CLAIMS IN INTERNATIONAL PROJECTS IN ETHIOPIA

CASE STUDY

BY
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ABBREVIATIONS AND NOTES

FIDIC	=	Federation International Des Ingenieurs Conseils
ERA	=	Ethiopian Roads Authority
ECAA	=	Ethiopian Civil Aviation Authority
ICE	=	Institute of Civil Engineers
ICB	=	International Competitive Bidding
ISO	=	International Standards Organization
W B	=	The World Bank
IBRD	=	International Bank for Reconstruction and Development
IDA	=	International Development Association
KAFED	=	The Kuwait Fund for Arab Economic Development
OPEC	=	The Organization of Petroleum Exporting Countries Fund for International Development
BADEA	=	The Arab Bank for Economic Development in Africa
ADB	=	The African Development Bank
EIB	=	The European Investment Bank
NDB	=	The Nordic Development Bank
AIA	=	The American Institute Of Architects
TCDE	=	Transport Construction Design Enterprise
DRE	=	Disputes Review Expert

ABSTRACT

Claims are an inevitable fact of life in the construction industry. Whether in local or International contract projects, the issue of claims remains the same. In the context of civil engineering projects, claims are a demand for money or time extension or both to which one party rightly or wrongly assumes that he has a right.

With the advent of the liberalization of the economy and availability of funds from international financers, there has been a surge of large-scale civil engineering construction in the Ethiopian construction industry. This is particularly evident in the road sector, where the Ethiopian government, has been investing a substantial amount of money with the assistance of International financers like the World Bank.

While this large scale investment in the construction sector has been a major step in the right direction, this venture has been beset with unfortunate incidences of claims ranging in millions of birr and sometimes even in excess of 100% of the project costs. In this regard therefore, the objectives of this thesis are to investigate the causes of these claims and to propose a possible remedy as to the handling of similar incidents in the future.

Whilst claims are an inevitable fact in the construction industry, future handling of such incidents will have to depend not on an attitude of resignation, but on developing a healthy understanding of their occurrence and formulating a strategy of minimizing risks associated with such occurrences. In this aspect one of the main observations of this research work has been the fact that the Ethiopian construction industry seriously lacks, qualified engineering professionals with an appropriate level of training in construction management, international contract administration and claims handling.

It appears that the provisions of the FIDIC forms of contract may not be well understood within the circles of Ethiopian engineering professionals. This has led in many instances to avoidable cases of claims, costing the Ethiopian government millions of birr. It is, therefore, mandatory that the Ethiopian construction industry, especially those responsible for running international projects, take a serious step to institute better contract management, they should also initiate exposure to international contract procedures, enforce training, develop regulated pre-tender document preparation and better bid evaluation measures. It is also essential that the process of pre-qualification for both consulting and contracting firms be mandatory in the administration of international projects.

The findings of this research indicate that of the 10 international projects surveyed, all of them have experienced claims related to late handing over of site, rights of way problems as well as design errors, or late submission of drawings by the supervising consultants. This is indicative of inadequate contract administration practices. 80% of them have also experienced claims related to weather conditions.

It can easily be observed that a major portion of the claims could have been mitigated, had there been a coordinated effort to administer the contracts in accordance with the expressed terms and conditions stipulated in the agreement. In the future, the Ethiopian construction industry needs to focus on the development of adequate project management skills and enhance the contract administration capacity of its practicing professionals, with particular emphasis on international projects. The establishment of a " think-tank" of experts with appropriate negotiation skills, overseeing international projects can also assist towards this objective.

CHAPTER 1

1.1 INTRODUCTION TO THE STUDY

1.2 INTRODUCTION TO THE THESIS

The nature of civil engineering projects makes them unique in that they are site specific and custom built. No standardized approach can be utilized in all cases. Each project is designed and executed in a specific location and under specific circumstances. This makes it difficult to tell ahead of time exactly how a project will turn out. In most cases, therefore, it is hard to tell exactly ahead of time what the final cost of a project will be. Consultants prepare design and tendering documents to the best of their knowledge and the available data. Contractors price their tenders on the available information included in the tender documents. Upon execution of the contract, however, many unforeseen circumstances and problems arise that necessitate revision of the work progress and rectification thereof, usually at a given cost. These costs are in most cases not part of the original price and are dealt with separately**.** Hence we have the issue of claims.

It is generally understood that claims are an inevitable fact of the civil engineering profession. They are unavoidable at least up to the present. The best that practicing engineers can do is, therefore, to minimize the impact of such claims, attempt to keep project cost within budget and in some cases mitigate the damage that may result.

Claims are requests or demands for payment of money or request for time extension or both to which a contractor believes, rightly or wrongly, he is entitled**.** In the context of civil engineering contract, a claim normally means a demand by a contractor for payment of an item

or items of work carried out by him on behalf of the employer for which a readily identifiable amount cannot be ascertained under the terms of the contract [Haswell et.al. pp172]. They result as a consequence of various factors. Some of them are due to incomplete information in the initial tendering documents, unforeseen circumstances, inadequate contract administration, and lack of knowledge of contract documents or legal provisions. Currently there has been a significant occurrence of claim cases in major international contracts in Ethiopia. Some have been handled by international arbitration. This shows that claims do occur and will continue to occur. But how do we handle claim cases? What needs to be done?

The primary sector of the construction industry in Ethiopia, in which claim cases seem to have occurred rather frequently and significantly, is the area of international projects. International projects are now becoming common in Ethiopia; the government has plans of investing over 52.5 billion birr worth of infrastructure development work in the next 5 years (Addis Zemen, Meskerem 5, 1995), which includes road projects, power generation, health care and water resources development. Most of the financing for these projects will be obtained from foreign donors and financing institutions that require international competitive bidding (ICB) as a prerequisite for funding.

With such a significant venture anticipated, it is prudent to ask how such projects will be handled, whether there is the required trained manpower in place or whether there is sufficient in- country contract administration experience that can be harnessed to facilitate the realization of such an objective.

Being an inevitable component of civil engineering projects, claims know no geographic boundaries. This is true in the Ethiopian situation as much as it is in developed countries. Hence the Ethiopian construction industry has its own share of claims. In line with, this the previous in-country contract administration and claim handling experience will play a crucial role. This calls for the task of documenting whatever experience has been gained from the relatively few international projects handled so far in such a way that the experiences and lessons learned are recognized and possible recommendations formulated for future use in other similar projects.

Then, and only then, can there be a significant progress in the handling of future major public works. Failure to manage the international projects appropriately will most likely result in the occurrence of serious claim cases, which besides incurring additional project costs, will in most cases result in the delay to completion of projects.

This research work will therefore attempt to survey the contract administration experience in Ethiopia and assess ways in which claim cases have been handled so far; attempt to identify their causes and propose recommendation as to their handling, particularly in two major international projects in the vicinity of Addis Ababa, The Addis Ababa Bole International Airport Project and The Addis Ababa Ring Road Project (AARRP).

It is anticipated that the findings of this thesis will contribute towards the identification of the causes and frequency of such claims and their impact on the construction industry as well as increasing the awareness of construction managers on claims in general, and International

project management in particular. It is also hoped that it will contribute towards handling of international projects in light of local conditions and constraints.

1.2.1 The Study Issues

1.2.2 Statement Of the Problem

The increased frequency of claim cases in the International construction sector of the Ethiopian construction industry is draining scarce resources in order to settle claim cases, and is creating an atmosphere of resignation in handling international projects. Unless a systematic approach of handling claim cases is formulated and awareness created, this issue will continue to affect the proper handling of projects and may significantly affect future construction endeavors. This thesis is therefore an attempt to address such issues.

1.2.3 Objectives of the Thesis

The specific objectives of this research is to:

- To provide a brief survey of some international projects executed in Ethiopia.
- To briefly survey the contract administration experience in Ethiopia
- To identify the possible causes of claim incidents;
- To identify the best practices observed so far in contract administration and to minimize claim cases in local situations; and
- To formulate conclusions and recommendations.

1.2.4 The Study Design and Methodology

The methodology for carrying out the research work has focused on the review of literature and, the survey of some of the claims in major civil engineering projects in Ethiopia. It also includes the collection of data on previous and current project management and contract administration practices as well as the experiences obtained. Various data obtained from these projects has been analyzed and interpreted. Finally, based on these observations, conclusions and recommendations have been formulated.

1.2.5 The Sources of Data

The sources of data utilized in this study are the following: the review of available literature on the topic of claims, published and unpublished claim related documents and reports in the government offices running the indicated projects, analysis of available data with regard to claims in these projects, and discussions with professionals involved in this sector of the Construction Industry. The study focused primarily, as a case study, in analyzing the contract administration experiences, and in particular focuses on two major projects in Addis Ababa. It will review the handling of claims in such projects

The referenced materials include, reports, recent Journals related to the claims issues textbooks on claim-related topics, and books about construction management. Claim-related information with regard to projects being run by government agencies was done through the review of the reports, and discussions with responsible personnel in the industry. A significant portion of the information however, was obtained through the review of reports.

The governmental organizations chosen were those under whose jurisdiction the indicated projects were being overseen. In order to obtain access to the largely confidential documents, the organizations were requested, through a letter written by the Dean of the Faculty of Technology, to assist in the study by making available all claim related documents,. All the organizations were assured that the contents of the study would be handled confidentially and will only be used for academic purposes.

Since the projects chosen were few in number and the topic of claims is a rather limited section of the contract administration process, the utilization of questionnaires for the collection of data was not given primary focus. It was agreed with the responsible government agencies that adequate claim related information might be obtained through the review of available reports and literature.

As international projects are financed through bilateral or multilateral governmental financing arrangements, all the projects surveyed have been under government agencies. The researcher had the opportunity of working on one of the major international construction projects and had access to the information related in handling claim cases. This has been used in the analysis and interpretation of the aims of the research proposal.

1.2.6 Application of the Study

The findings of this research work is expected:

- To contribute towards the enhancement of project management skills in Ethiopia, by analyzing past experiences;
- To contribute towards the improvement of claims management skills;

- To contribute towards the enhancement and/or development of an Ethiopian contract administration document;
- To formulate the best practice approach in contract administration;
- To provide recommendation towards reviewing and/or revising current contract documents, with a view to reducing claim cases.

Hence the government agencies, private consulting and contracting firms plus practicing Engineers and/or architects etc may benefit from the results of this research. In addition, it is hoped that the findings of this research may stimulate other researchers to conduct further research.

1.2.7 Scope and Limitations of the Study

The scope of the study has been limited to the cases of a few internationally financed and executed major civil engineering projects. Whilst it may appear that the number of cases considered is small in number, it is nevertheless hoped that it will be sufficient to give an overview of the major forms of claim that are common in the International Construction Industry.

One common element in all the international projects has been the use of the FIDIC form of Contract, which is gaining wide acceptance in the management and administration of international projects. The focus of the research has therefore been limited to the FIDIC form of contract, with a brief focus on some clauses of this particular form of contract and its relevance to the local conditions existing in the Ethiopian Construction Industry. Some of the projects reviewed, however are incomplete at the time of writing; hence the total cases of claims considered may not reflect the final status.

CHAPTER 2

2.0 LITERATURE REVIEW

In this chapter, a review of literature on the topic of the study is presented,. The first section contains the study issues and literature review, whilst the second part contains case studies analysis followed by conclusions and recommendations.

2.1 History of Construction In Ethiopia

Ethiopia has a rich history of magnificent construction endeavors. The obelisks of Axum the rock-hewn churches of Lalibela and the castles of Gondar are a few examples of this expertise. With the advent of modern civilization, particularly during the reign of Emperor Menelik, there have been some significant developments in this regard. The Addis-Djibouti railway line is one example where such a venture has been successfully carried out. During the Italian occupation of the 1930's there were some construction activities, particularly in the development of long trunk roads. After the Italian occupation and before the 1960's, expatriate contractors generally dominated most of the medium and small civil and building projects. The experiences, as well as the financial benefits were almost exclusively in the hands of foreigners (Abate, 2002, pp23). Eventually local construction companies owned by Ethiopian professionals developed. It was however a long time before such companies were able to penetrate the international construction market or to be accepted by international financers for international competitive bidding (ICB) (Abate pp23).

Following the nationalization of many private construction companies plus the lack of

international financing for the construction sector following the revolution of 1974, there was a significant decrease in the number of major civil engineering projects in the country.

After the change of government in 1991 however, a steady increase in projects was observed in the civil construction sector. Not only was there steady growth in the number of engineering projects financed locally, but the contribution of foreign financing agencies as well as the participation of international contractors as well as consultants in major civil engineering projects also increased. For instance, the ERA currently runs about sixteen projects financed through international bilateral agreements executed by international contractors and consultants, with fifteen more in the pipeline. The Ethiopian Civil Aviation Authority runs about four internationally financed projects while the Addis Ababa Roads Authority runs the Addis Ababa Ring Road Project (AARRP) under construction by the China Road and Bridge Construction Company (CRBCC)

2.2 International Projects

The current trends of globalization and the free trade agreements being ratified by many nations have encouraged the participation of many contractors in the international construction industry.

> "International construction markets have changed dramatically during the last decade. Agreements such as the Uruguay Round in the General Agreement on Tariffs and Trade (GATT) system have fundamentally changed the structure of the construction industry..all signatories to the GATT system; about 116 countries must open their domestic markets, including the construction service trade" (Han et. al.2001)

In addition to this, the standardization of products and services such as the International

Standards Organization (ISO) has promoted product acceptance and approval in international trade. As a result, construction firms are able to market standardized products in different countries (Han et. al.2001). Therefore international construction projects involve a multitude of trade and expertise; possibly from many different countries where the work is executed on the site belonging to the employer (Cox. 1991, pp. 118).

The basic features of a project may remain the same regardless of the geographic location. The elements of culture, governmental (importation, taxation, foreign currency transfer etc. issues), financial (exchange rates) requirements, mobilization, and in general political or economic and related issues, however, complicate the planning and execution of a project. These factors affect all the activities and influence the execution of the project. [Heisler1994, pp92] they also give international projects their unique characteristic.

Projects will also be located in different places with varying conditions of accessibility and availability of data related to the projects. These factors will also play a crucial part in the implementation of the project. In addition to this, major civil engineering projects require the participation of many trades and specialties. This complexity results in the involvement of many specialist companies. In less developed countries like Ethiopia, specialty skills do not normally exist, and therefore must rely on foreign contractors. In addition to importing these specialties the country must also find the necessary finances to implement the project. The two factors: the procurement of services from foreign companies and the financing of such ventures from foreign financing agencies give projects an international feature. Hence the term, "***international projects***" is used. In Such international projects financers require that loans be

disbursed according to their requirements and international contractors also prefer to be administered on internationally recognized and accepted legal documents.

2.3 Internationally Financed Projects

Internationally financed projects are projects in which a major part of the funding for the projects is obtained from foreign donors or funding agencies. Many major civil engineering projects in Ethiopia are financed through loans with bilateral or multilateral financial arrangements. In Ethiopia the financing agencies cover a major portion of the financial requirements whilst the Ethiopian government normally covers a small portion of the total project cost, in the range of 10-15 %. This is anticipated to provide as a form of collateral to the lending agencies besides providing a local currency portion for the contractor's costs. A common feature of the international projects is, all projects are to be carried out through international competitive bidding (ICB) unless specifically arranged through the agreements of the government and the financing agencies.

2.4 International Projects in Ethiopia

Internationally financed projects are those in which the major portion of financing comes from the foreign donors, usually through soft loans. To qualify for a foreign loan (international financing) the feasibility of a project must be ensured by a thorough economic analysis and on environmental impact assessment. The identification of potential projects is usually carried out in consultation with the borrowing country.

Once the basic framework of the project and its feasibility is studied, the required funding request is submitted to the financing agency. Although in most cases international financing agencies do not play a dominant role, certain financer's guidelines must be adhered to and complied with, before financial award is given. For instance international financers normally require international competitive bidding (ICB). In some cases, where such an approach may not be feasible, however, alternative procurement methods are permitted. The specific steps to be taken and the guidelines to be adhered to are all documented and specified in the loan agreement. The main reason behind this requirement is the need to insure that the requisite experience in the execution of the project is secured through the involvement of internationally renowned firms. This entails that the implementation of such contracts and /or international contractors be executed through internationally recognized forms of contract, such as the FIDIC form**.**

2.5 International Competitive Bidding (ICB))

One of the most important steps in the implementation of a civil engineering project is the selection of a suitable contractor, with the requisite financial and technical expertise to accomplish the project objective. As there are many highly qualified contractors worldwide, clients are faced with the problem of selecting the best contractors. Among the many forms of selecting and awarding work to competent contractors, the process of competitive bidding is widely used. This process of competitive bidding involves the following tasks;

i. Selection of construction firms after an open competition. Open advertising, specifying the category and experience of participating competitive contractors, precedes this bidding.

ii. Pre qualification screening: this is where firms are screened prior to submitting bids. This is done to attract qualified firms only, and to weed out less qualified contractors. For those pre-qualified contractors, the tender documents will be issued and after bids are submitted, the evaluation process begins.

iii. Direct negotiation: If the owner is acquainted with a reputable firm, it may award the project by direct negotiation. The forms of payment are then decided accordingly. Many owners are reluctant, however, to deal with only one contractor. The fear of overpayment and the apparent lack of competition may make them reluctant to do this kind of negotiation..

In many cases, however, financing agencies require competition as an aid to selecting competent contractors and many construction contracts are awarded on the basis of competitive bidding. Whether a contract is local or international, the procedures are the same in most cases. There will be an invitation to bid (optionally preceded by pre qualification of tenderers), submission of tenders, evaluation of tenders and the award of contract.

Most financing agencies or clients have now systematically defined the bid evaluation process so that during tendering a fair and transparent bid evaluation process is carried out. This bid evaluation process is put in place to minimize inconvenience, to facilitate speedy evaluation;

and to create a transparent atmosphere so that contractors are encouraged to participate in the bid.

One of the major requirements of the international financing agencies such as the World Bank is that projects submitted for funding must be implemented by contractors who are to be selected through "International Competitive Bidding" (ICB). This means that the successful contractor will be selected based on international competition in which qualified contractors participate.

In many instances governments as well as financing agencies require the pre-qualification of potential tenderers in an effort to select only qualified and experienced tenderers for the work. In this screening process, there is a limit on the number of tenderers that may be qualified to participate in the tender. In these cases, only tenderers that qualify, or are able to satisfy the minimum requirements, are selected. Experience shows that for projects involving international tendering, pre qualification is desirable, since it enables the client and/or consultant to establish the competence of companies subsequently invited to tender. It is also an incentive to contractors, who know that once they have qualified they will be competing against a limited number of other firms, all of whom possess the required competence and capability to perform the task.

Pre-qualification ensures that only tenderers with the requisite financial and technical experience are invited to tender. The aim of pre-qualification is therefore to establish a list of capable firms while ensuring that a proper level of competition is safe guarded. To achieve this objective and to give additional incentive for contractors to respond to invitations to

tender, FIDIC contract documents recommend no more than seven contractors be pre-qualified unless the rules of the employer or the financing agency indicate otherwise.

In the evaluation of offers, only tenders that conform to the essential requirements of the bid notice and conditions of participation are considered for award. Once the process of screening competent contractors is carried out the bid evaluation will yield in many cases the "lowest evaluated bid", which is a combination of both technical and financial parameters. The "lowest evaluated bid " may not necessarily be the lowest price offer, but the " most advantageous offer". This implies an aggregate evaluation of both the technical and financial part.

Considering the above during the process of the tender evaluation will certainly have an impact on the final outcome of the project implementation. Clients, therefore have, the obligation of awarding the contract to a bidder who is technically capable of implementing the work and who has given either the lowest offer or has the offer which is determined to be the most advantageous according to the specific evaluation criteria set forth in the bidding documents. The "lowest evaluated bid" approach considers pertinent factors that in the end affect the final bid price, and is therefore a reliable and realistic parameter in the evaluation of the total project cost.

