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6 FINANCIAL CONTROL

6.1 SECURITIES

When entering into a large value contract it is usual for the Employer to seek some form or forms of security which will reduce the risk of loss in the event that something “goes wrong” with the project. It is also usual that a contracted supplier of some high value item or goods requests a guarantee of payment from the Employer. This is not, however, common in conventional construction contracts as undertaken by ERA and is not, therefore, discussed further here. There are many ways in which something can “go wrong”. Some of the most common ways are the following:

- The Employer has insufficient funds to complete the project
- The Employer unreasonably delays payment or refuses to pay
- The Contractor becomes bankrupt or absconds
- The Contractor’s quality of work or rate of progress is so poor that the contract is terminated by the Employer
- The Contractor is prevented from completing the works
- The works are damaged or delayed by natural or accidental disasters e.g. floods, fire, earthquakes etc.

Whilst it is a relatively simple matter to insure against damages due to natural or accidental causes it is more difficult to insure against the other items. This security is made more difficult in an international environment where the different parties to the contract may fall under different legal systems, to those of the contract, in their home countries. It is essential that the Employer be able to call upon the security and receive compensation no matter what the origin of the cover is. It is therefore imperative that the person responsible for the management of a project, on behalf of the Employer, satisfy himself that the institution providing the security is sound and that the legal system under which the institution falls will permit the payment of compensation in the event of a claim. For example one would be unwise to accept cover provided by an institution based in a country (i) with very strict controls on the movement of foreign currencies without confirmation that payments could be made in the event of a claim or (ii) with a very high inflation rate or non convertible currency.

Extensive reference has been made, in this document, to the document previously prepared by the ERA Legal Services Division's. This document has been revised and is included as Appendix 6-1 - Guideline CA2 Securities

6.1.1 Types of Security

The Collins dictionary defines a security as:

“Something given or pledged to secure the fulfilment of a promise or obligation”.

Contract securities can take a number of different forms/types e.g.

- A bond, defined as *“a written acknowledgement of an obligation to pay a sum or to perform a contract”*.
- A guarantee, defined as *“a promise, especially a collateral agreement to answer for the debt, default or miscarriage of another”*.
- Insurance, defined as *“securing of compensation in the event of loss or damage by advance regular payments”*

A surety is defined as:

“A person who assumes legal responsibility for the fulfilment of another’s debt or obligation and himself becomes liable if the other defaults”.

Bonds, Guarantees and Insurance can therefore be classed under the generic term of ‘Security’. Usually insurance companies provide bonds and insurances and banks guarantees.

6.1.2 Bonds and Guarantees

Construction contracts usually require a number of different types of bonds/guarantees. In their usual form, the surety agrees to pay the beneficiary a certain sum of money in the event that the principal fails to perform the relevant contractual duties.

Another form does however exist i.e. a **surety bond** via which the surety guarantees completion of the contract. These are usually set at a far higher percentage of the contract price than conventional bonds and guarantees. It should be noted that a beneficiary holding a surety bond can not call upon the surety for a payment of money - he calls for completion of the contract.

The most commonly used bonds/guarantees encountered in international construction are:

- Bid or Tender Bonds/Guarantees
- Performance Bonds/Guarantees
- Advance Payment Bonds/Guarantees
- Retention Bonds/Guarantees

The above common forms of Security are discussed further under items 6.1.4.1 to 6.1.4.4 below.

6.1.3 Conditional and Unconditional Bonds/Guarantees

A conditional bond/guarantee sometimes termed an ‘on-default’ bond/guarantee is one which can be called when a contractor fails to comply with its obligations under the contract.

An unconditional bond/guarantee sometimes referred to as an ‘on-demand’ bond/guarantee is one which may be called by the Employer even when there may be no justifiable cause for such calling. WB and other lenders, however, state that any unjustified calling of such a bond, or unreasonable pressure exercised by an employer, would be regarded by them as contrary to the spirit and basic principles of international procurement.

Due to the increased risk which unconditional bonds/guarantees carry financial institutions are likely to charge more for unconditional bonds than for conditional bonds. FIDIC IV and the international contracting community object to the use of on-demand guarantees, for the reason that such guarantees can be called without justification, and their use is likely to increase the tender sum. WB however, considers that the on-demand form has the merit of simplicity and of being universally known and accepted by commercial banks. WB, in their Standard Bidding Documents, include both conditional and unconditional forms of Performance Guarantee, samples of these have been included in Appendix 6-2- Standard Forms of Security.

It should be borne in mind that, notwithstanding any contractual provision to the contrary, the Employer will ultimately pay for the bond premium as it will be reflected somewhere in the contractor’s price. Whilst it is generally considered that unconditional ‘on-demand’ bonds are onerous and inequitable, in many international construction contracts, particularly in the Middle East and Africa, they are insisted upon by the Employer, as is the case with WB and ERA.

It should be noted that a contractor may not escape the financial consequences of default by providing a bond, since a Surety has common law rights of recovery against the contractor. Under the Ethiopian Civil Code such rights of recovery may also be possible, depending upon the wording of the bond. Under common law systems such rights of recovery are usually reinforced by the Surety requiring a written form of counter-indemnity or other security from the contractor, or the contractor's parent company.

6.1.4 Issuers of Securities

Both Bonds, issued by insurance companies, and Guarantees, issued by Banks have their advantages and disadvantages.

Banks usually regard securities/guarantees as an extension of a contractor's line of credit and as they usually know a contractor better than an insurance company would, the guarantees can normally be issued more speedily. When a guarantee is issued by a bank however, the magnitude of the guarantee may affect the availability of that bank's line of credit to the contractor, which could have adverse repercussions on the Contractor's ability to adequately fund the contract or indeed other contracts taking place during the same period of risk. Banks are however, generally more prompt in paying out on guarantees as they are usually less willing to argue or investigate the merits of any claim than an insurance company.

Bonds issued by insurance companies will usually only be issued after the insurance company has made detailed enquiries into a contractor's financial background and ability to perform the contract in question.

Such detailed enquiries can be reassuring to an employer as if the insurance company issues the bond then the company is satisfied with the risk. Conversely, if the company refuses to issue the requisite bond and the employer is aware of such a decision, the Employer might decide to question the suitability of the contractor he has selected.

6.1.4.1 Bid Security

In order to ensure that Tenderers are serious about their tenders and that they do not withdraw their tenders during the tender evaluation period, Employers often require Tenderers to provide financial securities to guarantee that they honour their tenders and hold them valid for the evaluation period.

This financial security is usually in the form of a Guarantee or Bank Certified Cheque which is lodged with the Employer until the tender has been evaluated and awarded. The standard ERA bidding documents demand a bid security with a minimum value of 1% of the tendered amount.

WB standard documents specify that the security should be between 1 and 3% of the tendered amount. Therefore for a contract of, say, Birr 200M, the value of the tender security would be approximately Birr 2M.

Once the Letter of Acceptance (see 3.2) has been issued and the successful bidder's Performance security received, all of the Bid Securities (including that of the successful tenderer) should be returned to the tenderers for cancellation (see 5.3.14).

It is important that the Bid Securities are retained in a safe place as they are convertible and must be returned to the Tenderers once the Contract has been awarded.

Samples of these have been included in Appendix 6-2- Standard Forms of Security.

6.1.4.2 Performance Security

A Performance security is a promise by a third party to cover any costs (in the case of a guarantee or bond) incurred by the Employer as a result of non or poor performance by the Contractor or to complete the works (in the case of a surety bond) for the same reasons.. These costs could relate to the employment of a second contractor to complete the works or the demolition and reconstruction of unacceptable elements of the works etc.

In the case of WB and ERA projects the security is in the form of an unlimited Bank Guarantee which undertakes to cover all costs incurred. The value of the guarantee is usually limited to some (usually ten) percent of the Contract Value. However, the limit of the guarantee will depend on the nature of the works and the Contractors likely to be employed to undertake the works. The value of the guarantee will, therefore, be determined, by ERA, prior to the invitation of tenders. One other aspect of the performance guarantee required by both ERA and the WB is that it is required to be payable in the types and proportions of currencies in which the Contract Price is payable. If a variation is issued for more than 25% of the contract amount the Engineer has the right to request a proportionate increase in the Performance Guarantee.

Works contracts usually require the Performance Security to be furnished prior to the formal signing of the contract and within a specified period (e.g. 28 days) of the award of the Contract.

The wording of the guarantee is such that the Employer is entitled to utilise the guarantee when and if they deem it necessary i.e. it is effectively a signed cheque made out to the Employer waiting to be cashed. It is therefore very important that the guarantee document be retained in a safe place.

On satisfactory completion of the works the Employer is required to return the guarantee to the Contractor thereby releasing the Contractor from all liabilities with regard to the performance of the works.

Satisfactory Completion "must be defined in the contract documents. Usually "Satisfactory Completion" will be deemed to have been achieved at one of two stages in the project. These would either be when the Taking-Over Certificate (see 2.3.8, 5.2.17 and 8.2) is issued or when the Defects Liability Certificate (see 8.6) is issued. The second option would provide additional security to the Employer for the duration of the Defects Liability Period, usually one year.

In the case of WB and ERA standard bidding documents, a Performance guarantee is required to remain valid until 28 days after the issue of the Taking-Over certificate. In the case of a Performance Bond, WB requires it to be valid until the issue of the Defects Liability certificate and ERA until 28 days after the issue of the Taking-Over Certificate.

Samples of these have been included in Appendix 6-2- Standard Forms of Security.

6.1.4.3 Advance Payment

Construction contracts have large initial expenditures associated with the mobilisation of plant, materials, personnel and equipment. In order to assist the Contractor with these initial expenditures and reduce its financial burden, the Employer will often provide an interest free cash advance to the Contractor. These advance payments are usually in the order of five to twenty percent of the contract value, depending on the nature and location of the works (see 5.2.11).

In order to avoid the risk of the Contractor simply taking the money and disappearing, the Employer will usually require the Contractor to provide some form of security to guarantee the repayment of the loan. On WB and ERA contracts this security is usually in the form of a Bank Guarantee.

This advance payment is repaid to the Employer by deducting pre agreed amounts from each of the payments made to the Contractor. Following the full repayment of the advance payment the security is returned to the Contractor for cancellation.

Samples of these have been included in Appendix 6-2- Standard Forms of Security. Although the wording of the guarantee in Appendix 6-2 requires it to remaining in "full effect" i.e. the full value, until the advance payment is repaid, a staged or reducing guarantee would, normally, be acceptable

6.1.4.4 Retention

In addition to the above Performance securities the Employer usually retains a small percentage of all payments made to the Contractor as a further, more readily available or liquid, security. The reason for this additional security is that the Performance Security is provided by a third party and is considered to be available for "more serious" failures by the Contractor e.g. where the Employer is required to undertake the completion or rectification of the works.

The value of the retained payments is usually limited to five (but sometimes ten) percent of the contract value. However, in order to create a sizeable fund of retained payments as early in the project as possible it is usual to deduct ten percent of all payments until such time as the five percent limit is reached.

In the event of the Contractor's good performance and timely completion of the works, the retained funds are released to the Contractor in two stages. The first on the issuance of the Taking-Over Certificate (see 2.3.8, 5.2.17 and 8.2) (the Employer releases one half of all of the retained funds) and the second on the issuance of the Defects Liability Certificate (see 8.6) (the Employer releases the final half of the retained funds).

The retention of a portion of cash payments can create cash flow problems for the Contractor, as it represents compensation for expenses incurred. In order to improve their cash flow, (availability of liquid cash), contractors often prefer to replace the retained cash with a guarantee. This guarantee is, as above, a promise made by a financial institution to provide the funds necessary to rectify some particular element of the works in the event that this proves necessary. The guarantee would be limited to the same five percent of the contract value as the cash retention. It is important to note that in order to release one half of a Retention guarantee it would be necessary for the Contractor to provide a new guarantee for the lesser amount. Depending on the cost of the guarantee to the Contractor they may or may not choose to reduce the value of the guarantee. ERA should, however, only accept such a guarantee, in lieu of a cash retention, if they are satisfied with the Contractor's performance and have no reason to doubt that the Contractor will attend to whatever they may be required to attend to.

In the case of WB and ERA standard contract documents Retention guarantees are only acceptable during the Defects Liability Period and for an amount equal to the difference between the total retention and that release on the issue of the Taking-Over Certificate.

As with all security documents it is important that the Retention guarantee be retained in a safe place as it is required to be returned to the Contractor once they have fulfilled their obligations as described above.

Samples of these have been included in Appendix 6-2- Standard Forms of Security.

6.2 INSURANCE

6.2.1 Introduction

All parties involved in a construction project must accept that there is some attached to their activities. All parties, whether they are the owner, contractor, engineer or supplier, can protect their interests by insurance but must accept that not all risks are insurable.

The cornerstone of insurance philosophy is the principle of the equitable contribution of many for the benefit of a few individuals suffering a loss (loss-sharing) but to make insurance a viable commercial transaction, insurers impose certain limitations on what they will insure.

Construction insurance, like any other commercial activity, is subject to these limitations and therefore insurance cover must be arranged within this framework.

When risks fall outside the limitations prescribed by the insurer they become uninsurable. One example of an uninsurable risk is defective material and/or workmanship. This is under the contractor's control and should remain with him. The owner's way of protecting himself against this uninsured part of the contract is to pursue the contractor for non-performance.

Insurers sell promises to pay in case of certain events and the value of the promise depends upon the integrity of the firm giving it. Low premiums may relate to empty promises. Reputable organisations in the construction industry have learned not to shop for insurance but to develop long term relationships with quality insurance companies.

6.2.2 Principles of Insurance

1. An insurable risk must be a risk that is acceptable to the insurance market through appropriate selection methods.
2. Insurable risks must be fortuitous, i.e. accidental in character. As the degree of probability of a harmful occurrence increases, the premium necessary to cover increases too.
3. An insurable risk must be measurable in quantitative terms and in such a way that the theories of probability and the law of the inertia of large numbers may be used. The premium required to insure the risk cannot be scientifically calculated without this limitation.
4. An insurable risk must be such that the cause of the event which results in damage can be determined. If it cannot, it would be difficult to establish whether it falls within or without the limitations imposed by the insurance contract.
5. The insured must have an insurable interest in the object of the insurance contract.

6.2.3 ERA Project Insurance

All construction contracts require that the Works, Plant & Equipment, Personnel, Vehicles etc. be covered by short term insurance for damage, loss, theft, etc. for the duration of the project. The responsibility for taking out this cover is usually that of the Contractor and the cost of this is included in the Contract Price.

The insurances are usually required in the joint names of the Employer and the Contractor in order to facilitate claims by both parties. In addition both parties are required to indemnify each other from claims against the other party.

The insurance requirements of the FIDIC IV, IDA, ERA NCT and ERA ICB conditions of contract are summarised in Appendix 6-3 - Insurance Summary.

The full wording of the FIDIC IV, IDA, ERA NCT and ERA ICB conditions of contract are included in Appendix 6-4 - FIDIC IV/IDA/NCT/ICB Insurance Clauses.

The remainder of this document describes the nature of the required insurances and their implications for both the Contractor and the Employer.

6.2.3.1 The Works

Clauses 21(a) & (b) require the Contractor to take out insurance cover for any damage which might occur to the works and or materials or plant which are to be included in the works, from whatsoever cause. Cover is required for the full value of the Works and further cover for an additional 15% of the cost of the Works to cover any additional cost of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature.

The cover is required to be in the joint names of the Contractor and the Employer, in order to allow for both to make claims against the insurance.

The cover is required to be valid for claims by the Employer and Contractor from the first working day after the Commencement Date until the date of issue of the Taking-Over certificate and by the Contractor during the Defects Liability period.

The Contractor is also required to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract.

6.2.3.2 The Contractor's Equipment

Clause 21.1(c) requires the Contractor to insure the equipment and other things which they bring onto the Site for a sum sufficient to provide for their replacement at the Site.

Although the conditions of contract do not specify a period of cover for this insurance, it is reasonable to assume that the cover should be for as long as the Contractor's equipment is assigned to the site.

6.2.3.3 Damage to Persons and Property

Clause 22.1 requires the Contractor to indemnify the Employer against all losses and claims in respect of death or injury to any person or loss of or damage to any property (other than the Works) which may arise out of or in consequence of the execution and completion of the Works and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof i.e. the Contractor may not claim compensation from the Employer in the event of his having received a claim from any other person or body for any of the events.

Clause 22.3 requires the Employer to indemnify the Contractor against all claims, proceedings, damages, costs, charges and expenses in respect of the exceptions defined in Clause 22.2

6.2.3.4 Third Party¹ (including Employer's Property)

Clause 23.1 requires the Contractor to take out cover, in the joint names of the Contractor and the Employer, against liabilities for death of or injury to any person or loss of or damage to any property other than those and that covered by 6.3 above i.e. persons and property not directly involved in the project e.g. passing members of the public or vehicles.

The minimum value of this cover is required to be specified in the Appendix to Tender and is usually around USD 500 000 per occurrence with an unlimited number of occurrences.

6.2.3.5 Accident to Workmen

Clause 24.2 requires the Contractor to take out cover, in his own name, against any damages or compensation payable to any workman or other person in the employment of the Contractor or any Subcontractor, other than death or injury resulting from any act or default of the Employer, his agents or servants.

This clause also requires the Contractor to indemnify the Employer against all such damages and compensation in relation to workmen's accidents.

Neither the IDA nor ERA standard contract formats require the specification of the value of the Workman's Compensation. The FIDIC 1999 format does require the value to be specified. As a minimum it should be equal to the GoE legislated amount.

6.2.3.6 Professional Indemnity

When a contract requires the Contractor to undertake design of the works, the Employer may well also require the Contractor or his design engineer to take out and maintain Professional Indemnity insurance to cover any claims resulting from errors in or failures from the design. The value of this insurance would depend on the value and nature of the works being designed.

6.2.4 Expiry and Renewal of Insurances

Clauses 21.2 requires the insurances listed in Clauses 21.1(a) and (b) to be valid from the start of work until the date of the Taking Over Certificate in terms of the joint Employer/Contractor cover and to the date of issue of the Defects Liability Certificate in terms of the Contractor's cover.

In the case of the Clause 23.1 Third Party insurance no period of cover is specified. Notwithstanding, the period of cover must be from the commencement of the works until the issue of the Defects Liability period and maybe even a little beyond that if the Contractor has not completely left site by that time.

Clause 24.2 requires the Workman's compensation insurance to be valid during the whole time that any persons are employed by the Contractor on the works.

The insurance company(s) calculates the premiums² for the above insurance on the basis of the contract value and minimum values of cover, specified in the Appendix to Tender. Any increases in the contract value will result in an increase in the premium. If the Insurers are not advised of such increases, they will view this as a deliberate attempt to "underinsure", which will result in reduced payments in the event of a claim.

¹ Third Party —n. 1 another party besides the two principals. 2 bystander etc. —adj. (third-party) (of insurance) covering damage or injury suffered by a person other than the insured. (Oxford Dictionary)

² Premium = Amount to be paid for a contract of insurance. Normally paid annually in advance but may be paid monthly in advance.

Both IDA and ERA have included special conditions of contract requiring the Contractor to advise the insurers of any changes in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times.

Most contract periods are longer than one year and, therefore they will most certainly span year ends. It is common for insurance companies to issue insurance for periods greater than one year but to require the insurance premiums to be paid on an annual basis. Both the ERA and IDA contract formats place the responsibility for the maintenance of the insurance on the Contractor and further require the Contractor to indemnify the Employer against any claims in the event that the Contractor fails to renew the insurance.

6.2.5 Insurance Exclusions

There are certain events which are unlikely to occur and which would be very expensive to insure against. The Employer therefore takes the risk that these events will not occur and allows the Contractor to exclude them from the insurance policies. In the event that one of these events does occur and that damage results, the Employer is liable for those costs.

There is, therefore, no obligation on the insurance in Sub-Clause 21.1 to include loss or damage caused by the following:

- war, hostilities, invasion, act of foreign enemy
- rebellion, revolution, insurrection, civil war
- ionising radiations, contamination by radio-activity, radio-active toxic explosive
- sonic and supersonic pressure waves

There are a number of additional risks which cannot be insured. The reason for this is that they are unacceptable to the Insurance companies. These risks must, accordingly, remain the responsibility of the party to which they are allocated. The Employer accepts the following risks:

- riot, commotion or disorder by others other than the Contractor's workers
- loss or damage due to use or occupation by the Employer
- any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions

6.2.6 Insurance Policy Exclusions

The exclusions under 6.7 above represent the items for which the Employer accepts the risk. There are, however, often items which insurance companies exclude from their standard insurance policy cover. It is quite possible, however, that these excluded items are required to be covered and it is therefore very important when reviewing the terms of an insurance policy to identify the exclusions and decide if they are acceptable or not.

Insurance companies will often deduct a fixed amount from any payment made against a claim. The reason for this is to discourage Contractors from making many small claims which would be administratively time consuming for the insurer. As most of the insurances are required to be taken out in the joint names of the Contractor and the Employer, to facilitate cover of and claiming by both of them, it is important when reviewing the insurance policy documents that any such deductions or excesses be considered.

In general terms the greater the excess accepted by the Contractor, the cheaper will be the insurance. In approving the insurance, the Employer must therefore satisfy himself that the proposed excess will provide sufficient cover.

6.2.7 Insurer

The ERA standard document for NCT specifies that the insurer must be both acceptable to the Employer and registered in Ethiopia.

The IDA and ERA ICB standard documents specify that the insurer must be acceptable to the Employer and be from one of a number of IDA defined or Funding Agency approved acceptable countries.

It is therefore important when approving the insurance cover on foreign funded projects that ERA know which are the eligible source countries.

It is, further, important for ERA to satisfy itself of the dependability and financial stability of the insurer and the country in which it is based e.g. it would be unwise to accept insurance from Zimbabwean insurance company, at present, when the country is suffering such high inflation, devaluation of its currency and strict foreign exchange controls.

6.2.8 Adequacy of Insurance

The IDA and ERA contracts require the Contractor to notify the insurers of all changes in the nature, extent or programme for the execution of the Works and ensure the adequacy of the insurances at all time. They further require the Contractor to produce to the Employer, when required, the insurance policies in force and the receipts for payment of the current premiums.

It is extremely important to review the policies and the basis upon which the premiums have been calculated as "under insurance" will result in reduced payments in the event of a claim. e.g. If one were to insure a car valued at USD 40 000 for say USD 30 000 and, following an accident, claim compensation of (say) USD 10 000. The insurance company would, at best, reduce the pay out in proportion to insured value i.e. $USD\ 10\ 000 \times 30\ 000 / 40\ 000 = USD\ 7\ 500$ and, at worst, refuse to pay because you had attempted to defraud the company.

The Contractor must therefore advise the Insurer of all changes e.g. increased quantities, variation orders, etc., which result in an increase in the contract amount. Failure to do so could result in the Insurer refusing to pay out in the event of a claim.

6.2.9 Remedy on Contractor's Failure to Insure

All of the contract formats use the FIDIC IV wording to describe the Employer's remedy if the Contractor fails to take out, maintain or renew any of the specified insurances. In summary the conditions of contract allow the Employer to take out the necessary insurance and pay any premium which may be necessary and from time to time to deduct the cost of that insurance from any monies due to the Contractor.

Failure to insure a project places a considerable financial risk on the Employer. It is therefore essential that ERA's project engineers closely monitor the validity of the projects insurances and that ERA act promptly, if the Contractor fails to insure.

6.2.10 Insurance in Joint Names

In a number of cases above and in the FIDIC IV reference is made to Insurance in the joint names of the Contractor and the Employer. What this means is that the actual insurance policy document indicates that the cover provided by the policy is for both the Contractor and the Employer and that either of them can therefore make a claim against the insurance e.g. Under the clause 21.1(a) insurance the Contractor might claim for damage to the works resulting from heavy rain whilst under clause 21.1(b) the Employer might claim for additional design costs resulting from the redesign necessary to rectify the damage caused by the rain.

A further example using clause 23.1 Third Party insurance is that a member of the public who suffers an accident whilst travelling through the site might chose to claim compensation from the Contractor (as it was the Contractor whose poor traffic control had resulted in the accident) or from the Employer (as it was the Employer who promoted the project and was therefore responsible for the situation which resulted in the accident). In both cases the insurance would cover the compensation as it is in the joint names of the Contractor and Employer.

6.2.11 Indemnity³

Under a number of the insurance clauses the Contractor is required to indemnify the Employer and vice versa. What this means is that each of the parties is required to undertake not to "pass on" or counter claim against the other party in the event of an incident which results in costs. e.g. if a workman were injured on site (because of a failure by the Contractor to provide protective clothing) and the insurance company refused to pay compensation and the workman accordingly sued the contractor for compensation and subsequently won, the Contractor would not be entitled to sue the Employer for the recovery of the money.

The Contractor's indemnification of the Employer effectively means that the Contractor exempts the Employer from any such counter claims. Where the Employer is required to indemnify the Contractor e.g. clause 22.3 the Contractor is similarly protected from counterclaims by the Employer.

6.3 CONTRACTOR'S IPC

The ERA and WB standard document formats all specify, under Clause 60, how IPCs are to be calculated and presented. The IPC format is further discussed under 6.3.5 below and new IPC formats proposed in Appendix 6-7 - ERA vs. WB ICB SBD Clause 60.

The function of the following items is to clarify and explain the various terms and concepts referred to in Clause 60 of the ERA and WB standard bidding and contract documents.

Note: Following the completion of this section of the Manual it was realised that a number of ERA staff had still not grasped the various concepts discussed and the relationship between them. Accordingly a further document was prepared to discuss these items in more detail. This document is included as Appendix 6-12 - Further Explanations to this manual.

6.3.1 Cost Control

Most of the works which ERA presently undertakes fall under the RSDP. Although the funding used for this project is obtained from a number of different sources, a large portion of the funding is by the World Bank and in terms of the agreement between the GoE and the World Bank the Bank act as general project managers of all of the RSDP activities. It is important to realise that this even applies to GoE funded projects and DMO projects.

In terms of the agreement with the Bank, ERA is effectively not allowed to commit itself to any expenditure without the prior approval of the Bank. It is, therefore, a requirement that very strict financial control be exercised over all expenditure. The principal aims of this control are:

- To ensure that ERA remains within its budget constraints

³ indemnity n. (pl. -ies) 1 a compensation for damage. b sum exacted by a victor in war. 2 security against loss. 3 exemption from penalties (Oxford Dictionary)

- To ensure that ERA receives value for money
- To ensure that no monies are misappropriated

It is in support of this financial control that the strict contractual relationships and various procedures have been established.

In general the money to be paid for works on large contracts is calculated in the same way as it is for Maintenance contracts i.e. quantities of work done multiplied by the unit rates for those items. The contracts all assume that the actual amounts to be paid are determined from the actual volumes of work done. In other words all works are measured after they have been completed and payment made accordingly i.e. the contracts are "re-measurable" (see 6.3.6 and Appendix 3-5 FIDIC IV Clauses 55 and 56).

The contracts therefore make provision for variations in the quantity of measured work and so when such variations occur no prior approval is required from either the Bank or MFED. The only exception to this is when a variation in a quantity is so great that it results in the contract amount being exceeded. In this case it would be necessary to get the approval of the Funding Agency and GoE to allocate additional funds to the project. The exception to this is where a Variation Order (see 6.3.7) is issued with a value in excess of the Engineer's authority as specified in COC Clause 2.1

The contracts also make provision for the inclusion of new works and additional works. It is possible that some item of work not envisaged during the design stage becomes necessary during the construction stage (*new works*). It is also possible that some item of work not envisaged during the design stage, but of a similar nature to works already included, becomes necessary (*additional works*). In both these cases, if the work can be undertaken within the contract ceiling amount it would only be necessary to issue a Variation Order to define the nature of the works and the cost thereof. Variations are discussed in more detail under section 6.3.7 below (see Appendix 3-5 FIDIC IV Clause 51).

In the case of Variation Orders, depending on the nature of the works, it may or may not be necessary to get the approval from the Bank but it is not necessary to get the approval of the MFED as the contract and its conditions of contract will already have been approved with the Variation provisions. It is possible that the ERA/GoE internal systems may require approval and signing of some documentation in order to allocate additional funds to a project. This is not, however, a contractual requirement. However, until such time as such has been approved by all parties and signed by ERA (and the Contractor?) it may not be possible to pay any monies in excess of the original contract amount. It is therefore very important that sufficient time be allowed for the processing of such documentation in order to avoid delaying payments to the Contractor (see 6.3.7).

Guidelines for financial control have been included as Appendix 6-5 - Guideline CA3 Financial Monitoring.

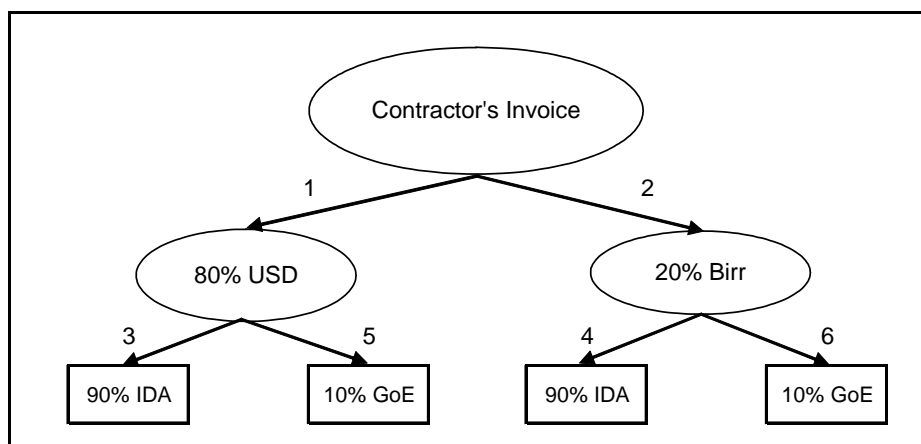
6.3.2 Contract Currencies

In most ERA contracts Contractors receive a portion of their payments in Birr and the remainder in some foreign currency(s) e.g. USD, Euro etc. The reason for this being that the Contractor has certain foreign expenditures for which they require the foreign currency.

Depending on the funding agreement, ERA may pay a portion of the Birr and Foreign Currency and the Funding Agency the remainder of the Birr and Foreign Currency. The result of this is that each invoice is settled via four separate payments i.e. GoE Birr, GoE Foreign Currency, Funding Agency Birr and Funding Agency Foreign Currency. In the event that GoE only pays Birr or the Funding Agency only pays the foreign currency or any other combination of these, the general principle of the example below remains the same.

For the purposes of this example it is assumed that a Contractor receives 20% of his payments in Birr and 80% in United States Dollars and that GoE provides 10% of the funding and the World Bank 90%. The percentages in this example are typical of contracts undertaken by ERA at present.

The sketch below details these payments diagrammatically



Note: The numbers included in the diagram above refer to the various payment elements of each IPC, which are required to be monitored (see description below).

The Contractor is not particularly concerned about the source of the funding for his payments but rather that the payments are received. However, in order to ensure proper financial control of the project's funds and the Contractor's invoices and payments received, each of these six "cost centres" has to be monitored. If there were payments in a third currency there would be eight cost centres to monitor. This is a lot more complicated than the single currency single funding source Maintenance contracts but the principles are the same.

The cost centres which the Project Engineer must monitor, shown in the diagram above, are the following:

- | | |
|----|---|
| 1. | Value of US\$ paid to Contractor vs. US\$ portion of the Contract Amount |
| 2. | Value of ETB paid to Contractor vs. ETB portion of the Contract Amount |
| 3. | Value of US\$ paid by Funding Agency vs. Agency US\$ portion of the Contract Amount |
| 4. | Value of ETB paid by Funding Agency vs. Agency ETB portion of the Contract Amount |
| 5. | Value of US\$ paid by GoE vs. GoE US\$ portion of the Contract Amount |
| 6. | Value of ETB paid by GoE vs. GoE ETB portion of the Contract Amount |

Typical spreadsheets for this financial monitoring are included as Appendix 6-5 - Guideline CA3 Financial Monitoring to this document. If the information reflected on these spreadsheets is readily available from the RDPB it should not be necessary, but could still be convenient, for the PE to maintain these spreadsheets, however, if it is not available, it is essential that he does maintain this information.

6.3.3 Contract Exchange Rate

The value of a currency in relation to any other currency is determined by market forces on the basis of the perceived strength of the currencies i.e. the strength of the country's economy, the country's level of debt, the country's balance of payments, the political situation etc. As these factors vary, so does the value of the currency.

Fluctuations in the value of the Birr affect both the Contractor, as it results in in/decreases in the cost of imported items, and ERA, as it in/decreases the cost of the project and the repayment of monies borrowed for the project.

In order to remove the risk of exchange rate fluctuations from the Contractor a contract exchange rate is agreed at the commencement of the project and this rate is utilised throughout the project (see Appendix 3-4 Appendix to Form of Tender Table 1).

Unfortunately ERA can not avoid this exchange rate risk and it is therefore absorbs all such variations whether they are positive or negative. Although this is can be a very real cause of increases in the final project cost it is often overlooked because its effect is not immediately obvious when reviewing the actual costs versus the anticipated and billed costs. However, when one considers the amount of Birr required to repay a loan it is very clear how the cost has increased for the GoE. This is best explained by way of a simple example:

If GoE borrows \$ 100 when the Birr/Dollar exchange rate is (say) 5/1, GoE would receive Birr 500. However, if they were to repay the loan when the exchange rate was 9/1, GoE would be required to use Birr 900 to purchase the \$ 100. An effective 80% increase in the cost of the works.

In an economy with a rapidly devaluing currency this can result in very significant increases in project costs. The exchange rate between the Birr and USD has ranged between approximately 2 and almost 9 during the past 25 years.

Although the ERA PEs will not normally be required to monitor the exchange rate fluctuations it is useful to monitor these as devaluations in local currency can often lead to an increase in the local funds available from Funding Agencies and a decrease in foreign funds from ERA.

6.3.4 Monthly vs. Cumulative

The FIDIC conditions of contract (see Appendix 3-5 FIDIC IV Clause 60) require the Contractor to submit a statement at the end of each month, detailing the work undertaken and the amounts to which the Contractor considers himself due. The Engineer is required to review this statement and to issue a certificate which details how much he considers due and how much the Employer is required to pay (see 2.3.5 and 5.2.16).

The review and approval of payment certificates, by ERA, for both Consultants and Contractors is a task with a lot of responsibility because of the large amounts of money involved. However, by following a very simple rule it is possible to remove a large element of the risk of making serious mistakes during these reviews.

