scope of work	
	Contract programme	
Contract Execution (contract for Project Supervision)	Significant changes to contract price, programme, scope with reasons	The contractor's proposals and acceptance of ERA to transfer the Humera town section roads, which is under design, and the Ruwian Bridge works from Dansha-Humera Upgrading Road Project to Adigoshu-Humara-Lugdi Road Upgrading Project. Moreover, the last 4 km section of the road after Lugdi up to Sudanese border will be included to the Adigoshu-Humera-Lugdi upgrading road project
	Individual changes to the contract which affect the programme, with reasons	

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.	Variation order No 01 issued on May 25, 2009 by consultant's letter Ref. No.: SSHL2/0863/09	Due to hydraulic inadequacy during design review		Additional cost of ETB 10,376,782.91	NA	It satisfies the requirement of the design review of the project structures for smooth flow of runoff water during rainy seasons and for smooth flow of traffics accommodations	
2.	Variation order No. 2 issued on April 28, 2010 by consultant's letter Ref. No.: CORE/449/10	Due to the computed design discharge is beyond the capacity of the existing double cell box culvert structure		Additional cost of ETB 2,987,187.46	NA	It has an effect on quality by replacing the existing double cell box culvert in accommodating the computed design discharge and totally avoiding over top flow of the runoff water during rainy seasons	

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.	On December 06, 2007	Related to the occurrence of a landmine incident at project site	ETB 5,200,311.86 and USD 22,082	Not accepted	-	Nil	Nil	None	

Annex 6 – Schedule of Disclosed Documents

Title of Document or Report	Date Requested	Date Supplied	Remark
Documents Required During Project Planning Stage			
Feasibility Study	Before 29 July 2010	29 July 2010	
Financing agreement	Before 29 July 2010	NA	
Tender Evaluation Report [Design Review] 1. Technical Evaluation 2. Financial Evaluation	Before 29 July 2010	Not disclosed by procuring entity	
Tender Evaluation Report [Supervision] 1. Technical Evaluation 2. Financial Evaluation	Before 29 July 2010	10 August 2010 10 August 2010	
Tender Evaluation Report [Works] 1. Technical Evaluation 2. Financial Evaluation	Before 29 July 2010	06 August 2010 06 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		

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	July 2010	29 July 2010	
Contract Document for Supervision Service	Before 29 July 2010	05 August 2010	
Contract Document for Works	Before 29 July 2010	06 August 2010	
Approved Extension Of Time	Before 29 July 2010	NA	
Rejected Extension of Time	Before 29 July 2010	21 August 2010	
Approved Cost Claims	Before 29 July 2010	NA	
Rejected Cost Claims	Before 29 July 2010	21 August 2010	
Variation Orders	Before 29 July 2010	23 August 2010	
Payment Certificate	Before 29 July 2010	19 August 2010	
Latest Invoice	Before 29 July 2010	Not disclosed	
Annual Progress Report	Before 29 July 2010	29 July 2010	
Latest Monthly Report	Before 29 July 2010	19 August 2010	