On the other hand, however, many contractors tend to give as low a price as possible so that the highest financial weights in the selection process may be obtained. The reason for this is that the contractor will be in a better position to win the contract and if selected, he may make up the difference in the money needed to make a good profit through claims. It seems

therefore that the selection of contractors through a lowest bid tends to tempt contractors to claim later on. The evaluation of bids and the selection of competent contractors, therefore, is one crucial factor, which needs to be given proper emphasis in the international project contract administration in Ethiopia.

2.6 International Financers Funding Procedures

Among the major financing institutions of the world, the World Bank, the International Monetary Fund, (IMF) and the African Development Bank (ADB) occupy a central role. A brief description of the procedures of these banks regarding international financing of civil engineering construction projects is given below.

2.7 The World Bank

As one of the major financing agencies in the world the World Bank finances major projects in various parts of the world, when requested to do so by governments. The financing arrangements are normally facilitated through a loan or credit agreement entered between the bank and the borrowing government and paid back with interest in a fixed number of years. When financing projects, first of all, the World Bank evaluates the viability of the project and then approves the loans, subject to some requirements. The bank generally states that:

> "The responsibility for the implementation of the project and therefore for award and administration of contracts under the project, rests with the borrower" (World Bank guidelines 1995)

It also requires that

> " The Bank, for its part, is required by its Articles of Agreement to " …ensure that the proceeds of any loan are used only for the purpose for which the loan was granted …." (World Bank guidelines 1995)

In this regard four considerations generally guide the Bank's requirements;

(a) The need for economy and efficiency in the implementation of the project, including the procurement of the goods and works involved
(b) The Bank's interest as a cooperative institution, in giving all eligible bidders from developed and developing countries an opportunity to compete in providing goods and works financed by the bank;
(c) The bank's interest, as a development institution, in encouraging the development of domestic contracting and manufacturing industries in the borrowing country; and
(d) The importance of transparency in the procurement process. (World Bank guidelines 1995)

It further states that

> " The Bank has found out that, in most cases, these needs and interests can best be realized through International Competitive Bidding (ICB), properly administered, and with suitable allowance for domestically manufactured goods and where appropriate for domestic contractors for works under prescribed conditions. In such cases therefore the Bank requires its borrowers to obtain goods and works through International Competitive Bidding (ICB) open to eligible suppliers and contractors." (World Bank guidelines 1995)

As a basic requirement, therefore, the World Bank sets out the need for International Competitive Bidding (ICB) in all the projects that it is financing. In all international projects in Ethiopia being financed through funds obtained from the bank, International Competitive Bidding (ICB) has therefore been the norm. Following the completion of the International Competitive Bidding (ICB) procedures, the Bank also requires reviewing the bid evaluation process of the borrower.

2.8 The African Development Bank

The African Development Bank, also grants loans to member countries similar to the process set out by the World Bank. African Development Bank also encourages International Competitive Bidding (ICB) and in some cases preference is given to domestic sources.

2.9 The European Investment Bank (EIB)

As a financing agency the EIB has also been involved in financing some of the projects in Ethiopia. Similar to the World Bank and the ADB, the EIB also encourages ICB and purchase of goods from European countries.

2.10 The Nordic Development Bank (NDB)

The NDB has also been involved in financing some of the international projects in Ethiopia. Similar to the WB and the ADB, the NDB encourages ICB and purchase of goods from the Nordic countries.

2.11 Other financing Institutions

Similar to the WB and the ADB, other lending institutions have also been involved in financing some construction work in Ethiopia. Some of the institutions are:

- The KAFED = The Kuwait fund for Arab economic development;
- OPEC = the OPEC fund for international development;
- BADEA = the Arab Bank for Economic Development in Africa.

2.12 Requirements of International Financers

As has been enumerated above, almost all international financing agencies require that all financing arrangements be carried out through ICB. In some cases, the financing agencies may permit the involvement of local contractors or the purchase of goods from the local market. In Ethiopia, however, the absence of internationally qualified contractors has not allowed this to happen. To date, therefore, Ethiopian contractors have not had major participation in internationally financed projects except as sub-contractors to international contractors.

This has been the case due to the fact that most local contractors have not had the required international experience, nor the necessary financial, technical and manpower capability to compete in such large projects. Whilst these shortcomings are understandable and may justify the lack of international competition in Ethiopian contract bidding, they should not be taken as a final and irreversible constraint. The Ethiopian government needs to put increased emphasis on the capacity building of local contractors as well as negotiating with the financing agencies in permitting local contractors to have a share of the market.

CHAPTER 3

3.1 International Contracts

A contract is called international if the parties concerned have their places of business or habitual residence in different states (Bunny, 1991, pp. 15). This may mean that a contractor residing in yet another country may build a project financed by an agency whose official residence is outside the home country of the client. Few international construction projects, therefore, take place today with out bilateral or multilateral financing and often both are utilized (Jaynes, 1991, pp.91, ICE proceedings). Bilateral agreements involve the agreement of two governments; whereas multi lateral agreements involve more than two governments. Whenever such financing is available, the lending institution normally requires some procedures to be carried out in the implementation of the works.

In addition to the requirements of the funding institutions, it is normal practice in the construction industry to utilize a form of internationally recognized contract documents that are acceptable to both parties. In this regard, the FIDIC form of contract has been widely accepted and is currently a widely used form of contract administration document in the international projects being implemented in Ethiopia.

3.2 Contracts

3.3 Definition of Contract

The basic document in a project is the contract document. The purpose and the scope of the work are covered in this document [Heisler, 1994 pp 92]. In essence, the requirements of the

work, the duties and responsibilities of the parties concerned are set out in detail. The type of the implementation of the project dictates the form of the contract.

Article 1675 of the Ethiopian civil code defines contracts as

> " A contract is an agreement whereby two or more persons as between themselves create, vary or extinguish obligations of a propriety nature"

Article 1678 further states that for a contract to be valid the following elements must be present:

> " No valid contract shall exist unless
>
> (e) The parties are capable of contracting and give their consent sustainable at law;
> (f) The object of the contract is sufficiently defined and is possible and lawful;
> (g) The contract is made in the form prescribed by law, if any."

Furthermore, article 1679 stipulates

> "A contract shall depend on the consent of the parties who defined the object of their undertaking and agree to be bound thereby"

Hence the law defines it as an agreement. That means two parties agree voluntarily to define an agreement between them, with full consent. Such consent is also to be documented in written form. The provisions of the Ethiopian law are based on such a stipulation. As in Ethiopian law, forms of international contracts basically follow the same principle. Fundamental to the contract is the principle that it is a binding legal document. This means that, all activities agreed upon by the parties must be carried out. It is not possible to dismiss terms or requirements merely because they are onerous or overlooked. (Heisler, 1994, pp368)

In international projects the same principles apply. The form of agreement or contract takes more or less the same form. Whilst the basis of voluntary agreement, (consent of both parties and capability of contracting parties to carry out their agreement) is valid, the form of contract and the settlement of disputes, if any, are to be carried out in international terms and conditions. There are a number of international contract forms specifically designed for international construction contracts to be carried out outside the home country of the main contracting company. This is done to mediate the variability of the laws of the home country of each partner in the construction contract, as well as to give a fairly broad coverage so that both parties know their obligations. Some of the currently available forms of construction contracts include, the FIDIC form, the ICE and the AIA conditions of contract.

In normal circumstances copies of the proposed contract documents are issued as part of the tender documents to the tenderer so that they are aware of the provisions of the contract. This is further updated or amended as required during the tendering and negotiation period. A contract in itself, however, does not achieve anything without a qualified contract administration expertise.

> After contract provisions have been completely discussed, agreed upon, and reduced to mutually acceptable written terms, and the contract has been duly signed by both parties then only upon the diligent follow-through of capable contract administration can the owner realistically expect to fully realize the benefits offered by the contract. (O'Leary, 1992, pp 4)

The basic contract documents will normally contain the agreement between the owner and the contractor, conditions of contract, construction drawings, and specifications. Also included in the contract documents are addenda issued prior to implementation of the contract and other

documents, which may be listed in the agreement, and any modifications, issued after execution of the contract. . (O'Leary, 1992, pp 5)

3.4 Types of Contracts.

There are many types of contract forms in the administration of civil engineering projects the most common ones and those widely used in the Ethiopian construction industry include:

3.4.1 Re-Measurement form of Contract

In this form of contract, the contractor is paid based on the amount of work he does, as compared to the prices detailed in the Bills of quantities (BOQ). This is the most widely used form of contract in Ethiopia for both local and international contracts.

3.4.2 BOT form of Contract

This is a form of contract where the contractor builds, operates and turns over (BOT) the project to the client for a fee.

3.4.3 Turnkey Projects

This form of contract, also called EPC-contract *(Engineer, Procure, Construct-Contracts)* is a form of contract where the contractor is responsible for the design and building of the project. Such forms of contract are particularly suitable for electro-mechanical contracts.

3.4.4 Lump Sum form of Contract

In this form of contract, the contractor agrees to do the job for a fixed sum. In this case the contractor is responsible for the preparation of all details.

3.5 Forms of Contract administration

Depending on the execution form of a project various arrangements of contract administration are carried out. In some cases the employer may directly enter into a contract with the contractor and may supervise the activities through its own professionals. In other instances, it may hire the services of a third person, more or less independent of one or the other party to execute the contract. The FIDIC form of contract is based on this second option. (Cox, 1991, pp117)

3.6 International forms of Contract Administration

In order to streamline the diverse activities in the construction sector there have been a number of attempts to produce a standard form of contract for civil engineering works. These standard forms of contract were initially drawn up by independent professional organizations (Bunny, pp.3) In Europe, and more particularly in the United Kingdom and in Ireland such forms were produced as early as the nineteenth century. A standard form for building contracts was used under the aegis of the Royal Institute of British Architects (RIBA), some time towards the end of the nineteenth century. This led to what became known as the 'RIBA Form', which was published in successive editions between 1909 and 1957. It later developed into what became known as the JCT form (Joint Contracts Tribunal).

In civil engineering contracts, various forms which were used by different employers prior to the Second World War. These were combined by the Institution of Civil Engineers (ICE), and

the Federation of Civil engineering Contractors in the United Kingdom into an agreed standard document. This was published in December 1945, and the document was thereafter known as the General Conditions of Contract and forms of Tender, Agreement and Bond for Use in Connection with Works of Civil engineering Construction, in short the ICE form. In January 1950 it was revised and issued with the added agreement of the Association of Consulting Engineers, UK. Other revisions followed later (Bunny, 1991, pp.3).

To the credit of those responsible for drafting the ICE form, many professional Institutions all over the world modeled their own conditions of contract on its text, making only minor amendments to accommodate differences in local matters of law and nomenclature. The ICE form was, however, drawn up mainly for the domestic scene in the UK, and so in August 1956 the Association of Consulting Engineers in the United Kingdom, jointly with the Export Group for the Constructional Industries in the UK, and with the approval of the Institution of Civil Engineers, prepared a document for use outside the UK which became commonly known as the Overseas (Civil) Conditions of Contract (The ACE form). Although in text and format this latter form differed only slightly from the ICE form, there were some minor changes in forty clauses as well as a small number of major alterations (Bunny 1991, pp.4).

The ACE form as published in 1956 included a standard form of Tender, an Appendix, and a standard form of Agreement. It was published in a blue cover, which helped to distinguish it from the ICE form. It was perhaps the first standard form of international conditions of Contract for civil engineering works. In concept and style, however, it remained faithful to the original domestic form.

It had only been used for a short period of time when the Conditions of Contract (International) for Works of Civil engineering Construction was published in August 1957. This was based on the ACE form described above, and was also published in two parts. Perhaps because of its long title, in a very short time it became popularly known as the 'Red Book' (its cover was printed in red). It was prepared by the *Federation Internationale des Ingenieurs Conseils* (the International Federation of Consulting Engineers, FIDIC) and the *Federation Internationale du Batiment et des Travaux Publics* (the International Federation of Building and Public Works, now known as the International European Construction Federation, *FIEC).*

3.7 The FIDIC form of Contract

As discussed above, and because of the concepts included in the FIDIC form of contract, as a result of the many years of experience and input from different professional organizations the FIDIC or "*Federation Internationale des Ingenieurs Conseils*" has become a form of engineering contract that is becoming popular for international projects. Prepared initially in 1958 it is now in its fourth edition, and continues to be updated. The FIDIC form of contract is a development of the ICE form of contract and in this form of contract, the Engineer plays a central role in the administration of the contract and dispute settlement. As a widely used form of contract in the international contracts in Ethiopia, the FIDIC form of contract endows the Engineer to settle differences, or in some cases to give decisions on disputes that may arise. Therefore as a primary administrator of the contract the Engineer is the mediator between the owner and the contractor, which form the parties to the contract.

CHAPTER 4

4.1 CLAIMS IN INTERNATIONAL PROJECTS

In a way claims are inevitable in construction projects. They may occur when the terms and conditions of the contract change in such a way that the contractor is unable to recover expenses and profits. In other cases, when the provisions of the contract documents and specifications lack clarity, a correct interpretation of the documents may result in extra expenditure, which a contractor is forced to cover through claims.

In some cases, where the form of contract transfers the risks to the employer rather than to the contractor, the contractor may be tempted to claim. Such occurrences happen depending on the form of procurement of the services. In the traditional form of procurement of services, where the employer provides the designs and specifications (prepared through a consultant) to the tenderers, the successful tenderer may not assume the responsibility for the completeness of the documents and hence may tend to claim for extra time and money, depending on the discrepancies that he may discover in the contract documents. Being cognizant of this, the FIDIC form of contract provides a number of clauses that entitle the contractor to claim for extra time and money.

In the other form of contract, such as the BOT, and fixed fee forms of contract, the design and construction of the projects is largely the responsibility of the contractor. The risk is then transferred from the employer to the contractor, with the result being lesser likelihood of the occurrence of claims.

The traditional form of procurement of services has an inherent tendency to be claim prone. Being a widely used form of procurement of services in Ethiopia, claims tend to occur rather frequently in the traditional procurement of services form of contract (Lane and Roberts unpub.).

Such forms of project procurement also depend on the evaluation of submitted bids, which in themselves depend on the accuracy of the original tender documents. In some cases contractors attempt to obtain work by submitting an artificially low price and hoping to make up the difference through claims later on. On the other hand, the constraints of time finances and other factors force a contractor to cut corners as much as possible. Faced with such an approach, a consultant will attempt to tighten the contract administration procedures and eventually creating an atmosphere of antagonism where claims become the norm. These can be avoided where the consultant takes the primary role of preparing a clear design and tender documents, and a fair contract administration based on partnership, rather than an antagonistic approach. Even then claims will still be unavoidable, but such a step will go a long way into reducing them.

4.2 Definition of claims

The causes of claims are many and varied. Depending on the particularities of site and geographic location they may have differing causes and impacts.

In general claims in construction industry are defined as demands for compensation in terms of money, time extension or other or a combination of these that a party rightly or wrongly believes that he is entitled to.

4.3 Understanding claims

As in many professions predictability of outcome is a much-desired process. This is even more so in civil engineering projects, where if a project turns out as predicted it is a very satisfactory achievement. However, this is rarely the case. The occurrence of unforeseen circumstances causes claims to happen and imposes the factor of unpredictability on the outcome of the projects in terms of financing or completion time and its accompanying apprehension on the bodies executing the works.

The Ethiopian construction industry seems to suffer from the same apprehension and tends to exhibit a rather reserved attitude towards the understanding of claims. As part of the unique nature of civil engineering projects and due to the unpredictability of their nature, civil engineering projects are prone to be claim sensitive. No matter how carefully drawn the contract documents may be, situations can, and usually do arise, which were not exactly as expected by the parties (Leary pp.137). This fact seems to have been overlooked by the parties executing major projects in the country.

The fact that claims are in a way unavoidable should not create an atmosphere of resignation but should encourage the development of a resolution mechanism, to the benefit of all parties. In such cases, the best approach is not to have an antagonistic approach toward their resolution but create an atmosphere of partnership between all parties with the objective of solving or settling the issues. The antagonistic approach is partly a result of lack of experience in handling claims, inadequate understanding of contractual and legal requirements, in addition to

an attitude of avoiding responsibility. This can only be addressed through an integrated awareness and claims handling capacity building. In this regard, the Ethiopian construction industry has a significant way to go. One of the first steps may then be to correctly understand the requirements of the contract documents and the obligations of the client and/or contractor, as well as their responsibilities.

4.4 Procedures for claims Administration

It is a widely known fact in the construction industry that no civil engineering project is completely designed so as to make any design changes unnecessary. So many unknown factors make the execution of civil engineering projects at best unpredictable. The contractor is therefore forced to cover himself against any possible risks in his initial bid and later on to cover any financial losses through claims. These facts are widely known such that current construction contract documents make provisions for claim submission and resolution of such disputes. Recognizing the inevitability of claims many international civil engineering projects provide means of handling claims. These procedures set out a systematic approach to the submission of claims and to their handling.

In order to avoid ambiguity in the handling of claims, the FIDIC form of contract sets out in clause 53.1 detailed procedures for claims. These include

- That the contractor give his intention to claim within 28 days after the event giving rise to the claim has first arisen.
- That the contractor keep contemporary records on the claim issue.

- That the Engineer examines such contemporary records.
- That the contractor submit detailed particulars of the amount claimed and the grounds upon which the Claim is based.
- The Engineer to make determination based on the available contemporary records.

This clearly indicates that the time of submitting claims is adequately set out in the contract. Thus it is believed that it will give time for both the Client and the Engineer to examine the records and to decide on the course of action that may be necessary to be taken. It can also be noted that whilst there is a definite time limitation for the submission of claims the contractor may nevertheless withdraw his claims at any time.

4.5 Classification of claims

4.5.1 Claims Within the Provisions of the Contract

Claims made under the expressed provisions of a contract fall under this category. They arise and are dealt with under the provisions of the contract. Such types of claims form the largest part of claims and the terms of the contract define the situations in which they may be made and how they may be handled. For example the employer may institute a design change, and if such an unforeseen event occurs there is a procedure set out in the contract whereby the contractor may claim restitution by submitting a straightforward contractual claim (Harvey, 2002, unpub.). Certain 'common' breaches of contract, such as denied access or late information are also covered by claims procedures included within the claims clauses of the contract. Generally such claims include a certain type of claim such as, additional work, damages or risks.

4.5.2 Claims Outside the Provisions of the Contract

These claims are those which are either not made under the conditions of contract or are those allegedly made under them but considered legally unenforceable by the employer on the basis that they do not fall within their provisions [Haswell et. al, 1989, pp172]. Such claims are invariably concerned with the recovery of damages and even though they may be outside the scope of the contract, they are nevertheless subject to resolution within it (Harvey, 2001,unpub).

4.5.3 Claims in Tort

The law of tort (from *Tortum*-latin for wrong) is concerned with civil duties and relationships. Tort is a legal term used to describe the various wrongs, which may give rise to civil proceedings, mainly in the form of action for damages. Although the law of tort regulates a wide variety of unlawful behavior, those related to construction include, nuisance, slander, libel, trespasses and negligence. For example, excessive dust, noise, vibration, fumes, seepage, gasses, smoke etc. produced by someone may expose him to liability for nuisance. The court may order the nuisance to be stopped by an injunction or may award damages or both (Bunny, 1991, pp 42.)

4.5.4 Quantum Meruit: ("as much as it is worth") claims

Quantum Meruit claims are claims where work has been done but no contract or price has been agreed. Then it may be claimed that the work should be valued and paid for what it is worth.

(Harvey, unpub.) A *quantum meruit* claim may also arise, for example where work is done on the basis of a letter of intent and there is no contractual liability (Smith et. al. pp. 6).