A payment certificate will often be prepared and presented on a Monthly basis as follows:

Project ABC - Payment Certificate N° X					
Item	Description	Unit	Rate	This Month	Total
1	Work Done			zzzzzzz	34.355,00
2					
	Amount Now Due				34.355,00

The problem with this type of IPC is that if there is an error which is not identified and an incorrect payment is made, there is very little chance of the error ever being identified and therefore corrected. If such an error was identified it would be necessary to go back to that particular IPC and correct the error via a debit or credit note. This is very time consuming and complicated, especially for the RDPB. In order to avoid this problem an IPC should be prepared and presented on a cumulative basis as follows

This method of calculation and presentation will result in any errors made in previous certificates being automatically corrected in subsequent certificates without the need to “go back in history”. This method only requires the total of all of the correct and incorrect amounts due for payment to the date of the IPC to be subtracted from the correct cost of the total volume of work carried out up to the IPC date. The resulting amount due for payment will automatically take into account any previous errors and correct them.

The spread sheets included as Appendix 6-6 - Monthly vs. Cumulative IPC demonstrate the two methods and how they accommodate/correct errors.

6.3.5 IPC Format

The WB and ERA SBDs under Clause 60 of their conditions of contract specify what should be reflected on IPCs and the order in which those items should appear. This is done in order to avoid the differences in value of IPCs which can occur when the various components are presented in different orders. These clauses are compared in Appendix 6-7 - ERA vs. WB ICB SBD Clause 60. This appendix also includes IPC formats for each clause.

The WB and ERA Clauses 60 and their resulting IPC formats are compared in Appendix 6-7 - ERA vs. WB ICB SBD Clause 60. At the time of preparation of this manual the ERA IPC formats in use did not correctly reflect the requirements of either of the Clauses 60. In addition, there were significant differences between the WB and ERA modified formats. Appendix 6-7 - ERA vs. WB ICB SBD Clause 60 accordingly contains IPC formats which correctly reflect the requirements of Clause 60.

In general the WB and ERA Clause 60 require the IPC to reflect the following items in the order shown:

Project ABC - Payment Certificate N° X							
Item	Description	Unit	Rate	Total	Previous	This Month	Total
1	Work Done			xxxxxxx	yyyyyyy	zzzzzz	123.456,00
2							
	Less Previously invoiced						89.101,00
	Amount Now Due						34.355,00

- Work Done
- plus* Variations
- plus* Dayworks
- plus* Contract Price Adjustment (CPA)
- less* Retention
- plus* Materials on Site (MoS)
- less* Advance Payment
- plus* Any other amount

These components of an IPC are explained below.

6.3.6 Work Done

Bill of Quantities (BOQ) (see 3.7). The various tasks and items of work to be undertaken and as described on the drawings and specifications are all detailed in the BOQ. The value of the work done is the sum of all of the various quantities of work done multiplied by their respective unit rates.

Most of the ERA contracts are re-measurable (see 6.3.1 and Appendix 3-5 FIDIC IV Clauses 55 and 56). The tender BOQ is accordingly only an estimate of the work to be done. Occasionally the BOQ may be inaccurate if there has been insufficient survey and investigation undertaken during the design stage or if the quantities are estimated rather than calculated or if there are unforeseen variations.

The result of this is that the final quantities of the anticipated items of work will be greater/less than the quantities, and hence cost, included in the Contract Document. The Final Contract Price is, accordingly, based on the actual volumes of work undertaken.

Variations of this nature are usually fairly small and are usually accommodated by means of the inclusion of a Contingency allowance in the Bill of Quantities. Such Contingencies would normally be in the order of five to ten percent of the Contract Price. Such variations are formally “included” in the contract by the measurement of works undertaken and no other correspondence or paperwork is necessary. In the event that the variations are significant it may be necessary to review the works to be undertaken or to increase the funds allocated to the project via some internal or WB documentation.

6.3.7 Variations

FIDIC and most of the other forms of Conditions of Contract used by ERA define the Contract Price as “*The sum stated in the Letter of Acceptance as payable to the Contractor for the execution and completion of the Works and remedying of any defects therein in accordance with the revisions of the Contract*”(see Appendix 3-5 FIDIC IV Clause 1.1(e)(i))

The Contract Price is usually based on a bill of quantities which has been priced by a Contractor under competitive bidding conditions. Although every attempt is made to ensure that the bill of quantities is as accurate as possible there are a number of factors which can result in the Final Contract Price being different to the Contract Price.

In the case of projects undertaken by ERA these variations in the Contract Price are generally not provided for in the project budget and it is, therefore, necessary to allocate additional funds to these projects for these increases when they occur. This allocation of additional funds normally takes quite some time and sufficient time must be allowed for the acquisition of the additional funds.

Most contract documents acknowledge the existence and uncertainty of such variations of the Contract Price and make provision for these in the Conditions of Contract (see Appendix 3-5 FIDIC IV Clause 51). Any variation order to increase or decrease the quantity of work, omit work, change the character or quality of work, change lines and levels, additional work or change any specified sequence issued will be included in the IPC under this heading. It must be noted, however, that CPA (see 6.3.9) will be calculated on the value of the Variations and they must therefore be presented as base date costs rather than current costs.

Typical examples of these would be:

New Works. During the course of a Contract the need for previously unforeseen or unwarranted works often arises e.g. a flood may wash away a bridge which previously did not require any attention, political or social developments may demand the inclusion of previously omitted works etc. In the case of works such as these there are usually no suitable rates in the BOQ and it is necessary to derive and agree new rates for the works with the Contractor (see Appendix 3-5 FIDIC IV Clause 52).

Variations of this nature are required to be formally “included” in the contract by means of a Variation Order which is a document which describes the nature, details, cost and timing of the additional works and an instruction to implement the work described (see Appendix 3-5 FIDIC IV Clause 51).

Revision of Billed Rates. Most of the Contracts allow for a revision of the billed rates/contract price in the event that the quantities of work vary by more than a specified percentage. The rationale for this is that the basis of the tender would no longer be valid if the quantities were to either increase or decrease substantially.

Variations of this nature are formally “included” in the contract by means of a Variation Order following an exchange of correspondence with the final correspondence being the Engineer’s approval of the revised rates.

Once again, CPA (see 6.3.9) will be calculated on the new rates and they must therefore be presented as base date rates rather than current rates.

Note: In terms of the contract a variation is introduced into a contract via an instruction or order from the Engineer. The contract does **not** require the Contractor to sign, approve or even agree to a Variation Order. It is important therefore that unnecessary bureaucracy is not introduced into a contract by requiring the Contractor to sign or accept such a document as this may well lead to unnecessary delays and problems (see 6.3.1).

6.3.8 Dayworks

It is almost impossible to anticipate every single item of work which will be required during the course of a project. This is particularly so when the works involve working below the natural ground level or when it comes to the need for emergency works. For this reason contracts usually call for unit rates for particular grades of labour, plant, equipment and materials, which, in the event of something occurring which is not provided for in the Bill of Quantities, can be used to cover the cost of the required works. Because these works are usually limited in nature the unit rates are usually given as hourly or daily rates.

Work undertaken on this basis is known as Daywork. A typical Daywork claim for say “searching for a water pipe by hand excavation (in order not to damage the pipe)” would be as follows.

PROJECT ABC - DAYWORKS CLAIM No 1		
EXCAVATE FOR WATER PIPE AT KM 21+500 AS PER SITE INSTRUCTION SI 25		
5 LABOURERS X 10 HRS	@ \$ 0.40/HR =	\$ 20.00
1 SUPERVISOR X 10 HRS	@ \$ 0.85/HR =	\$ 8.50
1 VEHICLE X 50KM	@ \$ 0.40/KM =	\$ 20.00
TOTAL DAYWORKS CLAIM No 1 CARRIED TO IPC SUMMARY		\$ 48.50

6.3.9 CPA

In projects of reasonably long duration (*say > one year*) undertaken in areas which suffer from persistent inflation, Employers consider it reasonable to compensate Contractors for losses which they might suffer as a result of increases in the prices of Labour, Materials, Fuel, Plant etc. There are a number of methods of calculating such CPA. Whichever method is used it usually provides for both increases and decreases in prices and can accordingly result in either an increase or a decrease in the contract price. Unfortunately, the norm is that CPA tends to be an escalation of the contract price.

The two most common methods of calculating CPA are the following:

Proven Cost Method. With this method the Contractor is required, at tender stage, to detail those elements of his costs which he requires to be subject to CPA. These details include the actual cost and supplier of the various elements upon which the tender was based. The Contractor is then reimbursed the difference between these "Basic Costs" and the "Actual" invoiced cost of those same items when they are purchased. Although this is the method generally used on EU funded projects it is not the preferred method as it has the potential for abuse.

A typical month's CPA calculation using the Proven Cost Method might be as follows:

DESCRIPTION	UNIT	QTY	BASIC PRICE	CURRENT PRICE	DIFFERENCE (THIS IPC)	CPA
CEMENT	PK	200	55.00	61.00	6.00	1,200.00
DIESEL	L	5000	4.50	5.50	1.00	5,000.00
TOTAL CPA FOR THIS MONTH (BIRR)						6,200.00

Formula Method. With this method the works, to be undertaken, are mathematically described in a formula. The formula contains a number of factors representing the various elements of the project at the time of tender and a number of similar factors for the various elements of work at the time that the works are undertaken. By using these factors in the formula a percentage increase in the tendered value of work done is obtained and the amount resulting from this represents the CPA due to the Contractor. This is the preferred method, where such factors or indices are available.

The formula is usually of the following type:

$$P_n = a + b \frac{L_n}{L_o} + c \frac{M_n}{M_o} + d \frac{E_n}{E_o} + \text{etc.}$$

Where:

P_n is a price adjustment factor to be applied to the amount in each specific currency for the payment of the work carried out in the subject month, determined in accordance with Sub-Clause 60.1 (c), and Sub-Clauses 60.1 (d) and (e), where such Variations and Daywork are not otherwise subject to adjustment;

a is a constant, specified in the Appendix to Bid, representing the non adjustable portion of contractual payments;

b, c, d, etc., are weightings or coefficients representing the estimated proportion of each cost element (labour, materials, equipment usage, etc.) in the Works or sections thereof, net of Provisional Sums, as specified in the Appendix to Bid;

L_n, M_n, E_n, etc., are the current cost indices or reference prices of the cost elements in the specific currency for month "n" determined pursuant to Sub-Clause 70.5, applicable to each cost element; and

Lo, Mo, Eo, etc., are the base cost indices or reference prices corresponding to the above cost elements at the date specified in Sub-Clause 70.5.

If a price adjustment factor is applied to payments made in a currency other than the currency of the source of the index for a particular indexed input, a correction factor **Zo/Z** will be applied to the respective component factor of **Pn** for the formula of the relevant currency. **Zo** is the number of units of currency of the country of the index, equivalent to one unit of the currency of payment on the date of the base index, and **Z** is the corresponding number of such currency units on the date of the current index.

Unfortunately the indices for use in such a formula are not being generated in Ethiopia and it is therefore necessary to utilise proxy indices from suppliers or the government in order to utilise the formula. Further explanation of the indices and weighting is included in Appendix 6-8 - CPA Indices and Weightings Sources and types of proxy indices could be a cement factory for cement, minimum labour rate for local labour, government published fuel price for fuel etc. or failing the existence of reliable indices a simplified form of the formula utilising only the consumer price index, which is published, could be used e.g.

$$P_n = 0.1 + 0.9 \text{ CPI}_n / \text{CPI}_o$$

Contract documents allow for variations of this nature and they are formally “included” in the contract as a simple calculation sheet, attached to IPCs. No other correspondence or paperwork should be necessary. The PE should, however, determine where the Funding Agency has made its budget provision for CPA in order to confirm that no paperwork is necessary.

The payment of CPA is effectively a correction of the unit rates to reflect current market prices at that time of doing the work. As such, CPA represents a part of or an addition to the value of work done.

Where contract payments are made in more than one currency, there will usually be one CPA formula for each currency with indices sources being in the country of that currency.

<i>Example</i> Interim Payment Certificate N° 2 (Single Currency)			
Description	This Cert	Previous	Total
Work Done as per Bill of Quantities	\$250.000,00	\$500.000,00	\$750.000,00
Add: Variation Orders	\$ 0,00	\$125.000,00	\$125.000,00
Add: Contract Price Adjustment	\$ 12.500,00	\$ 25.000,00	\$ 37.500,00
Total Payable to Date	\$262.500,00	\$650.000,00	\$912.500,00
Less: Amounts Previously Claimed			\$650.000,00
Amount Due on this Certificate			\$262.500,00

The WB IPC format shown in Appendix 6-7 - ERA vs. WB ICB SBD Clause 60 easily accommodates CPA in more than one currency. The ERA format, however, makes the exercise of including CPA quite complicated and requires a separate calculation sheet. Once again, consideration should be given to changing the ERA format to that proposed in Appendix 6-7.

ERA has structured their contracts with the currency of contracts being fixed in one currency but with the payments for work done being made in two different currencies in predetermined percentages. In addition to this ERA has determined that separate methods of calculation of CPA will be used for Local and Foreign currency components of work done (see Appendix 6-7).

6.3.10 Retention

In addition to the Performance security (see 2.3.7, 5.2.3 and 6.1.4.2) the Employer usually retains a small percentage of all payments made to the Contractor as a further, more readily available or liquid, security. In general terms this security or retention (see 6.1.4.4) is held to provide an easily accessible source of funds for the rectification or completion of some minor aspect of the works by the Employer, in the event that the Contractor either fails or refuses to do so. The value of the retained payments is usually limited to five (but sometimes ten) percent of the contract value. However, in order to create a sizeable fund of retained payments as early in the project as possible it is usual to deduct ten percent of all payments until such time as the five percent limit is reached.

50% of the Retention is released when the Taking-Over Certificate (see 2.3.8, 5.2.17 and 8.2) is issued and the final 50% when the Defects Liability Certificate (see 8.6) is issued. The certificate format easily accommodates this release of retention which is effected by simply reducing the total amount of Retention held.

The retention on each IPC is calculated as a percentage of the Total Value of Work Done (including Variations, Dayworks and CPA) as shown on the example payment certificate below.

<i>Example</i> Interim Payment Certificate N° 2			
Description	This Cert	Previous	Total
Work Done as per Bill of Quantities	\$250.000,00	\$500.000,00	\$750.000,00
Add: Variation Orders	\$0,00	\$125.000,00	\$125.000,00
Add: Contract Price Adjustment	\$ 12.500,00	\$ 25.000,00	\$ 37.500,00
Sub-Total	\$262.500,00	\$650.000,00	\$912.500,00
Less: Retention (say) 5%	\$13.125,00	\$32.500,00	\$45.625,00
Total Payable To Date	\$249.375,00	\$617.500,00	\$866.875,00
Less: Amounts Previously Claimed			\$617.500,00
Amount Due on this Certificate			\$249.375,00

A reduction of 50% of the Retention is demonstrated in the example below. For the purposes of this example it is assumed that no further work was done between certificate 2 and this one.

<i>Example</i> Interim Payment Certificate N° 3			
Description	This Cert	Previous	Total
Work Done as per Bill of Quantities	\$0,00	\$750.000,00	\$750.000,00
Add: Variation Orders	\$0,00	\$125.000,00	\$125.000,00
Add: Contract Price Adjustment	\$0,00	\$ 37.500,00	\$ 37.500,00
Sub-Total	\$0,00	\$912.500,00	\$912.500,00
Less: Retention (50% released)¹	\$(22.812,50)	\$45.625,00	\$22.812,50
Total Payable To Date	\$22.812,50	\$866.875,00	\$889.687,50
Less: Amounts Previously Claimed			\$866.875,50
Amount Due on this Certificate			\$22.812,50

¹ By subtracting a negative number, one effectively adds that value to the amount to be paid, thereby returning or repaying the Retention.

It is not unusual for Contractors to want to replace the normal cash retention with a retention guarantee (see 6.1.4.4). This is not, however, recommended prior to the issue of the Taking over Certificate as this would defeat the object of having an easily accessible liquid cash reserve.

The use of a guarantee in lieu of the cash retention during the Defects Liability Period would be more acceptable as the Client would have the assurance that the Works had been acceptably completed. ERA's standard contract formats permit the acceptance of a guarantee in lieu of cash retention after the issue of the Taking over certificate. In the event that a Contractor wishes to replace the cash retention as above with a retention security one could simply return all of the retention to the contractor by processing a certificate with a zero total in the "Total" column.

6.3.11 Materials on Site (MoS)

The value of the material component of some projects is considerable and can impose a financial burden on a Contractor who would have to carry the cost of the materials from the time when they are ordered and paid for until they had been built into the works, claimed and paid for by the Employer. As these materials will have been purchased by the Contractor on behalf of the Employer they are effectively the property of the Employer. Therefore, if the Contractor is prepared to cede ownership of the materials to the Employer, the Employer can safely pay for the materials in the knowledge that they have received something for their money.

The ceding of ownership is important because if this has not been done and the Contractor is declared bankrupt the liquidators of the company could seize the materials as assets of the bankrupt company. In this case the Employer would have paid for materials which it would never receive and they would have no recourse other than to make a claim as one of the company's creditors.

In this regard it is important to note that the Contractor can only cede ownership if they themselves are the owner i.e. if they have paid for the materials. Therefore, it is very important that the Employer satisfies himself that the Contractor has paid for the materials prior to making any payments for MoS.

When a contract makes provision for the payment for MOS (Appendix 3-5 FIDIC IV Clause 60.1), payment is usually in the order of 75 to 90 percent of the invoiced value of the materials and usually excludes the cost of any transportation of the materials. These conditions should, however, be included in the Conditions of Contract, the Conditions of Particular Application and or the Appendix to Tender (see 3.3.2).

As the cost of materials is included in the unit rates in the Bill of Quantities the payment for MOS in addition to the payment for the work done under the unit rates in the Bill of Quantities would result in double payment to the Contractor. For this reason the payment for MoS can effectively be considered as an advance payment (see item 6.3.12 below) which must be repaid, to avoid the double payment.

This payment for MOS and the repayment of these sums when the materials are built into the works and paid for via the unit rates is achieved by simply measuring the value of the stock of material on site every month and deducting this from the previous months value. The difference between the two being the value of the materials built in during that month.

Unless there are materials which have been purchased but not built in, the final value of MOS at the end of the contract must always be zero

6.3.12 Advance Payment

All projects have large expenditures for the mobilisation of plant, materials, personnel and equipment at the beginning of a project. During this period the Contractor is unable to do any work and is, therefore, unable to earn any income and is therefore required to fund this expenditure. In order to ease the Contractor's financial burden the Employer will often provide an interest free cash advance to the Contractor. These payments are usually in the order of five to twenty percent of the contract value, depending on the nature and location of the works.

This payment in advance of any work being done is known as an Advance Payment and will normally be made in exchange for a guarantee of the same amount. This is further discussed under items 5.2.11, 6.1.1 and 6.1.4.3

An advance payment can take one of two forms. It can be a part of the total sum to be paid to the contractor (A) or it can be independent of the total sum to be paid to the contractor (B) e.g.

	A	B
Total Contract Amount	= \$ 1 000	= \$ 1 000
Payment - Advance =	= \$ 100	= \$ 100
Payment 1	= \$ 200	= \$ 200
Payment 2	= \$ 500	= \$ 500
Payment 3	= \$ 200	= \$ 200
Payment 4	= \$ 0	= \$ 100
Total Paid	<u>= \$ 1 000</u>	<u>= \$ 1 100</u>

It can be seen in the case of (B), where the Advance Payment is independent of the total sum to be paid, the contractor would receive more than the contract amount. As it is not the intention to give the contractor more than the contract amount it is necessary for the contractor to repay the additional money.

The method of repayment is defined in the contract document and is usually related to the value of work completed although it could also be time related. In order to simplify the above example we will assume that the method of recovery of the additional money paid to the contractor in example (B) is as follows: "One quarter of the advance payment shall be deducted from each payment certificate". i.e. $\$ 100/4 = \$ 25$ will be deducted from each payment certificate as detailed below.

	B
Total Contract Amount	= \$ 1 000
Payment 1- Advance	= \$ 100
Payment 2	= \$ 200 - \$ 25 = \$ 175
Payment 3	= \$ 500 - \$ 25 = \$ 475
Payment 4	= \$ 200 - \$ 25 = \$ 175
Payment 5	= \$ 100 - \$ 25 = \$ 75
Total Paid	= \$ 1 100 - \$100 = <u>\$ 1 000</u>

The deduction by this, and similar methods, results in the contractor receiving only the contract amount and no more.

Although the method described in example (A) would appear to be simpler and should therefore be the preferred method it is only possible to use this method when the exact final contract amount is known i.e. a lump sum fixed price contract. Unfortunately most of the works contracts are not lump sum fixed price contracts. They require payment for the actual work undertaken, contract price adjustment, claims etc. If method (A) were used for the payment of the advance it would be very difficult to determine which parts of the actual works undertaken should be paid for from the advance and which parts via monthly payment certificates. Method (B) is therefore used for construction contracts subject to remeasurement.

In the above example the method of repayment or recovery of the advance was very simple in order to illustrate the point. The extract from the WB and ERA SBDs below details a more complicated and normal method of recovery.

"The advance payment shall be repaid through percentage deductions from the interim payments certified by the Engineer in accordance with this clause. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all interim payments certified to the Contractor has reached the percentage of the Contract Price stipulated in the Appendix to Bid less Provisional Sums, and shall be made at the rate stated in the Appendix to Bid of the amount of all Interim Payment Certificates in the types and proportionate amounts of currencies of the advance payment until such time as the advance payment has been repaid; always provided that the advance payment shall be completely repaid prior to the time when 80 percent of the Contract Price has been certified for payment"

The above extract raises two points not apparent from the simple examples (A) and (B) above. These are identified by the underlined words above:

Contract Price less Provisional Sums

Provisional Sums are amounts which are included in a contract document for work which, at the time of preparation of the contract documents can not be fully defined and may or may not be constructed. Accordingly, to avoid the situation where the works covered by the provisional sums are not constructed and all of the advance payment not recovered, it is assumed, for the purposes of recovery of the Advance payment that the works covered by the provisional sums will not be constructed. In the event that the works are constructed it will simply result in the Advance payment being recovered slightly quicker than it should have been.

Types and proportionate amounts of currencies of the advance payment

Most of the ERA contracts allow for payments in both Birr and some other currency of the contractor's choice. In addition to this ERA also fixes the rate of exchange between these two currencies for the duration of the contract (see 6.3.2). Although ERA fixes this exchange rate, the exchange rate between these two currencies on the open market fluctuates all of the time and can be extreme (1980 \$1= Birr 2.06 to 2006 \$1 = Birr 8.70).

Although the contracts make provision for compensating Contractors for losses resulting from such fluctuations by allowing for CPA it is very important that the impact of such fluctuations on the repayment of the Advance Payment be studied and understood as the financial impact can be considerable. What must be remembered at all times is that **the Advance Payment must be repaid at the exchange rate at which it was paid.**

Example:

If an advance of \$ 100 was paid in Birr at a rate of 5/1 the contractor would receive Birr 500. However, if the contractor were to repay this Birr at an exchange rate of 8/1 he would only repay \$ 62.50 instead of the original \$ 100, resulting in a profit for the Contractor. The converse of this is also true where the exchange rate reduces, resulting in a profit to ERA. Obviously no one should make a profit and the only way to ensure this is to use the "payment" exchange rate for all repayments.

6.3.13 Any Other Amount

The use of this line item for "other amounts" needs to be carefully considered as its position as a "bottom line" items means that it would not be subject to CPA, would not have any retention withheld on its value and would not be included for the calculation of repayment of the Advance Payment.

6.3.13.1 Interest on Late Payments

Most of the ERA contracts include a provision for the payment of interest, at commercial rates, to Contractors, on all amounts not paid within a specified period (see Appendix 3-5 FIDIC IV Clause 60.10). In this regard it is important to note that there are only two parties to the Construction Contract. These are the Contractor and the Employer, ERA, who undertakes to pay all amounts due to the Contractor within a specified period. Therefore, if the Contractor does not receive payment within that period the only organisation which can be held liable is ERA. The fact that the payment may have been delayed because of some problem with ERA's bankers or a Funding Agency or any one else is of no consequence to the Contractor.

Both the WB and ERA standard contracts provide for the payment of interest on all outstanding amounts to be applied at predefined commercial rates and compounded monthly until such time as payment has been made (see CoC Clause 60.8).

Contract documents allow for variations of this nature and therefore they would be formally "included" in the contract as a simple calculation sheet included in the final account. No other correspondence or paperwork should be necessary.

6.3.13.2 Claims

Contractors are often entitled to compensation in addition to that included in the Contract e.g. if the Employer fails to make the site available to the Contractor they would be prevented from commencing the works and would accordingly incur additional costs due to men and machines standing idle or if the nature or quantity of the works changes to such an extent that the tendered rates are no longer applicable.

In cases like this it is usual for the Contractor to evaluate the loss/compensation and submit a claim to the Engineer, for this amount, for his consideration/approval and inclusion in the Contract.

However, the exact position of inclusion of such a payment for a claim needs to be carefully considered. If the amount due has been determined using unit rates, the amount might well be subject to CPA and would therefore need to be included "higher" up in the IPC. If the amount has been determined by current costs, it would not be subject to CPA and possibly should be included at this point of the IPC. It is also possible in both cases that retention is to be withheld on claimed Amounts in which case it should be "higher" in the IPC but below CPA.

Variations of this nature are formally "included" in the contract by means of an exchange of correspondence with the final correspondence being the Engineers approval of or determination on the claim.

Claims are addressed in detail in a separate Claims Manual prepared under the same assignment as this Manual.

6.3.13.3 Early / Late Contract Completion

Some Contracts allow for the payment of Bonuses to Contractors in the event that they complete the works earlier than the programmed Contract completion date. As early completion seldom results in any direct savings in the cost of the works undertaken the payment of a Bonus will, therefore, result in an increase of the Final Contract Price.

If the contract document allowed for a variation of this nature it would be formally "included" in the contract as a simple calculation sheet included in the final account. No other correspondence or paperwork would be necessary.

Most Contracts allow for the imposition of Liquidated Damages (see 6.5) in the event that the Contractor does not complete the works within the contract period. Liquidated Damages represent a calculated estimation of the costs which will be incurred by the Employer in the event that the Contractor does not complete the works on time.

On the face value of the Works Contract the Final Contract Price will, accordingly, decrease. However, when one considers the Project as a whole it is possible that any delay will most likely result in the extension of the Supervision Contract and hence an increase in its supervision cost.

Appendix 3-5 FIDIC IV Clause 47 states that the Contractor shall pay the Liquidated Damages to the Employer in the event that they do not complete the works within the contract period or that the Employer may deduct the Liquidated Damages from any amounts due to the Contractor. The conditions of contract **do not** permit the Engineer to deduct liquidated damages on his own initiative and accordingly these should not appear on any IPCs.

6.3.13.4 Duties and Taxes

Any organisation doing business in Ethiopia is subject to the payment of various different forms of duties and taxes on the materials and equipment which they use and on the income which they earn. These duties and taxes are real costs to the Contractors and they therefore include these costs in their pricing when submitting tenders to ERA.

Some of the Funding Agencies accept the inclusion of these costs in works to be funded by themselves whilst others do not. In the case where the Funding Agency does not accept the inclusion of these costs it will be necessary for the costs to be separately identified within the contract documents (BOQ see 3.7). In these cases when payments are made to Contractors all duties and taxes are excluded from monies to be paid by the funding agency.

6.4 CONSULTANT'S INVOICE

In the same way as the Contractor is entitled to be compensated for the work which he undertakes so is the Supervising Engineer for the services which they provide. The format of the Engineer's invoice is, however, somewhat different and in general comprises two parts. The first for time or man month based personnel assigned to the project and the second for reimbursable items. It may, however, be based on a lump sum and be as simple as a single monthly amount calculated as a percentage of the total lump sum. All of the previous comments related to "time for payment" are equally applicable to these invoices as they are to Contractor's IPCs.

An ERA format and guideline for Consultant's invoices has been included in Appendix 6-9 - Guideline CA4 Consultant's Invoice.

6.5 LIQUIDATED DAMAGES

Most contracts entered into have fixed durations to allow the Employer to plan ahead for the use of the particular thing being constructed e.g. in the case of a building the Employer would want to start entering into contracts for the rental of shops and offices. If, however, the building is not completed on time and the new tenants are unable to move in, in accordance with their rental contracts, the Employer could well be liable for the costs incurred by the lessees plus the Employer would lose out on rentals which would have been received.

It is, therefore, common to include a provision (see Appendix 3-5 FIDIC IV Clause 47.1) in construction contracts to the effect that if the works are not completed on time the Contractor will be held liable for any costs incurred.

In order to avoid any haggling which might arise in trying to determine if the costs incurred are reasonable or not the Employer must calculate, at the time of tendering, the loss likely to be incurred and include this in the contract document as the value of the Liquidated⁴ Damage. Although the reasonableness of the Liquidated Damage might still be questioned the tenderer has the option to either accept the Damage and submit a bid or not accept and not submit.

These Liquidated Damages are often *incorrectly* referred to as Penalties. The reason that this is an incorrect description is that common law contractual law, in general and upon which FIDIC is based, does not allow one party to arbitrarily penalise another. It does, however, allow one to recover any loss suffered as a result of an action by another. It is, therefore, very important that the amount of Liquidated Damage should be calculated on a sound commercial basis and should not simply reflect an arbitrarily chosen penalty. If it can be shown that the amount payable is a penalty rather than a Liquidated Damage the courts may rule that nothing is due.

In the case of civil law penalties are in general permitted. In the event that the law of the contract is not common law, careful consideration needs to be given to possible conflicts which may exist between FIDIC and the law. The use of FIDIC in a civil law environment is discussed further in Appendix 6-10 - Guideline CA5 Liquidated Damages.

In the case of the example of the building above it would be relatively easy to calculate the loss of rental and additional interest due on loans etc. but in the case of a typical ERA road project it becomes a little more difficult. Unfortunately the difficulty does not relieve ERA of its obligation to make an “honest estimation” of the likely loss by calculation. The calculation of Liquidated Damages is addressed in the Planning and Procurement Manual.

The type of losses likely to be suffered by ERA would be:

- The additional cost of Supervision Consultants
- Additional Costs of ERA Project Engineers traveling to site
- The interest payable on monies loaned for the project (although RSDP is a grant)

The files of every project must therefore contain a calculation and explanation of how the Liquidated Damages have been determined.

It is important to note that if it occurs that the Liquidated Damages are either an over- or underestimate of the actual loss, no adjustment of the amount payable is made and the Employer would then either make a profit or a loss.

It is also important to note that if Liquidated Damages are not included in the contract i.e. not referred to at all in the conditions of contract this would not preclude the Employer from claiming damages. In this case he would be required to prove his loss. The inclusion of a zero rate for Liquidated Damages, on the understanding that the Employer would determine his losses when they occurred, would most likely be interpreted by the courts as zero loss. This should therefore be avoided.

The period over which liquidated damages would be due is calculated from the difference between the contractual completion date and the actual completion date, which is defined by the date on which the Taking-Over Certificate (see 2.3.8, 5.2.17 and 8.2) is issued.

If the delay in completion does not affect the whole of the Works, arrangements for a pro-rata reduction of the Liquidated Damages can be made. (See Appendix 3-5 FIDIC IV Sub-Clause 47.2).

⁴Liquidate = to ascertain liabilities or ascertain the cost of

The actual amounts payable for Liquidated Damages are usually expressed in terms of an amount per day for every day that the completion of the works is delayed. Any such amounts payable for Liquidated Damages may be deducted, by the Employer, from any monies due or which become due to the Contractor. An important thing to note, in this regard, is that the FIDIC conditions of contract allow the Employer to deduct these damages without any reference to the Engineer or the Contractor. Obviously, in order to avoid any confusion the Employer should advise both the Engineer and the Contractor when they do deduct these damages.

Finally, the standard FIDIC IV wording for Clause 47.1, which is unchanged by ERA, ADB and WB, states that

"If the Contractor fails to comply with the Time for Completion, then the Contractor shall pay to the Employer the relevant sum stated The Employer may,, deduct the amount of such damages from any monies due or to become due to the Contractor ...".

The onus for the payment of liquidated damages therefore lies with the Contractor unless the Employer specifically advises the Contractor that it intends (i) to deduct the liquidated damages from monies due or (ii) that it does not require the payment of liquidated damages.

6.6 MEASUREMENT

The contractual requirement that the Contractor and Consultant be paid for works done and services provided has been addressed above. The Mechanisms for and content of the IPCs and invoices were also addressed above in sections 6.3 and 6.4. What has not yet been addressed is the physical methods of measuring work done and the record keeping which is necessary for the calculation of the final contract amount and auditing of monies paid.

The physical methods of measurement are being addressed under a separate set of manuals and guidelines prepared under a separate assignment to this one.

The ERA standard specification (see Appendix 3-1 -ERA Standard Specification) includes Measurement and Payment clauses under every Series Division. These clauses define exactly how each item is to be physically measured and what "supporting activities" are deemed to be included in that measurement. A number of the typical Measurement and Payment clauses have been reproduced in Appendix 6-11 - ERA Measurement and Payment Clauses for explanatory purposes..

Because of this system of defining exactly how each item is to be measured and what supporting items are to be included in that item's rate it is of utmost importance that the Item numbers utilised in the project's BoQ are the same as the Item numbers utilised for those same items in the specification. Failure to do so will result in having items for which there is no "Measurement and Payment" clause. The preparation of BOQs is further addressed in the Planning and Procurement Manual prepared under the same assignment as this Manual.

6.6.1 Records

The records referred to under this heading are the data used for the arithmetic calculation of the actual quantities of each element of the works, which when multiplied by their unit rates provide the cost of the Works at the time of calculation.

The calculation of the quantity of every item of work, as described in the BOQ, must be individually presented as a unique page(s) of calculation. The easiest way to do this is via a series of Excel workbooks and or spreadsheets. The presentation of these calculations must be such that it can be easily understood by a person not directly involved in the project.