4.5.5 Ex-gratia claims

These are claims made with no foundation in the contract or at law but only in a sense of "fairness" or equity. Such claims depend upon 'ex-gratia' or 'kindness payments ' by the employer made in the particular circumstances; sometimes-such payments are made to avoid or to terminate claims negotiations or a dispute. An 'Ex-gratia' claim might be made to recover cost incurred by the contractor, the expenditure of which gave benefit to the employer, but for which there are no grounds for recovery under the contract. In the FIDIC form of contract, the principal bases of claim, which may be submitted, are among others the following:

1. *Costs associated with the encountering of physical obstructions and conditions which would not have been foreseeable by an experienced Contractor (Clause l2.2)*
2. *Errors in setting out which are based on incorrect written data Supplied by the Engineer (Clause 17.1)*
3. *Loss or damage due to employer's risks (Clause 20.3)*
4. *Indemnities that the employer has contractually undertaken to assume (Clause 22.3)*
5. *Fossils or discovery of things of geological or archaeological interest (Clause 27.1)*
6. *Delays caused by other interfacing contractors (Clause 31.2)*
7. *Uncovering work that has already been completed (Clause 38.2)*
8. *Suspension of the work ordered by the Engineer (Clause 40.2)*
9. *Late Possession of the site, which is as a result of a failure of the employer to give the required handover (Clause 42.2)*
10. *Remedying defects not the responsibility of the Contractor (Clause 49.3)*
11. *Searching for defects which are not the fault of the Contractor (Clause 50.1)*
12. *Valuation of variations which may include alternations, additions and/or omissions (Clause 52)*
13. *Provisional sums pending a proper valuation of the variation under Clause 52 above (Clause 58)*
14. *Special Risks which very often include war, hostilities, contamination, riots and other such risks (Clause 65)*
15. *Fluctuations of labor costs (if provided for) and subsequent legislation that adversely effects the project (Clause 70)*

4.5.6 Claims Concerning Disruption and Delay (Designs)

One of the most common causes of claims in international contracts has been the late issue of information and drawings, by the consultant to the contractor. Most contracts are carried out on the principle that the bidding documents include fairly adequate details of drawings to enable the contractor to carry out the works but that working drawings necessary for the implementation of the works be prepared on site by the contractor. These drawings are then checked, approved and then returned to the contractor for implementation. In the event that the contractor suffers delays due to the late issue/approval of the drawings, then he may claim for it.

In principle fundamental changes in the over all design of a project should not occur, unless there was a major oversight in the initial design preparation stage of the works. In spite of this however it has been observed in at least 100% of the projects surveyed that there are, claims resulting from the change in the design of the works. This type of claims can only be mitigated by investing an appropriate amount of expenses in the pre-tendering/design stage of the works. This type of an investment will have to focus on obtaining adequate site investigation reports, and other pertinent data.

4.5.7 Claims Concerning Delay on Site Handover/Rights of Way

One of the major causes of claims in the Ethiopian construction industry, particularly in international projects has been the late handing over, or rights of way related issues. In regard to failure to give Possession of site, FIDIC clause 42.2 stipulates:

> " If the Contractor suffers delay and/or incurs costs from failure on the part of the employer to give possession in accordance with the terms

> of Sub-Clause 42.1, the Engineer shall, after due consultation with the employer and the Contractor, determine:
> (a) Any extension of time to which the Contractor is entitled under Clause 44, and
> (b) The amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the employer."

As indicated in the FIDIC article the contract documents do make a provision in the event that the Client/Engineer fails to exercise his obligation in handing over of the site, and thus causes the contractor to incur additional costs, the contractor is then entitled to claim costs of delay. In such an event the contractor must produce evidence that the costs that he claims he has incurred due to the delay can be substantiated by accurate programming. In most cases it may be impossible to accurately describe the delay caused by programming. On the other hand, the actual delay due to the fault of the Client/Engineer or that due to the contractor's own fault must also be clearly differentiated.

In most international projects in Ethiopia this has been the most common type of claims. It stems partly from a wrong understanding of the provisions of the contract, and the desire to start the work as soon as possible. Whilst the provisions of the contract demand that the site be handed over in a reasonable time, most Clients do not seem to fathom the depth of the problem that a late handover may cause. This apparent contradiction has been the cause of claims in some projects. For example the Addis Ababa Bole International Airport Project has suffered a penalty of about 1 million USD due to late handover of the site.

4.5.8 Claims Concerning the Execution of Works

4.5.8.1 Constructive Changes

Such changes are changes which arise from acts that are directly attributable to the owner. Such acts result in more work or more time on the work and for which the owner may not grant a formal variation order.

4.5.8.2 Acceleration of Works

A contractor may be required to accelerate the works, when the owner requires that the works be completed sooner than is required by the contract or orders a work to be finished on the original completion date but fails to grant time extension, despite entitlement. The ERA state (in their internal memo) that claims due to acceleration of the works are becoming more frequent. Such occurrences happen when the Engineer decides that the rate of progress of the works is slow, even when he does not ask them to accelerate the works. In this event, the contractor may assume that he has to accelerate the works and hence claim for incurred expenses. Claims may also arise when the owner/Engineer requires a change in the schedule or sequence of the works or the method of the implementation of the works.

4.5.8.3 Claims Concerning Unforeseen Circumstances

Perhaps the most extensively used clause for the submission of claims in the civil engineering industry relates to the clause referring to unforeseen site circumstances (Haswell et.al.,1989, pp 174). The intention of this clause is that a contractor is not asked to price for unforeseen risks and the client is also protected from high bid values that a contractor may submit to protect himself. In essence therefore the inclusion of this clause contributes to a fair administration of a contract.

The most common application of this clause is found in relation to physical obstructions, subsurface or latent physical conditions differing materially from those indicated in the contract documents, particularly subsoil investigation reports.

4.5.8.4 Claims Concerning the Payment Certification

In addition to claims concerning the certification of payments by the resident engineer, delays in disbursement of fees by financing agencies normally cause claims. At the Bole International Airport Project, there have been some cases of claims due to delay in the processing of payment certificates. Currently the contractor for the new terminal has threatened to suspend the works due to late payments.

4.5.8.5 Claims concerning Breach or Termination

The employer may for some reason, suspend the work, or terminate the contract. This may be due to bad work or failure to perform, on the side of the contractor. If the contractor can prove that the termination benefited the employer, then he may claim profits on work completed and cost of demobilization.

4.5.8.6 Claims concerning Change of Legislation

Subsequent to the enforcing of a contract, legislation may be instituted that may cause an extra financial burden on the contractor. In such a case he may argue that since he was not aware of such legislation nor could he have been able to foresee its implementation during the preparation of his tender, he has incurred additional expenses for which he is requiring reimbursement. In many instances, contracts make provision for certain items that may by legislation be varied during the course of the contract execution. Such items include the costs of fuels and lubricants, which may vary during the course of the contract and have a direct impact on the costs that a contractor may incur for the execution of the works.

4.5.8.7 Claims Concerning Delay and Disruption (due to Suppliers, Sub-Contractors etc.)

Civil engineering projects are often not completed on time. Such delays may occur as a result of the actions or inactions of the contractor or others, such as the actions of the employer, suppliers, subcontractors or others. A contractor who experiences delays and disruption in the execution of the works will incur additional expenses that he may desire to recover. Many costs may be direct costs such as inflation occurring due to the delay and hence the wage increase that he may want to recover. In other cases overhead costs may be incurred, or the contractor may claim that he is losing profit, that he may have been able to make in other projects due to the delay, or he may claim that he is unable to take advantage of other business opportunities. The contractor is however, required to prove that such inaction or delay was a result of the actions of others and not of his fault. Otherwise the non-performing party will be liable to compensate damages to the other party. In general delays may be those which are the responsibility of the owner, of the other party or which are beyond the control of either party.

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4.5.8.8 Claims Concerning Weather Conditions

Clause 44.1 of the FIDIC form of contract stipulates that in the event of exceptionally adverse climatic conditions, the Engineer may (after due consultation with the employer and the contractor) determine the amount of any extensions that may be granted to the contractor. This clause is anticipated to cover the contractor from delays that he may suffer as a result of exceptionally adverse climatic conditions, such as heavy rainfall. In the event that the occurrence of heavy rainfall causes delays, then the contractor is entitled to extensions of time. This, however, leaves open to argument what an adverse weather conditions mean.

In most international contracts in Ethiopia, the bid documents do include information on the rainy season of the country, specifying that the rainy season ranges from June to September. It fails, however, to give the expected average amount of rainfall in say millimeters, so that the contractor may prepare to sequence all the works accordingly. In the event that the contractor assumes that the amount of the rainfall is excessive, he submits a claim. In this case the Engineer or the Client do not have the data to adequately determine whether the said rainfall amount is excessive, their only recourse being to turn to the analysis of available rainfall averages for the preceding 5-10 years. In remote road projects this data may not even be available, further complicating the determination of the time extension award. In addition to this, the short rains of February - April are commonly not mentioned in contract documents further giving rise to the possibility that the contractor may claim because he was not aware such rains existed.

4.5.8.9 Claims Concerning Variations

4.5.8.10 Additions

Directed variations which are variations resulting from the Engineer's directions changing the quantity, quality of work or the time of execution and sequence of the works. Traditional forms of contract in the Ethiopian construction industry are based on a re-measurement type of contract. This means that all the parties to a contract agree that the quantities are estimates only and that the actual money to be paid will be based on the site measurement of quantities.

As a favored form of contract administration, this has now come into picture in most international contracts in Ethiopia. Whilst it gives a measure of control on payment certification, in that the actual money paid out reflects that of the actual work done,

nevertheless, there is a negative side to it that the quantities in the initial (tendering period) bills of quantities may not reflect the actual site quantities. In such an event, should the actual quantities exceed those of the bills of quantities by a substantial amount or by a certain percentage (15% in the case of FIDIC) most contracts provide a means whereby the contractor is reimbursed for his additional costs through the suitable adjustment of the contract rates. This is done on the assumption that the rates that the contractor assumed in the preparation of the tender are no longer applicable since the quantities have significantly changed. This is usually done through the revision of applicable bill rates.

As a possible claim cause, such problems are best dealt with at the tender or design document preparation phase of the project. Investing appropriate amounts of finances in the consultancy services will go a long way in avoiding substantial claims later on. A properly detailed document will avoid ambiguity and will then furnish substantially accurate information on which the contractor is able to prepare reasonable rates. On the other hand, the additional variation works to be instructed have to be related to the work actually being carried out and cannot be outside the types of the works for which the contractor prepared his rates, nor should these additional works significantly change the type of the works. In such an event the contractor may claim for additional compensation.

4.5.8.11 Omissions

Whilst it is understandable that the addition of a significant volume of work may give rise to claims on the grounds that the contractor demand that the previously agreed rates be revised to reflect the change of the volume of work, there is also another case in which the omission of a

significant volume of work will give rise to claims on the basis that the contractor is forced to scale down or keep idle equipment and manpower which may cause extra cost. On the other hand omitting a work and then awarding it to a third party may be a cause for a legal wrangle although the contract documents may express so. This issue will cause an argument on the competency of the contractor and hence an argument on the validity of the whole contract itself. In addition to this, the employer's non-disclosure of data or problems of defective or ambiguous specifications and the impractability of the instructions may result in claims. Other variations include Cardinal variations, which are variations beyond the scope of the contract. The contractor does not have a duty to perform this work and can seek special remedies if the Engineer directs that the work be executed.

4.5.8.12 Claims concerning Importation issues

4.5.8.13 Importation Issues

One of the characters of international projects in Ethiopia is that most of the building materials must be imported from abroad. This fact influences the mobilization time, costs, start up and duration of a project. In addition to the mobilization process being time bound, the start up of a project will be greatly influenced by the time of clearing of imported items special goods handling capacity, level and standard of port facilities and roads, import bonds, re-export, and sale of used materials, depreciation rates and availability of clearing agents. Any regulations pertaining to customs clearing of goods will also have an impact.

4.5.8.14 Claims Concerning Design Error

If the designs that the contractor is expected to execute contain errors, he may seek reimbursement in the event that rectification becomes necessary.

4.5.8.15 Claims Concerning Acceptance/Handover / Refusal to Take Over Completed Work

In the event that the owner refuses to take over completed work then the contractor is forced to maintain and to protect the works at his expense, for which he may seek reimbursement.

4.5.8.16 Early Occupancy

In another instance if the owner moves into the facility and occupies it before completion (early occupancy) hence interfering with the work of the contractor, then claims may ensue.

4.5.8.17 Contract Administration Skills; the Role of the Consultant.

As is the same with international contractors, the consultancy industry in Ethiopia is not so well developed as to pose serious competition in the international markets. Besides the requirements of international financing agencies, which in most cases do not encourage the participation of local consultants as a major player, the expertise and experience of local consultants is not at a stage where the involvement in international projects could be considered as significant. At best a few local consulting firms have been able to play a secondary role in the consultancy services of international contracts, in many cases providing support staff who are paid significantly lower than their expatriate counterparts. Consequently the contract management and administration of international projects has been largely left to international consulting /engineering firms.

As a central player in the administration of engineering contract the Engineer plays a key role. First of all, claim cases are normally referred to the Engineer who is expected to be impartial.

In cases where the competency and integrity of the Engineer is unquestionable, it is usually reasonable to expect a fair decision in matters related to the administration of the contract.

As a paid employee of the Client, however, the engineer may not be impartial in the true sense of the word. The FIDIC conditions of contract normally envisage an "independent" Engineer, in reality this is far from the truth, at least in the context of the international projects in Ethiopia. The contractor normally submitting the claims will be suspicious of the motives of the consultant, and the Client will expect a favorable response from the consultant in this regard.

As an example of the competency of the consulting firms, two cases could be cited. At the Addis Ababa Ring Road Project (AARRP) the confidential Engineer's estimate has been found to be significantly higher than most of the tender prices submitted. In addition to giving an unrealistically high price this high figure caused considerable tender evaluation problems. At the AABIP, the preparation of the tender documents was so incomplete that the Client was later on forced to pay a significant amount of money in relation to rectifying design errors and oversights.

The impact of claims arising from a poor or inadequate contract administration is not insignificant. The problem, however, is that the provision of the contract between the Client and the consultant seldom incorporates a professional indemnity clause. In the event that the claim is the fault of the consultant, the Client ends up paying the required amount. If the contract had included a relevant indemnity clause, however, this would have covered the client against financial loss. This can also be considered as transferring the responsibility for covering the risk to the responsible body.

4.5.8.18 Bid Evaluation and the Incidence of Claims

The bid evaluation process is a significant part of any construction project. During this stage, the consulting Engineer and the employer play a key role in assessing very carefully the implications of the submitted bids. Low offers are usually attractive but, may pose a significant problem where the contractor may find it difficult to mobilize adequate resources or suffer severe cash flow to complete the work in accordance with the requirements. In addition to causing delays and late completion, such a case may also result in claims, where the Engineer may require that the works be speeded up and the contractor may accelerate the works. Bid evaluations will be more effective if the design and tendering documents have been prepared in sufficient detail.

The requirements of the various financing institutions regarding bid evaluation, although basically similar in the main issues, do have small differences. The evaluating institution (in most cases the employer) must satisfy the requirements of the financers. This means that, the lack of a unified bid evaluation procedure will create variability, which could be a risk that later on may affect project execution.

In the Addis Ababa Ring Road Project (AARRP), the bid analysis work has had a significant delay because of the "low" price that the lowest bidder submitted, compared to the other bidders and the Engineer's estimate. At the Addis Ababa Bole International Airport Project, the new passenger terminal project contractor submitted prices excluding taxes that the contract documents specifically required to be included. The reason was that since the loans were from the home country of the contractor, he apparently had access to the information that the financing institution did not require loans to cover the cost of taxes. These costs were to

be covered from the borrower's home country. Knowing this fact, the contractor argued that since the loans were to be administered as per the requirements of the financing agency, he was entitled to submit prices excluding tax costs.

The work was nevertheless awarded to the contractor resulting in over 100 million birr in extra taxes. if the work had been awarded to the second lowest bid (which had a price difference of only 60 million birr from the "lowest" offer), it would have had a total savings of about 40 million birr.

4.5.8.19 Contract Negotiation Stage

Issues that have been observed during the tendering and tender evaluation stages need to be dealt with at the negotiation stage. This step would most likely eliminate obvious shortcomings if handled carefully. At this stage, contractors are more amenable to negotiation and may accept requests for additions or omissions positively. A very common problem in this regard has been the origin and validity of performance bonds.

At the Addis Ababa Bole International Airport Project, the issue of the source of the performance bond had become a contentious issue. Because the Client was not initially satisfied with the source of the submitted performance bond but later on accepted it, without modification (withholding the advance payment in the mean time) the contractor claimed that he had carried out the works utilizing his own funds therefore claiming reimbursement of the interest on the delayed advance payment. By the time this issue was settled the client had to pay an amount of 195,325.53 USD as a form of amicable settlement. At the contractual exchange rate of 6.933 birr to the dollar this amounts to 1,354,205.765 birr.

Had such ambiguities been resolved in the tender evaluation period the expenses could have been saved. Once again this is stark evidence of misunderstanding of the contract documents and international contract administration.

CHAPTER 5

5.1 Dispute Resolution Mechanisms or Options

In general the purpose of claims by contractors is to seek additional money over and above the contract prices. For the Client, however, it means additional costs, which in the end may make the project commercially unviable. Such a differing interest in the execution of a project will inevitably lead to disputes. Considering the unavoidability of such problems, dispute resolution mechanisms are placed in many forms of contracts. Current dispute resolution mechanisms stipulated in the FIDIC forms of contract place the Engineer as the central element in the dispute resolution mechanism.

Prior to an amicably negotiated settlement, the contract documents usually require the contractor to place his claim demands at the jurisdiction of the Engineer. The Engineer is also required to act impartially. Should both parties consider the decision of the Engineer to be fair then the parties will agree to settle the issue. If one or both parties, however, do not accept the decision of the Engineer, then an alternative dispute resolution mechanism is instituted. This usually leads to negotiating amicable settlement or finally to arbitration.

Such occurrences of claims are the source of disagreements and may sometimes result in disputes that could lead to arbitration proceedings. In case a dispute occurs, forms of contract, such as the FIDIC form, set out details of the submission and resolution of claims. These can be summarized as follows:

- Submission of claims by contractor
- Review of claims by the Engineer

- Decision by Engineer
- Negotiation and/or amicable settlement
- Disputes review expert/board
- Arbitration

The above stages of formulation and/or submission, assessment, repudiation, negotiation of claims is in itself a complicated process. In order to avoid a complicated costly and time consuming arbitration proceedings, parties to a contract may institute an Alternative Dispute Resolution (ADR) as an option of claim settlement which may include (Bunny pp. 313);

- Direct Negotiation
- Mediation
- Conciliation
- Mini-trail procedure
- Claims review board (CRB); and
- Pre-arbitral review board

In the event the above options fail, then, Arbitration proceedings may follow.

5.2 Direct Negotiation

Settlement of disputes through arbitration is a very costly process. Before the case is even heard in court, the parties to a dispute may spend a substantial amount of money in legal fees. Besides the substantial amount of money spent in pursing legal ground to the claim relations at work may be strained.

Being cognizant of such an effect on the overall project implementation, the FIDIC form of contract in its clause 67.2 recommends, the following:

> " When notice of intention to commence arbitration has been given ……the parties shall attempt to settle such dispute amicably…."

This implies that as a first attempt negotiation be implemented in an attempt to carry out an amicable settlement. This is also a form of an out-of-court settlement, and may maintain a conducive working atmosphere between all parties. This form of negotiation or amicable settlement is carried out between the parties to a claim, normally without a third party. In case the parties jointly agree to the involvement of a third party, however, then this process is called mediation. As can be seen above, claims may be resolved through negotiation. When negotiations are not successful, however, the claimant, whether contractor, designer or owner, has the option of resolving the claim through an alternative dispute resolution process such as:

5.3 Mediation:

In the event that direct negotiations fail, then a third party is involved as a mediator between the parties to a claim and help in the settlement of the claim. A mediator engages in the task of persuading the disputants to change their respective positions in the hope of reaching a point where these positions coincide (Bunny, 1991, pp. 317).

5.4 Conciliation:

Conciliation is a dispute resolution procedure where the parties sit together in the presence of a third party to discuss the way out. Usually the conciliator will draw up and propose a solution, which represents what, he believes, is a fair and reasonable compromise of the dispute, after having discussed the case with the parties concerned.

5.5 Mini-trial:

In this option of dispute resolution, the parties to a claim appoint a neutral person (such as a retired judge) who will give a non-binding decision.

5.6 Claims Review Board:

The dispute review board usually consists of a three-member board, who are independent of the contracting parties. The board is formed as soon as the contract is signed. Each of the parties appoint one person and the two jointly assign a third person. In times of disputes, the board gives recommendations as to their resolution.

The ERA has now instituted a procedure of assigning a "Dispute Review Expert" with an international experience of dispute resolution, to be agreed prior to the signing of the contract with the contractor. Such step will most likely minimize the development of claims into arbitration case, in the event that both parties agree to take the decision of the expert as fair and just. However, such a step falls short of identifying the root causes, frequency and incidence of claims.

5.7 Pre-Arbitral Review Board

This is a relatively new procedure developed by the international chamber of commerce in Paris. The rules, which were published in 1990, were designed to provide a procedure for recourse at very short notice to a thirds person, the "referee", who is empowered to order provisional measures needed as a matter of urgency. In the event that amicable settlement as enumerated in the above alternative procedures fails, most civil engineering contracts make provisions for the settlement of disputes through arbitration. This is enumerated through what is called the arbitration clause. FIDIC in clause 67.3 states;

Any dispute in respect of which:

(a) The decision, if any of the Engineer has not been final and binding pursuant to clause 67.1 and

(b) Amicable settlement has not been reached within the period stated in sub clause 67.2 Shall be finally settled, unless otherwise specified in the contract under the rules of conciliation and arbitration of the international chamber of commerce by one or more arbitrators appointed under such rules.

5.8 Arbitration

Whenever a dispute arose in a civil engineering contract, it was assumed that the technical disputes require the involvement of technically qualified arbitrators. The arbitration process was initially designed to give a speedy and inexpensive alternative to the court system, which tends to become lengthy and expensive. Many disputes that arise in contracts tend to contain substantial legal issues rather than technical issues, necessitating the involvement of lawyers. In reference to this fact current forms of the FIDIC contract contain what is called an arbitration clause. Such arbitration is carried out under the rules of conciliation and arbitration of the International Chamber of Commerce.

Arbitration is a method of dispute resolution, which is voluntarily selected by the parties and agreed to in a contract as an alternative to using the court system (Leary, 1992, pp.142). In this regard an international court of arbitration has been established since 1923, under the International Chamber of Commerce in Paris as means of resolving international commercial disputes. Since its establishment the court has handled over 10,000 arbitration issues (Rules of Arbitration, pp 6). In order to set out the rules and requirements clearly, the court publishes from time to time what it calls, the ”ICC Rules of Arbitration”

Every ICC arbitration is conducted by an arbitral tribunal with responsibility for examining the

merits of the case and rendering a final award. Each year, ICC arbitrations are held in some 40 countries in several languages and with arbitrators of some 60 different nationalities (Rules Of Arbitration, pp 6-7). The function of the court is to provide for the settlement by arbitration of business disputes of an international character in accordance with the Rules of Arbitration of the International Chamber of Commerce (the" Rules") (Rules of Arbitration, pp 11)

The FIDIC form of contract provides arbitration as a form of dispute resolution, and clause 67.3 states

> "…unless otherwise specified in the contract, under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed under such Rules**."**

This provision does specify international arbitrators but does not rule out an alternative dispute resolution arrangement in the host country. As an alternative therefore building up a council of domestic arbitrators, will not only reduce the expenses involved in the resolution of the dispute but will also contribute to the enhancement of domestic expertise and speedy resolution of disputes.

The domestic law also needs to be enhanced to take into consideration provisions related to administration of international contracts and resolution of related disputes.

This will also contribute to a healthy understanding of claims and create confidence in their handling by avoiding the aversion to international arbitration and the tendency to go for amicable settlement for fear of such an action.

5.9 Impact of claims

At best claims are undesirable. They are not, however, avoidable. Besides incurring unwanted legal expenses, they strain the relationship between all parties and affect the working atmosphere. Each party sees the other as an enemy, which affects the future of the works, and can result in the parties being defensive. In such an atmosphere more claims may be inevitable.

5.10 Financial Impact of claims

The most significant effect of claims in international projects in Ethiopia has been the financial impact. Projects have been a subject of such claims. For instance the contractor for the Addis Ababa Ring Road Project (AARRP) has demanded about 220 million birr worth of claims which amount to 41.08 % of the project cost. This will significantly increase final project cost.

5.11 Effect of claims on Project Completion Time

In addition to the financial effects of claims on the total cost of a project, a significant portion of claims focuses on the extension of time on project completion. In the various international projects being carried out in Ethiopia, there appears to be a common perception of accepting time extensions more favorably than increased financial expenses.

Of all projects surveyed in this study, none have been completed on time. Rather all of them have been granted a time extension. Whilst time extensions may appear to be necessary in some cases, few, if any, professionals view the issue of time extensions as a serious claim case. In this aspect it is necessary to instill in the minds of the practicing Engineers and consultants that time extensions do also mean money. The more a project is delayed the more costly it is and the income or revenue that may have been obtained from a timely completed project is lost.

5.12 Other Effects of claims

Another significant effect of the claim process is the effect it may have on the project execution itself. Once the claim issues are referred to arbitration, the parties begin to see each other as enemies and that will have a far greater impact, probably more severe than the financial impact that will have on the total project life. Therefore whilst maintaining a firm stand in the handling of possible claim cases, responsible bodies should endeavor to maintain an atmosphere of good working relationship in the interest of the project.

CHAPTER 6

6.1 ANALYSIS AND FINDINGS

6.2 CASE STUDIES

6.2.1 Claim Details at the Addis Ababa Bole International Airport Project

The Addis Ababa Bole International Airport Project is comprised of 4 projects, which are executed through international contractors/ consultants (see Appendix $A_{1)}$ some of the claims so far handled are as follows.

6.2.1.1 WP I New Runway Project.

Contractor's claims for Extension of Time and Additional Cost

The contractor submitted a number of claims during the implementation of the works. One of the major factors raised by the contractor as a basis for his claims was the presence of heavy rains, particularly during the period covering, Jan- June 1998, amounting to about 1600mm of total rainfall. The contractor claimed that he was unable to carry out his works due to the heavy rains and was entitled to extensions of time. Considering the overall recorded amount, the Client and the consultant agreed that the rains were indeed excessive, and granted the contractor time extensions. Other design related claims were, however strongly countered by the consultant on a counter claims basis; whereby the consultant and the Client argued that they would enforce liquidated damages strategy. Knowing the financial consequences of such a confrontation the contractor opted to withdraw all claims.

The following are some of the claims that were submitted by the contractor for WP-I.

1. Removal of unsuitable soil
2. Limit of structural excavation
3. Delays in subsoil investigation related to foundation treatment
4. Delays in foundation treatment design (The method vis-à-vis vertical sand drains)
5. Increase in quantities specifically in selected fill
6. Temperature difference (correction factor) on prime/tack coat
7. Additional work, associated with the issuance of variation orders for electric ducts.
8. Delays due to adverse weather conditions
9. Additional cost for using Djibouti Port
10. Interruption of works at Taxiway Junction with the Exiting Runway
11. Increase of fuel cost, using Gazette price
12. Additional taxes (12% sales tax, S.G.S. fee and Surtax)
13. Interests due to delays in payments (including Advance Payment)

The Consultants have responded to the Contractor's above claim making references to relevant dates and Clauses in the Contract. For instance in regard to fuel prices the consultant argued that, according to Sub clause 70.1 b (v): The Contractor should buy or procure the specific material at the most economical price, example to this, was the quotation provided by the Contractor at the time of bidding which was less than the Gazette price. The Engineer therefore ruled that the manner in which the Contractor determined the compensation was contrary to the stipulations of the Contract, and thus not justified.

The Contractor's request of the additional taxes amounted to:

12% Sale Tax	18,475.87
S.G.S Fee	113,247.01
Surtax payment	1,152,065.97
Total	1,283,788.85

Interim Monthly Payments/ interest on delayed advance payment

The consultants have already replied to the above, by referring to the Conditions of Contract Part II "Conditions of Particular Application" Sub Clause 60.8 "Time of Interest". The above Clause is restricted to cases related to interim payments and not to advance payment and hence the Client is not liable for payment of interest due to the delay in advance payment. Based on the foregoing, there was no justification in support of the Contractor's claim for delay in advance payment

After examination of the factors cited for the other claims, extension of time was granted to the Contractor in five instances, and whereby contractor waived any and all claims arising out of the extension of time and any additional cost.

6.2.1.2 Observations at the New Run way Project

The positions taken by the consultant and the Client appear to be rather strong, in that the strategy of counter claims has borne fruit. This strong position has deterred the contractor from vigorously advancing his claim requests. The total amount of birr 1,283,788.85 paid as

a settlement of the contractors claim is in the range of 0.743% of the total cost of the project which is very small compared to the total cost of the project. This is indicative of the strong position taken by both the Client and the consultant in deterring the contractor from pursuing financial claims.

It can be easily observed however that this has not been the case in relation to the time extension requests of the contractor. All in all, the contractor was granted a total of 35 months (or 145. 83% of the original contract period) of time extension. Although the financial compensation appears to be small, the time delay, if calculated on lost revenue, due to the project not being completed on time, is quite significant. Had the Client attempted to charge the contractor, liquidated damages at the agreed contractual rate of 50,000 birr a day for even 50% of the delays then the revenue collected would have been in the range of birr 26,250,000.00

One of the main observations of the claims handling strategy in this particular project is the consistent use of a counter claims strategy. This method needs to be encouraged in all the major projects in this country. It has also been observed that the consultant exercised his obligations fairly and efficiently, without unduly pressuring the contractor. This attitude has gone a long way into maintaining an atmosphere of good working relations, whereby the contractor was sympathetic to the decisions of the consultant.

The on time decisions given to the contractor were largely due to the strong home office back up that the consultant had. This fact has enabled prompt decisions to be given to difficult on site problems, and has minimized delays related to design issues.

6.2.1.3 WP II New International Passenger Terminal

Submitted claims

The contractor submitted his intention to claim on over 132 issues out of which 18 were directly related to the management issues at the Client's office, whilst the rest of the 114 claims were directly attributable to the contract administration difficulties and incomplete design factors.

Out of these 132 claims only 4 have been settled so far, and a tacit approval for time extension of over, 24 months as compared to the 30-month contract period. This amounts to about 80 % of the original contract period. However to date there has not been steps taken to settle the other claims and therefore they are still outstanding. Some of the claim issues settled so far include:

Claims due to Withheld approval of the Performance Security and Advance Payment Guarantee

Under the terms of Clause 60.7 of the Conditions of Contract, payment of the advance becomes due under separate certification by the Engineer after the fulfillment of the following conditions:

Execution of the form of Agreement by the parties thereto, Provision by the Contractor of the performance security, an unconditional bank guarantee in a form and by a bank acceptable to the employer in amounts and currencies equal to the advance payment. The form of Agreement was executed on 13th November 1998. The Contractor submitted to the employer a performance security and advance payment guarantee issued by the National Bank of Kuwait,

on 13th November 1998. However these guarantees were not accepted by the employer for the following reasons:

The employer required the Performance Security to be issued through a local bank or by a foreign bank through a correspondent bank in Ethiopia, and The employer's prior agreement to the issuance of the guarantees directly by a foreign bank had not been sought and obtained by the Contractor.

To resolve the impasse, the Contractor provided to the employer on 11th March 1999, two independent assessments of The National Bank of Kuwait which illustrated the bank's good standing and its capability to fulfill the obligations under the guarantees. Following receipt of this information, the employer confirmed his acceptance of the guarantees issued by the National Bank of Kuwait on 1st Apri11999. The acceptance of the Performance Security and the Advance Payment guarantee enabled the Engineer to issue the Advance Payment Certificate on 7th April 1999.

The Contractor through his letter of 24th February 1998 to the employer, sought clarification during the tender stage on whether bank guarantees issued by the National Bank of Kuwait, would be acceptable. On 7th March 1998, the Design Review Consultant confirmed that this would be acceptable. However, on 10th March 1998, the employer notified the Contractor by fax that " *ECAA **prefers** that the guaranteeing bank either be located In Ethiopia or be any foreign bank which can produce a corresponding local bank guarantee.* " (Emphasis mine)

The Contractor's tender submission contained a tender surety and a draft Performance Security Guarantee issued by the National Bank of Kuwait. On various occasions during the period leading to the signing of the Contract agreement, the employer asked the Contractor to submit advance copies of both the Performance and Additional Performance guarantees, which the

Contractor failed to do. Both the Performance and Additional Performance guarantees were handed to the employer about 30 minutes before the Contract Agreement signing ceremony on 13th November 1998.

The Contractor submitted an Advance Payment Bank guarantee issued by the National Bank of Kuwait to the Engineer vide his letter of 16th November 1998. The Engineer reminded the Contractor that the guarantee should be issued either through a correspondent bank in Ethiopia or with the employer's agreement directly by a foreign bank, and returned the guarantee to the Contractor for direct submission to the employer. The Engineer vide his letter of 24th November 1998 advised the Contractor of the employer's requirement that the guarantee be validated by the Commercial Bank of Ethiopia. The Engineer further advised the Contractor of the employer's requirement for the guarantee to be issued through a correspondent bank in Ethiopia.

The Contractor advised the Engineer of costs associated with issuance of the guarantees through a correspondent bank in Ethiopia. The Engineer reiterated the employer's requirements with respect to issue of the guarantees, vide his letter of 18th December 1998 to the Contractor. The Contractor restated his case for acceptance of the guarantees, requested an instruction for issue of the guarantee through a correspondent bank and advised of their intention to seek reimbursement of any additional costs incurred, vide his letter of 23rd December 1998.

The Engineer vide his letter of 4th January 1999 to the Contractor, advised that "*the Contract does not confer a responsibility on the Engineer to issue you with an instruction to comply with an express term of the contract",* and that" *at no time did the employer give his express approval for the Performance Security to be issued directly by a foreign bank"*

The Contractor sought the employer's approval of three local financial Institutions for issue of

bonds and guarantees, vide their letter of 11th January 1999. The Engineer responded on 15th January 1999 advising that the Commercial Bank of Ethiopia would be acceptable to the employer.

The Contractor requested for an Engineer's decision over his dispute with the employer, over the issuance of the Performance Bonds and Advance Payment Guarantee, vide his letter of 19th January 1999. At a meeting held with the employer on 23rd February 1999, the Contractor proposed to issue the guarantees through National Bank of Kuwait Plc, London stating their principle reason for proposing this bank was the possibility that they could negotiate preferential rates thus reducing the cost of the cover. The employer indicated that they would consider this new proposal and at the same time requested, an independent opinion of the international standing of the National Bank of Kuwait. Two independent assessments (prepared by international rating agencies, IBCA Ltd and Moody's Investor Service Inc. respectively) of the National Bank of Kuwait were provided by the Contractor, and forwarded to the employer on 11th March 1999.

The employer confirmed vide his letter of 1st of April 1999 that on basis of supporting documentation submitted in respect of the issuing bank, the guarantees provided by the National Bank of Kuwait were acceptable. The Engineer issued the Advance Payment Certificate on 7th April 1999. The Contractor vide his letter of 24th March 1999, advised of the financial situation which had arisen as a result of non payment of the advance, and reserved his right to claim an extension of time and associated costs. The Contractor vide his letter of 7th Apri11999, advised of a reduction of the rate of progress of works due to non receipt of the advance payment, and sought an interim extension of time of 53 days. The Contractor further advised, *"We are maintaining records of additional costs incurred which will be submitted once the cause of the delay had been resolved."*

6.2.1.4 Summary of the claim

The Contractor has submitted a claim for an extension of time with associated costs resulting from the employer's decision to withhold approval of the Performance Security and Advance Payment Guarantee submitted directly from a foreign bank. The Engineer has determined. After due consultation with the employer and the Contractor as required under the terms of Clause 44.1 of the Conditions of contract, that the claim has no merit as the employer was not acting unreasonably in withholding such approval

It has been established that the delay attributed to the employer in approving the Performance Security and the Advance Payment Guarantee arose as a result of the Contractor's desire to provide the securities directly from a foreign bank- the national Bank of Kuwait (NBK). Prior to the submission of Tenders, the Contractor had not obtained the employer's agreement to this method of delivery and the employer was acting within his contractual rights in withholding approval of the securities provided directly by NBK.

The Engineer's decision pursuant to Clause 67.1 is that the delays and consequent costs incurred are attributable to the Contractor's decision to submit the securities required under the contract in a manner that did not have the employer's prior agreement or approval. Clause 10.1 and Clause 60.7 both require that the securities should be provided by a bank acceptable to the employer. As the Contractor had not obtained the employer's consent to the securities, being provided directly by NBK, the employer was within his contractual rights and not acting unreasonably in not accepting the securities as submitted. Any subsequent delays and costs are therefore to the Contractor’s account and no extension or reimbursement of costs is warranted.

In addition to this the method of delivery was not made clear and subsequent events indicate that the Contractor was expecting to deal directly with NBK while the employer was expecting

the security from NBK to be delivered through a corresponding local bank in accordance with his stated preference. The Contractor stood to gain financially if the employer accepted his proposals.

On the other hand the contractor argued that he had clearly indicated his intention to use NBK at the time of tender and if this was unacceptable then the employer had the opportunity to inform the Contractor accordingly. But as the Contractor had not indicated that the security would be provided directly by NBK rather than through a correspondent bank located in Ethiopia and there is no obligation on the employer to clarify the matter.

The negotiations that took place before the acceptance of the Contractor's offer included the proviso that the Contractor obtain a second performance bond for 5% of the Contract Amount as he, the employer, considered that the Contractor's bid was unbalanced in relation to the Engineer's estimate. During these negotiations, despite the fact that they involved discussions about the performance security, no objections were raised to NBK providing the security. Again the employer's expectations and Contractor's intentions were not the same. The employer accepted the Contractor's offer, which included the undertaking by NBK to provide the performance security. This did not confer legitimacy on the Contractor's method of delivery and the employer did not thereby abrogate any rights to approve the securities under Clause 10 of the Conditions of Contract.

When the employer and the Contractor signed the Agreement, the Performance Securities had been submitted by the Contractor but not approved by the employer. Contrary to the employer's stated preference, the Contractor submitted the performance security directly from NBK rather than through a correspondent bank in Ethiopia. The employer's response was to state that under the terms of Clause 10 (and as was his prerogative), a direct submission from NBK was not acceptable. The employer did not address the question of what would constitute

"acceptable" in relation to a foreign bank and reiterated his stated preference for the security to be provided by a local or correspondent bank.

Under Clause 10 of the Conditions of Contract, the employer is under no obligation to give reasons as to why he considers direct dealings with a foreign bank to be unacceptable. It is the employer's prerogative to approve or disapprove the security provided by the Contractor and he was within his rights to withhold approval given that, the Contractor had not obtained his agreement to provide the security directly from NBK, and he (the employer) was clearly expecting the security to be provided through a corresponding local bank in accordance with his stated “preference”.

The Contractor is obliged to provide the securities stipulated under the Contract from a bank acceptable to the employer. Any delays or costs incurred, as a consequence the Contractor's failure to comply with this requirement must be to the Contractor's account. In summary the contractor’s claims are as follows

Financial claims Due To Delayed Advance Payment

1. Extension of time -146 days (i.e. Completion of 5th September 2001)

Table 1: Extension of time costs

	USD	Birr equivalent
146 days at US$ 12,552.30 / day	1,832,635.80	12,705,664.00
Costs already incurred	136,400.00	945,661.00
Total	1,969,035.80	13,652,325.20

Table 2: Acceleration costs

	USD	BIRR (Equivalent)
Acceleration Cost	1,070,407.76	7,421,137.00
Interest On Delayed Advance Payment	326,764.59	2,265,458.90
Total	1,397,172.35	9.686.595.90

Claim for An Extension of Time Resulting from Late Possession of the Apron, and Part of the Car park.