6.6.2 Final Estimate

Although most of ERA's contracts are undertaken on a re-measurable basis (see 6.3.1, 6.3.6 and Appendix 3-5 FIDIC IV Clauses 55 and 56) ERA, internally and in general terms, implements its projects on the basis of a fixed budget i.e. The Contract Sum. This means that the PE and Engineer must at all times monitor the progress of the works and the cost thereof in relation to the total works and "contract budget". Failure to do so will in all likelihood result in ERA being committed to expenditure in excess of its available funds. The only way to ensure the effectiveness of this monitoring is for both the PE and Engineer to have access to an accurate and up to date estimate of the final contract amount at all times. One aspect of this, the financial control of IPCs submitted and payments made has been addressed in 6.3.1 and Appendix 6-5 - Guideline CA3 Financial Monitoring. The most effective way to maintain this final estimate is to maintain the above measurement records as current as possible and to ensure that works which have not yet been undertaken have accurate estimates and calculations of their likely final quantities and costs and further that these be updated immediately any additional, new or final information becomes available. This information will also provide the input for the annual budget report as required by the Programme and Budgetary Branch.

6.6.3 Statement at Completion

The ERA and WB Sub-Clause 60.10 of their conditions of contract requires that:

"Not later than 84 days after the issue of the Taking-Over Certificate in respect of the whole of the Works, the Contractor shall submit to the Engineer a Statement at Completion in the number of copies specified in the Appendix to Bid with supporting documents showing in detail, in the form approved by the Engineer,

- (a) The final value of all work done in accordance with the Contract up to the date stated in such Taking-Over Certificate;*
- (b) Any further sums which the Contractor considers to be due; and*
- (c) An estimate of amounts that the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in such Statement at Completion. The Engineer shall certify payment in accordance with Sub-Clause 60.2."*

Notwithstanding this requirement, the PE and Engineer should, long before this, have determined accurately the estimated final contract amount as at this stage the works will have been completed and it will be "too late" to modify the works to remain within the budget i.e. the PE cannot afford to wait until this time to be surprised by an over budget final account.

This statement should, therefore be viewed as a confirmation of the Engineer's final estimate and a definition by the Contractor of all items of financial consequence, including financial claims.

6.6.4 Final Statement

The ERA and WB Sub-Clause 60.11 of their conditions of contract requires that:

"Not later than 56 days after the issue of the Defects Liability Certificate pursuant to Sub-Clause 62.1, the Contractor shall submit to the Engineer for consideration a draft final statement in the number of copies stipulated in the Appendix to Bid with supporting documents showing in detail, in the form approved by the Engineer,

- (a) The value of all work done in accordance with the Contract; and*
- (b) Any further sums that the Contractor considers to be due to him under the Contract or otherwise.*

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed (for the purposes of these Conditions referred to as the "Final Statement").

If, following discussions between the Engineer and the Contractor and any changes to the draft final statement that may be agreed between them, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer an Interim Payment Certificate for those parts of the draft final statement, if any, that are not in dispute. The dispute shall then be settled in accordance with Clause 67. The Final Statement shall be the agreed upon settlement of the dispute.

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment due under the Final Payment Certificate issued pursuant to Sub-Clause 60.13 has been made and the performance security referred to in Sub-Clause 10.1 has been returned to the Contractor."

This as the name indicates is the final definition by the Contractor of the monies to which he considers himself to be entitled to in full and final settlement of the contract. This is obviously an important document from which there can be no "going back"

6.6.5 Variations vs. Addenda

As has been mentioned above, the contracts undertaken by ERA are, in general, remeasurement contracts with provision for payment of the final value of the works rather than the initial value as detailed in the tender BOQ. In addition there is provision for claims, extensions of time and various other additional expenditures (see 6.3.1, 6.3.7, 6.3.8, 6.3.9 and 6.3.13).

Although it may be necessary to issue variation orders from time to time to formalise the inclusion of some additional or new works there is no need, in terms of the ERA and WB contracts, to issue any documentation to increase (or decrease) the Contract Price. It is, however, normal that organisations such as ERA and the Funding Agencies view the Contract Price as a "ceiling amount" above which no expenditure may be made without approval. It is important that sufficient time be allowed for such approvals to ensure that there are no delays in payment as a result of such **non contractual** administrative tasks.

An addendum to a contract is an agreement between the parties to a contract (Contractor and ERA) to alter the conditions of that contract. Although the administrative systems of organisations like ERA and WB often "require" addenda to increase contract budgets, these are not contractually required and great care should be taken that unnecessary complications are not introduced into a contract by such requirements. An increase in the "contract ceiling" amount is of no consequence to the Contractor and therefore does not require his signature. The only time that an Addendum is required is when the parties to that contract wish to change the contract e.g. increase the time for payments, increase the defects liability period etc. In this case the addendum would require the signature of both parties indicating their agreement to that modification of the contract.

6.7 APPENDICES

See the following pages for Section 6 Appendices

Appendix 6-1 - Guideline CA2 Securities

GUIDELINE N° CA2



Ethiopian Roads Authority

Guideline N° CA2 Securities

Contract Administration Manual

September 1998

Rev November 2006

**FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
ETHIOPIAN ROADS AUTHORITY
CONTRACT ADMINISTRATION DIVISION**

Securities - Bonds and Guarantees

November 2006

Legal Services Division
Construction and Contract Guidelines
Securities - Bonds and Guarantees

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Part 1. Introduction

The whole field of securities is marked with uncertainty, inconsistency and confusion, both conceptually and in respect of the terminology used to describe securities in various parts of the world.

This confusion and inconsistency has affected not only those using such 'standard forms' of bonds, but also the courts whose responsibility it is to interpret them in the event of litigation. In particular, there has been confusion as to the meaning of the exact nature of the obligation created by such forms in view of the archaic English wording generally used despite repeated complaints.

In one case, Lord Atkin referred to the traditional form of bond as follows:

'I entertain no doubt that this was a guarantee, and the rights of the parties should be regulated on that footing. I may be allowed to remark that it is difficult to understand why businessmen persist in entering upon considerable obligations in old-fashioned forms of contract which do not adequately express the true transaction....'.

Part 2. Securities, Bonds and Guarantees

Collins Dictionary defines:

A security as "something given or pledged to secure the fulfilment of a promise or obligation."

A bond as "a written acknowledgement of an obligation to pay a sum or to perform a contract".

A guarantee as "a promise, especially a collateral agreement to answer for the debt, default or miscarriage of another".

A surety as "a person who assumes legal responsibility for the fulfilment of another's debt or obligation and himself becomes liable if the other defaults".

Both Bonds and Guarantees can therefore be classed under the generic term of 'Security'.

A **bond** or **guarantee** is an arrangement under which the performance of certain contractual duties owed by one party (A) to another party (B) is backed up by a third party (C). The result is that the C promises to pay B a sum of money if A fails to fulfil the relevant duties. In this context, A is commonly known as the **principal debtor** or **principal**; B is called the **beneficiary**; and C is called the **bondsman, surety** or **guarantor**. The 'back-up' could come in the form of a **parent company guarantee**, under which the contractual performance of one company within a corporate group is underwritten by other members of the group but a more usual and preferable source of protection consists of a **bond**, which is normally provided (at a price), by a financial institution such as a bank or an insurance company. Usually an insurance company provides a **bond** and a bank provides a **guarantee**.

Part 3. Types of Bonds/Guarantees

There are a number of types of bonds/guarantees usually encountered in construction contracts and it should be understood that in the usual form, the surety agrees to pay the beneficiary a certain sum of money (in the case of performance bonds/guarantees, often 10% of the contract price on international construction contracts), in the event that the principal fails to perform the relevant contractual duties.

Another form does however exist, where the surety guarantees completion of the contract and these are known as **surety bonds**. These are usually set at a far higher percentage of the contract price. It should be noted that a beneficiary holding a surety bond can not call upon the surety for a payment of money - he calls for completion of the contract.

The most commonly found types of bonds/guarantees encountered in international construction are:

- **Bid or Tender Bonds/Guarantees**
- **Performance Bonds/Guarantees**
- **Advance Payment Bonds/Guarantees**
- **Retention Bonds/Guarantees**
- **Other Bonds/Guarantees**

Bid or Tender Bonds/Guarantees

The Bid (or tender) bond/guarantee is intended to reassure the Employer that a bid/tender is a responsible one and that if the bid/tender is accepted, then the bidder/tenderer will proceed to execute a contract. If the bidder/tenderer fails to do so, and the Employer incurs loss and expense in the re-bidding/re-tendering process, such losses could form the basis of a claim under the bond.

Generally in international contracts and specifically under the World Bank Standard Bidding Documents, the Bid Security is in the form of a Bank Guarantee. The Bid Security is required to be submitted with the Bid and it is preferred that the amount of the Bid Security is a fixed amount to avoid disclosure of the bidder's prices originating in the financial organisation issuing the security. The amount should be entered in the bidding documents and should be approximately 1% of the estimated cost of the contract for very large contracts, up to 3% for smaller contracts.

The validity of the security is usually up to and including the date 28 days after the deadline for submission of bids. However, this period may be extended if necessary.

The original securities are to be promptly returned to all unsuccessful bidders, usually not later than 28 days after the expiration of the period of bid validity.

The original bid security of the successful bidder is to be returned when the bidder has signed a contract agreement and provided a performance security.

It is usual to enclose a form of bid/tender security with the bid/tender documents and the bidder/tender is obliged to complete that form. Sometimes they may provide another form of bid/tender security acceptable to the Employer. Whilst ultimately another form of bid/tender security may well be acceptable to the employer, it is recommended that in order to avoid protracted discussions and even the possibility of the bid/tender being rejected, the form enclosed with the bid/tender documents should be used.

Performance Bonds/Guarantees

The performance bond/guarantee is probably the most common and possibly the most important security encountered in major international construction contracts.

As stated earlier, a performance bond/guarantee can be defined as an undertaking to perform an obligation of a bonded party, the principal, if and when that principal fails in performance. This promised obligation can either be a simple one or a complex combination of numerous duties expressly provided for in an agreement. The consequences of a default by the bonded party - the principal - can be either: the proper completion of the contract (see Surety Bonds above), or the payment of the whole amount of the bond. However, the wording of the bond must be specific in this respect and must also specify the circumstances or the conditions which would set in motion such consequences.

Referring to the condition, sometimes imposed by standard forms of bond, that the guarantor may perform the principal's obligations under the contract and complete the works himself, upon default by the principal, consideration should be given regarding whether or not to accept such a condition. In Ethiopia we should never accept this condition. The concern would be whether in either case, a) the guarantor actually attempts to complete the contract himself or b) he employs others do so. The work may then be performed at minimum cost and with inferior quality and with consequential problems in exercising control of the standards required under the contract. In the case of a performance guarantee issued by a bank, the bank would only pay the amount due and not attempt to perform the principle's obligations.

Advance Payment Bonds/Guarantees

Advance payment securities are generally in the form of a bank guarantee and the bank undertakes by the guarantee to make, or to return, a certain payment should the guaranteed party, the principal, fail to do so pursuant to the terms and conditions of an underlying contract.

For example, advance payments are often made by an employer to a contractor for the purchase of certain plant and equipment and mobilisation at the commencement of a contract. Such advance payments are usually recovered during the course of the contract either by a defined repayment schedule or by pre-defined percentages of the interim certificate values. Any default in the agreed repayment of such advance payments on the part of the contractor, would be safeguarded by the issue of an advance payment guarantee.

In order to fully protect the employer against any such default, such guarantees are usually issued by a bank on the basis of an unconditional or on-demand call. Sometimes, the amount secured by the guarantee is reduced progressively during the course of the works, to reflect the repayments made in respect of the original advance payment. The method used for reducing the amount secured by the guarantee is generally automatic and usually the bond/guarantee contains wording such as "...such amount to be reduced periodically by the amount recovered by you [the beneficiary] from the proceeds of the contract."

Advance payment bonds can also be issued by a bonding company but they differ from performance bonds in that they cover only payment of monies and do not offer the alternative of completion of the contract

Retention Bonds/Guarantees

These are bonds or guarantees issued in lieu of retention monies and can be used to allow the early release of the final moiety of the retention held upon issue of the substantial or practical completion certificate, or in some cases, in lieu of any retention monies. As above, in the former case, such bonds or guarantees are normally requested by the contractor and are not normally specifically included in the bid/tender documents. In the latter case the form of bond or guarantee would be included in the contract documents. It is often considered that as the employer already has a performance security, holding retention monies as well, could be held to be excessive especially as this adversely affects the contractor's cash flow.

It is recommended that the use of retention bonds or guarantees should be actively encouraged and built into the Bid/Tender documents.

Other Bonds/Guarantees

The other type of bond, although usually in the form of a guarantee which is sometimes, but rarely encountered, is where a payment guarantee is given by a bank at the request of an employer or contractor in respect of payment of interim payment certificates to a contractor. In such a case, the employer would be the principal under the guarantee and the contractor would therefore be the beneficiary. This would give the contractor protection in the event that the employer became bankrupt or simply refused to make payment against interim certificates.

Part 4. Conditional and Unconditional Bonds/Guarantees

A conditional bond/guarantee sometimes termed an ‘on-default’ bond/guarantee can be called when a contractor demonstrably fails to undertake obligations under the contract, i.e. the contractor defaults.

An unconditional bond/guarantee sometimes referred to as an ‘on-demand’ bond/guarantee - in its simplest form without any conditions attached - may be called upon by the employer even when there may be no justifiable cause for such calling.

For example, a ‘falling-out’ between the employer and the contractor, particularly on overseas contracts, might lead to an unjustifiable call on an on-demand bond.

It can be seen from the above, that a financial institution is likely to charge more to provide an unconditional bond than for a conditional bond, due to the increased risk.

It should be borne in mind that notwithstanding any contractual provision to the contrary, the employer will ultimately pay for the bond premium as it will be reflected somewhere in the contractor’s price. The employer should therefore seriously consider which type of bond he requires i.e. ‘on-default’ or ‘on-demand’. It is strongly recommended that an ‘on-default’ bond is used, unless there very good reasons for insisting on an ‘on-demand’ bond.

It should be noted that a contractor may not escape the financial consequences of default by providing a bond, since a Surety has common law rights of recovery against the contractor. Under the Ethiopian Civil Code such rights of recovery may also be possible dependant upon the wording of the bond. Under common law systems such rights of recovery are usually reinforced by the Surety requiring a written form of counter-indemnity or other security from the contractor, or the contractor’s parent company.

In the United Kingdom, the industry’s traditional use of conditional bonds, was for a time undermined by a Court of Appeal decision which significantly reduced the distinction between conditional and unconditional bonds.

In *Trafalgar House Construction (Regions) Ltd v. General Surety & Guarantee Co Ltd* (1994) 66 BLR 42, C.A., House of Lords [1996] 1 AC 199 it was held, contrary to what have previously been believed, that an employer demanding payment on a bond need not prove what loss has been suffered; the surety must pay whatever the employer in good faith asserts due. However, the widespread consternation caused by this decision was fleeting, for the House of Lords allowed an appeal and restored what had been thought to be the legal position.

Whilst it is generally considered that unconditional ‘on-demand’ bonds are onerous and inequitable, in many international construction contracts, particularly in the Middle East and Africa, they are insisted upon by the Employer.

The International Bank for Reconstruction and Development (IBRD) however states that any unjustified calling of such a bond, or unreasonable pressure exercised by an employer, would be regarded by the IBRD as contrary to the spirit and basic principles of international procurement.

In addition to *Trafalgar House Construction (Regions) Ltd v. General Surety & Guarantee Co Ltd* case (see above), four other particularly well publicised cases are *Edward Owen Ltd. v. Barclays Bank* [1978] 1 QB 159, *Mercers Co. v. New Hampshire Insurance Ltd.* [1992] 2 Lloyd’s Rep 365 and *Harbottle R.D. (Mercantile) Ltd v. National Westminster Bank Ltd* [1978] QB 146; [1977] 2 All ER 862.

The above are commented on *in seriatim*. [in the same order]

Edward Owen Ltd. v. Barclays Bank [1978] 1 QB 159

Edward Owen Engineering, an English company, was awarded a contract which was subject to Libyan laws. Payment was to be by letter of credit issued by a Libyan bank on behalf of the Libyan buyers. The engineering company was to provide a performance guarantee in favour of the Libyan buyers. The bond was duly opened by Barclays Bank which gave the following undertaking as a counter indemnity to the Libyan bank: 'We confirm our guarantee payable on demand without proof or conditions'.

The Libyan bank issued their guarantee to the Libyan beneficiary. However, the Libyan bank, for unknown reasons, failed to issue the letter of credit in favour of Owen Engineering and the Libyan buyers claimed on the guarantee. The Libyan bank claimed from Barclays, the instructing bank, but an injunction was sought by Owen Engineering, to prevent them from making a payment. In a lengthy judgment the following comments summed up the judges' decision which went against the English company:

'So, as one takes instance after instance, these performance guarantees are virtually promissory notes payable on demand. So long as the Libyan customers make an honest demand, the banks are bound to pay: and the banks will rarely, if ever, be in a position to know whether the demand is honest or not. At any rate they will not be able to prove it to be dishonest. So they will have to pay.'

and

'The position of a Bank which has given a bond payable on demand is similar to that of a Bank which has opened an Irrecoverable Letter of Credit. Such obligations are the life blood of International Commerce and it is only in exceptional cases, such as fraud, that the courts will interfere.'

The Court further stated that the:

'Performance Bonds must be honoured to the letter between Banks and that questions between the buyers and sellers must be dealt with between themselves - in this case presumably by Libyan Law.'

The judge enumerated the instances in which such a guarantee might be called and referred to the extreme case where mere allegations are made without any proof as one bearing the appearance of a discount. He stated:

'It is obvious that that course of action can be followed, not only when there are substantial breaches of contract, but also when the breaches are insubstantial or trivial, in which case they bear the colour of a penalty rather than liquidated damages: or even when the breaches are merely allegations by the customer without proof at all: or even when the breaches are non-existent. The performance guarantee then bears the colour of a discount on the price of 10% or 5% as the case may be. The customer can always enforce payment by making a claim on the guarantee and it will be passed down the line to the English supplier. This possibility is so real that the English supplier, if he is wise, will have taken it into account when quoting his price for the contract.'

Mercers Co. v. New Hampshire Insurance Ltd.

In this case in the English Court of Appeal, it was commented that:

'The construction of the bond is not assisted by its archaic language'.

Harbottle R.D. (Mercantile) Ltd v. National Westminster Bank Ltd

In this case, the English National Westminster Bank was taken to court, in similar circumstances to the previously cited case, by R.R. Harbottle who claimed that a demand under a guarantee issued by the National Westminster Bank on their behalf was unjustified or even fraudulent as the goods had been supplied by them as per the contract.

Once again the court ruled in favour of the Bank stating that:

‘Performance guarantees in such unqualified terms seem astonishing but apparently they were not unusual particularly with customers in the Middle East. In effect, the sellers rely on the probity and reputation of their buyers and on the good relations with them. But this trust is inevitably sometimes abused, and I consider that such guarantees are sometimes drawn upon, partly or wholly, without any or any apparent justification, almost as though they represented a discount in favour of the buyers. In such cases the sellers are then left merely with claims for breaches of contract against their buyers and the difficulty of establishing and enforcing such claims.’

The judgment further stated that the:

‘Courts were not concerned with enforcing claims and counterclaims between buyers and sellers - these were the risks merchants took. Harbottle had taken the risk on the unconditional wording of the guarantee. The commitments of a Bank were on a different level and must be allowed to be honoured free from interference by the courts, otherwise trust in International Commerce could be irreparably damaged.’

FIDIC and the international contracting community strongly object to the use of on-demand guarantees, for the reason that such guarantees can be called without justification, and their use is likely to increase the tender sum to reflect this risk. The World Bank however, considers that the on-demand form has the merit of simplicity and of being universally known and accepted by commercial banks. The World Bank, in their Standard Bidding Documents, includes both conditional and unconditional forms of Performance Guarantee. The writer of these guidelines considers that the use of on-demand guarantees is not fair on the contractor however, whilst bearing in mind the likely additional cost to the employer of insisting on these forms, ultimately, it is for the employer to decide on which form he desires. It should be noted that in the case of an on-demand guarantee, any unjustified calling of such a guarantee, or unreasonable pressure exercised by an employer, would be regarded by the IBRD as contrary to the spirit and basic principles of international procurement. Furthermore, the World Bank states that employers should recognise the contractual conditions governing non-performance by the contractor and should normally act only on the advice of the engineer in calling a performance guarantee.

It should also be noted that the World Bank is currently insisting on the unconditional on-demand form and whilst it is considered that this is onerous upon the contractor, it would appear that contractors here are not strongly objecting to this stipulation. One final point of note is that in the past there have been cases where, notwithstanding the fact that the performance security is of the unconditional on-demand form, the contractor has managed to pressure the financial organisation who has issued the security, into delaying or refusing payment due to lack of proof of non-performance.

Various authoritative writers have also condemned these types of securities and the following comments were made in a book entitled *Construction Contracts, Principles in Tort and Contract, Volume 2*.

- (a) Owners who have no intention of calling such a bond irresponsibly may well find that tendering contractors, influenced by adverse experience of the unwarranted calling of bonds elsewhere, may increase their prices excessively to cover the contingency. Indeed the mere requirement of such a bond inevitably suggests an unwillingness by the owner to accept, in a potential future dispute, the decisions of an independent tribunal, so that the psychological effect on pricing may be much more substantial than realised.]

- (b) In any event, the direct cost of obtaining such bonds (which must inevitably enter the contract price) may be very substantial, and is increased still further by the fact that two, and sometimes three or more banks or bondsmen can involve themselves simultaneously in one project. Thus a frequently met arrangement is for the owner/buyer to require the bond or guarantee to be furnished to him by a bank in his own country (which is likely to be a docile payer on demand and may even be closely linked to the buyer) with an unconditional counter-indemnity provided to that bank by a trading bank in seller's/contractor's country, with possibly a further counter-indemnity to that bank from the contractor's own domestic bank.

All these banks will charge for these guarantees and indemnities (notwithstanding that only the contractor's domestic bank, or the last bank in line, will be effectively at risk, since the remainder are only guaranteeing the solvency of other banks). Not only, however, must the contractor price directly for all these banks' direct charges, but since the string of indemnities will result in prompt debiting of the contractor's own bank account, should the bond be called by the owner, the contractor will need to price in addition for the contingent effect on his own finances of an irresponsible and unjustified call.'

An analysis carried out on 40 construction arbitration awards rendered under the Rules of Conciliation and Arbitration of the International Chamber of Commerce in Paris between 1988 and 1990 showed from the legal point of view, conflict between the parties arose in matters relating to bank guarantees and performance bonds in 25% of the cases. The comparable figure in relation to interpretation and qualification of the contract was 25%; 17,5% in relation to repudiation or termination of the contract; 12.5% in respect of retention of monies due and 20% in respect of other matters such as formation of contract, the arbitrator's power to adopt agreement, warranties, novation or monetary conversion. This is a very high percentage indeed for guarantees and bonds.

In some countries, it is possible to arrange insurance cover against unfair calling or performance securities, but such insurance is difficult to obtain and expensive.

Additionally under the UK Export Credits Guarantee Department (ECGD) a bond support scheme is provided for their nationals who import goods and services, which insures banks who issue performance securities. Under this scheme, banks may claim from the ECGD which then reserves the right to claim from the customer/supplier. If

the customer/supplier has suffered an unfair call, then the ECGD will refund the customer/supplier 100% of the loss. Germany and France have similar schemes.

Part 5. Issuers of Securities

Bonds are usually issued by banks or insurance companies and there are advantages and disadvantages attaching to both.

Banks regard securities (usually issued in the form of a guarantee) as an extension to their line of credit to a contractor and as they usually know a contractor better than an insurance company would, the bonds can normally be issued more speedily. When a bond is issued by a bank however, the magnitude of the bond may affect the availability of that bank's line of credit to the contractor, which could have adverse repercussions on the contractor's ability to adequately fund the contract or indeed other contracts taking place during the same period of risk. Banks are however, generally more prompt in paying out on bonds as they are usually less willing to argue or investigate the merits of any claim than an insurance company.

Bonds issued by insurance companies will usually only be issued after the insurance company has made detailed enquiries into a contractor's financial background and ability to perform the contract in question.

Such detailed enquiries can be reassuring to an employer as if the insurance company issues the bond then the company is satisfied with the risk. Conversely, if the company refuse to issue the requisite bond and the employer is aware of such a decision, the employer might decide to question the suitability of the contractor he has selected.

Regarding the recommendations given here, whilst banks are the usual sources for guarantees, insurance companies should be encouraged to enter the market of the provision of securities - usually in the form of bonds. Furthermore, the use of Ethiopian institutions should be encouraged.

Part 6. The ICC Uniform Rules for Demand Guarantees

As a result of the abuse of the principles of demand guarantees by unfair calling, in 1992 the International Chamber of Commerce in Paris, produced the publication Uniform Rules for Demand Guarantees (URDG).

The URDG comprise 28 articles and provide in Article 2(a) a definition of a demand guarantee as follows:

‘.....any guarantee, bond or other payment undertaking, however named or described, by a bank, insurance company or other body or person (hereinafter called “the Guarantor”) given in writing for the payment of money on presentation in conformity with the terms of the undertaking of a written demand for payment and such other document(s) (for example, a certificate by an architect or engineer, a judgment or an arbitral award) as may be specified in the Guarantee, such undertaking being given

- (a) at the request or on the instructions and under the liability of a party (hereinafter called “the Principal”); or
- (b) at the request or on the instructions and under the liability of a bank, insurance company or any other body or person (hereinafter “the Instructing Party”) acting on the instructions of a Principal to another party (hereinafter the “Beneficiary”)

The main features of these Rules are as follows:

- (a) Demand guarantees are invoked only if the principal has defaulted;
- (b) The Rules do not apply to suretyship or conditional bonds or guarantees or other accessory undertakings;
- (c) The Principal can expect on the grounds of equity and good faith to be informed in writing of any claim made in which it is alleged that he is in breach of his obligations in the underlying contract and also in what respect such a claim is made; and
- (d) The demand guarantees should not contain any condition other than the presentation of a written demand and other specified documents.

The specified documents required to be presented in demand guarantees vary widely. At one end is the guarantee which is payable on simple written demand, without a statement of default or other documentary requirements. At the other end is the guarantee which requires presentation of a judgment or arbitral award. Between these two extremes lie various indeterminate forms of guarantee, such as guarantees requiring a statement of default by the beneficiary, or the presentation of a certificate by an architect or engineer or another professional. All these fall within the scope of the URDG Rules.

Part 7. The ICC Uniform Rules for Contract Bonds

After the successful launch of the Uniform Rules for Demand Guarantees (see above) the International Chamber of Commerce in Paris published its Uniform Rules for Contract Bonds, URCB in 1993. As explained in the introductory section of these Rules, they have been drawn up by an ICC working party of members representing the ICC Commission on insurance and the building and engineering industry for world-wide application. They came into effect on 1st January 1994. Essentially, they come from the insurance industry and are intended to apply to suretyship guarantees.

The URCB relate to contract bonds which create obligations of an accessory nature, where the liability of the surety or guarantor arises and is conditional upon an established default by the contractor of an obligation set out in the underlying contract. The contractor is referred to as the principal. The Rules are intended therefore to apply where the intention of the parties is that the obligations of the guarantor will depend upon the duties or liabilities of the principal under the relevant contract. Furthermore, these Rules are intended to operate so as to confer upon the beneficiary in each case security for the performance or execution of the contract obligations or payment which may fall due to the beneficiary as a result of any breach of obligation or default by the principal under the underlying contract. Accordingly, subject to its financial limits, either the obligations set out in the underlying contract will be performed or executed, or upon default, the beneficiary will recover any sum properly due, notwithstanding the insolvency of the principal or the principal's failure for any other reason to satisfy or discharge his liability.

The relationship between the parties under a bond governed by the URCB differs from that arising under the URDG. In the URCB, the beneficiary obtains security for the obligations of the principal arising pursuant to the underlying contract but the guarantor's liability would only arise in case of an established default under that contract. Thus, in the event of a dispute arising as to the liability of a guarantor, the URCB contemplate that such dispute will be determined by reference to the underlying contract. The guarantor and the principal are protected in that liability will arise only when default is established. The beneficiary is protected by the assurance that any judgment or award will be discharged by the guarantor if the principal fails to do so. On the other hand the guarantee under the URDG should not stipulate any condition for payment other than the presentation of a written demand and other specified documents without requiring the guarantor to decide whether the beneficiary and principal have or have not fulfilled their obligations under the underlying contract.

Of course, both sets of Rules apply only where expressly incorporated by the parties in their underlying contract. By adopting these Rules, it is expected that some uniformity of practice in the operation and enforcement of bonds would be established in the face of the difficulties created by first, unconditional bonds and secondly, by the uncertainty in defining what is and what is not conditional.

The first of these two problems can be highlighted by reference to the case of *Edward Owen Engineering v. Barclays Bank International* which has been extensively discussed in the legal texts (see above). The second problem can be highlighted by reference to the two recent cases in the last few years mentioned above. The first is the *Trafalgar House* case, and the second is the *Perar* case which revolved around a design and build contract.

New forms of bonds were hastily prepared by various organisations in the face of the criticism and the conflicting judgments in these cases. It is hoped that if both sets of Rules are extensively applied, such confusion would not arise.

The URCB contain eight articles, under the following headings: scope and application; definitions; form of bond and liability of the guarantor to the beneficiary; release and discharge of guarantor; return of the bond; amendments and variations to and of the contract and the bond and extensions of time; submission of claims and claims procedure; and jurisdiction and settlement of disputes.

Article 2 of these Rules defines the various forms of bond which fall within the application of these Rules. They are: advance payment bond; maintenance bond; performance bond; retention bond; and tender bond.

Article 3 of these Rules sets out first, the information which must be stipulated in a bond issued for a particular purpose under these Rules and secondly, the principles of liability of the guarantor to the beneficiary. Sub-paragraphs (ix), (xii) and (xiii) of Article 3 pose three important questions which must be carefully considered and answered for each specific bond. These are as follows:

- (a) Whether the Guarantor shall be entitled at its option to perform or execute the Contract or any Contractual Obligation.
- (b) Whether sub-paragraph (i) of Article 7(j) is to apply and the name of the third party to be nominated thereunder for the purpose of Article 7 below (claims procedure).
- (c) How disputes or differences between the Beneficiary, the Principal and the Guarantor in relation to the Bond are to be settled.'

In answer to the first of these questions, it is submitted that it should be answered in the negative. In this connection, reference should be made to the arguments presented in Part 4, above.

The second question deals with the most interesting aspect of these Rules, Article 7 (j), which, if answered in the affirmative, requires the appointment of a referee to settle the question of whether or not there is default by the contractor of any of his obligations under the underlying contract. Article 7 (j) provides as follows:

'Notwithstanding any dispute or difference between the Principal and the Beneficiary in relation to the performance of the Contract or any Contractual Obligation, a Default shall be deemed to be established for the purposes of these Rules:

- (a) upon issue of a certificate of Default by a third party (who may without limitation be an independent architect or engineer or a Pre-Arbitral referee of the ICC) if the Bond so provides and the service of such certificate or a certified copy thereof upon the Guarantor; or
- (b) if the Bond does not provide for the issue of a certificate by a third party, upon the issue of a certificate of Default by the Guarantor; or
- (c) by the final judgment, order or award of a court or tribunal of competent jurisdiction, and the issue of a certificate of Default under paragraph (i) or (ii) shall not restrict the rights of the parties to seek or require the determination of any dispute or difference arising under the Contract or the Bond or the review of any certificate of Default or payment made pursuant thereto by a court or tribunal of competent jurisdiction.'

The appropriate answer to the question under sub-paragraph xii of Article 3 should therefore be in the affirmative and the name of the third party or an appointing authority should be inserted in the bond.

As to the question under sub-paragraph xiii of Article 3, it is submitted that any dispute or difference between the beneficiary, the principal and the guarantor in relation to the bond should be settled in the same manner as stipulated in the underlying contract. The reason for this proposal is to permit uniformity in the area of dispute resolution between the bond and the underlying contract, thus reducing the possibility of conflicting decisions being given under the same circumstances.

There is one other aspect of the URCB worthy of note which should be carefully considered once a surety guarantee is chosen as the appropriate method of obtaining security. This concerns Article 6(b) which relates to a tender bond and contains the words 'substantial or material variation of or amendment to the original tender'. This is an ambiguous wording which should be clarified for the sake of avoiding any doubt. If it is intended to be applied to a form of bond other than a tender

bond, it should be clarified to mean a variation which transforms the project into one which is either beyond the financial capacity or the expertise of the contractor.

Part 8. Conclusion and Recommendations

As can be concluded from the previous parts of this document, the pitfalls of performance securities are many without the complications from the use of ambiguous or archaic wording.

In accordance with the comments made above and the recommendations of both FIDIC and many other international bodies, in general, the form of security that should be employed wherever possible, is that of the on-default rather than the on-demand form. Notwithstanding this recommendation, as regards construction projects within Ethiopia, attention is drawn to the specific recommendations hereunder.

If the employer insists upon the on-demand form especially an unconditional on-demand form of security, he should be apprised of the financial implications which he will incur by adopting such a form of security. It may also be wise to consider the possibility of incorporation of either the URDG and/or the URCB Rules into the underlying contract.

Specific recommendations on the forms of security that should be utilised for construction projects in Ethiopia. (See Part 3)

Bid or Tender Bonds/Guarantees

It is recommended that the form of bond or preferably guarantee as in the World Bank Standard Bidding Documents, is of an unconditional on-demand form.

Performance Bonds/Guarantees

Whilst generally it is felt that performance securities should be of the conditional form, the World Bank is currently insisting on unconditional on-demand securities and therefore there is not really any choice in this matter on World Bank projects.

Advance Payment Bonds/Guarantees

It is recommended that the form of bond or preferably guarantee, as in the World Bank Standard Bidding Documents, is of an unconditional on-demand form.

Retention Bonds/Guarantees

It is recommended that the form of bond or preferably is of an unconditional on-demand form.

Other Bonds/Guarantees

As these are unusual, no specific recommendation is given here except that should such securities be requested or required, then it is recommended that generally they would be in the unconditional on-demand form.

Examples - extracted from the World Bank Standard Bidding Documents - are attached in Appendix 1 of these guidelines.

Appendix 1 Examples of standard forms of securities

Form of Bid Security (Bank Guarantee)⁵

WHEREAS, *[name of Bidder]* (hereinafter called “the Bidder”) has submitted his Bid dated *[date]* for the execution of *[name of Contract]* (hereinafter called “the Bid”).