The Contractor has submitted a claim for extension a 227 days (25.22% of the total project time) of extra extension of time under the terms of Sub-Clause 42.2 of the general Conditions of Contract as a result of the failure by the employer to give possession of part of the site so as to allow the Contractor to proceed with the execution of the Works in accordance with his Clause 14 program of Works. The Contractor contends that by failing to give access to the apron and taxiway in good time, he was unable to proceed with the airside works as programmed. The detailed analysis of the Contractor's program of work shows that the delay in giving possession (a delay attributable to the employer) has an effect on critical path activities and results in the completion date for the Apron Phase 2 and Taxiway B being extended by 42 working days.

However, under the terms of Clause 44 of the Conditions of Contract, if the Contractor is to be fairly entitled to an extension of time the physical delay to the works must also be taken into account and it is not sufficient for the Contractor to show that critical path items on his program have been affected.

The Contractor had forwarded details of his programmed and actual outputs on clearing and grubbing, excavation, and selected fill which show that at the time he was given possession of the Apron Phase 2 area, he had not completed work on any of these activities on Phase 1. It is therefore concluded that no physical delay occurred and as such no extension of time is warranted. Moreover, the Contractor has not provided contemporary records to indicate that his equipment and/or labor was idling prior to being given possession of the phase 2 site and this must be taken as further evidence that he was not physically delayed.

The delays attributable to the employer in failing to give possession of the site for the Apron Phase 2 Taxiway B works until 22nd November 1999 as opposed to the 1st October handover requested by the Contractor did not adversely affect the progress on site as the Contractor had not completed any of the activities associated with the Phase 1 work. It was the Engineer's opinion that the Contractor's request for an extension of time could not be justified. The contractor's claims were as follows

Financial claims Due To Delayed handover of site

1. Claim for extension of time for completion of 18 March 2002 of (227 days delay).

2. Costs associated with delay a rate of USD 12,552.30 per day of delay

Contract Rate of Exchange 1 USD = 6.933 BIRR

Table 3: claims due to late handover of site

Time delay (days	Cost of delay per day (USD)	Total cost of delay (USD)	Total cost of delay (birr equivalent)
227	12,552.30	2,849,372.10	19,754,696.77

All in all the contractor submitted a total of over 43,092,617.87 birr of claims due to the late payment of advance and the late handover of site. In both claims the consultant's position was the claims had no merit and hence were to be rejected. In spite of the consultant's strong position on the fact that the claims had no merit and should not be paid the Client opted to settle the claims through an amicable settlement with the contractor for the value of almost one million dollars. This incident shows that the client had chosen to override the consultant's decision and settle the issue amicably.

Claims On Environmental Mitigative Measures

The contractor claimed that, as a result of the type of selected fill used in all areas of the airport construction work, he had to supply extra machinery to keep the dust down so that the public was not inconvenienced and that aircraft safety was not jeopardized. He further alleges that the work he has had to undertake in this respect is far in excess of what could have been expected at the time of the tender due to the nature of the materials being used for selected fill.

The consultant considers that the measures taken by the contractor are part of his general obligation under the contract to protect the working environment and that the costs thereof is covered in his rates. The specification for the selected backfill as recorded in the contract documents is as follows.

*"**Selected Fill**. Selected non-expansive fill, required under pavements as shown on the drawings. The item shall include excavation, free haul with in the airport boundary, placement grading and compaction to densities specified in this section and shown on the drawings. **Selected non-expansive fill material shall be a clayey soil with a minimum of 30 percent passing the 0.075 sieve** as determined by ASTM D 42 and plasticity index greater than 6 when determined in accordance with ASTM D 4318. The material shall have a swell no greater than*

3 percent and a CBR of not less than 8 when tested in accordance with ASTM D 1883 after 4 days soaking."

The above specification stresses that the selected fill material should be:

> "*Selected non-expansive fill material shall be a clayey soil with a minimum of 30 percent passing the 0.075 sieve…*"

which imply that the material may be predominantly fine. During the preparation of the tender documents the consultant envisaged that the availability of such material near the project site could cut transportation costs, and hence be economically attractive. During the execution of the works, however, the strong winds in the vicinity of the airport caused a serious dust problem, which besides being a nuisance to the public was threatened the safety of aircraft engines.

The contractor was advised to enforce the requirements of the contract and spray water to keep the dust down, he objected on the condition that since the soil was extra fine, it required extra spraying over and above what an experienced contractor could have envisaged. The contractor subsequently argued his case successfully and the consultant accepted his argument and the Client paid over a million birr on settlement of this claim.

<u>Claims cn the space frame structure on the terminal building</u>

The original design of the roof framing for the new terminal building consisted of channel type steel sections placed 1.5 m center to center from a proprietary trade mark called "Uni-Strut". The payments for this work were to be based on an actual installed weight basis. During the execution of the contract, however, the contractor proposed an alternative ball and socket joint, tubular section type of steel truss roof space frame. Upon reviewing the

alternative the consultant concurred with the contractor's alternative proposal and sought the Client's approval. The Client noted that since the new alternative was to be placed 3m center to center (in contrast to the original design of 1.5m center to center) there was a reduction in weight and hence a saving, and instructed the consultant to take steps in this direction. No further correspondence was recorded after that. However, after 40% of the roof frame was installed the contractor discovered that the total weight of the roof structure was to be less by about 44% (from what was recorded in the bills of quantities) and hence anticipated that the payments may be reduced by a proportionate amount.

Considering the financial disadvantages of this reduction in weight the contractor argued that there should not be any reduction in costs, and insisted that he should be paid for the full weight of what is recorded in the bills of quantities. The consultant, against the requests of the Client, approved the payment of the full amount of birr 23,291,000 regardless of the actual installed quantity on the following basis:

- The total weight anticipated to be installed on the roof was an estimate prepared at the time of the tender, and does not give an accurate measure of the actual amount.
- The contractors proposed change from UNI-STRUT system to a space frame was approved on the basis of no additional cost to the employer, i.e. the maximum payable under the terms of the contract was to be birr 23,291,000.
- The contractor's rates in the bills of quantities are for the UNI-STRUT system and cannot therefore be applied to the alternative system proposed by the contractor.

- The contractor should be paid an amount equal to the amount that would have been certified if the UNI-STRUT system had been installed. (The total weight not exceeding the bill of quantity amount)

On the other hand the Client argued that

- As per the terms of agreement and the measurement type of certifying the amounts, payment shall be affected for an actual installed quantity only.
- When the contractor requested a change of the roof system, the Client specifically requested that no approval be granted until the net saving was agreed on all sides.
- As all parties have confirmed the reduction in weight there was a sound ground to negotiate new rates.
- As per the terms of the contract the consultant was authorized to negotiate new rates when there was a change in any type of work, and hence the consultant should have negotiated new rates.

In spite of the above arguments, however, the consultant certified an extra amount of birr 10,248,040 to be paid over and above what should have been paid had the works been certified on an actual installed quantity basis. Although these certified amounts were paid to the contractor in the interest of maintaining smooth workflow, the Client is still requesting reconsideration of the consultant's position. In this case, it appears that the consultant did not administer the contract conditions fairly, and seems to have overlooked the requests of the Client when it requested for the prior agreement of new rates. Certifying the full amount on the basis of what has been recorded in the bills of quantities does not agree with the expressed

principles of payment certification on actual installed quantities only. It appears that the consultant did not exercise his competence adequately.

New /revised design issues

Observing the contract documents it can be noted that about 238 new items have been included in the revised bills of quantities, that has now become an official document after the signing of the contract. The original bill of quantity document has changed to an extent that it is largely outdated. These new items were largely variation orders and design changes, reflecting the level of quality and completeness of the pre bid design documents. In aggregate these new items, variation orders amount to a total of birr 46,787,182.31, which is about 10 % of the contract price for the new terminal building exclusive of baggage handling equipments, fixed seating etc.

Unlike works package I, both the Client and the consultant have not taken a strong counter claims strategy, which may have reduced the incidence of these claims. In addition to this enforcing the liquidated damages clause of the contract document, for even one year of delay, at the contractually agreed rates of 90,000 birr a day may have had a significant saving..

6.2.1.5 WP III (Nav-Met-Com & Associated Facilities)

claims submitted

The form of the contract signed for this work package is a turnkey form of contract. The contractor however experienced significant delays in the supply of electro-mechanical equipment, as well as the construction and commissioning of the New Control Tower. Therefore, although the contractor had a number of claim issues, he has refrained from

submitting them, because the Client may demand compensation on the form of liquidated damages due to the excessive delays. The work is still on going.

6.2.1.6 WP-IA Rehabilitation of the old Runway and Aircraft Parking Apron.

The contract was awarded with out the complete detailed designs, and hence the contractor was unable to start work immediately. Coupled with that, the site handing over was significantly delayed resulting in the submission of a claim by the contractor for extension of time and associated costs. After intense negotiations the contractor withdrew his claim on the condition that, should the Client create any further delay he will raise this issue again, and work has now commenced. The total claim was for a period of 2 months, which is about 33.33% of the total contract time. Currently the total amount of claims is unknown.

Table 4: Summary of claims at the Addis Ababa Bole International Airport Project.

No	Description	Bole Airport Project			
		WPI	WPII	WPIII	WPIA
1.	Initial contract price	164,580,000.00	491,150,536	200,670,076.6	45,000,000.00
2.	Variation orders	10,690,703.47	46,787,182.31	-	-
3.	Submitted claims(financial)	1,283,788.85	132 no.	-	-
4.	Certified claims(financial)	1,283,788.85	>6 mill.USD	-	-
5.	Final project cost (birr)	176,554,492.30	514,551,983	200,670,076.6	-
6.	% of claims(of tot. cost)	0.73%	Unknown yet	Unknown yet	Unknown yet
7	% of foreign currency	70%	90%	86%	-
8	% of local currency	30%	10%	14%	-
9	Initial contract duration	24 months	30 months	19 months	-
10	Submitted claims(time ext.)	35 months	Unknown yet	Unknown yet	2 months
11	Granted time extension	35 months	36 months	19 months	-
12	%of time extension	145.83%	120%	100%	-
13	Final project duration	59 months	Ongoing	Ongoing	Ongoing

6.2.1.7 Observations at The Addis Ababa Bole International Airport project.

- As in all other projects claims due to the late handing over of the site has been a common occurrence in all four work packages.
- Granting time extensions appears to be more acceptable than financial compensations.
- There has been a serious deficiency in the design work of all four projects, whereby substantial amount of variation works have been issued resulting in claims.
- Except in work package I the contract administration capability of the consultants appear to be rather not strong.
- There has been a tendency to keep claim issues pending, without addressing them on time. It has therefore been observed that there is a backlog of un addressed claims.
- Except in works package I, a strong counter claim strategy has not been exercised.

- A tendency to settle claim issues through negotiation/amicable settlement has been observed.
- In some cases the client has went ahead and settled claim issues (more out of the desire to avoid Arbitration proceedings) even though the consultant had a different opinion.
- In terms of claims settlement, some of the consultants have not played a strong role, so that the contractor stands in a very favorable position of winning his claims rather than the Client, no matter how convincing the arguments the Client may put forward.
- The successful experiences of one consultancy firm managing one project has not been applied on the other projects. Had this been done, a better claims management may have been instituted.

6.2.2 The Addis Ababa Ring Road Project (AARRP))

6.2.2.1 Claim details at the Addis Ababa Ring Road Project (AARRP)

The contractor for the Addis Ababa ring road project (see appendix A2) has tabled his claims. Some of the major issues are discussed below:

In their report of September 2001 the contractor China Road and Bridge Corporation (CRBC) argue that the principal delays a total of 1063 days (or 97.1 % of the total contract period) up to May 2003, have been caused by factors beyond the contractor's control. The financial claims so far claimed by the contractor amount to over 220 million birr or about 47.93 % of the total project cost. The contractor argues that the main cause of claims has been

> *"The confined and fragmented working caused by the rights of way problem.."*
>
> They further state that
>
> *"This delay has caused heavy additional unforeseen expenses on the part of the contractor's direct costs, particularly by way of lost production….has also caused the need for a considerable extension of time with the accompanying extension of overhead costs"*

The rights of way problems (also called failure to give possession of site) have been the main reason that the contractor claimed for financial compensation as well as time extensions. As the main Ring Road is located inside the congested part of the city the rights of way problems involved the participation of various government agencies such as the power authority, the water and sewerage authority etc.

In order to minimize the rights of way problems, the Engineer opted to make some design changes that would alter the levels or edge conditions of the roads. The contractor then argued

that such design changes would result in the change of the method of work and hence claims for extension of time as well as associated financial compensation.

Up to may 15 2003 the contractor has submitted, in aggregate, claims worth over 220 million birr and requests for time extensions of over 1063 days. Up to the writing of this Thesis the contractor has been granted a time extensions of 950 days or about 89.37% of his demand, while of the submitted financial claim of over 220 million birr the Engineer certified 63 million or about 28.64 % whilst the Client rejected partially the financial demand and approved only 26 million birr or a total of 11.82 % of the contractor's demand which is about 41.27% of that certified by the Engineer. This indicates that the Ethiopian construction industry management, (particularly owners), tend to see time extensions more positively than financial claims.

In the case of the Addis Ababa Ring Road Project (AARRP) the contractor has notified of this dispute and his intention to go to arbitration. The consultant has viewed the contractor's claims more favorably than the Client, who appears to reduce the amounts significantly. In this approach, a number of issues seem to have not been considered. The "Engineer" acts as the owner's representative in the administration of the contract. This means that the opinions of the Client may not have a significant bearing in the event that it is contrary to the consultant's decision. Whenever the Engineer validates a claim issue and the Client refuses to accept it, the contractor will make use of the arbitration clause in the settlement of such claim. The claim therefore becomes a dispute, which may be settled by arbitration. Such a step will cost the Client even more in legal fees and associated costs, and it is always prudent to reconsider positions, whenever they differ with the Engineer's decisions, as this may have a more adverse effect on the final outcome. In the absence of adequate contract administration, negotiation,

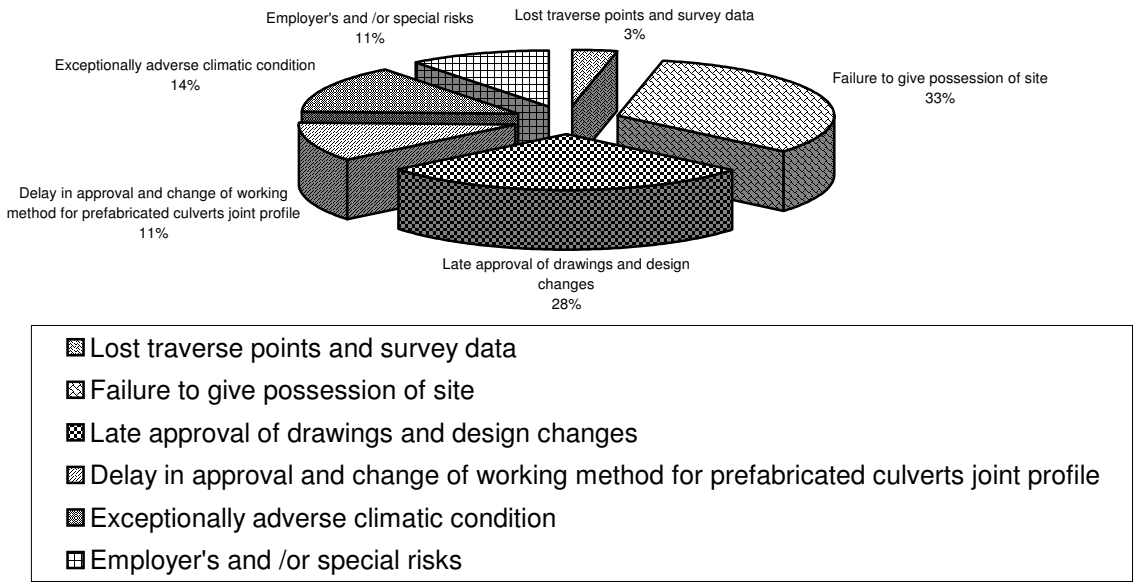
and arbitration skills, as well as training the Ethiopian construction industry needs to be cautious of holding a strong position in the issue of claims.

The following table shows some of the claims submitted by the Ring Road contractor for the indicated period.

Table 5: Submissions of claims at the Addis Ababa Ring Road Project (AARRP) up to December 31 2000

No	Claim Items	Requested time extension (days)				Total (days)
		Claim No. 1	Claim No. 2	Claim No. 3	Claim No. 4	
1	Lost traverse points and survey data	42	-	-	-	42
2	Failure to give possession of site	200	62	78	74	414
3	Late approval of drawings and design changes	195	51	66	42	354
4	Delay in approval and change of working method for prefabricated culverts joint profile	145	-	-	-	145
5	Exceptionally adverse climatic condition	45	59	31	39	174
6	employer's and /or special risks	135	-	-	-	135
	Total effective delay	**762**	**172**	**175**	**155**	**1264**

Fig.1: Observed Claims at AARRP



As clearly indicated above, the main element of the delay was failure to give possession of site, which amounts to 32.75% of the total claim submission.

Table 6: Observed claims at the Addis Ababa Ring Road Project (AARRP) Project.

No	Claim Items	Total (days)
1	Design Related Delay	541
2	Failure to give possession of site	414
3	Exceptionally adverse climatic condition	174
4	Employer's and /or special risks	135
Total effective delay		**1264**

Fig. 2: Observed Claims at AARRP

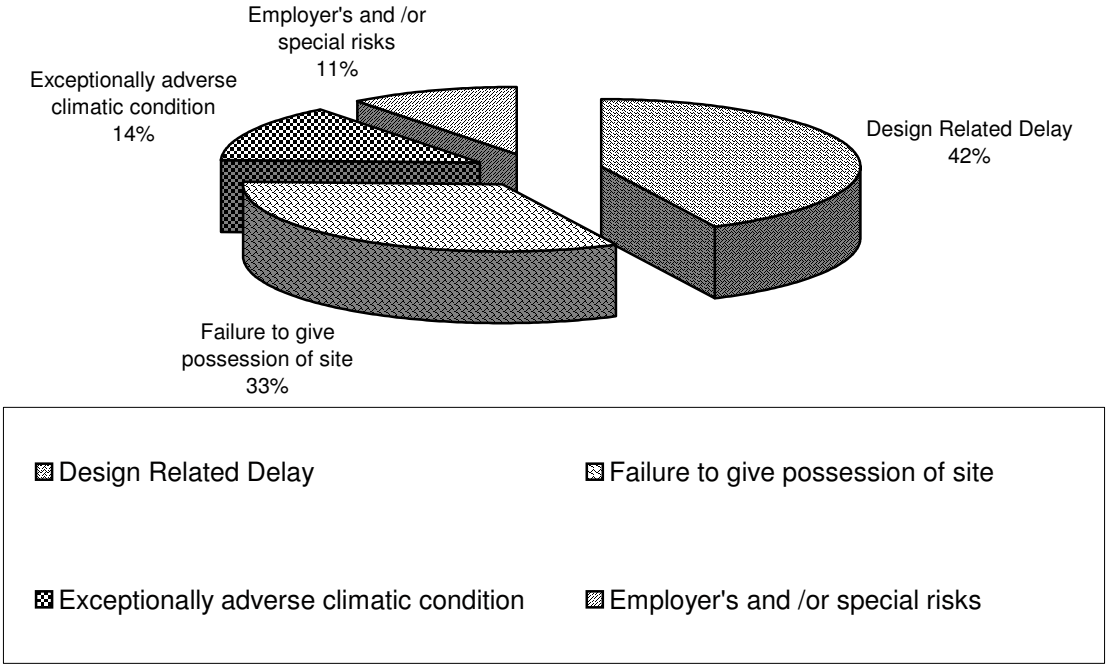


Table 7: Interim claims submitted at the Addis Ababa Ring Road Project (AARRP) until end of December 2000

Claim No	Date of Submission	Claim period (from – to -)	Claimed Amount		Remark
			Cost (Br)	Time (days)	
1	15th Sept. 1999	Commencement date – June 1999	16,182,558.36	242	Only 87 days & Br 2.29 million advised by the Engineer
2	9th June 2000	July, 1999 – Dec 31, 1999	4,286,769.90	81	Not yet approved
3	21st August 2000	Jan. 1, 2000 –June 30, 2000	3,670,632.76	78	Not yet approved
4	16th February 2001	July 1, 2000 –Dec. 31, 2001	3,278,437.00	74	Not yet approved
5		Commencement date – Dec. 31,2000	27,418,398.02	340	Not yet approved
Total			54,836,796.04	815	

The following points may be noted when considering the main R.O.W. related claims

- Section 1206 of the Technical specification, specifies the rights of the contractor to check the conditions of all reference and level beacons and satisfy himself that they are true in relation to position and level before taking over the site.
- On checking this however many of the survey traverse control points handed over by the Engineer were found to be erroneous, contributing to a claim issue.
- After reaching into a common understanding on the existence of such critical problems to commence the work, an International Topographic Surveyor (GTS consulting S.r.l) was assigned by the Engineer to correct surveying errors made during design stage. No official site handing over was made until June 3, 1998, i.e. the date where the Engineer has approved CRBC's re-surveying as corrected by GTS consultants.
- In view of the above, the contractor demanded a time extension for the time lost from commencement date (April 23, 1998) until the Contractor's resurveyed control points were approved by the Engineer (June 03, 1998). This amounts to a total delay of 42 days.