KNOW ALL PEOPLE by these presents that We *[name of Bank]* of *[name of country]* having our registered office at *[address]* (hereinafter called “the Bank”) are bound unto *[name of Employer]* (hereinafter called “the Employer”) in the sum of *[amount]*⁶ for which payment well and truly to be made to the said Employer the Bank binds himself, his successors, and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 20 ____

THE CONDITIONS of this obligation are:

- (1) if the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid; or
- (2) if the Bidder refuses to accept the correction of errors in his Bid; or
- (3) if the Bidder, having been notified of the acceptance of his Bid by the Employer during the period of Bid validity;
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
 - (b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders;

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 28 days after the date of expiration of the Bid Validity, as stated in the Instructions to Bidders, or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE OF THE BANK _____

WITNESS _____ SEAL _____

[signature, name, and address]

⁵ The Bidder shall complete either this form of Bank Guarantee or may provide another security acceptable to the Employer.

⁶ The Bidder should insert the amount of the guarantee in words and figures denominated in the currency of the Employer’s country or an equivalent amount in a freely convertible currency. This figure should be the same as shown in Clause 17.1 of the Bidding Data. The attention of joint venture bidders is drawn to Clause 17.3 of the Instructions to Bidders.

Annex A Form: Alternative 1**Performance Bank Guarantee (Unconditional)⁷**

To: *[name and address of Employer]*

WHEREAS *[name and address of Employer]* (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. ___ dated _ to execute *[name of Contract and brief description of Works]* (hereinafter called “the Contract.”);

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of *[amount of Guarantee]*, *[amount in words]*,⁸ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of Guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until a date 28 days from the date of issue of the Taking-Over Certificate.

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank: _____
 Address: _____
 Date: _____

⁷ The unconditional (or “on-demand”) bank guarantee has the merit of simplicity and of being universally known and accepted by commercial banks. The contracting community, however, strongly objects to this type of security because the guarantee can be called (or threatened to be called) by Employers without justification. Employers should recognize the contractual conditions governing non performance by the Contractor and should normally act only on the advice of the Engineer in calling a performance guarantee. Any unjustified calling of a bank guarantee, or unreasonable pressure exercised by an Employer, would be regarded by IBRD as contrary to the spirit and basic principles of international procurement. This type of guarantee is called a “bond” in a number of countries; however, it should be distinguished from the U.S.-style “performance bond” as shown in Alternative 3.

⁸ An amount is to be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract, and denominated either in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer.

Annex A Form: Alternative 2**Performance Bank Guarantee (Conditional)⁹**

THIS AGREEMENT is made on the _____ day of _____
19 _____

between *[name of bank]* of *[address of bank]* (hereinafter called “the Guarantor”) of the one part and *[name of Employer]* of *[address of Employer]* (hereinafter called “the Employer”) of the other part.

WHEREAS

- (1) this Agreement is supplemental to a contract (hereinafter called the Contract) made between *[name of Contractor]* of *[address of Contractor]* (hereinafter called the Contractor) of the one part and the Employer of the other part whereby the Contractor agreed and undertook to execute the Works of *[name of Contract and brief description of the Works]* for the sum of *[amount in Contract currency]* being the Contract Price; and
- (2) the Guarantor has agreed to guarantee the due performance of the Contract in the manner hereinafter appearing.

NOW, THEREFORE, the Guarantor hereby agrees with the Employer as follows:

- (a) If the Contractor (unless relieved from the performance by any clause of the Contract or by statute or by the decision of a tribunal of competent jurisdiction) shall in any respect fail to execute the Contract or commit any breach of his obligations thereunder then the Guarantor will indemnify and pay the Employer the sum of *[amount of Guarantee]*, *[amount in words]*,¹⁰ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, provided that the Employer or his authorised representative has notified the Guarantor to that effect and has made a claim against the Guarantor before the issue of the Defects Liability Certificate.
- (b) The Guarantor shall not be discharged or released from his guarantee by an arrangement between the Contractor and the Employer, with or without the consent of the Guarantor, or by any alteration in the obligations undertaken by the Contractor, or by any forbearance on the

⁹ The triggering of this form of performance guarantee is conditional (see sub-clause (a) of the Guarantee) upon the Contractor “failing to execute the Contract or committing a breach of his obligations thereunder” and requires a statement by the Employer and/or the Engineer to that effect, and an exercise of judgment by the Guarantor as to whether the required conditions of default have been fulfilled. Some forms of guarantee contain further qualifying conditions, and are not triggered until an agreement has been reached on the amount of damages payable, or until an award has been made under the applicable settlement of disputes procedures. The construction industry favours this form of guarantee over the unconditional guarantee whenever it is available. However, not all commercial banks (as Guarantors) are willing to issue conditional guarantees, and not all Employers are prepared to accept this form of performance security.

¹⁰ An amount is to be inserted by the Guarantor, representing the percentage of the Contract price specified in the Contract, and denominated either in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer.

part of the Contractor, whether as to the payment, time, performance, or otherwise, and any notice to the Guarantor of any such arrangement, alteration, or forbearance is hereby expressly waived.

This Guarantee shall be valid until a date 28 days from the date of issue of the Taking-Over Certificate.

Given under our hand on the date first mentioned above.

SIGNED BY _____

for and on behalf of the Guarantor in the presence of:

(Witness)

SIGNED BY _____

for and on behalf of the Employer in the presence of:

(Witness)

Annex B Form**Bank Guarantee for Advance Payment**

To: *[name and address of Employer]*

[name of Contract]

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Sub-clause 60.7 (“Advance Payment”) of the above-mentioned Contract, *[name and address of Contractor]* (hereinafter called “the Contractor”) shall deposit with *[name of Employer]* a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of *[amount of Guarantee]*, *[amount in words]*.¹¹

We, the *[bank or financial institution]*, as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding *[amount of Guarantee]*, *[amount in words]*, such amount to be reduced periodically by the amounts recovered by you from the proceeds of the Contract.

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder or of any of the Contract documents which may be made between *[name of Employer]* and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

No drawing may be made by you under this guarantee until we have received notice in writing from you that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until *[name of Employer]* receives full repayment of the same amount from the Contractor.

Yours truly,

SIGNATURE AND SEAL:

Name of Bank or Financial Institution: _____

Address: _____

Date: _____

¹¹ An amount is to be inserted by the bank or financial institution representing the amount of the Advance Payment, and denominated either in the currency(ies) of the Advance Payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

Appendix 6-2- Standard Forms of Security

Form of Bid Security (Unconditional Bank Guarantee)¹²

WHEREAS, *[name of Bidder]* (hereinafter called “the Bidder”) has submitted his Bid dated *[date]* for the execution of *[name of Contract]* (hereinafter called “the Bid”).

KNOW ALL PEOPLE by these presents that We *[name of Bank]* of *[name of country]* having our registered office at *[address]* (hereinafter called “the Bank”) are bound unto *[name of Employer]* (hereinafter called “the Employer”) in the sum of *[amount]*¹³ for which payment well and truly to be made to the said Employer the Bank binds himself, his successors, and assigns by these presents.

SEALED with the Common Seal of the said Bank this ___ day of _____ 20_____

THE CONDITIONS of this obligation are:

- (1) if the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid; or
- (2) if the Bidder refuses to accept the correction of errors in his Bid; or
- (3) if the Bidder, having been notified of the acceptance of his Bid by the Employer during the period of Bid validity;
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
 - (b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders;

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 28 days after the date of expiration of the Bid Validity, as stated in the Instructions to Bidders, or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE OF THE BANK _____

WITNESS _____ SEAL _____

[signature, name, and address]

¹² The Bidder shall complete either this form of Bank Guarantee or may provide another security acceptable to the Employer.

¹³ The Bidder should insert the amount of the guarantee in words and figures denominated in the currency of the Employer’s country or an equivalent amount in a freely convertible currency. This figure should be the same as shown in Clause 17.1 of the Bidding Data. The attention of joint venture bidders is drawn to Clause 17.3 of the Instructions to Bidders.

Form of Performance Guarantee (Unconditional Bank Guarantee)¹⁴

To: *[name and address of Employer]*

WHEREAS *[name and address of Employer]* (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. _____ dated _ to execute *[name of Contract and brief description of Works]* (hereinafter called “the Contract.”);

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of *[amount of Guarantee]*, *[amount in words]*,¹⁵ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of Guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until a date 28 days from the date of issue of the Taking-Over Certificate.

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank: _____

Address: _____

Date: _____

¹⁴ The unconditional (or “on-demand”) bank guarantee has the merit of simplicity and of being universally known and accepted by commercial banks. The contracting community, however, strongly objects to this type of security because the guarantee can be called (or threatened to be called) by Employers without justification. Employers should recognize the contractual conditions governing non performance by the Contractor and should normally act only on the advice of the Engineer in calling a performance guarantee. Any unjustified calling of a bank guarantee, or unreasonable pressure exercised by an Employer, would be regarded by IBRD as contrary to the spirit and basic principles of international procurement. This type of guarantee is called a “bond” in a number of countries; however, it should be distinguished from the U.S.-style “performance bond” as shown in Alternative 3.

¹⁵ An amount is to be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract, and denominated either in the currency(s) of the Contract or in a freely convertible currency acceptable to the Employer.

Form of Performance Guarantee (Conditional Bank Guarantee)¹⁶

THIS AGREEMENT is made on the _____ day of _____ 20____

between *[name of bank]* of *[address of bank]* (hereinafter called “the Guarantor”) of the one part and *[name of Employer]* of *[address of Employer]* (hereinafter called “the Employer”) of the other part.

WHEREAS

(1) this Agreement is supplemental to a contract (hereinafter called the Contract) made between *[name of Contractor]* of *[address of Contractor]* (hereinafter called the Contractor) of the one part and the Employer of the other part whereby the Contractor agreed and undertook to execute the Works of *[name of Contract and brief description of the Works]* for the sum of *[amount in Contract currency]* being the Contract Price; and

(2) the Guarantor has agreed to guarantee the due performance of the Contract in the manner hereinafter appearing.

NOW, THEREFORE, the Guarantor hereby agrees with the Employer as follows:

- (a) If the Contractor (unless relieved from the performance by any clause of the Contract or by statute or by the decision of a tribunal of competent jurisdiction) shall in any respect fail to execute the Contract or commit any breach of his obligations thereunder then the Guarantor will indemnify and pay the Employer the sum of *[amount of Guarantee]*, *[amount in words]*,¹⁷ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, provided that the Employer or his authorised representative has notified the Guarantor to that effect and has made a claim against the Guarantor before the issue of the Defects Liability Certificate.
- (b) The Guarantor shall not be discharged or released from his guarantee by an arrangement between the Contractor and the Employer, with or without the consent of the Guarantor, or by any alteration in the obligations undertaken by the Contractor, or by any forbearance on the part of the Contractor, whether as to the payment, time, performance, or otherwise, and any notice to the Guarantor of any such arrangement, alteration, or forbearance is hereby expressly waived.

This Guarantee shall be valid until a date 28 days from the date of issue of the Taking-Over Certificate.

Given under our hand on the date first mentioned above.

SIGNED BY _____
for and on behalf of the Guarantor in the presence of:

SIGNED BY _____
for and on behalf of the Employer

¹⁶ The triggering of this form of performance guarantee is conditional (see sub clause (a) of the Guarantee) upon the Contractor “failing to execute the Contract or committing a breach of his obligations thereunder” and requires a statement by the Employer and/or the Engineer to that effect, and an exercise of judgment by the Guarantor as to whether the required conditions of default have been fulfilled. Some forms of guarantee contain further qualifying conditions, and are not triggered until an agreement has been reached on the amount of damages payable, or until an award has been made under the applicable settlement of disputes procedures. The construction industry favours this form of guarantee over the unconditional guarantee whenever it is available. However, not all commercial banks (as Guarantors) are willing to issue conditional guarantees, and not all Employers are prepared to accept this form of performance security.

¹⁷ An amount is to be inserted by the Guarantor, representing the percentage of the Contract price specified in the Contract, and denominated either in the currency(s) of the Contract or in a freely convertible currency acceptable to the Employer.

Form of Performance Bond (Conditional Bond)

BY THIS BOND _____ [name and address of Contractor] as Principal (hereafter called “the Contractor”) and _____ [name, legal title, and address of surety, bonding company or insurance company] as Surety (hereinafter called “the Surety”), are held and firmly bound unto the Ethiopian Roads Authority, Post Office Box 1770, Addis Ababa, as Obligee (hereinafter called “the Employer,) in the amount of _____ [amount of Bond = 10 percent of the contract price] _____, [in words], for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Prices payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Contractor has entered into a written Agreement with the Employer dated the _____ day of _____, 20____, for _____ [name of Contract] in accordance with the documents, plans, specifications and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto) then this obligation shall be null and void; otherwise it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Employer to be, in default under the Contract, the Employer having performed the Employer’s obligations thereunder, the Surety may promptly remedy the default, or shall promptly pay the Employer the amount required by Employer to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty¹⁸ of this Bond.

Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Employer named herein or the heirs, executors, administrators, successors, and assigns of the Employer.

In testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this _____ day of _____ 20____.

SIGNED ON _____ SIGNED ON _____

On behalf of _____ On behalf of _____

By _____ By _____

In the capacity of _____ In the capacity of _____

In the presence of _____ In the presence of _____

¹⁸ Penalty is the word used by ERA in its standard bid document. It is assumed that penalty and value are synonymous in this instance

Form of Retention Guarantee

To: *[name and address of Employer]*

Contract no:

Our retention guarantee number: *[insert bank's guarantee reference number]*

Whereas *[insert name and address of contractor on behalf of whom the guarantee is being issued]* (hereinafter called “the contractor”), has been awarded the contract for *[insert the official contract name/description]* (hereinafter called “the contract”).

And whereas it has been stipulated in the contract that the company furnish you with a bank guarantee for the sum specified therein as security for compliance with the contractor’s performance obligations during the warranty period.

And whereas we, the undersigned *[insert name and address of bank issuing the guarantee]* have agreed to give the contractor a bank guarantee.

Therefore we hereby guarantee to you as primary obligator and not merely as security, on behalf of the contractor, the payment to you upon receipt of your first written demand declaring the contractor to be in default under the contract, of any sum or sums up to the total of *[insert the total value of the retention required to be retained at the time of issuing the guarantee]* (only), without contestation and without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We take note that your release of this guarantee and your advice or release in accordance with article *[insert the clause reference for the issue of the defects liability certificate]* of the general conditions of contract will follow within 14 days of the issue of the defects liability certificate.

No variations to the terms and/or conditions on this guarantee are permitted without prior written agreement of all the contracting parties who are legally bound thereby.

This guarantee is neither negotiable nor transferable and is restricted to the payment of money only.

The law and jurisdiction applicable to the guarantee shall be that of the Federal Democratic Republic of Ethiopia.

Signed at *[insert the location of signature]*, for and on behalf of *[insert the name of the bank issuing the guarantee]*, this *[insert the date]* day of *[insert the month and year]*

.....

Manager

As witnesses. 1. 2.

Bank Guarantee for Advance Payment

To: *[name and address of Employer]*

[name of Contract]

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Sub Clause 60.7 (“Advance Payment”) of the above-mentioned Contract, *[name and address of Contractor]* (hereinafter called “the Contractor”) shall deposit with *[name of Employer]* a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of *[amount of Guarantee], [amount in words]*.¹⁹

We, the *[bank or financial institution]*, as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding *[amount of Guarantee], [amount in words]*, such amount to be reduced periodically by the amounts recovered by you from the proceeds of the Contract.

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder or of any of the Contract documents which may be made between *[name of Employer]* and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

No drawing may be made by you under this guarantee until we have received notice in writing from you that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until *[name of Employer]* receives full repayment of the same amount from the Contractor.

Yours truly,

SIGNATURE AND SEAL:

Name of Bank or Financial Institution: _____

Address: _____

Date: _____

¹⁹ An amount is to be inserted by the bank or financial institution representing the amount of the Advance Payment, and denominated either in the currency(s) of the Advance Payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

Appendix 6-3 - Insurance Summary

Clause Ref.	To Cover	Insurance Type	In Contractor's Name	In Employer's Name	Value	Cross Indemnity
21.1(a)	The Works, materials and plant to be included in the Works	All Risks excl clause 21.4 risks	Yes	Yes	100% of the Contract	No
21.1(b)	The additional costs of and incidental to the rectification of any damage including professional fees and the cost of demolishing and removing any part of the works and of removing debris of whatever nature	All Risks excl clause 21.4 risks	Yes	Yes	15% of the Contract	No
21.1(c)	The Contractor's Equipment and other things brought onto the site for undertaking the works	All Risks	Yes	No	Replacement Cost	No
22.1	Damage to persons and property excluding exceptions of Clause 22.2	Contractor's decision	Yes (if taken out)	No	Contractor to decide but in the region of Min USD 500 000	No. Contractor to indemnify Employer against claims
22.3	Damage to persons and property including exceptions of Clause 22.2	Employer's Decision	No	Yes (if taken out)	Employer to decide but in the region of Min USD 500 000	No. Employer to indemnify Contractor against claims
23.1	Liabilities for death or injury to any person or loss of or damage to any property (other than the works) arising out of the performance of the Contract	Third Party	Yes	Yes	Varies but in the range of USD100-250 000 per occurrence with unlimited number of occurrences	Yes
24.2	Liability for death or injury to any workman or other person in the employment of the Contractor or any Subcontractor, his agents or servants.	Workman's Compensation	Yes	No	Varies but = GoE legislation as a minimum	No. Contractor to indemnify Employer against claims
	Liability for any losses resulting from errors in of failures from design by the Contractor's designers	Professional Indemnity	Yes	No	Varies but in the range of 3 to 5 times the Designer's fee	No

Appendix 6-4 - FIDIC IV/IDA/NCT/ICB Insurance Clauses

Where the FIDIC IV wording is common to all forms of contract the cells have been merged. Where a cell is left blank it indicates that that form uses the FIDIC IV wording

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Care of Works	20.1				
		<p>The Contractor shall take full responsibility for the care of the Works and materials and Plant for incorporation therein for the Commencement Date until the date of issue of the Taking-Over Certificate for the whole of the Works, when the responsibility for the said care shall pass to the Employer. Provided that:</p> <p>(a) if the Engineer issues a Taking-Over Certificate for any Section or part of the Permanent, Works the Contractor shall cease to be liable for the care of that Section or part from the date of issue of the Taking-Over Certificate, when the responsibility for the care of that Section or part shall pass to the Employer, and</p> <p>(b) the Contractor shall take full responsibility for the care of any outstanding Works and materials and Plant for incorporation therein which he undertakes to finish during the Defects Liability Period until such outstanding Works have been completed pursuant to Clause 49.</p>			
Responsibility to Rectify Loss or Damage	20.2	<p>If any loss or damage happens to the Works, or any part thereof, or materials or Plant for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than the risks defined in Sub-Clause 20.4, the Contractor shall, at his own cost, rectify such loss or damage so that the Permanent Works conform in every respect with the provisions of the Contract to the satisfaction of the Engineer. The Contractor shall also be liable for any loss or damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49 and 50.</p>		<p>Amend Clause 20.2 to read as follows:"</p> <p>If any loss or damage happens to the Works, or any part thereof, or materials or Plant for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than by Force Majeure defined in Sub-Clause 65.2, the Contractor shall, at his own cost, rectify such loss or damage so that the Permanent Works conform in every respect with the provisions of the Contract to the satisfaction of the Engineer. The Contractor shall also be liable for any loss or damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49 and 50."</p>	

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Loss or Damage Due to Employer's Risks	20.3	In the event of any such loss or damage happening from any of the risks defined in Sub-Clause 20.4, or in combination with other risks, the Contractor shall, if and to the extent required by the Engineer, rectify the loss or damage and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer. In the case of a combination of risks causing loss or damage any such determination shall take into account the proportional responsibility of the Contractor and the Employer.		Amend Sub-Clause 20.3 to read as follows: "In the event of any such loss or damage happening as a result of any occurrence defined in Sub-Clause 65.2, the Contractor shall, if and to the extent required by the Engineer, rectify the loss or damage and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer."	
Employer's Risks	20.4	The Employer's risks are: (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies, (b) rebellion, revolution, insurrection, or military or usurped power, or civil war,	Amend Sub-Clause 20.4 to read as follows: The Employer's risks are: (a) insofar as they directly affect the execution of the Works in the country where the Permanent Works are to be executed: (i) war and hostilities (whether war be declared or not), invasion, act of foreign enemies; (ii) rebellion, revolution, insurrection, military or usurped power, or civil war;	1.1.1.1.1.1 Delete Sub-Clause 20.4	Amend Sub-Clause 20.4 to read as follows: "The Employer's risks are limited to the following; a) Insofar as they directly affect the execution of the Permanent Works in Ethiopia: i) War and hostilities (whether war be declared or not), invasion, act of foreign enemies; ii) Rebellion, acts of terrorism, revolution, insurrection, or military or usurped power, or civil war, international embargo.

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
		<p>(c) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,</p> <p>(d) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,</p> <p>(e) riot, commotion or disorder, unless solely restricted to employees of the Contractor or of his Subcontractors and arising from the conduct of the Works,</p> <p>(f) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract,</p> <p>(g) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible, and</p> <p>(h) any operation of the forces of nature against which an experienced contractor could not reasonably have been expected to take precautions</p>	<p>(iii) ionizing radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component thereof;</p> <p>(iv) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds;</p> <p>(v) riot, commotion, or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the Works;</p> <p>(b) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;</p> <p>(c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and</p> <p>(d) any operation of the forces of nature (insofar as it occurs on the Site) that an experienced contractor:</p> <p>(i) could not have reasonably foreseen, or</p>		<p>(i) Ionizing, radiation, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof;</p> <p>(viii) Pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds;</p> <p>(ii) Riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the Works;</p> <p>b) Loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract;</p> <p>c) Loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and</p> <p>d) Any operation of the forces of nature (insofar as it occurs on the Site) which an experienced contractor:</p> <p>i) Could not have reasonably foreseen, or</p>

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Scope of Cover	21.2	<p>The insurance in paragraphs (a) and (b) of Sub-Clause 21.1 shall be in the joint names of the Contractor and the Employer and shall cover:</p> <p>(a) the Employer and the Contractor against all loss or damage from whatsoever cause arising, other than as provided in Sub-Clause 21.4, from the start of work at the Site until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and</p> <p>(b) the Contractor for his liability:</p> <p>(i) during the Defects Liability Period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period, and</p> <p>(ii) for loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49 and 50.</p>	<p>Amend sub-para. (a) of Sub-Clause 21.2 by deleting the words</p> <p>“from the start of work at the Site” and by substituting therefore the words “from the first working day after the Commencement Date.”</p> <p>Add the following as Sub-Clause (c) under Sub-Clause 21.2:</p> <p>(c) It shall be the responsibility of the Contractor to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract.</p>	<p>Amend sub-paragraph (a) of Sub-Clause 21.2 by deleting the words</p> <p>“from the start of work at the Site” and by substituting therefore the words “from the first working day after the commencement date.”</p> <p>Add the following as sub-paragraph (c) under Sub-Clause 21.2:</p> <p>(C) It shall be the responsibility of the contractor to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract.</p> <p>Amend Clause 21.3 to read as follows: “ Any amounts not insured or not recovered from the insurers shall be borne by the Employer</p>	<p>Amend sub-paragraph (a) of Sub-Clause 21.2 by deleting the words</p> <p>“from the start of work at the Site” and by substituting therefore the words “from the first working day after the Commencement Date.”</p> <p>Add the following as sub-paragraph (c) under Sub-Clause 21.2:</p> <p>c) It shall be the responsibility of the Contractor to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract.</p>
Responsibility for Amounts not Recovered	21.3	<p>Any amounts not insured or not recovered from the insurers shall be borne by the Employer or the Contractor in accordance with their</p>		<p>Amend Clause 21.3 to read as follows: “ Any amounts not insured or not recovered from the insurers shall be borne by the Employer</p>	

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Exclusions	21.4	<p>There shall be no obligation for the insurances in Sub-Clause 21.1 to include loss or damage caused by:</p> <p>(a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,</p> <p>(b) rebellion, revolution, insurrection, or military or usurped power, or civil war,</p> <p>(c) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof, or</p> <p>(d) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds.</p>	<p>Amend Sub-Clause 21.4 to read as follows:</p> <p>“There shall be no obligation for the insurances in Sub-Clause 21.1 to include loss or damage caused by the risks listed under Sub-Clause 20.4 sub-paras. (a) (i) to (iv) of the Conditions of Particular Application.”</p>		<p>Amend Sub-Clause 21.4 to read as follows:</p> <p>“There shall be no obligation for the insurance in Sub-Clause 21.1 to include loss or damage caused by the risks listed under Sub-Clause 20.4 sub-paragraphs (a) (i) to (iv) of the Conditions of Particular Application.</p>
Damage to Persons and Property	22.1	<p>The Contractor shall, except if and so far as the Contract provides otherwise, indemnify the Employer against all losses and claims in respect of:</p> <p>(a) death or injury to any person, or</p> <p>(b) loss of or damage to any property (other than the Works), which may arise out of or in consequence of the execution and completion of the Works and the remedying of any defects therein, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in Sub-Clause 22.2.</p>			

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Exceptions	22.2				
Indemnity by Employer	22.3				
Third Party Insurance (including Employer's Property)	23.1	<p>The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 22, insure, in the joint names of the Contractor and the Employer, against liabilities for death of or injury to any person (other than as provided in Clause 24) or loss of or damage to any property (other than the Works) arising out of the performance of the Contract, other than the exceptions defined in paragraphs (a), (b) and (c) of Sub-Clause 22.2.</p>		<p>Add the following at the beginning of this Clause: "Prior to Commencement of the Works..."</p>	<p>Add the following at the beginning of this Clause: "Prior to Commencement of the Works..."</p>

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Minimum Amount of insurance	23.2	Such insurance shall be for at least the amount stated in the Appendix to Tender.		Sub-Clause 23.2 is amended to read as follows: (i) The Contractor shall whenever required produce to the Engineer or the Engineer's Representative the policy or policies of insurance and the receipts for payment of the current premiums. (ii) The provision of such insurance and the cost thereof shall be in all respects at the expense of the Contractor. (iii) Such insurance shall be for at least the amount stated in the Appendix to Bid with no limits to the number of occurrences	Sub-Clause 23.2 is amended to read as follows: (i) The Contractor shall whenever required produce to the Engineer or the Engineer's Representative the policy or policies of insurance and the receipts for payment of the current premiums. (ii) The provision of such insurance and the cost thereof shall be in all respects at the expense of the Contractor. (iii) Such insurance shall be for at least the amount stated in the Appendix to Bid with no limits to the number of occurrences.
Cross Liabilities	23.3	The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insured.			
Accident or Injury to Workmen	24.1	The Employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Subcontractor, other than death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.			

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Insurance Against Accident to Workmen	24.2	The Contractor shall insure against such liability and shall continue such insurance during the whole of the time that any persons are employed by him on the Works. Provided that, in respect of any persons employed by any Subcontractor, the Contractor's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Subcontractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy, but the Contractor shall require such Subcontractor to produce to the Employer, when required, such policy of insurance and the receipt for the payment of the current premium.		Add the following at the end of this Clause: "The provision of such insurance and the costs thereof shall be in all respects at the expense of the Contractor."	Add the following at the end of this Clause: "The provision of such insurance and the costs thereof shall be in all respects at the expense of the Contractor."
Liaison with Police, Labour Officers etc.	24.3			Add to Clause 24 the following Sub-Clause 24.3: The Contractor shall keep in close contact with the Police, Labour Officers and all other officials as appropriate regarding their requirements for the control of workmen, restricted area permits, passage through townships, or other matters and shall provide all assistance and facilities which may be required by such officials in the execution of their duties	Add to Clause 24 the following Sub-Clause 24.3: The Contractor shall keep in close contact with the Police, Labour Officers and all other officials as appropriate regarding their requirements for the control of workmen, restricted area permits, passage through townships, or other matters and shall provide all assistance and facilities which may be required by such officials in the execution of their duties

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Evidence and Terms of Insurances	25.1	The Contractor shall provide evidence to the Employer prior to the start of work at the Site that the insurances required under the Contract have been effected and shall, within 84 days of the Commencement Date, provide the insurance policies to the Employer. When providing such evidence and such policies to the Employer, the Contractor shall notify the Engineer of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The Contractor shall effect all insurances for which he is responsible with insurers and in terms approved by the Employer.	Amend Sub-Clause 25.1 by inserting the words “as soon as practicable after the respective insurances have been taken out but in any case” before the words “prior to the start of work at the Site.”	Amend Sub-Clause 25.1 by inserting the words “as soon as practicable after the respective insurance has been taken out but in any case” before the words “prior to the start of work at the Site.” Add at the end of the paragraph: “Insurance Policies shall include a clause forbidding both the Contractor and the Insurer to modify the terms and conditions of the insurance policies without the prior approval of the Employer.”	Amend Sub-Clause 25.1 by inserting the words “as soon as practicable after the respective insurance has been taken out but in any case” before the words “prior to the start of work at the Site.” and Add at the end of the paragraph: “Insurance Policies shall include a clause forbidding both the Contractor and the Insurer to modify the terms and conditions of the insurance policies without the prior approval of the Employer.”
Adequacy of Insurances	25.2	The Contractor shall notify the insurers of changes in the nature, extent or programme for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of the Contract and shall, when required, produce to the Employer the insurance policies in force and the receipts for payment of the current premiums.			
Remedy on Contractor's Failure to Insure	25.3	If the Contractor fails to effect and keep in force any of the insurances required under the Contract, or fails to provide the policies to the Employer within the period required by Sub-Clause 25.1, then and in any such case the Employer may effect and keep in force any such insurances and pay any premium as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due or to become due to the Contractor, or recover the same as a debt due from the Contractor.			
Compliance with Policy Conditions	25.4	In the event that the Contractor or the Employer fails to comply with conditions imposed by the insurance policies effected pursuant to the Contract, each shall indemnify the other against all losses and claims arising from such failure.			

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Source of Insurance	25.5		<p>Add the following Sub-Clause 25.5:</p> <p>“The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to, the insurance referred to in Clauses 21, 23, and 24) with insurers from any eligible source country as defined in the <i>Guidelines: Procurement under IBRD Loans and IDA Credits</i>, which have been determined to be acceptable to the Employer.”</p>	<p>Add the following Sub-Clause 25.5:</p> <p>“The Contractor shall place all insurance relating to the Contract (including, but not limited to, the insurance referred to in Clauses 21, 23, and 24) with insurers registered in Ethiopia and acceptable to the Employer.”</p>	<p>Add the following Sub-Clause 25.5:</p> <p>“The Contractor shall place all insurance relating to the Contract (including, but not limited to, the insurance referred to in Clauses 21, 23, and 24) with insurers from any eligible source country acceptable by the Funding Agency and the Employer.”</p>
Insurance Notices	25.6			<p>owing Sub-Clause 25.6</p> <p>Each policy of insurance effected by the Contractor for purpose of the Contract shall be renewable and shall include a provision to the effect that the insurer shall have a duty to give notice in writing to the Contractor and Employer of the date when a premium becomes payable not more than thirty (30) days before that date and the policy shall remain in force until thirty (30) days after the giving of such notice</p>	<p>Add the following Sub-Clause 25.6</p> <p>Each policy of insurance effected by the Contractor for purpose of the Contract shall be renewable and shall include a provision to the effect that the insurer shall have a duty to give notice in writing to the Contractor and Employer of the date when a premium becomes payable not more than thirty (30) days before that date and the policy shall remain in force until thirty (30) days after the giving of such notice.</p>

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Notification to Insurers	25.7			<p>dd the following Sub-Clause 25.7</p> <p>It shall be the responsibility of the Contractor to notify the insurers under any of the insurance referred to in the preceding Clauses 21, 23 and 24 on any matter or event which by the terms of such insurance are required to be so notified and the Contractor shall indemnify and keep indemnified the Employer against all losses, claims, demands, proceedings, costs, charges and expenses whatsoever arising out of or in consequence of any default by the contractor in complying with the requirements of this sub-clause whether as a result of avoidance of such insurance or otherwise</p>	<p>Add the following Sub-Clause 25.7</p> <p>It shall be the responsibility of the Contractor to notify the insurers under any of the insurance referred to in the preceding Clauses 21, 23 and 24 on any matter or event which by the terms of such insurance are required to be so notified and the Contractor shall indemnify and keep indemnified the Employer against all losses, claims, demands, proceedings, costs, charges and expenses whatsoever arising out of or in consequence of any default by the contractor in complying with the requirements of this sub-clause whether as a result of avoidance of such insurance or otherwise.</p>
No Liability for Special Risks (No Liability for Force Majeure ERA NCB)	65.1	<p>The Contractor shall be under no liability whatsoever in consequence of any of the special risks referred to in Sub-Clause 65.2, whether by way of indemnity or otherwise, for or in respect of:</p> <p>(a) destruction of or damage to the Works, save to work condemned under the provisions of Clause 39 prior to the occurrence of any of the said special risks,</p> <p>(b) destruction of or damage to property, whether of the Employer or third parties, or</p> <p>(c) injury or loss of life.</p>		<p>Amend Clause 65.1 to read as follows: "</p> <p>The Contractor shall be under no liability whatsoever in consequence of any Force Majeure referred to in Sub-Clause 65.2, whether by way of indemnity or otherwise, for or in respect of:</p> <p>a. destruction of or damage to the Works, save to work condemned under the provisions of Clause 39 prior to the occurrence of any of the said special risks,</p> <p>b. destruction of or damage to property, whether of the Employer or third parties, or</p> <p>c. injury or loss of life."</p>	

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Special Risks (Force ERA NCT)	65.2	<p>The special risks are:</p> <p>(a) the risks defined under paragraphs (a), (c), (d) and (e) of Sub-Clause 20.4, and</p> <p>(b) the risks defined under paragraph (b) of Sub-Clause 20.4 insofar as these relate to the country in which the Works are to be executed.</p>		<p>Amend Sub-Clause 65.2 to read as follows: “</p> <p>(1) Force majeure results from an occurrence which the Contractor could normally not foresee and which prevents him absolutely from performing his obligations.</p> <p>(2) Force majeure shall not exist where the occurrence could normally have been foreseen by the Contractor or where it renders more onerous the performance by the debtor of his obligations.</p> <p>(3) The following occurrences may, according to the circumstances, constitute cases of force majeure:</p> <p>(a) the unforeseeable act of a third party for whom the Contractor is not responsible; or</p> <p>(b) an official prohibition preventing the performance of the contract; or</p> <p>(c) a natural catastrophe such as an earthquake, lightning or floods; or</p> <p>(d) international or civil war; or</p> <p>(e) the death or a serious accident or unexpected serious illness of the Contractor.</p> <p>(4) Unless otherwise expressly agreed, the following occurrences shall not be deemed to be cases of force majeure:</p> <p>(a) a strike or lock-out taking place in the undertaking of a party or affecting the branch of business in which he carries out his activities; or</p>	<p>Amend Sub-Clause 65.2 to read as follows:</p> <p>“The Special Risks are the risks defined under para. (a), subparagraphs (i) to (v) of Sub-Clause 20.4.”</p>

Headings	Cl. No	FIDIC IV	IDA SBD May 2002 Rev March 2003	ERA NCT SBD 2002	ERA ICB SBD 2002
Special Risks (Force Majeure ERA NCT)	65.2			<p>b) an increase or reduction in the price of raw materials necessary for the performance of the contract; or</p> <p>(c) the enactment of new legislation whereby the obligations of the Contractor become more onerous.</p>	
Damage to Works by Special Risks (Force Majeure ERA NCT)	65.3	<p>If the Works or any materials or Plant on or near or in transit to the Site, or any of the Contractor's Equipment, sustain destruction or damage by reason of any of the said special risks, the Contractor shall be entitled to payment in accordance with the Contract for any Permanent Works duly executed and for any materials or Plant so destroyed or damaged and, so far as may be required by the Engineer or as may be necessary for the completion of the Works, to payment for:</p> <p>(a) rectifying any such destruction or damage to the Works, and</p> <p>(b) replacing or rectifying such materials or Contractor's Equipment, and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 (which shall in the case of the cost of replacement of Contractor's Equipment include the fair market value thereof as determined by the Engineer) and shall notify the Contractor accordingly, with a copy to the Employer.</p>		<p>Amend Clause 65.3 to read as follows:</p> <p>"If the Works or any materials or Plant on or near or in transit to the Site sustain destruction or damage by reason of any Force Majeure, the Contractor shall be entitled to payment in accordance with the Contract for any Permanent Works duly executed and for any materials or Plant so destroyed or damaged and, so far as may be required by the Engineer or as may be necessary for the completion of the Works, to payment for:</p> <p>(a) rectifying any such destruction or damage to the Works, and;</p> <p>(b) replacing or rectifying such materials, and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer."</p>	

Appendix 6-5 - Guideline CA3 Financial Monitoring

GUIDELINE N° CA3



Ethiopian Roads Authority

Guideline N° CA3 Financial Monitoring

Contract Administration Manual

November 2006

**FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
ETHIOPIAN ROADS AUTHORITY
CONTRACT ADMINISTRATION DIVISION**

**FINANCIAL MONITORING OF WORKS
CONTRACTS**

November 2006

THIS MANUAL CONTAINS AN EXPLANATION OF HOW TO USE
AND IMPLEMENT THE PROJECT FINANCIAL MANAGEMENT SYSTEM

AND

MAY BE USED FOR

The Financial Monitoring of all Contracts with

Consultants and

Contractors

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2.0 HOW TO INPUT DATA

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APPENDIX 2 Abbreviations

SECTION 1 INTRODUCTION

1.0 INTRODUCTION

1.1 PROJECT FUNDS

1.2 CONTRACT DISBURSEMENTS

1.3 SYSTEM STRUCTURE

1.4 METHOD OF OPERATION

1.0 INTRODUCTION

The use of multi currency contracts has necessitated the development of a financial system to monitor the drawdown of funds allocated to projects and funds disbursed to Contractors/Consultants/Suppliers in each of the applicable currencies.