- Failure to give site possession and associated unforeseen physical obstructions are the most crucial problems of the project. They are the major causes for the overall delay of the project. As indicated in Table 6, 32 % (i.e. 414 days out of 1264 days) of the project critical delay factor is due to failure to give site possession.
- Anticipating that site handover problems may seriously affect the eventual progress of the works, the contractor had requested the employer during the pre-bid meeting for drawings of existing services. The employer's response was as follows:

"The relocation of services is currently 90% completed and all will be relocated before the site is handed over. The relocation of services will be indicated to the contractor on site at handover."

- In spite of the above recorded statement, which form part of the contract documents, the said relocation which was intended to be completed before site handing over is not yet completed even, three years after signing of the agreement, and start of the works.
- The recorded site handover problems included issues such as
    - Un demolished houses & Fences
    - Non relocated under ground Telephone Cables
    - Overhead Telephone cable & high-tension electric line.
    - Longitudinal and crossing water mains.
- The above facts made it difficult to proceed with 70% of bridges and structures until end of June 1999 due to non-demolished houses and non-relocated services.
- There were utilities on both left and right sides within the R.O.W and moreover the central strip was already occupied with existing Arterial Street on which it was difficult to perform construction work without provision of adequate detour for public traffic. This situation has aggravated the problem of possession of site by minimizing the available effective working space which amounted to about 8 meters width only making it very difficult to maneuver heavy duty construction equipment within this narrow strip.
- In general, this method of carrying out the work in a very narrow working space has caused the Contractor to incur extra expense making it difficult to make efficient resource deployment, as per the original program.
- As a step towards easing the R.O.W related problems and following the suggestions of the contractor the employer established a coordinating committee, from the various

government agencies to resolve complex R.O.W problems. This joint committee had attempted to resolve the problem but was not able to do so until the end of December 1999, i.e. after 1.5 years of commencing the work. This was particularly difficult as the various owners of the underground services were unable to give specific information about the time or schedule when the utilities were to be relocated so as to enable the contractor to plan his work accordingly.

- It appears that some authorities, particularly those owning underground services, did not even have specific information about the location of their services. This lack of adequate information about location of existing underground services may have adversely affected the Contractor's operation.
- In the mean time, the Engineer made major design changes in 1B & 2A sections of the ring road so as to minimize the existing demolition problems. This new design, especially the introduction of split type separator has again complicated the contractor's method of construction.
- In addition to the above the contractor also claimed a total of birr 165,319.10 for transport expense incurred due to change of port from Assab to Djibouti.

Claims in relation to Exceptionally Adverse Climatic condition

- Under normal circumstance, the rainy season of Addis Ababa and its surrounding area is from mid June to mid September. However, the rains in the first year following the start of the construction work started as early as April and extended up to the month of October.

- The Contractor analyzed 10-20 years of previous meteorological data in the project area to substantiate its submitted claims. The actual rainfall data for each month was also collected jointly with the Engineer on three recording stations.
- As indicated above, the total impact or delay due to inclement weather amounts to 166days. Nevertheless, only 19days, (i.e. the critical delay time which occurred from 15th May 1999 to 15th June 1999), was claimed to be compensated. The remaining 147days of delay were considered to be concurrent with the site possession delay to avoid double counting.

Table 8: Summary Of Ring Road claims

No	Description	
1.	Initial contract price	459,000,000.00
2.	Variation orders	76,500,000.00
3.	Submitted claims (financial)	220,000,000.00
4.	Certified claims (financial)	63,000,000.00
5.	Final project cost	Unknown
6.	% of claims(of tot. cost)	41.08%
9	Initial contract duration	36
10	Submitted claims(time ext.)	35.43 months
11	Certified claims(time ext.)	31.67 months
12	%of time extension	87.97%
13	Final project duration	Ongoing

6.2.2.2 Observations At The Ring Road Project

- As indicated earlier, about 33% of the cause of critical delays is attributable to the late handing over of the site. There has also been a significant delay due to design changes and modifications, in an attempt to reduce the impact of the late handing over of the site.
- The remaining critical delays, i.e. lost traverse point and adverse climatic condition, cover about 13% of the total critical delay.

- As in all other projects the late handing over of the site has been a serious problem. It appears that the client did not perceive the gravity of this problem and the related consequences. The information given in the pre-tender period appears to be rather optimistic and has not considered the seriousness of the ensuing problem.
- The lack of sufficient details on the design of the works has had an impact on the work progress and has resulted in claims by the contractor.
- Although the establishment of a joint committee of the various government agencies responsible for services in the vicinity of the works was necessary, it has not been fruitful in the avoidance of claims.
- A counter claims strategy, either by the consultant or the client has not been observed.
- In some cases the client appears to oppose the decisions of the consultants in the award of claims. Whilst this may have a valid ground, the consequences of such a position appear not to have been considered. In the event that the contractor opts for arbitration settlement of a dispute the final outcome may not be favorable.

6.3.1 claim details at the Road Projects

Currently The ERA is carrying out over 16-road projects. All of these projects are financed through bilateral funding. In the near future, there will be over 15 similar projects for which financing has been obtained and work will start soon. International consultants manage all of the above projects with international contracting firms carrying out the construction work. The ERA carries out the over all administration of the projects and is responsible to over see them. As could be obtained from reports and related information, the ERA has faced a significant amount of claims from some contractors with some issues settled by arbitration.

This review focused primarily on the above projects, however the author had the opportunity to review in detail the documents of other 4 more projects. The analysis of these project data has yielded basically the same conclusions as those presented above and hence the details of only the following projects have been analyzed.

6.3.1.1 Chidda-Soddo Road Project

The Chidda-Soddo project (see Appendix A $_{7\text{-}2}$) was divided into two lots, whose commencement date was November 94, but contract 1 was completed with a 10-month delay and contract 2 with 4 months delay. In relation to the various issues raised, the contractor claimed a total amount of 32,420,743 USD. Subsequent Arbitration award granted the contractor a total amount of 63 million birr.

6.3.1.2 Hirna-Kulubi Road Project: Contract No.2:

At the Hirna-Qulubi Road Project (see Appendix A $_{7\text{-}3}$) there have been some problems of

removal of obstructing due to electric poles at Hirna town and water pipelines in Kulubi town and relocation of telephone lines in Chelenko town. In addition to this the contractor has reported interference to his execution of the works by local farmers and householders affected by the road upgrading works. Almost all of the complaints of the farmers and householders relate to either lack of receipt of compensation payments or dissatisfaction with the amount of compensation payment received. It has also been reported that the response of the expert assigned by the employer to assist in the resolution of such problems has been slow.

Summary of claims

To date the Contractor has registered 9 claims for additional payment and 7 applications for extensions of the Time for completion of the Work. Of the nine claims for additional payment, the Engineer has formally rejected five and determined an award on one of the other claims. Other claims have not been determined because of lack of submissions from the Contractor.

ClaimsNumber-C-3 (Soil Excavation for widening).

On 13 May 2002, the Contractor submitted his first interim submission in respect of the claim number C-3 in the amount of birr 22,240,254.25. Following consultation by the Engineer's Representative with both the employer and the Contractor, the engineer submitted his interim determination for the employer's formal approval. On 7 August 2002, the employer gave the Engineer his formal approval to make an award of birr 3,093,801.26 under claim number C-3.

Disagreeing with the decisions of the engineer the contractor submitted his second interim submission in respect of this claim in the amount of birr 22,240,254.25.

The Engineer has not accepted the Contractor' s evaluation of the amount of payment due to him under this claim and has therefore carried out his own assessment and re-evaluation. The assessment is a second interim assessment subject to re- scrutiny of the quantities applicable to the measurement zones concluded by the Engineer as being applicable for Soil excavation for widening.

Using topographic data recorded at the commencement of the contract and computer aided highway design software, the Engineer's second assessment gave overall quantity of 92,407.45 m^3 of "Soil Excavation for widening" between Km 140+620 and Km 231+780. The Engineer considers that the Contractor is due under this claim a cumulative gross payment of birr 3,093,801.26.

On 20 December 2002, the Engineer's Representative submitted to the employer a complete set of document explaining the basis for assessment and the limits of measurements taken to determine the quantities to arrive at the cumulative gross payment of birr 3,093,801.26

The Contractor has included this amongst the issues addressed in his general Notice of Dispute Number 2. The Dispute remains to be resolved.

Claim Number C-6 (employer's alleged failure to remove obstruction from works)

The Engineer’s interim determination was advised to the employer in June 2002, for the employer's formal approval to make an award. On August 2002 the employer requested the Engineer's Representative to carry out a more detailed analysis of the Contractor's claim submission. Following inspection and review of Contractors original documentation in respect of indirect costs in connection with this claim, the Engineer's determination on the claim

Number C-6 is expected to be submitted to the employer shortly.

Claim Number C-8 (Engineer's failure to approve Mr. Y -G You as Authorized Representative)

By letter dated 18 September 2002 the Contractor gave notice of his intention to claim additional payment resulting from the Engineer not approving the Contractor's Mr. Y -G You as authorized representative in terms of Sub-Clause 15.1 of the Conditions of Contract. The Contractor has failed to respond to the Engineer's Representative's request for formal notification of the Contract's clauses or provisions on which the Contractor bases this claim. There have been no further submissions from the Contractor in respect of this claim. He has however recorded this as a dispute issue.

Claim Number C-9 (Failure of the Engineer to Value the Works pursuant to Sub Clause 56.1 of the Conditions of Contract)

By letter dated 25 September 2002 the Contractor gave notice of his intention to claim additional payment as a result of the Engineer's alleged unfair interim determination of Contract Price Adjustment for bitumen. There have been no further submissions from the Contractor in respect of this claim.

Requests for Extensions of the Time for Completion of the Works

Of the 7 requests for extensions of the time for Completion of the Works, the Engineer has formally rejected 4. The status of those requests not rejected by the Engineer are as follows:

Claim Number EOT -3 (employer's alleged failure to remove obstruction from the Works)

In June 2002 the Engineer's Representative submitted to the employer the Engineer's Interim determination on this claim, for formal approval by the employer for the Engineer to issue an award of extension of the Time for Completion. By letter dated 7 August 2002 the employer gave formal approval for the Engineer to issue and award of 6 calendar days, being the Engineer's interim determination in respect of this claim. The Contractor continues to submit correspondence alleging on-going interference to his progress of the Works caused by the non-removal of obstructions and interference by local residents.

Claim Number EOT -4 (Increase in quantities)

By letter dated 24 May 2002, following formal approval from the employer to issue an award the Engineer issued to the Contractor (with a copy to the employer) his second interim determination of an extension of the Time for Completion of the Works, in the amount of 12 calendar days (cumulative total).

Claim Number EOT -7 (Exceptionally Adverse Weather)

By letter dated 14 January 2003, the Contractor has registered a further application for extension of the Time for Completion in respect of adverse weather experienced during the latter part of December and the early part of January 2003. The Engineer's Representative has responded setting out the details of the submission required if the Engineer is to consider the matter further.

The extended Time for Completion having expired on 21 December 2001, and with no further awards having been made to date by the Engineer, had liquidated damages been recovered from 21 December 2001 the limit for recovery of liquidated damages would have been reached on 28 June 2002. However, during his visit to Ethiopia in June 2002, the Engineer's representative recommended to the employer that liquidated damages not be recovered from the Contractor at that time, there being outstanding requests for extension of the Time for Completion.

On 23 October 2002, almost 120 days beyond the date at which the limit for liquidated damages had been reached, and following discussions with representatives of the employer, the Engineer's Representative notified the employer that the Engineer's current assessment of requests for further extensions of the Time for Completion was that the assessment would not result in the limit of liquidated damages not being reached.

Accordingly, the employer was notified that liquidated damages in the amount of birr 18,808,495.72 were payable by the Contractor to the employer under Sub clause 47.1 of the Conditions of Contract and, also in terms of Sub-Clause 47.1 of the conditions of Contract, the employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due from the Contractor.

Disputes

Dispute Number 1 Alleged failure of the Engineer to act in accordance with the requirements of Sub Clause 2.6 of the Condition of Contract.

on 17 September 2002 the Contractor registered a dispute with the employer under the terms

of Sub-Clause 67.1 of the Conditions of Contract. The Contractor alleged the Engineer had not acted impartially and not in accordance with the requirements of Sub-clause 2.6 of the Conditions of Contract, by not approving the Contractor's Mr. Y-G You as the Contractor's authorized representative in terms of Sub-Clause 15.1 of the Conditions of Contract.

The Engineer advised, through a letter copied to the employer, that he considered he was not at fault and had fulfilled his obligations impartially. The Engineer further advised the Contractor he was happy for the dispute procedures specified in the Contract to be followed.

The employer agreed with the Engineer's position (communicated to the employer through several correspondence) that it was paramount to introduce a senior project manager, with substantial experience on similar works contracts, in order to accelerate the progress of works and achieve completion with a reasonable delay. However, the employer also informed the Engineer that he considered the Engineer could have given Mr. You a chance to prove himself whether he is capable of progressing the Works.

The Engineer responded to the employer's recommendation that Mr. Y-G You be allowed to act temporarily in the capacity as the Contractor's authorized representative and in the meantime evaluate his Performance. It also notified the employer he was ready to adhere to the employer's recommendation as long as the duration and quantifiable parameters as the benchmark for evaluation were clearly stated and agreed.

Pending the employer’s decision, which has not been received yet, this issue of dispute is still outstanding.

Dispute no.2 The Contractor's Disagreement with Measurement and valuation of the Works.

On 9th of October 2002 the Contractor notified the employer of a dispute, alleging the Engineer

had failed, despite alleged repeated requests by the Contractor and despite having allegedly provided to the Engineer all particulars required, to measure and value according to Contract, specific items of the Works and to determine and certify the amounts due to the Contractor and include such amounts in the Interim Payment Certificates delivered to the employer in terms of Sub-Clause 60.2 of the Conditions of Contract. This dispute being related to several measurement issues, the employer has advised the Contractor his response will be issued as soon as possible.

Dispute no. 3 The Contractor's objection to the Engineer's rejection of the Contractor's request for an extension of the Time for Completion of the Works for the crushing of material for the Lower Sub-base *(*EOT-*5)* the contractor claimed a total of 539 days, and this issue is still under review. By letter dated 3 December 2001 *the* Contractor requested the Engineer to award an extension of the time for completion of the Works

"Due to the use of a crushed and higher quality material (instead of natural) instructed by the Engineer"

The Engineer formally rejected the Contractor's extension of time request Number EOT –5.

The contractor has disagreed with the engineers' decision and a response from the employer is being awaited.

In summary the main claims are as follows

Claim no.	C- I	(Measurement of Earthworks- Cut to spoil)
Claim no	C- 2	(Masonry for Inlet and Outlet Structures-Item 4.1 j)
Claim no	C- 3	(Soil excavation for widening)
Claim no	C- 4	(Backfill to pipe culverts)
Claim no	C- 5	(Crushing Natural Gravel for Lower Sub base)

Claim no C- 6 (employer's alleged failure to remove obstruction from the Works)

Claim no C- 7 (costs on uncertified amounts on Interim Payment Certificates)

Claim no C- 8 (Failure to approve the Contractor's Agent/Project Manager)

Claim no *C- 9* (Failure to value the works pursuant to Sub Clause 56.1)

Time extension claims summary

EOT No 1 (Extension of Time for Increased quantity of Culvert Works)

EOT No 2 (Extension of Time for Exceptionally Adverse Weather)

EOT No 3 (Extension of Time for Alleged failure to remove obstructions)

EOT No 4 (Increased Quantities of Works and Additional Works)

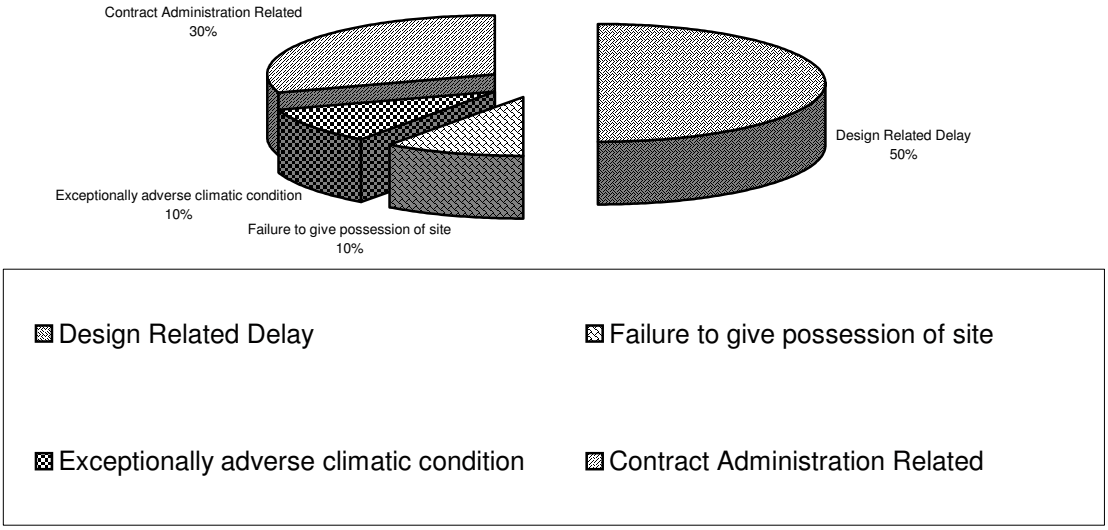
EOT No 5 (Extension of Time for Crushing Natural Gravel for Lower Sub base

EOT No 6 (Extension of Time for Strike by the Contractor's Workers)

Table 9: Observed Claims at the Hirna-Kulubi Road Project.

No	Claim Items	Frequency of claims
1	Design Related Delay	5
2	Failure to give possession of site	1
3	Exceptionally adverse climatic condition	1
4	Contract administration related	3
	Total no. Of claims	**10**

Fig.3: Observed Claims at Hirna-Kulubi Road Project



Notice of Dispute No 3

The Contractor claimed a total of 539 calendar days under this notice. Based on the consented Clause 14.1 contract work program and the Technical Specifications, ERA has replied that crushing of the oversized Lower Sub base material is not beyond the Contract requirement and hence the Contractor's request for extension of time for completion of the works for this item could not be accepted. However, the Contractor was advised to submit detailed substantiation for his extension of time claims so that fair recommendation could be made by the Engineer, which could subsequently be reviewed and considered by ERA

The above response was given in accordance with the Procedure for Dispute Referral, Section 9 (b) of Annex A of Clause 67 of the Conditions of Particular Applications.