This system is based on an Excel spread sheet whose input data is derived from the financial conditions of the contract and from invoices received.

This system is intended to be managed and operated by the CCID PEs as a project management tool. It should be noted that this system **is not an accounting system but rather a management system.**

A typical ERA contract will have funding provided by an international funding agency, either a loan or a grant, and the GoE. The currencies of this funding may not however be the same as the currency of the contract entered into by ERA e.g. A loan from AfDB may be denominated in UA (units of account) whilst the contract to which these funds are applied might be payable in Birr and USD.

This monitoring exercise is further complicated by fluctuations in the rates of exchange between these various currencies. It is therefore also necessary to monitor the rates of exchange.

1.1 PROJECT FUNDING

As stated above, Project Funding is generally shared between the GoE and a Funding Agency(s). The proportion of GoE contribution to Funding Agency contribution is typically in the range 0/100 to 40/60 with Consultancy contracts at the lower GoE contribution end of the range and Maintenance Contracts at the upper GoE contribution end of the range.

1.2 CONTRACT DISBURSEMENTS

The contracts entered into by ERA for undertaking their various projects generally permit payments in currencies of the contractor's choice, although they usually specify that a certain percentage of the payments must be made in Birr.

In addition to the above, ERA usually also specifies a fixed rate of exchange between the Birr and Foreign Currency for all payment purposes on the contract.

Accordingly disbursements in each currency are shared between GoE and the Funding Agency in proportion to the combination of the funding ratio as described in (1.1) above and the disbursement ratio as described above, In the above examples this would result in each disbursement being effected via the issue of four separate payments i.e. Funding Agency Forex, Funding Agency Birr, GoE Forex and GoE Birr.

1.3 SYSTEM STRUCTURE

As stated above there are a number of funding agencies who provide either loans or grants. The fact that funds may be either a loan or a grant has no effect on the monitoring process. However, the different conditions imposed by each of the funding agencies require the design of the monitoring spreadsheets to be different. Nevertheless, the input data remains the same e.g. some agencies agree to pay for taxes and duties whilst others do not and GoE has to bear the total amount for taxes and duties. In these cases it is necessary to deduct the taxes and duties from the contract amount before calculating the amounts to be paid by the Agency and GoE respectively. The deducted amount would then be added to the GoE share.

It is intended that the PE will maintain a work book for all of his projects and that the tabs of each of the sheets will carry the name of the project.

If the RDPB wishes to make use of this system it would make more sense to create a separate Excel Work Books for each funding agency (named WB.XLS, EU.XLS, BAD.XLS etc.). Within each of these work books each project would utilise a separate spreadsheet with the Sheet Tabs bearing the actual project name.

As an example you will find, in Appendix 1, the contents of the IDA work book which comprises spreadsheets with the following path and file names as footers:

```
c:\Contracts Specialist\Admin Manual\aaa\App 6-4 Financial Monitoring\.....
    \Financial Reconciliation Sheet ETB Blank & [Date]
    \Financial Reconciliation Sheet ETB Formulae & [Date]
    \Financial Reconciliation Sheet ETB Example & [Date]
```

The above system has been prepared on the assumption that all contracts are denominated in Birr.

The “ETB Blank” sheets contain all of the formulae required by the system. The intention of these blank sheets is to provide a model for use on new projects, which can simply be copied.

The “ETB Formulae” sheets are included to provide hard copies of the various formulae and relationships which exist on the sheets, for the assistance of the user.

The "ETB Example" sheets provide an example of a typical project and what the data might look like.

1.4 METHOD OF OPERATION

The input information takes the following forms:

<p>Initial Contract Financial Data</p> <p>Values of Amounts due for Payment obtained from Monthly Invoices</p> <p>Actual Values of Amounts Paid</p> <p>The dates on which payments were made</p> <p>The exchange rate ruling on the date of payment</p> <p>The dates on which payments were received²⁰</p>

It is envisaged that at the commencement of a project one will enter the initial contract financial data. With the exception of the Contract Amount, this initial input should never change. In the case of the Contract Amount it may be necessary to go back and change the contract amount if a Variation is issued which causes the Contract Amount to be increased.

The “*Project Monthly Input Data*” will tend to be input on a monthly basis. However, it will be necessary to re-enter previous information on occasions i.e. for the correction of errors or the insertion of information previously not available e.g. date of receipt of payment (see footnote 1).

All of the cells have been formatted for the particular type of input anticipated and require only Birr currency inputs in the case of a Birr denominated contract or USD (or other) in the case of contracts denominated in these currencies.

²⁰ The conditions of contract applicable to current ERA contracts state that interest on late payments is calculated from the payment due date until payment is received. This requires feed back from Contractors to determine the period upon which interest is payable. The conditions of contract for new contracts have, however, been amended so that interest on late payments is calculated from the payment due date until payment is effected by ERA.

SECTION 2 HOW TO INPUT DATA

2.0 INTRODUCTION

2.1 CONTRACTOR'S ACCOUNT

2.2 ERA'S ACCOUNT

2.3 RECONCILIATION CONTRACTOR vs. FUNDING ACCOUNT'S (A55 TO AB55).

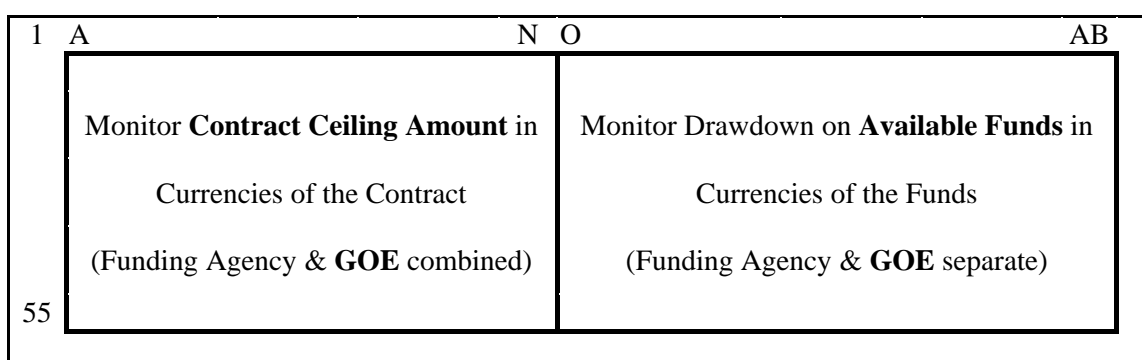
2.0 INTRODUCTION

The Financial Management System comprises two spreadsheets per project with each spreadsheet divided into two distinct sections viz. Cell A1 to N55 and Cell O1 to AB55.

In the range A1 to N55 the drawdown on the **Contract Ceiling²¹ Amount** in terms of the currencies of the contract is monitored i.e. how much of the original contract amount remains at any time in both Foreign and Local currency. This information is utilised to monitor the **Contractor's Account** with **ERA**.

In the range O1 to AB55 the drawdown on the **Available Funding²²** is monitored i.e. how much of the allocated funds remain at any time, in the currencies of the funding. This information is utilised to monitor the **Funding Account** with the Funding Agencies

The physical layout of the spreadsheets is illustrated in the sketch below. In some cases the forty eight lines provided for invoice data entry (Rows 6 to 54) may not be sufficient for the duration of the project. In these cases it will simply be necessary to introduce a second set of spreadsheets directly below the two described above.



2.1 CONTRACTOR'S ACCOUNT (Spreadsheet Range A1 to N46)

Sub Range A1 to N4

This range contains the contract amount, currencies of payment, percentage split between foreign and local currencies, the contract exchange rate, the name of the Contractor and the column titles. You are required to enter information into the following cells:

Cell C2 Enter the contract amount in the currency of the contract i.e. Birr. It is not necessary to define the currency in this cell.

Cell C3 Enter the currencies of payment to the Contractor. (See currency abbreviations in Appendix 2)

Cell H2 Enter as a whole number the percentage of the total payment made in the foreign currency e.g. 80 for 80%

Cell N3 Enter the contract exchange rate.

Cell N4 Enter Contractor's name

²¹The Ceiling Amount is the contract amount (including any Variations) above which no expenditure is authorised

²²The funds made available by GOE and other funding agencies, in various currencies, for the financing of the project.

The contents of all of the other cells in this range are locked and cannot be accessed. Where input is necessary e.g. Cell M2 it is automatically calculated from previous input.

(Should the system operator wish to protect the above cells following the insertion of the data this can be achieved by simply locking those cells.)

Sub Range A5 to N55

This range contains the data relating to the date on which invoices were received and paid, the date on which payments were received by the Contractors, the value of each of the invoices and payments in each currency and the balance of the contract amount remaining in each currency.

Cells A6 to 54	Enter the invoice number. Note that only one line should be used for each invoice or sub-invoice.
Cells B6 to 54	Enter the date on which Engineer receives the Contractor's Statement
Cells C6 to 54	Enter the total value of the invoice in the currency of the contract
Cells D6 to 54	Enter the foreign currency value of the invoice
Cells E6 to 54	Enter the foreign currency value actually approved for payment
Cells G6 to 54	Enter the date on which the Contractor receives the Funding agency portion of the approved foreign currency payment
Cells H6 to 54	Enter the date on which the Contractor receives the GOE portion of the approved foreign currency payment
Cells I6 to 54	Enter the local currency value of the invoice
Cells J6 to 54	Enter the local currency value actually approved for payment
Cells L6 to 54	Enter the date on which the Contractor receives the Funding agency portion of the approved local currency payment
Cells M6 to 54	Enter the date on which the Contractor receives the GOE portion of the approved local currency payment
Cells N6 to 54	Enter comments as appropriate

The contents of all of the other cells in this range are locked and cannot be accessed. Where input is necessary e.g. Cells F6 to 55 it is automatically calculated from previous input.

(Should the system operator wish to protect the above cells following the insertion of the data this can be achieved by simply locking those cells.)

2.2 FUNDING ACCOUNT (Spreadsheet Range O1 to AB55)

Sub Range O1 to AB4

This range contains the name of the Foreign Funding Agency, the total available foreign funding, the total available local funding, the percentages of the total funding carried by the Foreign Agency and GOE respectively and the column titles. You are required to enter information into the following cells:

Cell Q2	Enter the name of the Foreign Funding Agency (see abbreviations in Appendix 2)
Cell Q3	Enter as a whole number the percentage of the total foreign funding payable by the Foreign Funding Agency e.g. 95 for 95%
Cell S2	Enter the total Foreign Agency Funds available, in the currency of the loan
Cell S3	Enter as a whole number the percentage of the total local funding payable by the Foreign Funding Agency e.g. 95 for 95%
Cell U2	Enter the currencies of the funds available to the project. (See currency abbreviations in Appendix 2)

Cell X2 Enter the total GOE funds available in foreign currency

Cell Z2 Enter the total GOE funds available in Birr

The contents of all of the other cells in this range are locked and cannot be accessed. Where input is necessary e.g. Cell X3 it is automatically calculated from previous input.

(Should the system operator wish to protect the above cells following the insertion of the data this can be achieved by simply locking those cells.)

Sub Range O5 to AB54

This range contains the data relating to the date on which payments are instructed, the exchange rate applicable to those payments and the remaining foreign and local funding funds.

Cells Q6 to 54 Enter the date on which RDPB issues the instruction for the Foreign Funding Agency's payment.

Cells R6 to 54 Enter the exchange rate ruling at the time of payment. It will be necessary to estimate this at the time of the instruction to pay. Only once the payment has been made and the actual date of payment known will it be possible to determine the actual exchange rate used.

Cells V6 to 54 Enter the date on which GOE makes their forex payment

Cells Y6 to 54 Enter the date on which GOE makes their local payment.

Cells AB6 Enter comments as appropriate

2.3 RECONCILIATION CONTRACTOR vs. FUNDING ACCOUNT'S (A55 TO AB55).

A comparison, in a single currency, of the total amount due to the Contractor as detailed in cells C55 or (E55+I55) will not be the same as the total amount of the available Funding "spent" as detailed in cells (S55+T55+W55+Z55).

The reason for this is that the rates of exchange which will be utilised by the Funding Agency for its Birr payments will be the "current" rate and not the contract rate. In the case of the attached example the exchange rate has effectively worsened and the Funding Agency has therefore benefited i.e. they have had to use less USD to purchase the necessary Birr than they would have had to had they used the contract rate. A comparison of the Contractor's Account and the Funding Account at this stage of the example will show that there has been a slight saving.

APPENDIX 1

SAMPLE SPREADSHEETS

A	B	C		D	E	F	G	H	I	J	K	L	M	N
		CONTRACTOR'S ACCOUNT												
1	2	3	4	CONTRACTOR'S FOREX ACCOUNT				CONTRACTOR'S LOCAL ACCOUNT				5	6	
Contract Amount	Contract Currencies	Date Received by Engineer	Total Value of IPC	IPC Foreign Value Claimed	IPC Foreign Value Paid	Remainder of Contract Sum Foreign	Date IDA Pymt Recd Contractor	Date GoF Pym Recd Contractor	IPC Local Value	IPC Local Value Paid	Remainder of Contract Sum Local	Date IDA ETB Recd Contractor	Date GoF ETB Recd Contractor	Contract Exchange Rate
			??/ETB											8:5000
5	Balances Brought Forward/ Opening Balances													Comment
6						0.00					0.00			
7						0.00					0.00			
8						0.00					0.00			
9						0.00					0.00			
10						0.00					0.00			
11						0.00					0.00			
12						0.00					0.00			
13						0.00					0.00			
14						0.00					0.00			
15						0.00					0.00			
16						0.00					0.00			
17						0.00					0.00			
18						0.00					0.00			
19						0.00					0.00			
20						0.00					0.00			
21						0.00					0.00			
22						0.00					0.00			
23						0.00					0.00			
24						0.00					0.00			
25						0.00					0.00			
26						0.00					0.00			
27						0.00					0.00			
28						0.00					0.00			
29						0.00					0.00			
30						0.00					0.00			
31						0.00					0.00			
32						0.00					0.00			
33						0.00					0.00			
34						0.00					0.00			
35						0.00					0.00			
36						0.00					0.00			
37						0.00					0.00			
38						0.00					0.00			
39						0.00					0.00			
40						0.00					0.00			
41						0.00					0.00			
42						0.00					0.00			
43						0.00					0.00			
44						0.00					0.00			
45						0.00					0.00			
46						0.00					0.00			
47						0.00					0.00			
48						0.00					0.00			
49						0.00					0.00			
50						0.00					0.00			
51						0.00					0.00			
52						0.00					0.00			
53						0.00					0.00			
54						0.00					0.00			
Totals			0.00	0.00	0.00	0.00			0.00	0.00	0.00			
55														

	O	P	Q	R	S			T			U			V	W			X	Y	Z		AA	AB
					Agency Foreign Value	IPC Foreign Value	0%	Currencies	0.00	0.00	0.00	Foreign Portion	IPC Foreign Value		Remaining Foreign Funding	0.00	0.00			0.00	Foreign Portion		
FUNDING ACCOUNT																							
1	Foreign Agency	Foreign Portion	Total Value of IPC	Date of Instruction to Pay	Exchange Rate on date of Payment	IPC Foreign Value	IPC Local Value	0%	Currencies	0.00	0.00	0.00	Foreign Portion	IPC Foreign Value	Remaining Foreign Funding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Foreign Agency	Foreign Portion	Total Value of IPC	Date of Instruction to Pay	Exchange Rate on date of Payment	IPC Foreign Value	IPC Local Value	0%	Currencies	0.00	0.00	0.00	Foreign Portion	IPC Foreign Value	Remaining Foreign Funding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Foreign Agency	Foreign Portion	Total Value of IPC	Date of Instruction to Pay	Exchange Rate on date of Payment	IPC Foreign Value	IPC Local Value	0%	Currencies	0.00	0.00	0.00	Foreign Portion	IPC Foreign Value	Remaining Foreign Funding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Inv #																						
5	Balance Brought Forward				8.5000																		
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52																							
53																							
54																							
55	Total		0.00			0.00	0.00			0.00	0.00			0.00	0.00					0.00	0.00		

A	B	C			D	E	F	G	H	I				M	N	
		CONTRACTOR'S ACCOUNT								CONTRACTOR'S FOREX ACCOUNT						CONTRACTOR'S LOCAL ACCOUNT
1	Contract Amount	300,000,000.00 USD/ETB							80%				20%			
2	Contract Currencies															
3	Date Received by Engineer	Total Value of IPC	IPC Foreign Value Claimed	IPC Foreign Value Paid	Remainder of Contract Sum Foreign	Date IDA Pymt Recd Contractor	Date GoF Pym Recd Contractor	IPC Local Value	IPC Local Value Paid	Remainder of Contract Sum Local	Date IDA ETB Recd Contractor	Date GoF ETB Recd Contractor				
4	Inv #	Balances Brought Forward/ Opening Balances											China Construction			
5	Adv	45,000,000.00	4,257,231.38	4,257,231.38	28,381,542.54	21-Jul-06	15-Aug-06	9,000,000.00	9,000,000.00	60,000,000.00	25-Jul-06	20-Aug-06	Comment			
6	1	5,000,000.00	473,025.71	473,025.71	24,124,311.16	25-Aug-06	16-Sep-06	1,000,000.00	1,000,000.00	51,000,000.00	20-Aug-06	25-Sep-06				
7	2	9,500,000.00	898,748.85	898,748.85	23,651,285.45	30-Sep-06	30-Sep-06	1,900,000.00	1,900,000.00	50,000,000.00	29-Sep-06	3-Oct-06				
8	3	12,500,000.00	1,182,564.27	1,182,564.27	21,569,972.33	5-Nov-06	21-Nov-06	2,500,000.00	2,500,000.00	48,100,000.00	12-Nov-06	30-Nov-06				
9	4	15,000,000.00	1,419,077.13	1,419,077.13	20,150,895.20	2-Dec-06	28-Dec-06	3,000,000.00	3,000,000.00	45,600,000.00	10-Dec-06	30-Dec-06				
10	5	20,000,000.00	1,892,102.84	1,892,102.84	18,258,792.37			4,000,000.00	4,000,000.00	38,600,000.00						
11	6				18,258,792.37					38,600,000.00						
12	7				18,258,792.37					38,600,000.00						
13	8				18,258,792.37					38,600,000.00						
14	9				18,258,792.37					38,600,000.00						
15	10				18,258,792.37					38,600,000.00						
16	11				18,258,792.37					38,600,000.00						
17	12				18,258,792.37					38,600,000.00						
18	13				18,258,792.37					38,600,000.00						
19	14				18,258,792.37					38,600,000.00						
20	15				18,258,792.37					38,600,000.00						
21	16				18,258,792.37					38,600,000.00						
22	17				18,258,792.37					38,600,000.00						
23	18				18,258,792.37					38,600,000.00						
24	19				18,258,792.37					38,600,000.00						
25	20				18,258,792.37					38,600,000.00						
26	21				18,258,792.37					38,600,000.00						
27	22				18,258,792.37					38,600,000.00						
28	23				18,258,792.37					38,600,000.00						
29	24				18,258,792.37					38,600,000.00						
30	25				18,258,792.37					38,600,000.00						
31	26				18,258,792.37					38,600,000.00						
32	27				18,258,792.37					38,600,000.00						
33	28				18,258,792.37					38,600,000.00						
34	29				18,258,792.37					38,600,000.00						
35	30				18,258,792.37					38,600,000.00						
36	31				18,258,792.37					38,600,000.00						
37	32				18,258,792.37					38,600,000.00						
38	33				18,258,792.37					38,600,000.00						
39	34				18,258,792.37					38,600,000.00						
40	35				18,258,792.37					38,600,000.00						
41	36				18,258,792.37					38,600,000.00						
42	37				18,258,792.37					38,600,000.00						
43	38				18,258,792.37					38,600,000.00						
44	39				18,258,792.37					38,600,000.00						
45	40				18,258,792.37					38,600,000.00						
46	41				18,258,792.37					38,600,000.00						
47	42				18,258,792.37					38,600,000.00						
48	43				18,258,792.37					38,600,000.00						
49	44				18,258,792.37					38,600,000.00						
50	45				18,258,792.37					38,600,000.00						
51	46				18,258,792.37					38,600,000.00						
52	47				18,258,792.37					38,600,000.00						
53	48				18,258,792.37					38,600,000.00						
54	48				18,258,792.37					38,600,000.00						
55	Totals	107,000,000.00	10,122,750.17	10,122,750.17	10,122,750.17			21,400,000.00	21,400,000.00	21,400,000.00						

O	P	Q	R	S	T		U	V	W	X	Y	Z		AA	AB	
					AGENCY FOREX & LOCAL	AGENCY FOREX						GoE LOCAL	GoE LOCAL			
1	Foreign Agency	IDA Funding	Exchange Rate on date of Payment	90% Local Portion	31,929,235.35	Currencies	USD/ETB	Foreign Portion	Foreign Portion	Foreign Portion	ETB	Local Portion	6,000,000.00	10%	6,000,000.00	China Construction
2	Foreign Agency	90% Local Portion	8.4562	31,929,235.35	90%	Currencies	USD/ETB	Foreign Portion	Foreign Portion	ETB	Local Portion	6,000,000.00	10%	6,000,000.00	China Construction	
3	Foreign Portion	Instruction to Pay	Rate on date of Payment	90% Local Portion	31,929,235.35	90%	USD/ETB	Foreign Portion	Foreign Portion	ETB	Local Portion	6,000,000.00	10%	6,000,000.00	China Construction	
4	Inv #	Date of Instruction to Pay	Exchange Rate on date of Payment	90% Local Portion	31,929,235.35	90%	USD/ETB	Foreign Portion	Foreign Portion	ETB	Local Portion	6,000,000.00	10%	6,000,000.00	China Construction	
5	Balance Brought Forward				31,929,235.35										Comment	
6	Adv	12-Jul-06	8.4550	968,013.01	27,139,714.10	0.00	20,548,771.45	0.00	0.00	425,723.14	2,412,431.12	8-Aug-06	900,000.00	5,100,000.00		
7	1	11-Aug-06	8.4575	106,414.43	26,607,576.94	0.00	20,548,771.45	0.00	0.00	47,302.57	2,365,128.54	10-Sep-06	100,000.00	5,000,000.00		
8	2	18-Sep-06	8.5002	808,873.96	201,171.50	0.00	20,548,771.45	0.00	0.00	89,874.88	2,275,253.66	6-Oct-06	190,000.00	4,810,000.00		
9	3	29-Oct-06	8.5100	1,064,307.85	264,394.83	0.00	20,548,771.45	0.00	0.00	118,256.43	2,156,997.23	9-Nov-06	250,000.00	4,560,000.00		
10	4	22-Nov-06	8.5150	1,277,169.41	317,087.49	0.00	20,548,771.45	0.00	0.00	141,907.71	2,015,089.52	3-Dec-06	300,000.00	4,260,000.00		
11	5	20-Dec-06	8.5125	1,702,892.55	422,907.49	0.00	20,548,771.45	0.00	0.00	189,210.28	1,825,879.24	8-Jan-07	400,000.00	3,860,000.00		
12	6			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
13	7			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
14	8			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
15	9			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
16	10			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
17	11			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
18	12			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
19	13			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
20	14			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
21	15			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
22	16			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
23	17			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
24	18			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
25	19			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
26	20			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
27	21			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
28	22			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
29	23			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
30	24			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
31	25			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
32	26			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
33	27			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
34	28			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
35	29			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
36	30			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
37	31			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
38	32			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
39	33			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
40	34			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
41	35			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
42	36			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
43	37			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
44	38			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
45	39			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
46	40			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
47	41			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
48	42			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
49	43			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
50	44			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
51	45			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
52	46			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
53	47			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
54	48			0.00	0.00	0.00	20,548,771.45	0.00	0.00	0.00	1,825,879.24		0.00	3,860,000.00		
55	Total				107,000,000.00					9,110,475.15	2,269,988.75			2,140,000.00		
										1,012,275.02						

APPENDIX 2

ABBREVIATIONS

Agency Abbreviation	Agency Name
AfDB	African Development Bank
AfDF	African Development Fund
ASDI	Swedish International Development Authority
BADEA	Arab Bank for Economic Development in Africa
CC	Christian Council
CF	Cooperation Française
DFID	Department for International Development
EU	European Union
GOE	Government of Ethiopia
WB	International Development Association
JICA	Japanese International Cooperation Agency
KFAED	Kuwait Fund for Arab Economic Development
KFW	Kreditanstalt für Wiederaufbau
MCD	Multilateral Cooperation Department (MFED)
OPEC	Organisation of Oil Producing Countries
UNDP	United Nations Development Program
US	USAID
WFP	World Food Programme
Currency Abbreviation	Currency Name
AUD	Australian Dollar
CHF	Swiss Franc
DEM	Deutsche Mark
Euro	Euro
FUA	Financial Unit of Account
GBP	Great Britain Pound
KWD	Kuwaiti Dinar
IRN	Indian Rupee
JPY	Japanese Yen
ETB	Ethiopian Birr
SDR	Special Drawing Rights
SEK	Swedish Kröne
UA	Units of Account
USD	United States Dollar
ZAR	South African Rand

Appendix 6-6 - Monthly vs. Cumulative IPC

This Appendix has been included to illustrate the points made in section 6.3.4 Monthly vs. Cumulative Accounting above.

The spreadsheet entitled *Monthly IPC* details a set of three certificates, two of which contain errors and one not. Once it had been identified that the errors had been made it would have been necessary to correct each of the errors by issuing either Debit or Credit Notes or by reprocessing that invoice or by adding or subtracting the necessary correction from later IPCs.

The spreadsheet entitled *Cumulative IPC* details the same set of three certificates but presented on a cumulative (total work done to date) basis. It can be seen from this sheet that although the same errors were made on certificates one and two these errors were automatically corrected in certificate three by subtracting the total actually certified from the correct total value of work completed to that date. It is important that one use the amounts certified and not paid. Using the amount paid could result in underpayment or over invoicing.

Monthly IPC.

IPC	Item	Description	Unit	Rate	This Month	Amount	IPC	Item	Description	Unit	Rate	This Month	Amount
1	1	Remove Top Soil	m2	1.07	250	267.50	1	1	Remove Top Soil	m2	1.07	250	267.50
	2	Compact Sub Grade	m2	1.25	250	312.50		2	Compact Sub Grade	m2	1.25	250	312.50
	3	Sub Base 150 thk	m2	1.89	100	189.00		3	Sub Base 150 thk	m2	1.89	100	189.00
	4	Base	m3	4.2	0	0.00		4	Base	m3	4.2	0	0.00
	Total Work Done this month							537.75	Total Work Done this month				
Amount Due this Month						537.75	Amount Due this Month						769.00
2	1	Remove Top Soil	m2	1.07	250	280.00	2	1	Remove Top Soil	m2	1.07	250	267.50
	2	Compact Sub Grade	m2	1.25	125	156.25		2	Compact Sub Grade	m2	1.25	125	156.25
	3	Sub Base 150 thk	m2	1.89	150	283.50		3	Sub Base 150 thk	m2	1.89	150	283.50
	4	Base	m3	4.2	150	630.00		4	Base	m3	4.2	150	630.00
	Total Work Done this month							1,349.75	Total Work Done this month				
Amount Due this Month						1,349.75	Amount Due this Month						1,337.25
3	1	Remove Top Soil	m2	1.07	250	267.50	3	1	Remove Top Soil	m2	1.07	250	267.50
	2	Compact Sub Grade	m2	1.25	125	156.25		2	Compact Sub Grade	m2	1.25	125	156.25
	3	Sub Base 150 thk	m2	1.89	150	283.50		3	Sub Base 150 thk	m2	1.89	150	283.50
	4	Base	m3	4.2	200	840.00		4	Base	m3	4.2	200	840.00
	Total Work Done this month							1,547.25	Total Work Done this month				
Amount Due this Month						1,547.25	Amount Due this Month						1,547.25
Summary	Certificate 1					537.75	Summary	Certificate 1					769.00
	Certificate 2					1,349.75		Certificate 2					1,337.25
	Certificate 3					1,547.25		Certificate 3					1,547.25
	Total Paid to Date (incorrect)					3,434.75		Total Paid to Date (correct)					3,653.50

Cumulative IPC

IPC	Item	Description	Unit	Rate	Total	Previous	This Month	Amount	
1	1	Remove Top Soil	m2	1.07	250	0	250	26.75	←
	2	Compact Sub Grade	m2	1.25	250	0	250	300.00	←
	3	Sub Base 150 thk	m2	1.89	100	0	100	211.00	←
	4	Base	m3	4.2	0	0	0	0.00	
	Total Work Done to Date Less Previously Certified								537.75 0.00
Amount Due this Month								537.75	
2	1	Remove Top Soil	m2	1.07	500	250	250	530.00	←
	2	Compact Sub Grade	m2	1.25	375	250	125	468.75	
	3	Sub Base 150 thk	m2	1.89	250	100	150	472.50	
	4	Base	m3	4.2	150	0	150	630.00	
	Total Work Done to Date Less Previously Certified								2,101.25 537.75
Amount Due this Month								1,563.50	
3	1	Remove Top Soil	m2	1.07	750	500	250	802.50	
	2	Compact Sub Grade	m2	1.25	500	375	125	625.00	
	3	Sub Base 150 thk	m2	1.89	400	250	150	756.00	
	4	Base	m3	4.2	350	150	200	1,470.00	
	Total Work Done to Date Less Previously Certified								3,653.50 2,101.25
Amount Due this Month								1,552.25	
Summary	Certificate 1							537.75	
	Certificate 2							1,563.50	
	Certificate 3							1,552.25	
	Total Paid to Date							3,653.50	

Appendix 6-7 - ERA vs. WB ICB SBD Clause 60

WB, in its standard bidding documents, modified the standard FIDIC IV Clause 60. This modified version was subsequently adopted by AfDB and a number of the other Multilateral funding agencies.

In the 2002 ERA standard bidding documents for both ICB and NCB works contracts the WB Clause 60 was further modified. The schedule below compares the two versions of Clause 60.

Comparison of ERA and WB Clause 60.1 & 60.1 for ICB

Certificates and Payments		
	ERA	WB
<i>Clause 60 Certificates and Payment</i>	CLAUSE 60 OF THE GENERAL CONDITIONS IS DELETED AND THE FOLLOWING SUB-CLAUSES 60.1-60.14 ARE SUBSTITUTED THEREFORE:	CLAUSE 60 OF THE GENERAL CONDITIONS IS DELETED AND THE FOLLOWING SUB-CLAUSES 60.1-60.14 ARE SUBSTITUTED THEREFORE:
<i>Sub-Clause 60.1 Monthly Statements</i>	THE CONTRACTOR SHALL SUBMIT A STATEMENT IN THE NUMBER OF COPIES STIPULATED IN THE APPENDIX TO BID TO THE ENGINEER AT THE END OF EACH MONTH, IN A TABULATED FORM APPROVED BY THE ENGINEER, SHOWING THE AMOUNTS TO WHICH THE CONTRACTOR CONSIDERS HIMSELF TO BE ENTITLED. THE STATEMENT SHALL INCLUDE THE FOLLOWING ITEMS, AS APPLICABLE, WHICH SHALL BE TAKEN INTO ACCOUNT IN THE SEQUENCE LISTED:	THE CONTRACTOR SHALL SUBMIT A STATEMENT IN THE NUMBER OF COPIES STIPULATED IN THE APPENDIX TO BID TO THE ENGINEER AT THE END OF EACH MONTH, IN A TABULATED FORM APPROVED BY THE ENGINEER, SHOWING THE AMOUNTS TO WHICH THE CONTRACTOR CONSIDERS HIMSELF TO BE ENTITLED. THE STATEMENT SHALL INCLUDE THE FOLLOWING ITEMS, AS APPLICABLE, WHICH SHALL BE TAKEN INTO ACCOUNT IN THE SEQUENCE LISTED:
	(A) THE ESTIMATED CONTRACT VALUE OF THE TEMPORARY AND PERMANENT WORKS EXECUTED UP TO THE END OF THE MONTH IN QUESTION, DETERMINED IN ACCORDANCE WITH SUB-CLAUSE 56.1, AT THE UNIT RATES AND PRICES INCLUDED IN THE CONTRACT;	(A) THE ESTIMATED CONTRACT VALUE OF THE TEMPORARY AND PERMANENT WORKS EXECUTED UP TO THE END OF THE MONTH IN QUESTION, DETERMINED IN ACCORDANCE WITH SUB-CLAUSE 56.1, AT THE UNIT RATES AND PRICES INCLUDED IN THE CONTRACT, IN THE VARIOUS CURRENCIES OF THE CONTRACT PRICE
		(B)THE ACTUAL VALUE CERTIFIED FOR PAYMENT FOR THE TEMPORARY AND PERMANENT WORKS EXECUTED UP TO THE END OF THE PREVIOUS MONTH, AT THE UNIT RATES AND PRICES INCLUDED IN THE CONTRACT, IN THE VARIOUS CURRENCIES OF THE CONTRACT PRICE;
		(C)THE ESTIMATED CONTRACT VALUE AT THE UNIT RATES AND PRICES INCLUDED IN THE CONTRACT OF THE TEMPORARY AND PERMANENT WORKS FOR THE MONTH IN QUESTION, IN THE VARIOUS CURRENCIES OF THE CONTRACT PRICE, OBTAINED BY DEDUCTING (B) FROM (A);
	(B) THE VALUE OF ANY VARIATIONS EXECUTED UP TO THE END OF THE MONTH IN QUESTION, LESS THE AMOUNT CERTIFIED IN THE PREVIOUS INTERIM PAYMENT CERTIFICATE, PURSUANT TO CLAUSE 52;	(D) THE VALUE OF ANY VARIATIONS EXECUTED UP TO THE END OF THE MONTH IN QUESTION, LESS THE AMOUNT CERTIFIED IN THE PREVIOUS INTERIM PAYMENT CERTIFICATE, EXPRESSED IN THE RELEVANT AMOUNTS OF FOREIGN AND LOCAL CURRENCIES, PURSUANT TO CLAUSE

		52;
	(C) AMOUNTS APPROVED IN RESPECT OF DAY WORK EXECUTED UP TO THE END OF THE MONTH IN QUESTION, LESS THE AMOUNT FOR DAY WORK CERTIFIED IN THE PREVIOUS INTERIM PAYMENT CERTIFICATE, AS DETERMINED FROM THE DAY WORK SCHEDULE OF THE BILL OF QUANTITIES	(E) AMOUNTS APPROVED IN RESPECT OF DAY WORK EXECUTED UP TO THE END OF THE MONTH IN QUESTION, LESS THE AMOUNT FOR DAYWORK CERTIFIED IN THE PREVIOUS INTERIM PAYMENT CERTIFICATE, INDICATING THE AMOUNTS OF FOREIGN AND LOCAL CURRENCIES AS DETERMINED FROM THE DAY WORK SCHEDULE OF THE BILL OF QUANTITIES;
	ERA	WB
	(D) AMOUNTS REFLECTING CHANGES IN COST AND LEGISLATION, PURSUANT TO CLAUSE 70;	(F)AMOUNTS REFLECTING CHANGES IN COST AND LEGISLATION, PURSUANT TO CLAUSE 70, EXPRESSED IN THE RELEVANT AMOUNTS OF FOREIGN AND LOCAL CURRENCIES;
	(E)ANY AMOUNT TO BE WITHHELD UNDER THE RETENTION PROVISIONS OF SUB-CLAUSE 60.5, DETERMINED BY APPLYING THE PERCENTAGE SET FORTH IN SUB-CLAUSE 60.5 TO THE AMOUNT DUE UNDER PARAGRAPHS 60.1 (B), (C) AND (D);	(G)ANY CREDIT OR DEBIT FOR THE MONTH IN QUESTION IN RESPECT OF MATERIALS AND PLANT FOR THE PERMANENT WORKS, IN THE RELEVANT AMOUNTS IN FOREIGN AND LOCAL CURRENCIES, AND UNDER THE CONDITIONS SET FORTH IN SUB-CLAUSE 60.3;
	(F)ANY CREDIT IN RESPECT OF MATERIALS AND PLANT FOR THE PERMANENT WORKS, AND UNDER THE CONDITIONS SET FORTH IN SUB-CLAUSE 60.3;	(H) ANY AMOUNT TO BE WITHHELD UNDER THE PROVISIONS OF SUB-CLAUSE 60.5, DETERMINED BY APPLYING THE PERCENTAGE SET FORTH IN SUB-CLAUSE 60.5 TO THE AMOUNTS IN FOREIGN AND LOCAL CURRENCIES DUE UNDER PARAGRAPHS 60.1 (C), (D), (E), AND (F);
	(G) ANY AMOUNT TO BE DEDUCTED AS REPAYMENT OF THE ADVANCE UNDER THE PROVISIONS OF SUB-CLAUSE 60.7; AND	(I)ANY AMOUNTS TO BE DEDUCTED AS REPAYMENT OF THE ADVANCE UNDER THE PROVISIONS OF SUB-CLAUSE 60.8; AND
	(H) ANY OTHER SUM TO WHICH THE CONTRACTOR MAY BE ENTITLED UNDER THE CONTRACT OR OTHERWISE	(J)ANY OTHER SUM, EXPRESSED IN THE APPLICABLE CURRENCY OR CURRENCIES, TO WHICH THE CONTRACTOR MAY BE ENTITLED UNDER THE CONTRACT OR OTHERWISE
	(I) THE AMOUNT CERTIFIED FOR PAYMENT UP TO THE END OF THE PREVIOUS MONTH	

The differences between the two versions of clause 60 are highlighted in the schedule above.

The modifications which WB made, solved a previous problem which existed with the standard FIDIC IV version i.e. that of defining the order in which the various elements of the IPC's should be included on the IPCs. By changing the order of the various elements one could obtain different amounts for payment.

ERA's modification of the WB modification has resulted in the Contractor's not receiving the correct sums in foreign and local currencies. The principle difference between the WB and ERA formats is that the WB format assumes (correctly) that Variations, Dayworks, CPA and MoS will not reflect the same Foreign/Local currency split as the Works, which result from the BoQ and the ERA format converts everything into local currency, does all of the calculations in local currency and only finally splits the "bottom line". A second difference between the two formats is that the WB format calculates Retention on MoS whilst the ERA format does not. In the long run, this makes no difference to the Contractor other than affecting his cash flow.

Using ERA's format and with particular reference to CPA, where the local and foreign CPA will not be in the required payment percentages the Contractor will receive part of his local CPA in foreign currency at the exchange rate of the contract. The Contract is therefore being "double" compensated for a portion of the increased costs.

The following pages contain suggested formats for the current FIDIC IV based WB SBD Clause 60, the current FIDIC IV based ERA SBD Clause 60 **with the suggestion that the ERA Clause 60 revert to the WB Clause 60 and the WB IPC format.**

ERA Clause 60 IPC Format -Example (Work Only)

Project Name: Road A to B	Funding Agency: AfDB		
Contractor : CMC di Ravenna	Contract No: 163/OBR/MP/2003		
Contract Value Birr 0	Contract Period 450		
<i>Interim Payment Certificate</i>		USD	ZAR
IPC N° : 1	RoE	8.5634	1.2354
Period: March-06	USD	60.00%	Funding Proportion
Currencies: Birr	ZAR	25.00%	AfDB 80.00% Birr
USD	Birr	15.00%	AfDB 80.00% USD
ZAR			AfDB 80.00% ZAR
GENERAL SUMMARY			
Clause 60.1	Description	Birr	
		Total	
(a)	Work Done	300,000,000.00	
(b)	Add VO this mnth	0.00	
(c)	Add Daywork this mnth	0.00	
(d)	Add CPA this mnth	0.00	
	Sub-total	300,000,000.00	
(e)	Less Retention	30,000,000.00	
	Sub-total	270,000,000.00	
(f)	Add MoS this mnth	0.00	
	Sub-total	270,000,000.00	
(g)	Less Adv Repaymnt	0.00	
	Sub-total	270,000,000.00	
(h)	Any Other	0.00	
	Sub-total	270,000,000.00	
(i)	Less Prev Certified	0.00	
	Amount Due Birr	270,000,000.00	
Birr	AfDB	32,400,000.00	USD
Payment	ERA	8,100,000.00	AfDB
Source			15,134,175.68
			ERA
			3,783,543.92
			ZAR
			Payment
			AfDB
			43,710,539.10
			ERA
			10,927,634.77
			ZAR
			Payment
			AfDB
			43,710,539.10
			ERA
			10,927,634.77
			ZAR
			Payment
			AfDB
			43,710,539.10
			ERA
			10,927,634.77
			ZAR
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			Payment
			AfDB
			43,710,539.10
			ERA
			10,927,634.77
			ZAR
			Payment
			AfDB
			43,710,539.10
			ERA
			10,927,634.77
			ZAR
			Payment
			AfDB
			43,710

ERA Clause 60 IPC Format - Example (Work and CPA)

Project Name:	Road A to B		Funding Agency:	AfDB	
Contractor :	CMC di Ravenna		Contract No:	163/OBR/MP/2003	
Contract Value	Birr	0	Contract Period	450	
<i>Interim Payment Certificate</i>			USD	ZAR	
IPC N° :	1	RoE	8.5634	1.2354	Funding Proportion
Period:	March-06	USD	60.00%		AfDB 80.00% Birr
Currencies:	Birr	ZAR	25.00%		AfDB 80.00% USD
	USD	Birr	15.00%		AfDB 80.00% ZAR
	ZAR				
GENERAL SUMMARY					
Clause 60.1	Description	Birr			
		Total			
(a)	Work Done	300,000,000.00			
(b)	Add VO this mnth	0.00			
(c)	Add Daywork this mnth	0.00			
(d)	Add CPA this mnth	19,800,000.00			
	Sub-total	319,800,000.00			
(e)	Less Retention	31,980,000.00			
	Sub-total	287,820,000.00			
(f)	Add MoS this mnth	0.00			
	Sub-total	287,820,000.00			
(g)	Less Adv Repaymnt	0.00			
	Sub-total	287,820,000.00			
(h)	Any Other	0.00			
	Sub-total	287,820,000.00			
(i)	Less Prev Certified	0.00			
	Amount Due Birr	287,820,000.00			
Birr	AfDB	34,538,400.00	USD	AfDB	16,133,031.27
Payment	ERA	8,634,600.00	Payment	ERA	4,033,257.82
Source			Source		
				ZAR	AfDB
				Payment	46,595,434.68
				Source	ERA
					11,648,858.67
<p>On behalf of [Name of Company] I, [Name of the Engineer's Representative], hereby certify i.t.o Clause 60.2 that the amounts shown above are a true reflection of the works undertaken during this period.</p>					
Date:	3-Apr-06	Signature:	Last Payment Date: 29-May-06		

Note:

1. The Soft copy version of this spreadsheet includes all of the formulae necessary for the use of the sheet.
2. All cells except those into which data should be inserted have been locked
3. The Funding Agency and Currency cells have flop down menus for the input to those cells.
4. The value of the CPA indicated in this example is the equivalent to the CPA indicated in the WB example (page 6-93), but converted into Birr. It can be seen that the Contractor would be over compensated in USD and further that ERA would increase their commitment in USD.

WB Clause 60 IPC Format

Project Name: Road A to B		Funding Agency: ??								
Contractor: CMC di Ravenna		Contract No: 163/OBR/MP/2003								
Contract Value Birr 300,000,000.00		Contract Period 450 days								
<i>Interim Payment Certificate</i>										
IPC N°: 1		Rates of Exchange 8.5634 10.2761								
Period: March-06		Funding Proportion ?? 80.00% Birr								
Currencies: Birr		?? 100.00% ??								
??		?? 100.00% ??								
??		Birr 20.00%								
GENERAL SUMMARY										
Clause 60.1	Description	Birr			??			??		
		This	Prev	Total	This	Prev	Total	This	Prev	Total
(a)	Work Done	0.00	0.00	0.00						
(b)	Less Previous	0.00	0.00	0.00						
(c)	Work Done This Mnth			0.00						
(c)	Currency Equiv	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(d)	Add Variation Orders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(e)	Add Daywork	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(f)	Add CPA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(g)	Add MoS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(h)	Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Less Retention	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(i)	Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Less Adv Repayment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(j)	Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Any Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Less Prev			0.00			0.00			0.00
	Amounts Due		Birr	0.00		??	0.00		??	0.00
		Birr	??	0.00	??	??	0.00	??	??	0.00
		Payment	ERA	0.00	Payment	ERA	0.00	Payment	ERA	0.00
		Source			Source			Source		
<p>On behalf of [Name of Company] I, [Name of the Engineer's Representative], hereby certify I.L.o Clause 60.2 that the amounts shown above are a true reflection of the works undertaken during this period.</p>										
Date: 3-Apr-06		Signature:		Last Payment Date: 29-May-06						

Note:

1. The Soft copy version of this spreadsheet includes all of the formulae necessary for the use of the sheet.
2. All cells except those into which data should be inserted have been locked
3. The Funding Agency and Currency cells have flop down menus for the input to those cells.

WB Clause 60 IPC Format - Example (Work Only)

Project Name:	Road A to B	Funding Agency:	AfDB
Contractor:	CMC di Ravenna	Contract No:	163/OBR/MP/2003
Contract Value:	Birr 300,000,000.00	Contract Period:	450 days

Interim Payment Certificate		USD	ZAR
IPC N°:	1	Rates of Exchange:	8.5634 1.2354
Period:	March-06	USD	60.00%
Currencies:	Birr	ZAR	25.00%
	USD	Birr	15.00%
	ZAR		
		Funding Proportion	
		AfDB 80.00%	Birr
		AfDB 80.00%	USD
		AfDB 80.00%	ZAR

GENERAL SUMMARY																																																																						
Clause 60.1	Description	Birr			USD			ZAR																																																														
		This	Prev	Total	This	Prev	Total	This	Prev	Total																																																												
(a)	Work Done	300,000,000.0	0.0	300,000,000.0																																																																		
(b)	Less Previous	0.0		0.0																																																																		
(c)	Work Done This Mnth			300,000,000.0																																																																		
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<p>On behalf of [Name of Company] I, [Name of the Engineer's Representative], hereby certify I.L.o Clause 60.2 that the amounts shown above are a true reflection of the works undertaken during this period.</p> <p>Date: 3-Apr-06 Signature: Last Payment Date: 29-May-06</p>																																																																						

Note:

1. The Soft copy version of this spreadsheet includes all of the formulae necessary for the use of the sheet.
2. All cells except those into which data should be inserted have been locked
3. The Funding Agency and Currency cells have flopp down menus for the input to those cells.

WB Clause 60 IPC Format - Example (Work and CPA)

Project Name:	Road A to B	Funding Agency:	AfDB
Contractor:	CMC di Ravenna	Contract No:	163/OBR/MP/2003
Contract Value:	Birr 300,000,000.00	Contract Period:	450 days

Interim Payment Certificate		USD	ZAR
IPC N°:	1	Rates of Exchange:	8.5634 1.2354
Period:	March-06	USD	60.00%
Currencies:	Birr	ZAR	25.00%
	USD	Birr	15.00%
	ZAR		
		Funding Proportion	
		AfDB	80.00%
		AfDB	80.00%
		AfDB	80.00%
		Birr	
		USD	
		ZAR	

GENERAL SUMMARY										
Clause 60.1	Description	Birr			USD			ZAR		
		This	Prev	Total	This	Prev	Total	This	Prev	Total
(a)	Work Done	300,000,000.0	0.0	300,000,000.0						
(b)	Less Previous	0.0	0.0	0.0						
(c)	Work Done This Mnth			300,000,000.0						
		Birr			USD			ZAR		
(c)	Currency Equiv	45,000,000.00	0.00	45,000,000.00	21,019,688.44	0.00	21,019,688.44	60,709,082.08	0.00	60,709,082.08
(d)	Add Variation Orders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(e)	Add Daywork	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(f)	Add CPA	3,600,000.00	0.00	3,600,000.00	840,878.54	0.00	840,878.54	7,285,089.85	0.00	7,285,089.85
(g)	Add MoS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-total	48,600,000.00	0.00	48,600,000.00	21,860,566.98	0.00	21,860,566.98	67,994,171.93	0.00	67,994,171.93
(h)	Less Retention	4,860,000.00	0.00	4,860,000.00	2,186,056.70	0.00	2,186,056.70	6,799,417.19	0.00	6,799,417.19
	Sub-total	43,740,000.00	0.00	43,740,000.00	19,674,510.28	0.00	19,674,510.28	61,194,754.74	0.00	61,194,754.74
(i)	Less Adv Repayment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-total	43,740,000.00	0.00	43,740,000.00	19,674,510.28	0.00	19,674,510.28	61,194,754.74	0.00	61,194,754.74
(j)	Any Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-total	43,740,000.00	0.00	43,740,000.00	19,674,510.28	0.00	19,674,510.28	61,194,754.74	0.00	61,194,754.74
	Less Prev			0			0.00			0.00
	Amounts Due		Birr	43,740,000.00	USD	19,674,510.28		ZAR		61,194,754.74
		Birr	AfDB	34,992,000.00	USD	AfDB	15,739,608.23	ZAR	AfDB	48,955,803.79
		Payment	ERA	8,748,000.00	Payment	ERA	3,934,902.06	Payment	ERA	12,238,950.95
		Source			Source			Source		

On behalf of [Name of Company] I, [Name of the Engineer's Representative], hereby certify I.L.o Clause 60.2 that the amounts shown above are a true reflection of the works undertaken during this period.

Date: 3-Apr-06 Signature: Last Payment Date: 29-May-06

Note:

1. The Soft copy version of this spreadsheet includes all of the formulae necessary for the use of the sheet.
2. All cells except those into which data should be inserted have been locked
3. The funding Agency and Currency cells have flop down menus for the input to those cells.
4. The value of the CPA indicated in this example is the equivalent to the CPA indicated in the ERA example (page 6-89), but split into its respective currencies to correctly reflect the actual CPAs in each currency. This format results in the correct amounts being paid to the Contractor.

Appendix 6-8 - CPA Indices and Weightings

When a contract makes provision for the calculation of CPA it will normally allow the use of two separate formulae, one for the local currency portion of the payments and one for the foreign currency element. Both formulae will have the same form as that indicated under section 5.4 but the factor (a,b,c,d etc.) weightings and indices (LL, FL, E, A ...) will be different for each formulae.

It is however possible, depending on the nature of the particular project that there could be many formulae.

The tables below have been extracted from the ERA standard contract document

Table 3: Weightings for use with Local Currency (ETB)

Description of Input	Index Code	Factor	Weightings	
			Permitted Range of Values	Bidder's Proposed Value
Fixed	-	a	0.1	0.1
Local Labour	LL	b	0.2 - 0.4	
Foreign Labour	FL	c	0	0
Equipment	E	d	0	0
Aggregate	A	e	0.2 - 0.4	
Bitumen	B	f	0	0
Fuel	F	g	0.2 - 0.5	
Reinforcing Steel	S	s	0,05-0,10	
Cement	C	h	0.05 - 0.1	
Total (must equal 1.0)				1.0

Note 1: Sources of cost price adjustment indices shall be recognized national or international organizations and shall be acceptable to the Employer.

Note 2: The Base Values of Indices shall be those prevailing at the date 28 days prior to the latest date for submission of Bids and shall be substantiated by Bidders by appending copies of the relevant publication.

Note 3: The Employer shall give details of the sources and Base Values of local indices 14 days prior to the latest date for submission of Bids.

Note 4: The Bidders Proposed Values are subject to the approval of the Engineer

Table 4 Weightings for use with Foreign Currency 1:

Specify Currency_____

Description of Input	Index Code	Factor	Weightings	
			Permitted Range of Values	Bidder's Proposed Value
Fixed	-	a	0.1	0.1
Local Labour	LL	b	0	0
Foreign Labour	FL	c	0.1 - 0.2	
Equipment	E	d	0.25 - 0.65	
Aggregate	A	e	0	0
Bitumen	B	f	0.1 - 0.2	
Fuel	F	g	0	
Reinforcing steel	S	s	0,05-0,10	
Cement	C	h	0	
Total (must equal 1.0)				1.0

Note 1: Sources of cost price adjustment indices shall be recognized national or international organizations and shall be acceptable to the Employer.

Note 2: The Base Values of Indices shall be those prevailing at the date 28 days prior to the latest date for submission of Bids and shall be substantiated by Bidders by appending copies of the relevant publication.

Note 3: The Employer shall give details of the sources and Base Values of local indices 14 days prior to the latest date for submission of Bids.

Note 4: The Bidders Proposed Values are subject to the approval of the Engineer.

Appendix 6-9 - Guideline CA4 Consultant's Invoice

GUIDELINE N° CA4



Ethiopian Roads Authority

Guideline N° CA4 Consultant's Invoice

Contract Administration Manual

September 1998

Rev November 2006

**FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
ETHIOPIAN ROADS AUTHORITY
CONTRACT ADMINISTRATION DIVISION**

CONSULTANT'S INVOICES

November 2006

CONTENTS

- 1 INTRODUCTION**
- 2 CONSULTANCY SERVICE INVOICE FORMAT**
 - 2.1 INVOICES FOR CONSULTANCY SERVICES*
 - 2.2 STAFF DAILY WORK SHEET*
 - 2.3 FOREIGN REMUNERATION*
 - 2.4 LOCAL REMUNERATION*
 - 2.5 FOREIGN REIMBURSABLES*
 - 2.6 LOCAL REIMBURSABLES*
 - 2.7 ADVANCE PAYMENT REPAYMENT SCHEDULE*
 - 2.8 ???? SCHEDULE*
- 3 INVOICE BACKUP DOCUMENTATION**
- 4 ERA PE'S RESPONSIBILITY**
 - 4.1 PAYMENT CURRENCIES*
 - 4.2 INVOICE RECORD*

APPENDIX

1. INTRODUCTION

At the time of preparation of this document ERA did not have a standardised format for Consultant's Monthly invoices. Although Consultant's would normally be appointed prior to the Construction phase of a project it is possible that a Consultant may only be appointed for the supervision of construction works. For the completeness of this contract administration manual this guideline has therefore been included to assist PEs in the event of them having to start a supervision contract.

Because of the nature of the preparation and presentation of Consultant's financial proposals it is rare that Consultancy contracts have the same content or even format. They will all, however, contain sections for local and foreign remuneration for the various man month inputs of the team members as well as reimbursable expenditure for the team.

This guideline is therefore presented on this basis.

2. CONSULTANCY SERVICE INVOICE FORMAT

This guideline, as stated above, is presented in a general format. It will therefore be necessary at the commencement of the project (see Contract Administration Manual 5.3.4) to agree on the final presentation of the invoice with the Consultant at the Project Management Meeting (see Contract Administration Manual 5.3).

This format is presented as a series of eight linked excel spreadsheets, one for each of the following:

- Invoice for Consultancy Services (*a summary sheet*)
- Staff Daily Worksheet
- Foreign Remuneration
- Local Remuneration
- Foreign Reimbursable Costs
- Local Reimbursable Costs
- Advance Payment Repayment Schedule
- ????? Schedule

These spreadsheets are included as an Appendix to this guideline.

2.1 INVOICES FOR CONSULTANCY SERVICES

This sheet serves as a summary of the other sheets making up the invoice. The electronic copy of the sheet requires the following information to be input in the cells indicated below:

<i>Cell I1</i>	The month to which the invoice is applicable in the format mm-dd-yy
<i>Cell M2</i>	The invoice number, consecutively numbered from 1 to the Final Invoice
<i>Cell M3</i>	The date of preparation/submission of the invoice in the format mm-dd-yy
<i>Cell C4</i>	The Project Name (short version e.g. Rehabilitation of A to B)
<i>Cell M4</i>	The ERA project number
<i>Cell C6</i>	The Consultant's name (this must be the organisation who has been contracted and in whose name the payments will be made)
<i>Cell D9</i>	The Foreign currency of the contract (the cell has a drop down menu with a selection of currencies)
<i>Cell E9</i>	The Local currency of the contract (the cell has a drop down menu with a selection of currencies)

<i>Range J23 to M27</i>	The details of the bank account for foreign currency payments.
<i>Range J31 to M35</i>	The details of the bank account for local currency payments.
<i>Headers and Footers</i>	The Consultant's Name and logo (if required), The Consultant's project number (if required) and the name of the Consultancy Contract).

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

2.2 STAFF DAILY WORK SHEET

ERA requires a daily register of the Consultant's team members, which indicates if they were present and working on site, on holiday or sick.

The electronic copy of the sheet requires the following information to be input in the cells indicated below:

Cells C9 to AG9	The first letter of the day of the week
Cells A10 to B19	The names and positions of the various team members
Cells C10 to AG19	Enter P, H or S if member is Present and Working, on Holiday or Sick respectively.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once. In this case, this is the names and positions of the team members.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

2.3 FOREIGN REMUNERATION

This schedule contains the details of the actual; man month inputs for each of the team members and their remuneration in foreign currency.

The electronic copy of this sheet requires the following information to be input in the cells indicated below:

<i>Cells B10 to B19</i>	The monthly rate in foreign currency for each of the team members.
<i>Cells C10 to C19</i>	The contract's man month input budget for each of the team members.
<i>Cells E10 to E19</i>	The man months claimed in the previous invoice for each team member
<i>Cells G10 to G19</i>	The man months claimed in this months invoice for each team member

The result of the input data as reflected in Cell H20 is automatically transferred to the summary sheet *INVOICE FOR CONSULTANCY SERVICES* Cell H10.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once. In this case, this is the man month rates and inputs of the team members.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

2.4 LOCAL REMUNERATION

This schedule contains the details of the actual; man month inputs for each of the team members and their remuneration in Local currency.

The electronic copy of this sheet requires the following information to be input in the cells indicated below:

<i>Cells B10 to B19</i>	The monthly rate in local currency for each of the team members.
<i>Cells C10 to C19</i>	The contract's man month input budget for each of the team members.
<i>Cells E10 to E19</i>	The man months claimed in the previous invoice for each team member
<i>Cells G10 to G19</i>	The man months claimed in this months invoice for each team member

The result of the input data as reflected in Cell H20 is automatically transferred to the summary sheet *INVOICE FOR CONSULTANCY SERVICES* Cell I10.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once. In this case, this is the man month rates and inputs of the team members.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

2.5 FOREIGN REIMBURSABLE COSTS

The activities and expenses which are likely to be reflected on this schedule are likely to differ from contract to contract. The line items included on this schedule have only been included to indicate the type of information which will be included on this schedule. It is not intended or anticipated that the items on this example will be used on other projects. The schedule should reflect the actual reimbursable line items contained in the actual contract.

Cells A11 to M36 Insert the details of reimbursable for the contract in question.

The result of the input data as reflected in Cell I37 is automatically transferred to the summary sheet *INVOICE FOR CONSULTANCY SERVICES* Cell H11.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

2.6 LOCAL REIMBURSABLE COSTS

The activities and expenses which are likely to be reflected on this schedule are likely to differ from contract to contract. The line items included on this schedule have only been included to indicate the type of information which will be included on this schedule. It is not intended or anticipated that the items on this example will be used on other projects. The schedule should reflect the actual reimbursable line items contained in the actual contract.

Cells A11 to M36 Insert the details of reimbursable for the contract in question.

The result of the input data as reflected in Cell I37 is automatically transferred to the summary sheet *INVOICE FOR CONSULTANCY SERVICES* Cell I11.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

2.7 *ADVANCE PAYMENT REPAYMENT SCHEDULE*

Every Consultancy contract is likely to have a different advance payment and repayment conditions. For this reason the sheet entitled *ADVANCE PAYMENT REPAYMENT SCHEDULE* has been left blank.

At the commencement of the project the PE and Consultant must agree on the method and presentation of the Advance Payment and Repayment calculations. The Consultant will then need to link the "bottom line" of this schedule to the summary sheet *INVOICE FOR CONSULTANCY SERVICES* Cells H15 and I15 for the Foreign and Local currency Payments and Repayments, respectively.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

2.8 *????? SCHEDULE*

It is likely that future Consultancy contracts will include some items for which no provision has been made in this invoice format. For this reason sheet eight entitled *????? SCHEDULE* has been included.

The intention is that at the commencement of the project the PE and Consultant will agree on the method and presentation of whatever "additional" items there are. The Consultant will then need to link the "bottom line" of this schedule to the summary sheet *INVOICE FOR CONSULTANCY SERVICES* Cells HH13 and I13 for the Foreign and Local currency Payments and Repayments, respectively.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked. Similarly that information which is inserted in the cells above is automatically transferred to the other sheets and is therefore only required to be inserted once.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

3 INVOICE BACKUP DOCUMENTATION

The data utilised in pages 5, 6 and possibly 8 of the invoice will be required to be substantiated by documentary evidence e.g. air tickets and boarding passes, receipts etc.

All such documentation is required to be presented in the same order as the amounts appear on pages 5, 6 and 8. In addition each item of documentation should be referenced to the items as they appear on pages 5, 6 and 8.

4. ERA PE'S RESPONSIBILITY

The consultant's contract agreement will contain details with regards the amount or percentage and the timing of payments to the consultant. In addition the agreement will also include the consultant's financial proposal which gives full details of the costs of the consultancy services. It is the PE's responsibility to check that:

- The timing and percentage payment for consultant's invoices is in accordance with the Contract Agreement.
- The quantity claimed plus the rates and currencies included in the invoice are in accordance with the contract agreement.
- All necessary backup documentation such as staff time sheets, payment receipts etc. are submitted with the invoice.
- Payments to the consultant for each item do not exceed the budget given in the financial proposal included in the Contract Agreement.
- The invoice is presented in the same name as that of the company which signed the contract.

The invoice summary sheet *INVOICE FOR CONSULTANCY SERVICES* provides the financial record and budget control necessary for the PE. It does not however, provide a record of all of the invoices submitted to ERA for the project. For this reason a final sheet entitled *INVOICE RECORD* has been included for the use of the PE.

This final sheet has not been linked to the *INVOICE FOR CONSULTANCY SERVICES* as this will be generated by the Consultant whilst the *INVOICE RECORD* sheet will be generated and maintained by the PE. The input for this sheet will be obtained from the Consultant's invoice summary page *INVOICE FOR CONSULTANCY SERVICES*.

4.1 PAYMENT CURRENCIES

Section 6.3.2 of the contract administration manual addresses the subject of contract currencies and the need to monitor invoices received and paid against the available project budgets from any number of funding agencies. The same requirement exists in the financial monitoring of Consultancy contracts, in which payments may be made in more than one currency and both the GoE and a funding agency might provide the funding.

It is therefore possible that each of the Consultant's invoices may be settled by as many as four payments and or transfers i.e.

- Foreign currency portion by Funding Agency
- Foreign currency portion by GoE
- Local currency portion by Funding Agency and
- Local currency portion by GoE

The schedule entitled *INVOICE RECORD* makes provision for the monitoring of all four of these elements of each payment.

4.2 INVOICE RECORD

This schedule contains the details of the invoices received, processing dates, payment dates and Advance Payment status in two currencies. The remainder of the information required to be monitored can be found on the invoice summary page *INVOICE FOR CONSULTANCY SERVICES*.

The electronic copy of this sheet requires the following information to be input in the cells indicated below:

<i>Cell O1</i>	The ERA project number
<i>Cell B2</i>	The project short name e.g. Rehabilitation of Road A to B
<i>Cell B4</i>	The Consultant's Name
<i>Cell H4</i>	The foreign currency budget/contract amount
<i>Cell H5</i>	The local currency budget/contract amount
<i>Cell L4</i>	The foreign funding agency (select from a drop down menu)
<i>Cell M4</i>	The local funding agency (select from a drop down menu)
<i>Cell B7</i>	The foreign currency of payment (select from a drop down menu)
<i>Cell C7</i>	The local currency of payment (select from a drop down menu)
<i>Cells B8 to O55</i>	The Invoice amounts and processing dates.

All cells on this sheet which "receive" their data from the other sheets in the invoice i.e. which do not require any physical inputting of data have been locked.

Each of the cells which require input also has a comment attached to it explaining the nature of the information required in that cell.

The final sheet of the Appendix is an example of the type of data and information required to be input and which is generated.