Summary of disputes

Following this the Contractor has submitted three notice of dispute to ERA

Notice of Dispute No. 1	(Failure of the Engineer to approve the Contractor's Agent/Project Manager)
Notice of Dispute No. 2	(Additional Payment for different Items of Works)
Notice of Dispute No. 3	(Extension of Time due to Crushed Material for Sub base)

The Contractor has mentioned that they reserve the right to refer the dispute to the Dispute Review Expert (DRE), but did not give a clear indication if they were determined to do so. Pursuant to Clause 67 of the Conditions of Contract ERA and Keangnam Enterprise Ltd. jointly appointed a Dispute Review Expert . Subsequently, the DRE has conducted his first site visit from 11 to 12 March 2003 to become acquainted with the progress of the project and any actual or potential problems and claims. Following the site visit the DRE prepared and submitted to the Contractor and ERA Reports on site visit and Notes of site meeting. During the site meeting with the DRE all the parties agreed that ERA and the Engineer would further review the Contractor's notice of dispute No.2 and 3 and discuss with the Contractor to remove the dispute or part of it. To this end, ERA has requested the Consultant to analyze once again the Contractor's notice of dispute and any of the potential claims that may entitle the Contractor to an extension of time and monetary compensation, and come up with fair and reasonable determination. At the moment it is estimated that the project will be completed by January 2004 approximately 25 months after the expiry of the extended time for completion. The inclusion of a DRE is appositive step in the projects.

6.3.1.3 Woldiya – Alamata Road Project

The current status of the works as compared with the contract schedule shows that the works

are behind schedule. The reasons for such delay, according to the engineer are, Unrealistic Work Program, which does not conform to the resources on Site, Poor management on site, Lack of Staff Motivation and Lack of skilled manpower.

The contractor has obtained the services of a south African management team , however no drastic improvements have been observed on site, and the completion date of August 2003, which is the revised completion date according to the recently revised work program of the contractor appears unlikely. However, as the contractor has commenced an asphalt work on the project the progress of the work during the month of February 2003 is better than what has been done so far. If the current site work progress is maintained the project may be completed in December 2003.

To date the Contractor has submitted notices of claims for extension of time and additional corresponding costs on the under listed subjects. Accordingly, the Contractor requested for 23.8 months of extension of time based on the issues discussed below

Claim for delayed possession of site

The Contractor has submitted an intention to claim for extension of time and additional cost for the delay in site possession in villages of Waja, Gobiye, Robit and Kobo.

Claim for increased scope of work

The Contractor has submitted three notices of claims in different times for 180 days of extension of time and related costs for the excess quantity of concrete in piling works for the quantity increment and changes made on the grade of reinforcement steel for pile foundations and pile caps of a new bridge. The Engineer replied that the quantities set out in the Bills of

Quantities for the works are not to be taken as the actual and correct and since the quantities of the piling works were dictated by the results of the geo-technical investigations of which the contractor was aware. Therefore the claim was rejected.

Claim for unavailability of sub base material, and associated costs and price variations as well as time extensions.

The contractor has claimed for variations of unit price of sub-base and time extensions of six months. The basis of this claim was the unavailability of natural sub base material complying with the specifications in the potential quarry sites indicated in the tender drawings.

The Engineer replied that it was the responsibility of the contractor to ascertain quality of material during the tendering stage. In addition the claim was substantiated on data provided by the employer, which is a violation of the contractor's contract agreement.

Claim for late issue of drawings

The Contractor has submitted an intention to claim for extension of time and additional cost as the Engineer did not issue any designs or drawings as approved for construction.

Claim for site conditions

The Contractor has requested eight-months time extension and compensation of additional costs for the great difference between the actual site condition and the conditions which the Contractor expected while referring the bidding documents in preparation of their tender

Claim for abnormal weather conditions

The contractor requested one-month time extension and compensation of additional cost for

presumably abnormal weather conditions, during the month of December 2000. The Engineer however replied that the rains occurred during the night times and that the contractor has committed itself to work during rainy seasons and hence his claim is not acceptable.

Claim for handover of GPS points

The Contractor has requested one-month time extension and compensation of additional costs for late handing over of GPS points. The Engineer had not concluded his survey control point references to be provided to the Contractor by 6th September 1999 despite Clause 17.1 (a) of the General conditions of works contract.

After reviewing all the Contractor's claims for extension of time of 23.8 months and additional costs which is to be determined later, the Engineer has categorically rejected the Contractor's claims due to the absence of substantial arguments and any justified contractual rights. Accordingly, ERA advised the supervising Engineer to start applying Liquidated Damage as per clause 47.1 of the General Conditions of the Works contract. It has been applied since 04 April 2002, which is the first day after the original completion date.

Right of Way Problem

Clearing of obstructions within the right of way of Woldiya town has become a serious problem on the progress of works; especially, the construction of the three remaining minor drainage structures is due to the non-removal of houses in Woldiya town.

Claim for time extensions of the intended completion date

The contractor submitted a claim for a total of 23.8 months. The claims were principally based on delayed possession of site and access, vast variation in scope of works, especially concrete bridge works and also due to late issue of drawings for culverts.

As the original completion date was not achievable, the Liquidated Damage penalty was applied on the contractor. Subsequent to that however, one bridge (Golina River Bridge) collapsed and required fundamental reconstruction and another bridge (B22) has been damaged severely to the extent that it required heavy repair works, which were not envisaged during the contract period. Following these additional works, the contractor has been advised to carry out geo-technical investigation works on the Golina River Bridge. After completing the geo-technical investigation the Contractor has submitted a Report and Recommendation to the Supervising Engineer. Following this report, the Engineer has prepared and gave the contractor a foundation design and instructed the Contractor to carry out these additional works.

The Cost of this additional bridge is about birr 7,151,534.60. Consequently, as the revised completion date has been re-established to be 13th February 2003, birr 5.15 million that was deducted as Liquidated Damages would be released, and was certified in the contractor's Interim Payment Certificate No. 17.

Following the assessment of the contractor's claims a total of 10.33 months of extension of time has been granted to the Contractor. However, ERA needs to settle the right of way problem along the town of Woldiya if further claims are to be avoided.

6.3.1.4 Betemariam –Wukro Road Project

The current status of the works as compared with the work program shows the project to be behind schedule. According to the assessment of the engineer, the reasons for the delay include, Unrealistic work program, Poor management on site, Lack of staff motivation, and Lack of skilled manpower.

A South African management team, who began their service in September 2002, seem to have identified the management difficulties faced by the contractor and following the easing of communication difficulties with the supervising Engineer, some improvement has been observed on the site. However, it seems unlikely that the completion of the project is achieved by the contract date of August 2003, which is the revised completion date according to the recently revised work program. This target date may only be achieved if the contractor is committed to providing additional resources.

Submitted claims

To date the contractor has submitted four notices of claims for extension of time and additional corresponding costs, which include:

Claim for delayed Possession of site.

Delayed possession of site as a result of late removal of power poles, trees, handing over of borrow pit areas, quarry & asphalt plant sites and additional land due to variations in horizontal alignment (widening of cutting).

Claim for Disruption to the Works Program caused by war

Due to the war between Ethiopia and Eritrea, the project road was serving as the main road for transporting heavy goods and arms movement. Due to this high number of traffic, the construction progress was severely delayed and resulted in complete blocks of several construction sites, requiring more plant and equipment for maintenance of existing and diversion roads.

Claim for delayed supply of Engineer's drawings or designs

The Engineer did not issue any designs or drawings as approved for construction. The Engineer supplied the first approved construction drawings on 3rd October 1999 exactly six months after the commencement of the Contract; i.e., 04th April 1999.

Claim for delayed supply of survey Control Stations by the Engineer

The Engineer had not concluded his survey control point references to be provided to the Contractor by 5th August 1999 despite Clause 17.1(a) of the General conditions of works contract. The contractor has also recorded his intention to submit claims in the future, for items in the BOQ, which have varied by more than 25 % necessitating new rates.

For all the aforementioned claims the Contractor has requested to be granted an extension of time of 11 months.

However, after reviewing all the Contractor's claims for extension of time and additional costs, the Engineer has categorically rejected some of the Contractor's claims due to the absence of substantial arguments and any justified contractual rights and has proposed an extension of time of 15.5 weeks to be granted to the Contractor due to right of way problems, disruption to the works program caused by war and delayed supply of survey control stations.

Following the Engineer's assessment and further discussion with ERA, the contractor has been granted the 15.5 weeks of extension of time, which made the completion date to be 20 July 2002.

However, the Engineer's final report on the Contractor's submittals was that Extension of Time should continue to be awarded until the employer has given full Possession of site for the whole site plus the time needed to complete that final section. There are still serious right of way problems, which may result in delay on the Contractor's progress of works. The main causes of these rights of way problems have been the late effect of compensation payments to private owners by ERA; especially in the city of Makalle. This problem has occurred mainly

due to lack of cooperation from Ethiopian Electric Power Corporation in Makalle town; even though ERA has effected the payment for relocation of electric poles, no relocation work has been initiated in Makalle city so far. In this line ERA needs to settle the right of way problem (Relocation of electric poles, and fences) along the town of Makalle if further claims are to be avoided.

It is anticipated that the lack of realistic work program and proper management on site as well as the required skilled manpower will have an impact on the completion date of the project and be a cause for claims. Based on the Engineer's report on the Contractor's claims, the employer has expressed his opinion to the Engineer that the Contractor, had already been granted fair time extension for delayed possession of Site and advised the Engineer to assess any causes of disruption that resulted in the delay of the Contractor's work other than those considered in his previous assessment.

The findings of the above analysis have also been observed in at least the following road projects handled by ERA.

- The Kulubi- Denegego-Diredawa and Dengego-Harar Road Projects.
- The Awash-Hirna Road Project.
- The Debremarkos-Gondar Road Upgrading Project

6.3.1.5 observations in road projects

Having had the opportunity to examine the project reports, and interviewing professionals involved in the projects the following main points have been observed.

1. One of the most critical and frequently appearing problems seems to be those related to late handing over of site /rights of way problems. It appears that contracts

are awarded to tenderers with out first of all clarifying the rights of way problems. This has caused a number of disputes time extension and financial claims, and has affected the time of completion of projects.

2. Difficulties associated with late issue of drawings and related information is a frequent occurrence in many of the projects.
3. Delayed response to contractor's claim, or related technical issues has been one factor observed in the analysis. The ERA in its internal report of the Debremarkos-Gondar project quotes this to be a major problem.
4. In the Woldia-Alamata road project the contractor claimed a total of 8 months time extension and compensations of additional costs for the great difference between the actual site conditions and the conditions which the contractor expected while referring to the bidding documents, while preparing their tender. This may be indicative of incomplete bidding document preparation.
5. The involvement of the Client in settling or giving a final decisions in the issues of claims, although it may not be advisable, on the basis of the FIDIC form of contract, has been observed to happen in a number of the claim cases.
6. The lack of trained manpower in the contract administration of the projects has been a key problem. Not only has this contributed to the lack of a proper administration of the claims but also contributed indirectly to encouraging contractor's to claim more.
7. Professionals involved in the contract administration sector lack proper training in the areas of construction law. This has also contributed to delegating the handling of the claim issues to the legal department. Has this been jointly handled with the legal department in cooperation with the engineering professionals with adequate

training in construction law it would have contributed to minimizing claim related inconveniences.

8. Most financing agencies require that the prepared bid documents be reviewed by an international consultant. Such a requirement although recommended with the good motive of minimizing cost and revising the project to make it more "viable" may not in reality achieve the objective of reducing cost. What happens in reality is that competing consulting agencies know that there will be a design document already prepared by the former firms and hence will tend to cut their cost related to design review. Such a step will encourage the successful consultant to simply endorse the previous designs with out really reviewing the designs/specifications and hence contribute to some claim issues later.
9. The concept of professional indemnity insurance to cover consultancy risks or design errors is not widely known nor is it implemented in these projects. This encourages consulting firms to transfer the costs related to claims involving design or contract administration errors to the Client. One of the major shortcomings in the administrations of the contracts has therefore been this, where by all risks whether of design or other are transferred to the Client.
10. In addition to the above, some consultancy teams have contributed inadvertently towards the deterioration of an amicable atmosphere between the Client and the contractor. Unnecessarily strict contract administration contributes towards a hostile environment whereby the contractor has no desire to settle issues amicably but prefer arbitration instead.
11. Late issuance of instructions as well as under certification of interim payment

certificates has also contributed to the incidence of claims.

12. Delay in importation of explosives, for the exploitation of quarries for road works and that of communication radios has also contributed toward claimsin the above projects.
13. Delays due to customs clearing of goods at the port have been a major claim issue. The contractors claim that unreasonably long clearing time for imported goods was a cause of delays and associated expenses.
14. Lack of appropriate transport facilities for moving imported items from ports inland has been a cause of claims.
15. Rights of way problems have contributed significantly to the incidence of claims. Unclear obstruction where such belong to different government agencies (for instance removal of electric poles which belong to the power corporation) the coordination of the removal of such obstruction has significantly increased the risk of delays and associated claims. In such instances of delay, the contractor is forced to carry out of sequence work out of sequence where he is most likely to claim later on. Such incidents have also been common.
16. Inadequate /inaccurate soil investigation reports or survey data's have contributed toward the incidence of claims.
17. Design changes in the middle of the construction work have resulted in the incidence of claims. Not only is this an undesirable action but also indicative of the level of completeness of design documents.

The following tables summarize the incidence of claims as related to all the road projects considered in this thesis.

Table:10 Summary of claims at -Road Projects

No	Description	Mille-assab	Chidda-soddo	Hirna-qulubi
1.	Initial contract price	74,643,378.57		188,084,957.20
3.	Submitted claimsbirr (financial)	395,439,638.9	32,420,743 (USD)	22,240,254.25
4.	Certified claims(financial)	25,000,000.00(USD)		3,093,801.26
5.	Final project cost	Unknown		188,084,957.20
6.	% of claims(of tot. cost)			11.83%
7	Initial contract duration	24 months	36 months	913 days
8	Submitted claims(time ext.)	-		539 days
9	Certified claims(time ext.)	-	14 months	
10	%of time extension	-	38.9%	
11	Final project duration	-	50 months	On going

Table11: Summary of claims at -Road Projects

No	Description	Woldiya-alamata	Betemariam – Wukro
1.	Initial contract price	150,329,634.00	203,410,054.65
2.	Variation orders	7151534.6	-
3.	Submitted claims(financial)	-	-
4.	Certified claims(financial)	-	-
5.	Final project cost	157,481,168.60	-
6.	% of claims(of tot. cost)	-	-
7	Initial contract duration	36 months	36 months
8	Submitted claims(time ext.)	23.8 months	11 months
9	Certified claims(time ext.)	10.33 months	3.62 months
10	%of time extension	28.7%	10.1%

Table 12: summary of claims in road projects

No	Claim Items	Frequency of claims
1.	Failure to give possession of site	100%
2.	Late information supply	100%
3.	Late approval of drawings and design changes	100%
5.	Exceptionally adverse climatic condition	80%

CHAPTER 7

7.1 Best Practices And Lessons Learned

Some of the best practices that have been observed in the analysis of this research work indicate that

1. The establishment by ERA of the disputes review expert (DRE) was a good start at finding an alternative solution to addressing claims.
2. The attempt to settle potential disputes through negotiation and amicable settlement has been observed to be one of the best practices at the Addis Ababa Bole International Project.
3. All the projects appear to be behind program. This indicates that the factors that have gone into deciding the project completion time limit may not have realistically been estimated. At the Addis Ababa Bole International Airport New Terminal construction, an attempt has been done to increase the project time limit to reflect realistic, local factors. This needs to be pursued further, in other projects.
4. A strong counter claims strategy approach has borne fruit at the Addis Ababa bole international airport works package I (new runway construction) to an extent that the financial claims granted are a fraction of the total cost.

7.2 Proposed Changes to the FIDIC Forms of Contract

The FIDIC form of contract is prepared in light of international contracts held in the developed world. In the context of developing countries, the documents need to be slightly modified to take account of the local conditions.

Although the FIDIC form of contract takes this into account by providing a section for " conditions of particular application" this section is normally prepared by the consulting Engineers, which are in most cases foreign consulting firms and may not have detailed information in respect of prevailing local conditions. Therefore the following recommendations may be made in respect of modifying certain sections of the FIDIC form of contract.

7.2.1 Instruction to tenderers

A unified instruction to tenderers document needs to be prepared for all Ethiopian projects. In case of variability, such a document may be prepared by sector, say for road works, for water works etc. Such a document also needs to include details in respect of: say Validity of tenders, Currency regulations, Rates of exchange, expatriate and local staff taxation requirements, Tender security, performance bond sources, importation issues etc.

Tender evaluation criteria need to be defined clearly and form a part of the tender documents, so that transparency is maintained and that all participating tenderers know the evaluation parameters.

7.2.2 The FIDIC form of contract

Clause 2.1 duties of the Engineer: the duties of the Engineer in the authorizing of variation orders or settlement of claims need to be limited to a given percentage of the total project cost. Otherwise such decisions need to be carried out following the approval of the Client.

Clause 7.3 responsibility for contractor prepared drawings: this article needs to be elaborated more clearly specifically with respect to the contractor's responsibility.

Clause 10 performance security: the requirements of the performance security as regards to an acceptable source, the financial strength of the source needs to be clearly spelt out.

Clause 41.1 adverse weather conditions: the wording of this clause does not give particulars of what an adverse weather condition means. It would be better if the particular weather condition or the amount of rainfall were compared, say with the average amount in the last 5-10 years. This will avoid subjectivity and address such claim issues properly.

Clause 48.3 substantial completion: the wording of this clause is ambiguous and subject to interpretation differences, therefore the term needs to be described in more clearer terms so that no ambiguity is created.

Clause 51 issuing a variation order: the authority of the Engineer to issue variation orders seems to be open ended. Such a provision gives the Engineer a free hand in the financial matters and may not be preferable. Therefore a financial limit needs to be included. In the event that the variation orders passes the limit, then the Engineer should be required to seek the approval of the employer.

CHAPTER 8

8.1 CONCLUSIONS AND RECOMMENDATIONS

8.1.1 Conclusions

The analysis of the above data appears to suggest that the Ethiopian construction industry lacks an appropriate guidance or training on the handling of claims on international contracts. At best all the experiences of claims in various government agencies are scattered and un-coordinated. The exchange of information between government agencies handling international projects regarding the incidence of claims, their occurrence; causes and steps taken to minimize them are nonexistent.

One of the major finding of the above claim related study is the rights of way/ site handing over problems. All the projects analyzed in this study have experienced this problem and it has become a significant claim issue. This appears to stem from an in adequate understanding of the requirements of the contract, and the impact it may have on the overall project execution. As the exclusive responsibility of the Client, the consequences of this problem can be avoided with proper advance planning, and correct understanding of contract administration. In addition to this most projects have experienced significant design changes that have been a cause for further claims.

The ICB procedures recommend that priority be given to international consultants in the supervision and contract administration of projects, on the grounds that local consultancy firms lack the necessary experience, it appears that even the expatriate consulting firms do lack such experience. In essence therefore, the reasoning that local firms are less experienced to handle major projects does not appear to be convincing.

The contract provisions do not include references to minimum wages in the employment of local staff/workers. There have been occurrences of claims and work stoppage due to labor unrest in some of the projects. This has stemmed from the fact that no clear guidelines have been issued to contractors related to this during the pre-tendering stage of the projects.

Reviewing the above details the one issue that is significantly evident is the unavoidability of claims. In order to minimize this occurrence, the first step needs to be creating an increased awareness on the unavoidability of claims in the management of international projects in Ethiopia. In addition to these, understanding claims in a positive way goes a long way to creating an understanding of their existence and eventually creating a positive atmosphere towards their solution.

The main form of contract that is widely used in the Ethiopian construction industry is FIDIC, which may not be widely known or understood in the Ethiopian professional circle. In this aspect the rather in adequate understanding and implication of this form of contract has contributed towards the frequent occurrence of claims. This is very evident in the significant occurrence of site handover related claim issues.

8.1.2 Recommendations

The following recommendations are made following the analysis and findings of the study. The recommendations are aimed at the government Institutions running international projects and academic Institutions training professional Engineers.