APPENDIX

CONSULTANT'S INVOICE FORMAT & PE MONITORING SCHEDULE

A	B	C	D	E	F	G	H	I	J	K	L	M
1	INVOICE FOR CONSULTANCY SERVICES FOR THE MONTH OF May-07											
2												
3												Invoice No. ??
4	PROJECT:	[Enter Project Name]										Date: 14-May-2007
5	CLIENT:	Ethiopian Roads Authority										ERA Project No. ??
6	CONSULTANT:	[Enter Consultant's Name]										
7												
8	No.	ITEM	Original Contract Sum	Previously Paid	NOW REQUESTING	Total Paid to Date	Balance Remaining					
9			??	??	??	??	??	??	??	??	??	??
10	1.00	Remuneration	1,440,000.00	308,400.00	11,600.00	320,000.00	1,120,000.00	29,940.00	1,120,000.00	123,060.00		
11	2.00	Reimbursables	179,000.00	43,209.12	2,900.00	46,109.12	132,890.88	3,241,661.41	132,890.88	2,205,511.59		
12	3.00	Total	1,619,000.00	351,609.12	14,500.00	366,109.12	1,252,890.88	3,271,601.41	1,252,890.88	2,328,571.59		
13	4.00	Non-contract Reimbursables Vehicle VAT & Registration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
14	5.00	Total incl VAT etc.	1,619,000.00	351,609.12	14,500.00	366,109.12	1,252,890.88	3,271,601.41	1,252,890.88	2,328,571.59		
15	6.00	Advance Payment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
16	7.00	Total Now Requested			14,500.00							
17												
18	Payment checked by:-											
19		Project Engineer										Consultant - Team Leader
20												
21	FOREIGN PAYMENT											
22		Payment of ?? 14,500.00 to be made by Bank transfer to										
23		Bank:										
24		Branch:										
25		Swift No.										
26		Account No.										
27		Account Name:										
28												
29	LOCAL PAYMENT											
30		Payment of ?? 88,725.56 to be made by Bank transfer to										
31		Bank:										
32		Branch:										
33		Swift No.										
34		Account No.										
35		Account Name:										
36	Approved and Recommended by:-											
37		ERA Construction Contract Implementation Branch Head										

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1	STAFF DAILY WORKSHEET FOR THE MONTH OF: May-07																																	
2	Invoice No. ??																																	
3	Date: 14-May-2007																																	
4	PROJECT: [Enter Project Name] ERA Project No. ??																																	
5	CLIENT: Ethiopian Roads Authority																																	
6	CONSULTANT: [Enter Consultant's Name]																																	
7																																		
8	NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
9	Position																																	
10	[Name 1]																																	
11	[Name 2]																																	
12	[Name 3]																																	
13	[Name 4]																																	
14	[Name 5]																																	
15	[Name 6]																																	
16	[Name 7]																																	
17	[Name 8]																																	
18	[Name 9]																																	
19	[Name 10]																																	
20	NOTE: Insert one of the following in each cell for each staff member for each day of the month.																																	
21																																		
22																																		
23																																		
24																																		
25																																		

	A	B	C	D	E	F	G	H	I	J	K	L		
1	FOREIGN REMUNERATION BREAKDOWN FOR THE MONTH OF: May-07													
2														
3														
4	PROJECT:	[Enter Project Name]										Invoice No. ??		
5	CLIENT:	Ethiopian Roads Authority										Date: 14-December-2006		
6	CONSULTANT:	[Enter Consultant's Name]										ERA Project No. ??		
7														
8	Staff Position	Rate	Time Input	??	Previously paid	Time Input	??	NOW REQUESTING	Time Input	??	Total to Date	Time Input	??	Balance
9														
10	[Position 1]	20,000.00	36.00	720,000.00	226,000.00	11.30	226,000.00	0.58	11.88	237,600.00	24.12	482,400.00		
11	[Position 2]	20,000.00	36.00	720,000.00	82,400.00	4.12	82,400.00	0.00	4.12	82,400.00	31.88	637,600.00		
12	[Position 3]	20,000.00	36.00						0.00	0.00	36.00	0.00		
13	[Position 4]	20,000.00	36.00						0.00	0.00	36.00	0.00		
14	[Position 5]	20,000.00	36.00						0.00	0.00	36.00	0.00		
15	[Position 6]	20,000.00	36.00						0.00	0.00	36.00	0.00		
16	[Position 7]	20,000.00	36.00						0.00	0.00	36.00	0.00		
17	[Position 8]	20,000.00	36.00						0.00	0.00	36.00	0.00		
18	[Position 9]	20,000.00	36.00						0.00	0.00	36.00	0.00		
19	[Position 10]	20,000.00	36.00						0.00	0.00	36.00	0.00		
20	Totals		360.00	1,440,000.00	308,400.00	15.42	308,400.00	0.58	16.00	320,000.00	344.00	1,120,000.00		

FOREIGN REIMBURSABLE COST BREAKDOWN FOR THE MONTH OF: May-07												
A	B	C	D	E	F	G	H	I	J	K	L	M
1	Invoice No. ??											
2	Date: 14-May-2007											
3	ERA Project No. ??											
4	PROJECT:	[Enter Project Name]										
5	CLIENT:	Ethiopian Roads Authority										
6	CONSULTANT:	[Enter Consultant's Name]										
7												
8	Description		Contract		Previously Paid		NOW REQUESTING		Total to Date		Balance	
9	Unit	Quantity	Unit Price	Total	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
10			??	??		??		??		??		??
11	ACTIVITY											
12	International flights											
13	Trips	6	3,200.00	19,200.00	1	2,069.24	0	0.00	1	2,069.24	5	17,130.76
14	Trips	2	3,200.00	6,400.00	1	3,200.00	0	0.00	1	3,200.00	1	3,200.00
15	Trips	2	3,200.00	6,400.00	1	2,547.56	0	0.00	1	2,547.56	1	3,852.44
16	Trips	2	3,200.00	6,400.00	0	0.00	0	0.00	0	0.00	2	6,400.00
17	Trips	2	3,200.00	6,400.00	0	0.00	0	0.00	0	0.00	2	6,400.00
18	Trips	2	3,200.00	6,400.00	1	3,200.00	0	0.00	1	3,200.00	1	3,200.00
19	Trips	2	3,200.00	6,400.00	1	3,026.12	0	0.00	1	3,026.12	1	3,373.88
20	Trips	2	2,000.00	4,000.00	1	1,825.32	0	0.00	1	1,825.32	1	2,174.68
21	Trips	4	3,200.00	12,800.00	2	3,818.39	0	0.00	2	3,818.39	2	8,991.61
22	Trips	2	3,200.00	6,400.00	1	832.49	0	0.00	1	832.49	1	5,567.51
23		26		6,400.00	9		0		9		17	
24	Miscellaneous Travel Expenses											
25	Trips	26	100.00	2,600.00	9	900.00	0	0.00	9	900.00	17	1,700.00
26	Subsistence allowance											
27	Days	1,200	45.00	54,000.00	434	19,530.00	60	2,700.00	494	22,230.00	706	31,770.00
28	Short term Training											
29	Person-days	28	800.00	22,400.00	0	0.00	0	0.00	0	0.00	28	22,400.00
30	Long term Training Program											
31	Lump sum			12,000.00		0.00		0.00		0.00		12,000.00
32												
33	MISCELLANEOUS EXPENSES											
34	Lump sum	36	200.00	7,200.00	11	2,260.00	1	200.00	12	2,460.00	23	4,740.00
35	Communication costs between											
36	Lump sum											
37	Totals											
				179,000.00		43,209.12		2,900.00		46,109.12		132,890.88

A	B	C	D	E	F	G	H	I	J	K	L	M		
													LOCAL REIMBURSABLE COST BREAKDOWN FOR THE MONTH OF: May-07	
1	Invoice No. ??											??		
2	Date: 14-May-2007											??		
3	ERA Project No. ??											??		
4	PROJECT: [Enter Project Name]											??		
5	CLIENT: Ethiopian Roads Authority											??		
6	CONSULTANT: [Enter Consultant's Name]											??		
7												??		
8	9	10	Contract			Previously Paid		NOW REQUESTING		Total to Date		Balance		
			Unit	Quantity	Unit Price	Total	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
11	ACTIVITY													
12	Subsistence allowance	Days	1,200	432,000.00	360.00	432,000.00	392.00	141,120.00	60.00	21,600.00	452.00	162,720.00	748.00	269,280.00
13	Expatriate short-term personnel Hotel	Months	102	816,000.00	8,000.00	816,000.00	21.30	170,400.00	2.00	16,000.00	23.30	186,400.00	78.70	629,600.00
14	Housing for long-term staff	No	3	2,324,348.00	774,783.00	2,324,348.00	3.00	2,321,739.13	0.00	0.00	3.00	2,321,739.13	0.00	2,608.87
15	Equipments, Vehicles Computers Etc.	No	3	26,100.00	8,700.00	26,100.00	3.00	26,100.00	0.00	0.00	3.00	26,100.00	0.00	0.00
16	Vehicle as specifications *	No	1	61,000.00	61,000.00	61,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61,000.00
17	Desk PC as specified	No	3	2,200.00	2,200.00	2,200.00	3.00	6,600.00	0.00	0.00	3.00	6,600.00	0.00	0.00
18	Printer as specified	No	3	2,000.00	2,000.00	2,000.00	3.00	6,600.00	0.00	0.00	3.00	6,600.00	0.00	0.00
19	UPS700 VA	Lump Sum		200,000.00	200,000.00	200,000.00		66,666.72		5,555.56		72,222.28		127,777.72
20	Office equipment and furniture rentals	Months	36	144,000.00	4,000.00	144,000.00	11.30	45,200.00	1.00	4,000.00	12.30	49,200.00	23.70	94,800.00
21	Stationary and consumables	Months	36	288,000.00	8,000.00	288,000.00	11.30	90,400.00	1.00	8,000.00	12.30	98,400.00	23.70	189,600.00
22	Office accommodation	Person-days	4,065	142,275.00	35.00	142,275.00	528.00	18,480.00	182.00	6,370.00	710.00	24,850.00	3,355.00	117,425.00
23	Short-term Training	Person-days	4,065	121,950.00	30.00	121,950.00	528.00	15,840.00	218.00	6,540.00	746.00	22,380.00	3,319.00	99,570.00
24	Venue cost and lunch													
25	Training material													
26														
27														
28	MISCELLANEOUS EXPENSES													
29	Communication costs between	Lump Sum	36	72,000.00	2,000.00	72,000.00	11.30	22,600.00	0.00	0.00	11.30	22,600.00	24.70	49,400.00
30	Ethiopia - ??	No	10	1,000.00	100.00	1,000.00	10.00	1,000.00	0.00	0.00	10.00	1,000.00	0.00	0.00
31	Printing reproduction of reports	No	9	1,500.00	150.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,350.00
32	Inspection Report (Draft)	No	119	5,950.00	50.00	5,950.00	30.00	1,500.00	0.00	0.00	30.00	1,500.00	89.00	4,450.00
33	Human Res Development (Draft)	No	30	4,500.00	150.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,000.00
34	Human Res Development (Final)	No	30	4,500.00	150.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,500.00
35	Project Planning (Draft)	No	10	1,500.00	150.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,000.00
36	Project Planning (Final)	No	10	1,500.00	150.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,500.00
37	Design Review Manual (Draft)	No	10	2,000.00	200.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00
38	Design Review Manual (Final)	No	35	10,500.00	300.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,500.00
39														
40														
41														
42														
43	Local Transportation Cost, office rental													
44	Car Insurance	Vehicle-years	9	80,100.00	8,900.00	80,100.00	3.00	26,700.00	0.00	0.00	3.00	26,700.00	6.00	53,400.00
45	Vehicle running cost	Months	108	216,000.00	2,000.00	216,000.00	29.30	58,600.00	3.00	6,000.00	32.30	64,600.00	75.70	151,400.00
46	Clerical Assistance	Months	108	162,000.00	1,500.00	162,000.00	26.30	39,450.00	3.00	4,500.00	29.30	43,950.00	78.70	118,050.00
47	Driver	Months	36	3,500.00	3,500.00	3,500.00	11.30	39,550.00	1.00	3,500.00	12.30	43,050.00	23.70	82,950.00
48	Secretary	Months	36	4,500.00	4,500.00	4,500.00	11.30	50,850.00	1.00	4,500.00	12.30	55,350.00	23.70	106,650.00
49	Accountant	Lump Sum	36	36,000.00	1,000.00	36,000.00	11.30	11,300.00	1.00	1,000.00	12.30	12,300.00	23.70	23,700.00
50	Software													
51	Total			5,447,173.00	??	5,447,173.00	??	3,154,095.85	??	87,565.56	??	3,241,661.41	??	2,205,511.59

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ADVANCE PAYMENT REPAYMENT SCHEDULE FOR THE MONTH OF												
2	May-07												
3	Invoice No. ??												
4	Date: 14-May-2007												
5	ERA Project No. ??												
6	PROJECT:	[Enter Project Name]											
7	CLIENT:	Ethiopian Roads Authority											
8	CONSULTANT:	[Enter Consultant's Name]											
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	A	B	C	D	E	F	G	H	I	J	K	L	M
1	????? SCHEDULE FOR THE MONTH OF												
2	May-07												
3	Invoice No. ??												
4	Date: 14-May-2007												
5	PROJECT: [Enter Project Name] ERA Project No. ??												
6	CLIENT: Ethiopian Roads Authority												
7	CONSULTANT: [Enter Consultant's Name]												
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	CONSULTANT'S INVOICE RECORD														
2	PROJECT:	[Enter Project Name]													
3	CLIENT:	Ethiopian Roads Authority													
4	CONSULTANT:	[Enter Consultant's Name]													
5															
6	Inv No.	Amount	Date Received	Amount Approved	Date Approved	Remaining Budget	Date Paid	Funding	Date Paid	Advance Payment/Repayment					
7	1	??	??	??	??	??	??	??	??	??	??	??	??	??	??
8	2														
9	3														
10	4														
11	5														
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49	43														
50	44														
51	45														
52	46														
53	47														
54	48														
55	49														
56	50														
	Total	0.00	0.00	0.00	0.00									0.00	0.00

CONSULTANT'S INVOICE RECORD												ERA Project No.		hb123							
PROJECT: [Enter Project Name]												USD		ETB		Funding		IDA		GOE	
CLIENT: Ethiopian Roads Authority												3,000,000.00		6,000,000.00							
CONSULTANT: [Enter Consultant's Name]												Budget		Remaining Budget		IDA Date Paid		GOE Date Paid		Advance Payment/Repayment	
Inv No.	Amount		Date Received		Amount Approved		Date Approved		Remaining Budget		IDA Date Paid		GOE Date Paid		Advance Payment/Repayment						
	USD	ETB	USD	ETB	USD	ETB	USD	ETB	USD	ETB	USD	ETB	USD	ETB	USD	ETB					
1	300,000.00	600,000.00	25-Oct-06	600,000.00	30-Oct-06	600,000.00	30-Oct-06	2,700,000.00	5,400,000.00	15-Nov-06	25-Nov-06	20-Nov-06	300,000.00	600,000.00							
2	60,000.00	90,000.00	30-Nov-06	90,000.00	3-Dec-06	90,000.00	3-Dec-06	2,640,000.00	5,310,000.00	18-Dec-06	24-Dec-06	24-Dec-06	50,000.00	90,000.00							
3	60,000.00	90,000.00	30-Dec-06	90,000.00	6-Jan-07	90,000.00	6-Jan-07	2,580,000.00	5,220,000.00	16-Jan-07	18-Jan-07	20-Jan-07	50,000.00	90,000.00							
4	72,000.00	65,000.00	26-Jan-07	65,000.00				2,508,000.00	5,155,000.00												
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Total	498,000.00	815,000.00				498,000.00	815,000.00								287,400.00	585,000.00					

Appendix 6-10 - Guideline CA5 Liquidated Damages

GUIDELINE N° CA5



Ethiopian Roads Authority

Guideline N° CA5 Liquidated Damages

Contract Administration Manual

October 1998

Rev November 2006

**FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
ETHIOPIAN ROADS AUTHORITY
CONTRACT ADMINISTRATION DIVISION**

Liquidated Damages and Penalties

OCTOBER 1998

Rev Nov 2006

Legal Services Division - Contracts and Claims Branch

Construction and Contract Guidelines

Liquidated Damages and Penalties

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Part 3. Enforceability of Penalties in various Countries	6-143
Part 4. Recommendations	6-151

Liquidated Damages and Penalties

Part 1. Introduction

Every breach of contract carries with it the potential for dispute. There may be those who thrive on disputes but they rarely include the parties to the contract. Not surprisingly, it has long been accepted as good commercial practice for the parties to include in their contracts provisions for dealing with the most likely breaches. This is how standard forms of contract and the use of liquidated damages began to develop.

In the construction industry breaches of contract are commonplace to the point of being routine. Did any employer ever wholly avoid impeding the contractor in the performance of his obligations and did any contractor ever wholly fulfil his obligations without fault? Not often. This is reflected in the standard forms of contract and most contain clauses detailing the procedures to be applied and the recovery permitted in the event of those specified breaches identified and described with the benefit of centuries of experience.

In most standard forms of contract, the employer's position is significantly different from that of the contractor's. Whereas the contractor has a financial remedy for numerous and various breaches, the employer has his for only one breach of common occurrence - failure by the contractor to complete on time. And whereas the financial effects of the employer's breach on the contractor can rarely be estimated in advance of the breach, not least because of factors including but not limited to the involvement of sub-contractors, the financial effects of the contractor's late completion can usually be estimated with some degree of certainty.

Consequently most standard forms of construction contract are drafted to permit the parties to fix in advance the damages payable for late completion. When these damages are a genuine pre-estimate of the loss likely to be suffered or a lesser sum they can rightly be termed liquidated damages.

In essence, liquidated damages are fixed in advance of the breach, whereas general or unliquidated damages are proven damages assessed after the breach.

Part 2. Difference between Liquidated Damages and Penalties

Questions of penalty and liquidated damages clauses ("pld clauses") have attracted an increasing amount of interest in recent years by both international institutions concerned with the improvement of international law such as the ICC and UNCITRAL and by practitioners in the field. The subject is at the same time an important and a difficult one, but the borderline between them is not distinct.

In very general terms, it can be said that a pld clause provides, in the event of non-performance of an obligation, for a payment of a sum of money determined in advance (or determinable by reference to factors known or calculated in advance) such as percentage of the contract price, multiplied by the number of days constituting the delay. It is usual that a maximum figure is stipulated, normally stated as a percentage of the contract price.

The difference between liquidated damages and a penalty may be said to be that the former purports to define the damage suffered by a party i.e. a genuine pre-estimate of the loss likely to be suffered, whereas a penalty goes further than that by including an element of *in terrorem* (to intimidate), intended to stimulate performance. Sometimes a clause will serve both purposes. In short, liquidated damages are fixed in advance of the breach, whereas general or unliquidated damages are proven damages assessed after the breach.

Various legal systems deal with pld clauses quite differently. Firstly, certain aspects of the legal regime of such clauses are mandatory in many countries. In English law, so called penalty clauses are not enforceable, but clauses for liquidated damages are. In continental legal systems (as in the Federal Republic of Germany and in Switzerland) penalty clauses are valid, however if the amount is excessive it may sometimes be modified by a court. It should be noted here that in Ethiopia, penalty clauses are valid and it is highly unlikely that a court could or would modify the amount stated in the contract unless there was an extremely good reason for doing so. The term used in a contract to denote the sum payable may have an influence, albeit not decisive, on the extent to which the clause may be considered valid or effective.

As stated above, penalty clauses are invalid *per se* in some countries, notably under common law countries, whereas a clause which purports to assess and define a future loss in the form of liquidated damages is valid and enforceable. A distinction is then made that a penalty is a sum payable *in terrorem* in order to induce a party to perform his obligation, whereas liquidated damages are a pre-assessment of the loss which is likely to follow from a party's breach. In other legal systems this distinction is not relevant, but nevertheless penalty or liquidated damages clauses may be held invalid and non-enforceable.

The invalidity may not be absolute (as described above in the case of penalty clauses under English law) but only partial and conditional upon the particular circumstances of the case, (e, g, where the sum to be paid as defined in the clause is excessive compared to the actual loss or to other particular circumstances and consequently has to be reduced). The latter is the case in a number of countries in Europe, as well as in Scandinavia.

The means to ensure the validity of a pld clause will then become very important and its drafting a delicate task.

The way in which a clause is styled and named may have an influence upon its validity. It is obvious that when contracting under English or common law the very term "penalty" should be avoided. However, one can not be sure that by using the term "liquidated damages" in the clause it will be valid. Sometimes a penalty (as in the "General Conditions for the delivery of Machinery and Plant {ECE 188 A Para 20.3}), is termed "Price Reduction", and the term penalty avoided. It seems doubtful to the writer that such drafting would save the validity of the clause which by essence under common law is a penalty clause.

The main purpose of a clause may be to define damages in terms of money in order to avoid disputes over their amount. This may favourably influence the validity of the clause.

A pld clause which could be declared invalid or have its content modified under the law of one country, may have its validity preserved if parties make reference to another legal system. Even if a particular legal system is favourable to the validity of a pld clause, parties may hesitate about submitting their contract to that law, as they may not be able to foresee all the other consequences of submitting the entire contract to that system. As indicated earlier, the rules invalidating or modifying pld clauses may be considered in some countries to be matter of public policy (*ordre public*) and therefore applicable irrespective of the proper law of contract. It could help, however if the choice of law clause is combined with an appropriate arbitration clause.

Matters of interpretation are closely linked to questions of validity. Interpretation often implies a search for the true intention of the parties. If a rule is mandatory and a deviation from it implies invalidity, then searching the true intentions of the parties may be superfluous. In many legal systems the autonomy of the parties prevails in pld clauses.

Matters of interpretation are generally governed by the proper law of the contract. An explicit choice of law made by the parties in respect of the contract as a whole may, in general, lay the basis for further interpretation of the clause.

One may first ask whether naming a provision a penalty clause, a clause for liquidated damages, or a price reduction will influence its interpretation. Questions whether a clause is to be considered valid or not may, to some extent, be influenced by the wording chosen by the parties. It is advisable not to use the term penalty in a common law jurisdiction, although the mere fact that a clause has been styled a provision for liquidated damages may not save its validity if it is really meant as a penalty *in terrorem*. If a provision (to avoid being considered a penalty) is styled price reduction, the obligor could possibly have to pay damages over and above the price reduction. However, if the provision is made out strictly as a penalty or liquidated damages clause, this would have resulted in a limitation of his liability to pay damages. The choice of terminology may, therefore, sometimes influence the interpretation in an unexpected or surprising way.

Generally, a pld clause can be understood to be limitative, i.e. it excludes claims for damages over and above the sum defined in the clause. Insofar as the clause refers to

“defective delivery” or “failure to abstain” (e.g. from competition) the presumption that it is limitative may be less strong than where the clause is considered to be “price reduction”. Furthermore, a usual presumption is that the clause is considered to be exclusive, so as to be paid irrespective of the loss (if any) suffered. Exceptionally, there may be a presumption or understanding that the clause is additive, i.e. in addition to damages calculated in some other way, which may make the clause a real “penalty” clause operating *in terrorem*.

However, the agreed sum may be intended to cover only a certain type of damage, leaving other damages to be claimed separately. The sum to be paid is sometimes styled penalty (or similar), sometimes pre-estimated (or liquidated) damages, and sometimes price reduction. The sum to be paid is often related to the length of delay, sometimes a maximum is defined, after which the Obligee may exercise other remedies such as determination (termination) of the contract.

A typical example of this under a standard international form of contract such as FIDIC or World Bank, would be e.g. ‘the sum to be paid in the event of delayed performance will be 0.05% per calendar day to a maximum of 10% of the contract price’. It is also fairly common to have sectional completion dates which attract specific percentages or sums for delayed performance for individually pre-valued sections of the contract, together with an overall sum for delayed completion to the whole of the contract.

The 0.50% quoted above, however, should be a pre-estimate. In which case if a figure has been determined it is preferable to use it as it suggests more clearly that it is a pre-estimated amount. Why use 10% as a maximum?

The clause should preferably be as elaborate and explicit as possible on the above issues. However, very often the wording is not and then one may have to rely on presumptions or other rules of interpretation. Such presumptions vary, not only from one type of transaction to another (e.g. in case of non-delivery, late delivery, defective delivery of goods or services; or failure to abstain from some type of action such as competition) but also from one legal system to another in the way that in one and the same respect the presumption for its interpretation is different in two legal systems.

A clause may, sometimes, be considered only a first estimate for the convenience of the Obligee, which, if he can prove that his damage is higher, may claim the higher amount (i.e. the clause is not limitative - see above). Sometimes a clause may enable the obligor to prove that the Obligee’s damage is less than would arise from the clause and have the sum owed by the obligor reduced accordingly.

Finally the relation between the sum payable under the clause and the performance of the contract may have to be considered. A sum payable under a clause may sometimes be understood as an alternative for the obligor to perform the contract e.g. in cases where the obligor has to abstain from doing something. If this is not meant, it is advisable to make the clause explicit in this respect. Sometimes a sum payable under a pld clause may be the only way in which a contract can be enforced, as in some legal systems specific performance may not be available.

Usually, however, a pld clause as applied to a situation of non-performance will not exclude the Obligee from claiming performance of the contract from the obligor.

The events upon which penalties and liquidated damages are payable should be defined in the contract rather than referring generally to a breach of contract. The choice of that event depends quite naturally upon the nature of the contract and the weight the Obligee attaches to various parts of the obligor's performance. It could be a case of non-performance or late performance, such as non-delivery or late delivery of goods and/or services. It may be partial non-performance as in the case of failure to deliver certain quantities of sold goods, delivery of defective goods or only partial completion of a construction contract. Often penalties or liquidated damages are made payable upon the obligor's failure to refrain from doing something e.g. competition or delivering goods from contractually prohibited areas.

A distinction may sometimes be called for between an event rendering a penalty or liquidated damages payable and the basis for liability. The latter refers to legal concepts such as fault, strict liability or force majeure, whereas the event refers only to a fact, e.g. a specific action or failure to act.

Some legal systems recognise as a general principle that a penalty is due only if the debtor is liable for non-performance of the principal obligation. This implies that whenever the debtor's liability for non-performance or damages can be excluded (e.g. because of non-fault, force majeure, or creditor's failure to perform) no penalty shall be due.

Certain laws expressly state that a penalty is not due if the debtor proves that the performance has become impossible owing to circumstances for which he is not responsible; other laws follow a stricter approach. At the same time, it seems that courts in certain countries use stricter rules for appreciating whether the debtor is liable for non-performance in the framework of penalty clauses. Moreover, if the law does not recognise (or recognises only to a limited extent) the debtor's right to disclaim responsibility for damages; this will apply to the penalty clause.

Whenever the law requires that the creditor give notice to the other party before claiming damages, the same may be supposed to apply to a penalty clause. Under Belgian and French law, the application of the penalty clause requires formal notice. It is understood by the writer that under Ethiopian law notice is not required if a fixed contract period has been agreed and has expired or the parties have agreed to waive the notice requirement.

The principle that the penalty is due only if the debtor is liable for non-performance of the main obligation is not normally considered mandatory; the parties may, therefore, agree that the penalty is due whatever the reason for non-performance and are advised to be explicit on that point. In those situations, the main problem will be to ascertain if such an agreement is implied in the contract if it is not sufficiently explicit. Whenever the law admits this possibility, the courts will have wide discretionary powers to introduce strict liability through the interpretation of the contract.

Since one of the purposes of the penalty clause is to avoid disputes over the amount of damages, some legal systems set the principle that the penalty is due whether or not there is any actual loss or damage. However some countries follow a different approach and provide that the penalty is not due if the debtor proved that the creditor has not suffered any loss.

The extent of the liability under a pld clause will vary substantially from case to case because:

- (a) the extent of the liability for non-performance may be different from one legal system to another;
- (b) the courts may interpret a certain clause as implying a warranty to pay (even in the case of no liability); and
- (c) the extent of liability may have been changed contractually (e.g. by a force majeure clause).

In other words, the contractual and legal environment in which the clause is situated will influence its construction and application.

When drafting a pld clause, it can be particularly advisable to provide expressly:

- (a) Whether or not a notification of breach is necessary;
- (b) Whether and to what extent the fault of the employer in performing obligations which are conditional to the contractor's performance is a justification for the non-payment of the penalty;
- (c) Whether the pld clause is meant to be limitative, exclusive or additive;
- (d) whether the amount payable under a pld clause is an alternative for the obligor to perform the contract or is meant to allow the obligee to also claim performance of the contract by the obligor; and
- (e) Whether or not the obligor shall be liable for the liquidated damages irrespective of his liability for failure (e.g. a case of force majeure or absence of fault).

Part 3. Enforceability of Penalties in various Countries

According to Professor René David, the drafter of the 1960 Civil Code of the Empire of Ethiopia, the provisions of the said code were adopted from the laws of France, Switzerland, Greece, Italy and Egypt.

A review of the national legislation of United Kingdom, France, Switzerland and Italy and Ethiopia in relation to penalties follows.

United Kingdom

As stated earlier in these Guidelines, common law systems distinguish between penalty clauses, which are not allowed and liquidated damages which are permitted. To re-iterate a point made previously, the difference between the two is that the essence of a penalty is a payment of money stipulated in *terrorem*, whereas the essence of liquidated damages is a genuine pre-estimate of damages. The distinction between the two, when used in their legal sense, and the tests to be applied, are regarded as authoritatively stated in the following passage from the judgment of Lord Dunedin in *Dunlop Pneumatic Tyre Co. Ltd v. New Garage and Motor Co. Ltd* (1915) A. C. 79, at p. 86.

“1. Though the parties to a contract who use the words ‘penalty’ or ‘liquidated damages’ may prima facie be supposed to mean what they say, yet the expression used is not conclusive. The court must find out whether the payment stipulated is in truth a penalty or liquidated damages.

*2. The essence of a penalty is a payment of money stipulated in *terrorem* of the offending party; the essence of liquidated damages is a genuine covenanted pre-estimate of damage.*

3. The question whether a sum stipulated is a penalty or liquidated damages is a question of construction to be decided upon the terms and inherent circumstances of each particular contract, judged of as at the time of making the contract, not as at the time of the breach.

4. To assist this task of construction, various tests have been suggested, which if applicable to the case under consideration may prove helpful, or even conclusive. Such are:

- (a) *It will be held to be a penalty if the sum stipulated is extravagant and unconscionable in amount in comparison with the greatest loss that could conceivably be proved to have followed from the breach.*

- (b) *It will be held to be a penalty if the breach consists only in not paying a sum of money, and the sum stipulated is a sum greater than the sum which ought to have been paid. This, though one of the most ancient instances, is truly a corollary to the last test.*
- (c) *There is a presumption (but no more) that it is a penalty when 'a single sum is made payable by way of compensation, on the occurrence of one or more or all of several events, some of which may occasion serious and others but trifling damages'.*
- (d) *It is no obstacle to the sum stipulated being a genuine pre-estimate of damage that the consequences of the breach are such as to make precise pre-estimation almost an impossibility. On the contrary, that is just the situation when it is probable the pre-estimated damage was the true bargain between the parties."*

The terminology used by the parties to describe the clause in question is of some importance, but it is not decisive. It is the party who is sued for the specified sum who has to prove it is a penalty, whereas if the sum is actually made payable as a penalty it is the party who claims that it was intended to be liquidated damages who must prove that it is not a penalty.

Where the courts find the sum to be a penalty, they will disregard the clause incorporating it and will instead assess the aggrieved party's actual loss. Where, instead, the courts consider the sum to be a fair pre-estimate bearing a reasonable relation to the likely loss, the clause is effective and the aggrieved party may recover the amount stipulated, regardless whether or not this corresponds precisely to his actual loss

France

A penalty clause is a contractual obligation which is accessory to a principal obligation: if the principal obligation is void the penalty clause is also void, but nullity of the penalty clause does not affect the validity of the principal obligation (cf. Article 1227 of the Civil Code). It may be stipulated either at the same time as the principal obligation or subsequently thereto. It is not subject to any rules as to form, but must itself specify the nature and extent of the obligation it guarantees. It is intended to constitute compensation for damage caused to the promisee by failure to perform the principal obligation (Article 1229(1)).

For the penalty to be enforceable, in principle the promisee must have given the promisor notice to perform (*mise en demeure* - Article 1230), although in certain cases notice to perform can be waived in advance, even by implication as, for example, where it is stipulated that the penalty shall become due by the mere expiration of the time fixed. The failure to perform must be imputable to the promisor under ordinary rules governing contractual liability. The promisor may be excused from paying the penalty if he proves that the failure to perform was purely accidental or attributable to force majeure. Parties may, nevertheless, provide that the penalty clause shall apply in all cases of failure to perform, however caused, although if the promisor's failure to perform is due to the fault of the promisee in whose favour the penalty clause was stipulated, then the latter can never demand payment.

A penalty clause must be set aside when its effects would be to enable the promisor to circumvent existing prohibitions of clauses limiting liability, by limiting his liability to an amount less than that of the actual damage.

The promisee may enforce performance of the principle obligation instead of suing the promisor in default for the penalty (Article 1228); he may not call for concurrent performance of the principle obligation and of the penalty, unless the penalty was stipulated for delay only (Article 1229 (2)).

In principle, a penalty clause may not be modified, but in 1975 a second paragraph was added to Article 1152 to the effect that a judge may (also *ex officio*) reduce or increase the penalty agreed upon if it is manifestly excessive or ridiculously low - any stipulation to the contrary being deemed not to have been written. The manifestly excessive or ridiculously low character of the penalty is determined at the time of judgment. The judge is not obliged to regulate the sum he awards on the basis of the actual damage suffered, although he can not reduce it to a sum less than the damage suffered where it is manifestly excessive, nor can he increase it to more than the damage suffered where it is ridiculously low.

Where the obligation has been performed in part, the penalty agreed upon may be reduced by the judge (also *ex officio*) in proportion to the value of the part performance to the person receiving it, without prejudice to the application of Article 1152. Once again, any stipulation to the contrary is deemed not to have been written (Article 1231).

Switzerland

Although the Swiss Code of Obligations contains no definition of the penalty clause, Swiss legal doctrine indicates that it is considered to be an agreement by which the promisor undertakes to do some specific thing, usually to pay a sum of money, if he fails to carry out, performs in a manner other than that agreed upon, or out of time, an obligation arising out of a contract or a unilateral undertaking or one imposed by law (the principal obligation). It is essentially accessory in nature, and its validity and enforceability thus depend upon that of the principal obligation to which it is attached, regardless of whether the latter derives from a contract, a unilateral undertaking, or is one imposed by law.

The payment of a penalty may be stipulated for total non-performance, performance not in accordance with what was stipulated, or delay (cf. Article 160(1) and (2) of the Code of Obligations); it may be a global payment or a special penalty for each individual failure to act, such as for each day of delay. In every case the occurrence of the event contemplated in the agreement must be established; in the case of an obligation to do something or transfer property it is for the promisor to prove that he has properly performed the obligation if he is to avoid payment of the penalty. However, in the case of an obligation to abstain from doing something, the promisee must, if he wishes to obtain payment of the sum stipulated, prove that the promisor has failed to fulfil his undertaking.

Unless the parties provide otherwise, failure to perform will normally be imputable to the promisor in accordance with the general rules contained in Article 97 et seq. of the Code of Obligations (Article 163(2)). It is admitted that by agreement the penalty clause may be made to apply even when failure to perform is not imputable to the promisor, e.g. in the case of force majeure.

As to the relationship which may exist between payment of the penalty and performance of the principal obligation, Article 160 of the Code of Obligations expressly provides for three possibilities. The first of these, the alternative penalty clause, is the only one which, under the Code, shall apply in normal cases, i.e. where the parties have not made other arrangements (Article 160(1) and (2)). The relationship between payment of the penalty and performance of the obligation is as follows:

(a) in the case of a penalty clause stipulated for non-performance or defective performance (and subject to what will be said under (b)) below, the promisee may at his option call for either payment of the penalty or performance of the principal obligation;

(b) in the case of a penalty stipulated for failure to observe the time or place agreed on for performance, the promisee may enforce both payment of the penalty and due performance of the principal obligation, unless he has expressly waived the right to claim both or has accepted late performance or performance in a place other than that stipulated without objection.