1. The lack of trained manpower involved in the contract administration of the projects has been a key problem. Not only has this contributed to the lack of a proper administration of the claims but has also contributed indirectly to encouraging contractors to claim more. Therefore, a much more coordinated effort of training professionals' needs to be carried out. This needs to be achieved through the introduction of engineering management courses both at the undergraduate and postgraduate levels, with an emphasis on construction law, and contract administration. For practicing professionals a recurrent training courses or skills development seminars need to be held frequently. This area has been the most significant portion of the failure of handling claims more prudently or realistically.

2. Professionals involved in the contract administration sector appear to lack proper training in the areas of construction law. This has also contributed to delegating the handling of the claim issues to the legal department. In the future, the legal departments of the agencies need to work more closely with their engineering professional counterparts, and also need to develop training in construction law, as well as international arbitration and claims handling. This will in the future contribute towards minimizing claim related inconveniences. One critical factor in the handling of such claims is the recognition that, unlike general commercial disputes, construction controversies are special, requiring for their efficient disposition, a unique blend of legal knowledge, technical understanding, and experience.
3. Most financing agencies require that the prepared bid documents be reviewed by an

international consultant. In relation to this establishing a local team of professional design review team will go a long way towards enhancing local skills in handling claims as well as minimizing claims. In instituting the design review procedures great care must be made to enforce the responsibility of the final designs on the consulting firm, so that any outcomes of the review and modification exercise be accounted for and that the inherent avoidance of ownership of the designs be avoided. Such a step will create a sense of responsibility and accountability in the supervising consultancy.

4. The current requirement by international financers, towards awarding consultancy service contracts to international firms needs to be reviewed, in light of the fact that international firms have not been fully successful in minimizing claims, and in light of encouraging local firms as well as enhancing local skills.
5. The concept of professional indemnity insurance to cover consulting risks or design errors is not widely known nor is it implemented in Ethiopia. The responsible government agency needs to institute a professional indemnity coverage regulation, for both local and international firms participating in the Ethiopian Construction Industry.
6. Selection competent consulting firms with a track record of good project management is essential. The emphasis on selecting consultants based on least cost needs to be reviewed carefully. This will avoid involving incompetent consultants, which will most likely increase the incidence of claims in the project.
7. Investing in good pre tendering work planning and building a database of competent consulting firms as well as building the capacity of local consulting firms will also enhance project execution capacity.
8. Importation of various construction materials or accessories is handled via customs

offices who may not have a realistic understanding of what a delay in a construction project may mean. As an option creating awareness in the offices of the Ethiopian Customs Authority, as well as creating an alternative importation-handling department specifically for the execution of international projects, will minimizes the waste of public money, which could have been avoided by handling importation issues timely.

9. The design of any works needs to include a detailed analysis of rights of way problems and clearly specify the steps to be taken. All government/private Institutions then will have to contribute toward facilitating rights of way issues and avoidance of rights of way claims. Again creating awareness about claim sand delays in the execution of projects, among concerned government Institutions, needs to be carried out.
10. Pre bid preparation of document is an area where little attention to its adequacy has been paid. In the future agencies handling international contracts need to invest appropriate amount of money towards adequate soil and survey investigation data's. Such an investment has a return of its own by contributing towards minimizing claims. Such investigations need to be made in such a way as to be through and detailed thereby minimizing uncertainties that may cause disruption of the work later on.
11. All pre bid information should be all inclusive detailed and exhaustive as regards to informing the contractors on issues related to customs clearance regulations, work permits, taxation, and other legislation. It is necessary to prepare a detailed information bulletin that needs to be issued to all contractors as part of a bid document. Such information availability will assist contractors to weigh their risks and hence price their bids appropriately, thereby minimizing the risk of potential claims.
12. Minimum wages and labor related information needs to be included in the pre-bid documents. Such information will enhance project execution by avoiding work

stoppage and claims.

13. Weather related information should be made available in the bidding documents and what the average weather conditions for the given locality were in the last say 7 years. There should also be a daily record of on site rainfall amounts, as part of the contract requirements, to be agreed between the Engineer and the contractor. Such information should include the time of big and small rains in the country their duration and intensity. This will prepare the contractor to sequence his works appropriately and minimize the risk of subjective interpretation of the adverse weather conditions and avoid, if possible claims. In this aspect a development of metrological stations will play a crucial part. At the moment all available records are obtained from the metrological authority, and these should be augmented by on site observations.

14. In one of its internal studies carried out in 1999 the ERA has suggested the preparation of a " Good Practice Guide". Whilst this is an excellent idea and may enhance the effective handling of claims related issues it is nevertheless in the infancy stage and may need to be developed further
15. Creating partnership between all parties of a contract is also an alternative in avoiding an adversarial approach between all parties.
16. Creating a claims "think tank" of local experts, and an independent body of mediators possibly arbitrators endowed with the powers to mediate on issues of international claims.
17. Creating *Alternative Dispute Resolution (ADR)* mechanisms, such as a board of claims experts will contribute towards a better claim handling.

18. Strengthening the counter claims capability, where the client is in a better position to counter the demands of the contractor, say by attempting to enforce liquidated damages, for delayed project completion time will assist in deterring the contractor from assuming a more aggressive approach in claims. In this line the role of the consultants needs to be strengthened.
19. Enforcing a mandatory pre-qualification of contractors for major civil engineering projects will assist in weeding out less experienced contractors, and encourage the participation of more qualified ones.
20. Formulating a local bid evaluation procedure that will be enforced in all government agencies handling international projects will contribute towards streamlining bid evaluation related claim issues.
21. Creating efficient exchange of information between government agencies handling international projects so that experiences gained from past and present claims are shared.
22. A more detailed pre contract planning and detailing of contract documents, site investigation reports, preparation of contract administration procedures and preparation of detailed drawings and documents so that post-tendering variations are avoided.
23. Providing detailed information on relevant local conditions in regard to labor availability, weather during the tendering period so that contractors are made aware of issues.
24. Providing a professional indemnity clause in agreements between the Client and the consultant will greatly enhance covering costs of claims and create a responsible attitude.

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APPENDIX A_1

The Addis Ababa Bole International Airport Project

Background

The Addis Ababa (Bole) International airport is situated about 8 km south of the city center, at an elevation of 2325 meters. The facilities at the airport include, two parallel runways, 7 taxiways, two terminals, two towers and associated communication and aircraft guidance systems.

The airport is located primarily on a plateau consisting of primarily black cotton soil, characterized by high montimorillonitic clay formed from rocks low in silica classified as vertisols, which are high plasticity soils with low bearing capacity and exhibit large degree of expansion and shrinkage in response to moisture content changes. (WPI May 2002 final report,)

Purposes and Ownership

The present Runway and Terminal was built in 1961-1962 with the run way about 3000 meters long which was then extended by a further 700 meters plus 60 meters stop ways in 1971-1972 to accommodate larger aircraft that were in current use and were anticipated to be available in the future in the air transport sector. Since then there has not been any major improvement work and the facilities have remained more or less as they are.

In 1988, the government of Ethiopia (GOE) initiated a 20 year (1991-2010) outline master plan study for all the international airports including Addis Ababa, with UNDP-ICAO assistance.

This initial study was completed in 1990. A further review of this outline master plan was commenced on December 18, 1992, following African Development Bank approval of a consultancy agreement between the ECAA and TAMS consultants, Inc, which began activities in Addis Ababa on January 18 1993. Subsequent to the preparation of detailed engineering design and tender documents the government decided to implement an overall airport development plan divided into "packages" for the sake of financing arrangements and comprising of: Package I (New Runway And Associated Facilities), Package II (New Terminal And Associated Facilities), Package III (Nav-Met-Com And Associated Facilities), and Package IA (Rehabilitation Works)

As the funds for the implementation of the project was obtained, tenders were put out for the procurement of consultancy services generally comprising of the review and update of design and tender documents (prepared by TAMS consultants in 1994 and revised in march 1996), issuing and evaluation of tenders and selection of competent contractors, as well as construction supervision.

APPENDIX A_2

WP I New Runway Project

Project Data: Addis Ababa Bole International Airport New Run Way

employer:	ECAA
Financing agencies	Ethiopian government/ ADB
Design aircraft	Boeing 747-400/MD 11
consultants	Dar Al Handasah consultants
Contractor:	Kajima-Keangnam (joint venture)
Initial Contract period:	24 months (2 years)
Actual Contract duration:	59 months (4.92 years)
Date of signing of contract:	7th march 1997
Date of commencement:	14th march 1997
Contractual date of completion:	23rd April 2001
Main contract price:	172,701,079.50 birr

The airside works included primarily a new runway, (3800 m length, width of 45 meters with shoulders on both sides of 7.5 meters with 90 m runway safety area at both ends and an overall maximum longitudinal slope of 0.8%) it also comprised of two high-speed exit taxiways to link the new runway to the parallel taxiway and three other taxiways. The works cover new airfield lighting system, new approach lighting system (meeting category I precision approach). The works also included perimeter access road and fencing drainage structures and protected open ditches. All other elements and their dimensions complied with ICAO standards.

APPENDIX A_3

WP-II New Passenger Terminal

employer:	ECAA
Financing agencies	Ethiopian government/ (KFAED)/ OPEC/ BADEA
Consultant:	Gibb ltd.
contractor:	Mohammed Abdul Mohsin Al Kharafi (MAK)
Contract period:	1095 calendar days (3 years)
Date of signing of contract:	23rd march 1998
Date of commencement:	28 days after notice to commence
Contractual date of completion:	23rd April 2001
Main contract price:	514,551,983.00 birr

As part of the overall airport development plan a 40000-m^2-floor area new International Passenger Terminal, is now completed and is currently operational. The new terminal is about 5 times the size of the existing terminal, and is built as a three level structure consisting of Arrivals and Departures passenger processing at ground level and a dedicated Arrivals corridor for incoming passengers and a first floor level exclusively for Departing passengers' Departure Lounges, Passenger waiting areas, first class passenger lounges (Airline Clubs) and concession areas for services such as restaurants, duty free shops, souvenir shops etc. as well as facilities for meeters and greeters at the ground level.

Terminal airside consists of 5 aircraft structural parking positions (gates) with loading bridges connecting the boarding/arriving level of the building for 3 B747-400 and 2 MD-11 type of aircraft. At the Terminal apron level there are bus lobbies with buses or transporters providing passenger access to the remote aircraft parking positions located across the taxi lane. With about 70000m^2 area the new aircraft-parking apron can accommodate up to 11 aircraft. At peak hour it is expected to handle up to 3000 passengers per hour. A new car parking facility, 3 times the capacity of the existing airport car park will accommodate up to 800 cars.

APPENDIX A_4

WP-III (Nav-Met-Com & Associated Facilities)

employer:	ECAA
Consultant:	Fitchner GmbH & Co. Kg.
Contractor:	Siemens AG ATD IS 5
Financing agencies	Ethiopian government/ (EIB)
Contract period:	19 months (1.58 years)
Date of signing of contract:	17 February 2000
Date of notice of commencement:	
Originally intended	March 01 2000
Based on receipt of	
Advance payment	May 18 2000
Date of commencement:	28 days after notice to commence
Contractual date of completion:	Ongoing
Current status of work	Ongoing
Overall anticipated delay	14 months
Main contract price:	200,670,076.60 birr
Form of contract adopted:	FIDIC

As part of the airport improvement program, the Works package III portion of the works comprise of the following:

- Construction of a 37 meters high modern Air Traffic Control Tower
- Provision of navigation, communication and metrological equipments
- Provision of power supply systems and substations, standby generator systems
- Provision of airfield lighting

- Provision of fire station, firefighting vehicles and clothes
- Provision of X rays, CCTV, Flight information display systems, Public address systems and provision of facilities for domestic airports

APPENDIX A_5

WP IA Rehabilitation Of The Old Runway And Aircraft Parking Apron.

This work includes the rehabilitation of the existing runway to serve as a parallel taxiway (or in case of emergency to serve as a parallel runway) and aircraft parking apron

employer:	ECAA
Financing agencies	Ethiopian government & ADB
Consultant:	TCDE
contractor:	Mohammed Abdul Mohsin Al Kharafi (MAK)
Contract period:	6 months
Date of signing of contract:	April 1st 2003
Date of commencement:	28 days after notice to commence
Main contract price:	45,000,000.00 birr
Form of contract adopted:	FIDIC

APPENDIX A_6

The Addis Ababa Ring Road Project (AARRP))

The Addis Ababa Ring Road Project (AARRP) is located in Addis Ababa and covers a total of 33.257 km of dual carriage way with a typical width of 40 meters, including 2+2 carriage way and 2+2 frontage road and side walks and a total of 41 structures (2 viaducts, 1 big river crossing bridge, 3 interchange bridges, 18 foot bridges 4 slab bridges and 7 other medium/small sized bridges or over bridges).

The purpose of the project is to enhance traffic flow and reduce congestion at the city center.

Project background

Project:	Addis Ababa Ring Road Project (AARRP)
employer:	Addis Ababa city roads authority
Consultant:	Parkman, international consultancy
Contractor:	china road and bridge corporation
Contract period:	1095 calendar days (3 years)
Date of signing of contract:	23rd march 1998
Date of notice of commencement:	26th march 1998
Date of commencement:	(23rd April 1998)
Mobilization period	
(120 days after notice to commence)	(23rd April- 23rd august 1998)
Contractual date of completion:	23rd April 2001
Main contract price:	459,000,000.00 birr
Supplementary contract for route lighting	76,500,000.00 birr

APPENDIX A_7

The Road Projects

Since 1997 the ERA has embarked on a coordinated road improvement work entitled "Road Sector Development Program" or (RSDP) in two phases running through 1997-2002 with estimated budget of US $ 1.2 and US $ 2.2 billion respectively.

The source of finance is to be covered from The government Of Ethiopia, EU, WORLD BANK , AFDD, Japan, Ireland, Italy, Germany (GTZ) and the united kingdom (DFID), NDF, BADEA, OPEC and Road Fund.

The first phase of the RSDP 1 (1997 - 2002) has focused on rehabilitation and upgrading of main roads and on new construction of link and regional roads targeting to rehabilitate and upgrading about 2540km of trunk roads at an estimated cost birr 4.6 billion, (US$ 0.54 billion), upgrading/construction of 785km of link roads at birr 2.2 billion (US$ 0.26 billion), construction of 1179km new link roads at birr 0.9 billion (US$0.11 billion) and the construction of 5400km regional roads at a cost of birr 1.9 billion (US$ 0.22 billion). RSDP II envisages, the rehabilitation of 1223km, the upgrading of 2539km, the construction of 27432km,

RSDP II (2002-2007) focuses on a strategy to continue the momentum to achieve the road condition targets, as well as to reinforce the process begun under RSDP I and introduces a new dimension covering the requirement of travel and transport at village level; the Ethiopian Rural Travel and Transport Sub-Program (ERTTP) (*EACE Bulletin Vol.* 4, *No. 1 September* 2002)

APPENDIX A_{7-1}

The Mille-Assab Road Project

Project:	Mille-Assab road rehabilitation project
employer:	ERA
Consultant:	DIWI consult
Contractor:	SOGEA
Contract period:	2 years
Date of notice of commencement:	March 1995
Contractual date of completion:	July 1997
Main contract price:	
	Contract 1 74 643 378.57 birr
	Contract 2 125 637 210.15 birr
	Contract 3 85 616 935.14 birr

The Mille–Assab road project contract 1 covers a total length of about 41 km and was anticipated to cover the rehabilitation of the road up to the port city of Assab. For financing purposes and in order to obtain competitive prices the total length was divided into three "contracts" by dividing the total road length into three sections.

Whenever a single contractor gave competitive prices for all three lots the total work will be awarded to the same contractor. However, in the event that, differing competitive prices are obtained, for each lot, then the total work will be offered to three different contactors.

In the Mille-Assab road project the most competitive prices were obtained from the same contractor “SOGEA” and the work was awarded to this contractor.

However, during the execution of the works, the war between Eritrea and Ethiopia broke out and contracts 2 and 3 were terminated, and the contractor was left with only contract number 1 costing 74,643,378.57 birr which was completed with 5 months of delay in July 1998. The contractor then claimed a total of over 378,049,368.00 French Francs at the agreed contractual exchange rate of 1 French frank to 1.046 birr, which amounts to 395,439,638.9 birr which is about 529.77 % of the contract price. This claim was for all the three contracts.

Following failure of negotiations the contractor opted for arbitration and the court has given its decision for the settlement of 25 million USD to the contractor. At the current exchange rate this amounts to over birr 216, million or 289.71% of the total project cost (Reporter Newspaper Megabit 15 1995)

APPENDIX A_{7-2}

Chidda-Soddo Road Project

Project:	Chidda-Soddo road project
employer:	ERA
Consultant:	Gauff engineering
Contractor:	SALINI
Contract period:	1095 calendar days (3 years)
Date of commencement:	November 1994
Contractual date of completion:	November 1997
Form of contract adopted:	FIDIC

APPENDIX A_{7-3}

Hirna-Kulubi, Contract No.2 Road Project

Contract No.2: Hirna-Kulubi	
Type	Road Upgrading Project
Length	91 km
Contractor	Keangnam Enterprise, Ltd.
Consultant	Scott Wilson Kirkpatric & Co. Ltd.
Financers	IDA & government of the FDR of Ethiopia.
Original Contract Amount:	ETB 188,084,957.20
Revised Contract Amount:	ETB 188,084,957.20
Exchange rate	1 US= ETB 7.572
Commencement Date:	04 June 1999
Time of completion	913 days
Original Completion Date:	03 December 2001
Revised Completion Date:	21 December 2001
Reporting period	march 2003
Actual accomplishment	54%

The Awash- Hirna-Dengegeo And Diredawa- Harar roads are located partly in the east African rift valley and partly in the Arba Gugu mountain region of Ethiopia. The roads are located in the east of Ethiopia and form part of the link between the major cities of Dire Dawa and Harar with the capital Addis Ababa. These roads form part of an international road link between Ethiopia and Djibouti as well as Somalia. Contract number two for the Awash –Hirna-

Denegego road upgrading project starts at the entrance of Hirna town and ends before the entrance of Kulubi town the total length of this contract is approximately 91 km.

The existing road to be upgraded is a gravel road with a width varying from 5.5 m to 9.0 m the existing road to be widened where necessary to form a carriage way typically 7 meters wide with 1.5 meters shoulders. The pavement construction consists of an asphalt concrete wearing course and a dense bitumen macadam base on a crushed stone/natural gravel sub-base. The contract also includes the replacement and rehabilitation of drainage structures and the provision of several retaining walls.

APPENDIX A_{7-4}

Woldiya – Alamata Road Project

The Woldiya-Alamata road is the first section of the Woldiya-Adigrat-Zalambessa road, which is being upgraded. This road connects two administrative regions of Amhara and Tigray and is part of the main road linking Addis Ababa to the northern most region of the country. The Woldiya-Alamata consist of upgrading the existing road and structure to a two lane bituminous mixture surfacing with a 7 meter standard carriage way width and 1.5 meter shoulders over a length of 78.3 km. However along the main towns, i.e. Woldiya, Robit, Kobo, Waja, and Almata the carriageway width is increased to 12 meters.

Basic Contract Data	
Type:	78.3 km Road Upgrading Project
Contractor:	China Wanbao engineering Corporation
Consultant:	Dar Al Handasah Shair & Partners
Original Contract Amount	ETB 150,329,634.00
Revised Contract Amount:	ETB 157,481,1 68.60
Commencement Date:	04 April 1999
Original Completion Date	03 April 2002
Revised Completion Date	3 February 2003
Original time for completion	36 months
Funding	IDA (International Development Association)

APPENDIX A_{7-5}

Betemariam –Wukro Road Project

Contract name: contract no. 2 Betemariam –Wukro

Basic contract data

Type:	Road upgrading project
Length	117.56 km
Contractor	China Wanbao engineering Corporation
Consultant:	BCEOM
Original contract amount	ETB 203,410,054.65
Revised contract amount	ETB 203,410,054.65
Commencement date:	04 April 1999
Original completion date	03 April 2002
Revised completion date	20 July 2002

DECLARATION

This Thesis is my original work and has not been presented for a degree in any other university and that all sources of material used for the Thesis have been dually acknowledged.

Candidate

Name.....

Signature.....