Cumulatively penalty clauses must be expressly stipulated by the parties (Article 160 (1)). Their effect is to allow the promisee to obtain from the promisor both payment of the penalty and performance of the principal obligation in every case.

The exclusive penalty clause (Article 160 (3)) is a special case which allows the promisor, if he so chooses, to pay the amount of the penalty instead of performing the principal obligation. In each individual case it is for the promisor to prove that this is in fact the nature and scope of the clause in question.

As regards the relationship between payment of the penalty and compensation for the damage actually suffered by the promisee as a result of failure to perform or defective or late performance, there are two rules on this subject: firstly, payment of the penalty is due even if in the actual case the promisee has not suffered any damage (Article 61 (1)); and secondly, if the damage suffered by the promisee exceeds the amount of the penalty he can only obtain compensation for the excess if he proves negligence (or international fault) on the part of the promisor (Article 61 (2)).

In accordance with Article 163 (1), the parties are in principle free to agree on the amount of the penalty clause, subject to two limitations:

- (a) the clause must be valid in itself and in particular not contrary to morality; and
- (b) even if the penalty clause is not in itself contrary to morality, a discretion is conferred on the court by Article 163 (3) to reduce a penalty which it considers excessive. The courts here take into account the special circumstances of each case, including the seriousness of the promisor's fault, his financial position, the relationship between the amount of the penalty and the amount of the pecuniary damage which has been or might have been caused to the promisee, the latter's behaviour and other similar factors.

Italy

The penalty is an accessory clause to a contract (or principal obligation); if the contract is void the penalty clause the penalty is also void, whilst nullity of the penalty clause does not affect the validity of the contract (or principal obligation).

A penalty clause is defined as a clause whereby it is agreed that on failure to perform or late performance one of the parties shall be bound to do a specific thing. This shall have the effect of limiting the compensation to undertaking the thing promised unless the parties have agreed that supplementary damages might be claimed (Article 1382, paragraph 1). The penalty shall be due regardless of whether or not damage is proved (Article 1382, paragraph 2).

The failure must be imputable to the promisor, i.e. a result of his intentional fault or negligence: the promisor is not liable to pay the penalty in cases of force majeure or where the failure is imputable to the promisee.

A distinction is made between cases where the penalty is stipulated for failure to perform and those for delay (Articles 1382 and 1383). In the first case the promisee can not claim both performance of the principal obligation and the penalty; the promisee must choose whether he wishes to sue for the penalty or for specific performance of the principal obligation together with such damages as may be due for the loss caused by late performance. In case of a penalty stipulated for late performance the promisee can claim concurrently both the penalty and performance (Article 1383).

Courts are allowed, if the debtor so claims, to reduce the penalty on equitable grounds in two distinct cases: (i) where there has been part performance of the principal obligation; and (ii) where the amount of the penalty is manifestly excessive, regard being given in every case to the promisee's interest in the performance of the obligation (Article 1384). Courts consider this provision mandatory for reasons of public policy. In practice, the "manifestly excessive" nature of the penalty may be judged either on the basis of the facts and intentions of the parties at the time the penalty clause was stipulated or having regard to subsequent events.

Ethiopia

The following articles from the Civil Code are relevant to penalties.

Art. 1678. - Elements of contract.

No valid contract shall exist unless:

- (a) the parties are capable of contracting and give their consent sustainable at law;
- (b) the object of the contract is sufficiently defined and is possible and lawful;
- (c) the contract is made in the form prescribed by law, if any.

Art. 1679. - Consent necessary.

A contract shall depend on the consent of the parties who define the object of their undertakings and agree to be bound thereby.

Art. 1680. - Agreement of the parties.

- (1) A contract shall be completed where the parties have expressed their agreement thereto.
- (2) Reserves or restrictions intended by one party shall not affect his agreement as expressed where the other party was not informed of such reserves or restrictions.

Art. 1696. - Invalidation of contract.

A contract may be invalidated where a party gave his consent by mistake or under deceit or duress.

Art. 1697. - Mistake must be decisive.

The party who invokes his mistake shall establish that he would not have entered into the contract, had he known the truth.

Art. 1698. - Mistake must be fundamental.

A contract may be invalidated on the ground of mistake as defined in Art. 1697 where such mistake relates to an element of the contract which the parties deem to be fundamental or which is fundamental, having regard to good faith and to the circumstances in which the contract was made.

Art. 1699. - Mistake as to the nature or object of the contract.

A contract may be invalidated on the ground of mistake where:

- (a) the mistake relates to the nature of the contract; or
- (b) the mistaken party has undertaken to make a performance substantially greater or to receive a consideration substantially smaller than he intended.

Art. 1700. - Mistake as to the person.

A contract may be invalidated on the ground of mistake where such mistake relates to the identity or qualifications of the other party and such identity or qualifications are a fundamental element of the contract in the general opinion or having regard to the circumstances of the

Art. 1701. - Non-fundamental mistakes.

- (1) A contract may not be invalidated on the ground of mistake where such mistake only relates to the motives which led to the making of the contract.
- (2) Arithmetical mistakes in a contract shall not affect its validity and shall be corrected.

Art. 1702. - Good faith of mistaken party.

- (1) The mistaken party may not invoke his mistake in a manner contrary to good faith.
- (2) He shall be bound by the contract he intended to make where the other party agrees to perform such contract.

Art. 1703. - Reparation of damage.

Whosoever invokes his mistake to avoid the effect of a contract shall make good the damage arising out of the invalidation of the contract unless the other party knew or should have known of the mistake.

Art. 1704. - Fraud.

- (1) A contract may be invalidated on the ground of fraud where a party resorts to deceitful practices so that the other party would not have entered into the contract, had he not been deceived.
- (2) A contracting party who has been deceived by a third party shall be bound by the contract unless the other contracting party knew or should have known of the fraud on the making of the contract and too advantage thereof.

Art. 1705. - False statements.

- (1) A contract may be invalidated where a party in bad faith or by negligence made false statements and a relationship giving rise to a special confidence and commanding particular loyalty existed between the contracting parties.
- (2) The provisions of sub-art. (1) shall apply where a party, by his silence, caused the other party to believe a fact which was untrue.

Art. 1706. - Duress.

- (1) A contract may be invalidated on the ground of duress where the acts of duress led a party to believe that he, one of his ascendants or descendants, or his spouse, were threatened with a serious and imminent danger to the life, person, honour or property.
- (2) Duress must be such as to impress a reasonable person.
- (3) The nature of duress shall be determined having regard to the age, sex and position of the parties concerned.

Art. 1707. - Duress by third party.

- (1) A contract may be invalidated on the ground of duress notwithstanding that duress was exercised by a person other than the party who benefited by the contract.
- (2) The party who invokes duress to avoid the effect of a contract shall make good the damage arising out of the invalidation of the contract, where duress was exercised by a third party and the other contracting party did not and should not have known thereof.

Art. 1708. Threat to exercise a right.

A threat to exercise a right shall be no ground for invalidating a contract unless such threat was used with a view to obtaining an excessive advantage.

Art. 1709. - Reverential fear.

- (1) Fear of an ascendant or a superior shall be no ground for invalidating a contract where no duress was exercised.
- (2) The provisions of sub-art. (1) shall not apply where the contract was made with the person inspiring the fear and such person derived and excessive advantage from the contract.

Art. 1710. - Unconscionable contract.

- (1) A contract may not be invalidated on the sole ground that its terms are substantially more favourable to one party than to the other party.
- (2) Where justice requires, any such contract may be invalidated as unconscionable where the consent of the injured party was obtained by taking advantage of his want, simplicity of mind, senility or manifest business inexperience.

Art. 1771. - Effect of non-performance.

- (1) Where a party does not carry out his obligations under the contract, the other party may, according to the circumstances of the case, require the enforcement of the contract or the cancellation of the contract or in certain cases may himself cancel the contract.

- (2) He may in addition require that the damage caused to him by non-performance be made good.

Art. 1772. - Notice necessary.

A party may only invoke non-performance of the contract by the other party after having placed the other party in default by requiring him by notice to carry out his obligations under the contract.

Art. 1773. - Form and time of notice.

- (1) Notice shall be by written demand or by any other act denoting the creditor's intention to obtain performance of the contract.
(2) Notice may not be given unless the obligation is due.

Art. 1774. - Time for performance.

- (1) The creditor may in the notice fix a period of time after the expiry of which he will not accept performance of the contract.
(2) Such period shall be reasonable having regard to the nature and circumstances of the case.

Art. 1775. - Notice when unnecessary.

Notice need not be given where:

- (a) the obligation is to refrain from certain acts; or
(b) the debtor assumed to perform an obligation which the contract allows to be performed only within a fixed period of time and such period has expired; or
(c) the debtor has declared in writing that he would not perform his obligations; or
(d) it is agreed in the contract that notice shall not be required and the debtor shall be in default upon the expiry of the time fixed.

Art. 1776. - Specific performance.

Specific performance of a contract shall not be ordered unless it is of special interest to the party requiring it and the contract can be enforced without affecting the personal liberty of the debtor.

Art. 1808. - Who may require invalidation.

- (1) A contract which is affected by a defect in the consent or by the incapacity of one party may only be invalidated at the request of that party.
(2) A contract whose object is unlawful or immoral or a contract not made in the prescribed form may be invalidated at the request of any contracting party or interest third party.

Art. 1809. - Party may refuse performance.

A party who is entitled to require the invalidation of the contract may at any time refuse to perform it.

Art. 1810. - Action for invalidation.

- (1) No contract shall be invalidated unless an action to this effect is brought within two years from the ground for invalidation having disappeared.
(2) Where a contract is unconscionable and the party injured was of age, the action shall be brought within two years from the making of the contract.

Art. 1811. - Confirmation of contract.

- (1) The party whose consent was vitiated may waive his right to require the invalidation of the contract where the cause which vitiated his consent has disappeared.
(2) Where the contract was made in a special form, waiving as mentioned in sub-art. (1) shall be made in the same form.

Art. 1812. - Putting an end to action.

Where a party required the invalidation of an unconscionable contract, the other party may put an end to the action by offering to make good the injury.

Art. 1813. - Partial invalidation.

Where part only of the contract is vitiated, only that part shall be invalidated unless such invalidation affects the essence of the contract.

Art. 1814. - Duty to opt.

- (1) The party who is entitled to require the invalidation of the contract or to cancel the contract shall, where he is so asked by the other party, without delay answer whether he intends to confirm or to cancel the contract.
- (2) Notwithstanding any proof to the contrary, the contract shall be deemed to be cancelled where answer is not given in due time.

Art. 1815. - Effect of invalidation or cancellation.

- (1) Where a contract is invalidated or cancelled, the parties shall as far as possible be reinstated in the position which would have existed, had the contract not been made.
- (2) Acts done in performance of the contract shall be of no effect.

Art. 1816. - Rights of third parties.

Acts done in performance of the contract shall not be invalidated where the interest of third parties in good faith so requires.

Art. 1817. - Restoring previous position not possible.

- (1) Acts done in performance of the contract shall not be invalidated where such invalidation is not possible or would involve serious disadvantages or inconveniences.
- (2) The parties shall as far as possible be reinstated in the position which would have existed, had the contract not been made, by the payment of damages or any other remedy which the court thinks fit.

Art. 1818. - Expenses.

Where a party who is to restore a thing following invalidation or cancellation of the contract has altered such thing or incurred expenses in relation thereto, the provisions of the Chapter of this Code relating to "unlawful Enrichment" (Art. 2168-2178) shall apply in settling the rights or obligations arising out of such alterations or expenses.

Art. 1886. - Extension of liability.

The parties may extend their liability under the contract and provide that they will be liable for non-performance notwithstanding that performance is prevented by force majeure.

Art. 1887. - Limitation of liability.

The parties may limit their liability under the contract and provide that they will not be liable unless they commit a fault.

Art. 1888. - Acts of employees.

- (1) The parties may provide that they will not be liable where non-performance is caused by a fault of their employees or auxiliaries.
- (2) Any such provisions shall be of no effect where it is made to the prejudice of a party who is the employee of the other party.

Art. 1889. - Penalty.

The parties may fix the amount of damages which will be due, should a party fail to discharge his obligations or to discharge them completely and in due time.

Art. 1890. - Rights of creditor.

- (1) Unless otherwise agreed, the creditor may require the performance of a contract which includes a penalty.
- (2) He may not require both the enforcement of the contract and the penalty unless the penalty was provided in respect of delay or the non-performance of a collateral obligation.

Art. 1891. - Conditions of application.

The penalty shall be due whenever the creditor is entitled to claim damages by reason of non-performance of the contract.

Art. 1892. - Actual damage.

- (1) The penalty shall be due notwithstanding that no actual damage was caused to the creditor.
- (2) Damages may not be claimed above the amount of the penalty unless non-performance is due to the debtor's intention to cause damage or to his gross negligence or grave fault.

Art. 1893. - Variation of penalty.

- (1) A penalty shall be of no effect where the contract in which it is prescribed is invalidated.
- (2) A contract shall remain in force notwithstanding that the penalty is not valid.

Art. 1894. - Invalidation.

- (1) A penalty shall be of no effect where the contract in which it is prescribed is invalidated.
- (2) A contract shall remain in force notwithstanding that the penalty is not valid.

Art. 1895. - Contractual sanctions.

Where a contract provides that a party may apply certain sanctions, should the other party fail to carry out one of his duties, the court shall, notwithstanding any provision to the contrary, verify whether the agreed sanctions may be applied.

Part 4. Recommendations

As can be gathered from the preceding parts of these Guidelines, the whole subject of penalties and liquidated damages is of considerable complexity.

As regards this subject in Ethiopia, although on the majority of current major project the term 'liquidated damages' is used in the most frequently used contracts, it is really irrelevant as penalties are enforceable in Ethiopia. This means that for a contractor on a contract where the governing law is that of Ethiopia, he can not argue that the liquidated damages are a penalty and therefore not enforceable as he could under common law systems.

It is important that employers, engineers and contractors are careful about the way and at what level the liquidated damages are set for the following reasons.

For employers and/or engineers, it is important that every attempt is made to genuinely attempt to pre-estimate the likely loss that could be suffered by the employer in the event of delayed completion to a section or the whole of the works.

If the figure is set too low then the employer may well find that his losses are not adequately covered. On the other hand, if the figure is set too high, then the bidder/tenderer is likely to include in his bid/tender sum a financial factor to cover the potential risk. The employer in conjunction with the engineer should therefore attempt to pre-estimate the likely loss as accurately as possible

and on roads projects this figure would probably be limited to the additional supervision time by the engineer and his site team together with an amount to cover the employer's prolonged overheads on the project. Therefore it should be possible upon this basis, to fairly accurately calculate the likely loss and insert this figure as preferably a sum but otherwise as a percentage per day of delay up to a maximum of usually 10% of the original contract price.

From the bidder's/tenderer's point of view, bearing in mind that he can not at a later date argue that the liquidated damages amount to a penalty and are therefore unenforceable, he should query the amount before submitting his bid/tender if he considers that the sum stated is, in his opinion, excessively high or even ridiculously low (a highly unlikely scenario). Queries raised after the bid/tender has been submitted and accepted, would have no effect as offer and acceptance has already occurred.

Regarding the application of liquidated damages, on many contracts the writer has been involved in over the past 25 years, the employer has often been loathe to deduct liquidated damages when the contractual completion date has been passed, on the grounds that it would adversely affect the contractor's performance and ability to finally fulfil his principal obligation to complete. Whilst the writer appreciates the reality of this viewpoint, it is strongly recommended that the engineer notifies the employer immediately of his right to deduct liquidated damages and furthermore, the employer immediately should do so forthwith. In the event that further extension(s) of time is/are granted, then the liquidated damages would be credited in part or in full to the contractor by way of interim or the final certificate(s). Although there is no specific provision for the payment of interest within either FIDIC or the World Bank contracts for payment of interest on liquidated damages deducted and then subsequently returned, there have been cases under common law where interest has been allowed and under Ethiopian Civil law, the general consensus seems to be that interest would also be allowable here in Ethiopia.

One major point that follows on from this, is that of the contractor providing the engineer with sufficient and timeous information in order for him to evaluate any extension of time that may be due to the contractor so as to avoid not only the possibly unnecessary deduction of liquidated damages but also to avoid possible interest charges being payable by the employer. It is also essential that the engineer performs his duties properly in this regard and makes accurate and timeous recommendations to the employer for the reasons given above. Finally, where the specific approval of the employer is required before the engineer can grant any extension of time, the employer must not delay in giving such approval; again for the same reasons.

In construction contracts where the engineer has the right to grant extensions of time without the specific approval of the employer (a situation commonly found under UK contract forms such as ICE, JCT and NEC) then the assessment of extensions of time due to the contractor rests with engineer/architect. Assuming the engineer/architect has all the necessary information at hand, then extensions of time can be granted if applicable timeously thereby avoiding the situation whereby liquidated damages are deducted and subsequently repaid possibly with interest. The ICE form of contract (5th and 6th editions) and the NEC form are quite specific regarding the fact that interest is to be paid on liquidated damages which are repaid following re-assessment of extensions of time. The JCT form and more importantly the FIDIC, World Bank and EDF forms make no reference to interest payable on liquidated damages which are repaid following re-assessment of extensions of time. Under Ethiopian law, interest may be payable but would fall under an action in the courts by the contractor against the employer.

In many other countries the engineer's powers are severely limited by the fact that specific approval must be obtained from the employer before various actions can take place. The World Bank Documents include these restrictions/limitations in the Conditions of Particular Application as an **option**. These optional restrictions/limitations have been incorporated by ERA in numerous contracts which are either currently in progress or ready to go out to Bid/Tender. The writer recommends that these restrictions/limitations on the engineer's powers are not included as they; reduce the engineer's ability to exercise his impartiality under the contract, tend to create delays in decisions which result in the contractor being unable to properly plan the works (especially in relation to extensions of time) or suffer unnecessary financial burdens, and create additional

administrative work for the employer. On occasion, as has already happened on ERA contracts, such delays in the administrative process can lead to matters progressing to international arbitration. The writer's opinion on this subject is shared by many consultants, contractors, authoritative bodies and individuals. If the employer is employing and paying a professional engineer to supervise and administer the contract, why should the employer interfere with the administrative process?. If the employer does not trust the engineer to act for the contract in a fair and impartial manner, why employ and pay him in the first place?

If the contractual completion date has been reached and the engineer has recommended an extension(s) of time and the employer has not given his specific approval to the extension(s), then the engineer is placed in an almost impossible position. The contractor is also naturally placed in the invidious position whereby he knows that the engineer is recommending an extension (s) of time thereby allowing him to programme the works properly but, until the employer has given his approval to the engineer he does not know whether he will be granted all, part or none of the extension.

In the situation described herein, the Engineer has no option to recommend to the employer that liquidated damages be deducted from the current completion date.

Should the employer act upon the engineer's recommendation (a wise course, see later), then not only will the contractor suffer financial hardship, but should the extension (s) of time be subsequently approved and granted, the employer would have to pay back the liquidated damages possibly with interest. The contractor may also have a potential claim against the employer for disruption of his programmed sequence of works due to a reduction in planned cash flow or even for acceleration.

If the employer decides not to follow the engineer's recommendation to deduct liquidated damages time may become at large. The phrase 'time at large' is much loved by contractors. It has about it the ring of plenty; the suggestion that the contractor has as much time as he wants to complete the works. This is not what it means. Time becomes at large when the obligation to complete within the specified time for completion of a contract is lost. The obligation then becomes to complete within a reasonable time. The question of what is a reasonable time is subject to interpretation but generally not allowing the contractor to act in an unreasonable or negligent manner, but it is most certainly not 'as and when the contractor sees fit'.

The circumstances of time becoming at large are usually where an act of prevention by the employer creates delay and that delay is not covered by an extension of time provision; and to a lesser extent:

- (i) where the provisions for extension of time have not been properly administered or have been misapplied;
- (ii) where there has been a waiver of the original time requirements;
- (iii) where there has been interference or obstruction by the employer in the certifying process.

The employer's right to deduct liquidated damages for late completion is lost completely if time becomes at large - the employer can still sue for general or unliquidated damages for late completion - but regard will then be had to the contractor's entitlement to a reasonable extension of time.

One of the questions frequently asked, is if the employer does not deduct liquidated damages after the current contractual completion date, can he subsequently retroactively deduct liquidated damages? The answer to this question is highly complex and includes but is not limited to legal principles such as waiver and estoppel.

On a basic level, should the employer decide not to deduct liquidated damages, he may find that at a later stage when he changes his mind, there are insufficient monies available to do so i.e. the amount remaining between that paid to the contractor and the contract price is less than that representing the amount of damages the employer is seeking to recover. The employer's only

courses of action would then be to use the retention fund and/or performance security to ensure full recovery or to sue the contractor for recovery. In the former case, this would be open to the interpretation of the courts, and in the latter, a costly and time consuming task.

Regarding the doctrine of waiver, this occurs when one party expressly or implicitly, indicates to the other his intention to forgo certain rights under a contract and is effective in law when the other party changes their position in reliance on the waiver.

As regards the doctrine of estoppel. Estoppel is a rule of evidence which acts as a defence in preventing one party alleging facts necessary to a claim where he has previously by his conduct represented the contrary.

Applied to liquidated damages it would seem to amount to this. If an employer assured a contractor he did not intend to deduct liquidated damages for late completion and the contractor finished at his own pace instead of accelerating to avoid damages, the employer could be estopped from suing for liquidated damages and the contractor could rely on the doctrine of waiver to recover damages deducted against the assurance so given. To stress once again, notwithstanding other factors such as the possibility of the contractor being unable to complete the works due to the financial burden of having liquidated damages deducted, the employer should follow the engineer's recommendations.

One final point is that if the contractor has not submitted claims for an extension (s), even if they are submitted later and approved and liquidated damages have been deducted, will the contractor be entitled to interest on monies repaid? The short answer is that under most international forms of contract, contractors are not obligated to submit claims - although in most cases they do - but merely to provide to the engineer with sufficient details in order for him to be able make his determination. The writer suggests that if it was proven that the contractor had been dilatory or negligent in providing such details and/or particulars, thereby preventing the engineer from being in a position to make a fair determination, the contractor would find it extremely difficult to make a valid case for the payment of interest.

In summation, in a situation where the employer's specific approval is necessary in order for the engineer to grant an extension of time - a situation the writer totally disagrees with - the employer must ensure that any recommendation for extension of time made by the engineer is acted upon swiftly.

Appendix 6-11 - ERA Measurement and Payment Clauses

The following Measurement and Payment clauses have been extracted from the ERA Standard Specification (see Appendix 3-6) for the purposes of demonstrating the nature of the measurement system for works undertaken by Contractors.

Series 1000: General Division 1200: General Requirements and Provisions.

1212 MEASUREMENT: GENERAL

The cost of all supervision and process control, including testing so carried out by the Contractor, shall be deemed to be included in the rates rendered for the related items of work except that the cost of certain tests and the provision of certain items of testing and sampling equipment will be paid for separately as provided for in those Divisions of the Technical Specifications where this applies.

(a) Units of measurements

All work shall be measured in accordance with the S.I. System of metric units.

(b) Bill of Quantities

The quantities set out in the Bill of Quantities are estimated quantities and are used for the comparison of Tenders and awarding the Contract. It must be clearly understood that only the actual quantities of work done or materials supplied will be measured for payment, and that the quantities may be increased or decreased as provided in the General Conditions of Contract.

(c) Measurement of completed work

(i) All distances along the center line of the roads as shown on the Drawings are horizontal distances which will be used in calculating the quantities of earthworks, pavement layers and surfacing and paving for payment purposes. All cross sections shall be taken in a vertical plane.

(ii) All materials, which are specified to be measured in the vehicle, shall be hauled in vehicles of such type and size that the actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle shall bear a plainly legible identification mark indicating its specific approved capacity.

(iii) Where the quantity of bituminous and similar materials is to be paid by volume, it shall be measured at the specified temperature.

(iv) Structures shall be measured to the neat lines shown on the drawings including any changes ordered in writing by the Engineer and shall include any reinforcing steel and minor ducts up to 150 mm in diameter.

1213 PAYMENT

(a) Contract Rates

In computing the final contract amount, payments shall be based on actual quantities only of authorized work done in accordance with the Specifications and Drawings. The tendered rates shall apply, subject to the provisions of the General Conditions of Contract, irrespective of whether the actual quantities are more or less than the billed quantities.

Where no rate or price has been entered against a pay item in the bill of quantities by a tenderer, it shall be understood that he does not require any compensation for such work

(a) Rates to be inclusive

The Contractor shall accept the payment provided in the Contract and represented by the prices tendered by him in the Bill of Quantities, as payment in full for executing and completing the work as specified, for procuring and furnishing all materials, labour, supervision, plant, tools and equipment, for wastage, transport, loading and offloading, handling, maintenance, temporary work, testing, quality control including process control, overheads, profit, risk and other obligations and for all other incidentals necessary for the completion of the work and maintenance during the Period of Maintenance.

This Clause shall be applicable in full to all pay items except as these requirements may be specifically amended in each case.

Series 4000: Earthworks Division 4300: Borrow Materials**4307 MEASUREMENT AND PAYMENT****Item 43.01 Excess overburden cubic meter (m³)**

The unit of measurement shall be the cubic meter of excess overburden measured in place before stripping and such measurement shall be based on the depth of overburden measured in trial pits excavated by the Contractor in a square pattern at intervals of 10 m over the whole area concerned.

Where the borrow material consists of rock or sand which is used in the construction of stone pitching, concrete work, crushed stone for sub-base and base, permeable subsurface drain materials and in bituminous paving and surfacing, no excess overburden shall be measured or paid for.

The tendered rate shall include full compensation for the digging of trial pits; stripping clearing and grubbing, and removing the excess overburden prior to the excavation of borrow material; for replacing the excess overburden in the borrow pit after completion of the excavation of borrow material and for levelling-off the excess overburden in the borrow area.

Item 43.02 Excess over burden in borrow pits for obtaining crushed stone for pavement layers

(a) Overburden in common (normal) or intermediate excavationcubic metre(m³)

(b) Overburden in rock (hard) excavationcubic metre (m³)

The unit of measurement shall be the cubic metre of excess overburden measured in place before stripping. The quantity shall be based on the depth of the overburden as measured in test pits. Distinction shall be made between common (normal) and intermediate material on the one hand and rock (hard) material on the other, in accordance with the classification as described in Sub- clause 4204 under Division 4200 for excavations.

The tendered rates shall include full compensation for stripping, removing and stockpiling excess overburden prior to the borrow material being excavated, replacing the excess overburden in the borrow pit after excavation of the borrow material has been completed and levelling-off the excess overburden in the borrow area.

Where the stockpiled excess overburden has to be moved to beyond the limits originally indicated by the engineer, it shall be measured once more for payment but only under item 43.01.

Where overburden material is used for filling or for other purposes, payment will not be made for removing such overburden material, but will be made in accordance with the purpose for which such material will be used.

Item 43.03 Finishing - off borrow areas

(a) Rock (Hard) materialhectare (ha)

(b) Intermediate materialhectare (ha)

(c) Common (Normal).....material. hectare (ha)

The unit of measurement for finishing-off borrow areas shall be the hectare measured in accordance with the finally excavated area of the borrow pit before it is finished off.

The tendered rates shall include full compensation for finishing-off the borrow pits as specified, including any further earth moving necessary for finishing, but excluding the establishment of grass. Borrow pits shall be classified in accordance with the classification of the material removed therefrom and where more than one class of material is taken from a borrow area, the area shall be apportioned prorata for classification purposes, in accordance with the volumes of each type of material removed.

Appendix 6-12 - Further Explanations

**FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
ETHIOPIAN ROADS AUTHORITY
CONTRACT ADMINISTRATION DIVISION**

**EXPLANATORY NOTES
ON
CURRENCIES OF TENDER, CONTRACT AND PAYMENT;
RATES OF EXCHANGE
AND
CONTRACT PRICE ADJUSTMENT**

January 2007

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1 INTRODUCTION

All contracts define how to address and apply the following to payments:

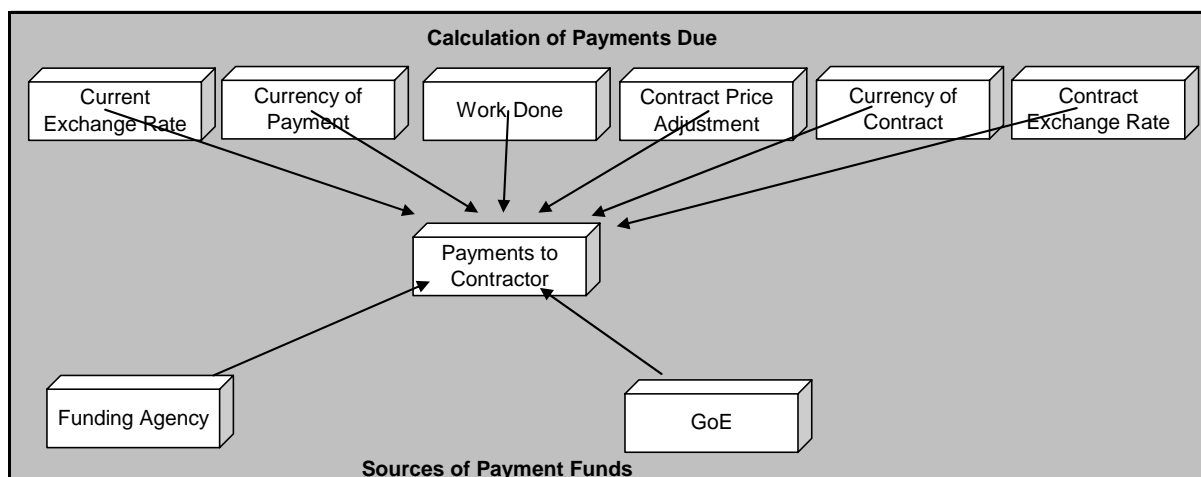
- current exchange rates
- currency(s) of payment
- contract price adjustment
- currency(s) of the contract
- contract exchange rates

These words and the concepts behind them, although simple, are often confused and the interrelationships between them misunderstood. The purpose of this document is to clarify the meanings of the words and concepts, explain the relationships between them and explain how they are accommodated in monthly payments to Contractors.

In addition once the amount due to the Contractor has been established it is necessary to determine the source of the money for the payment. In doing so it is necessary to consider:

- the source of the funds
- the currency of the funds
- the exchange rate used to convert the source funds to payments
- the proportions of the payments made from each source of funds

The diagram below shows the concepts addressed in this document.



Clauses 14, 15 and 30 of the Information to Bidders of World Bank's standard bidding document for works are included as Appendix A - Extracts from WB SBD for Procurement of Works.

Clauses 70 to 72 of the conditions of contract and Clauses 70-73 of the conditions of particular application of the same document are included in Appendix B - FIDIC IV Changes in Cost and Legislation for the same reason.

The information contained in both Appendices has been included as typical examples of contract document wording and definition of the above concepts.

2 CURRENCY(S)

In environments such as Ethiopia and on projects such as ERA's, Contractors, undertaking works, usually have both local and foreign costs. Typically, a contractor's foreign costs are for foreign labour, head office overheads, profit etc. and possibly bitumen, cement, plant etc. if these are not locally available and have to be imported. Similarly, a contractor's local costs are for local labour and possibly fuel, cement, timber, aggregate etc. if these are locally available.

For a contractor to make foreign payments it is necessary him to purchase the foreign currency with local currency through the banking system. However, using the banking system introduces an element of uncertainty for the Contractor i.e. he does not know what the exchange rates will be when he needs to convert money and so can not be sure at the time of tender exactly what his true cost will be and accordingly what his unit rate should be. If clients force contractors to use this system for obtaining foreign currency, the contractors would add a cost for this uncertainty to the unit rates in their tenders.

To avoid this, possibly, unnecessary additional cost clients usually take on the responsibility for changes in exchange rates and make payments to contractors in both local and foreign currencies. Bidders are, therefore, invited (in Clause 15 of the information to bidders. See **Error! Reference source not found.**) to specify the proportions of local and foreign currencies which they wish to receive.

Payments in the various currencies are accommodated in one of the following two ways:

- a) Bidders submit their bids in local currency and specify what percentage of that sum they wish to receive in foreign currency(s)
- b) Bidders submit their bids in the currencies in which they wish to receive their payments.

Although these two ways may appear to be the same, or result in the same payments to the Contractor, they are quite different. The sample bills of quantities below show the difference between the two ways of bidding.

Method (a) - Local Currency Only

Item No	Description	Unit	Quantity	Rate (ETB)	Amount (ETB)
13.01	Contractors General Obligations				
	a) Fixed obligations	LS	1	150,000.00	150,000.00
	b) Value-related obligations	LS	1	375,000.00	375,000.00
	c) Time-related obligations	month	36	6,250.00	225,000.00
21.01	Clearing and Grubbing	ha	30	10,000.00	300,000.00
42.01	Cut and Borrow to fill				
	(a) Material in compacted layer thickness of 200mm and less:				
	(ii) Compacted to 93% ModAASHTO	m3	20,000	17.00	340,000.00
52.01	Base Layer Construction				
	(a) Gravel Base from cut or borrow, incl free haul up to 1.0km				
	(i) Gravel base compacted to 98% ModAASHTO	m3	15,000	21.00	315,000.00
63C.01	Double Surface treatment				
	(c) 13.2mm and 6.7mm aggregate with 80/100 pen grade bitumen	m2	100,000	29.00	2,900,000.00
63C.02	Variations in bitumen application rate				
	(b) 80/100 pen grade bitumen	l	1,000	0.50	500.00
	Total				4,605,500.00

In this case, the bidder specifies the currencies in which he would like to receive payment and the proportions of each currency e.g. 70% in USD and 30% in ETB. Following acceptance of the bid and the signing of the contract, the Employer makes every payment in those currencies on the 70/30 basis. In this case the currency of the bid, and subsequently the contract, is the ETB and the currencies of payment are the ETB and USD.

To convert 70 percent of the ETB into USD it is necessary to use a rate of exchange between the ETB and USD. As the rate of exchange between currencies varies on a daily basis, it is necessary to define how the rate of exchange is determined for each payment. Item 0 below contains further discussion on rates of exchange and their usage.

This method of bidding and pricing is the method generally favoured by ERA for its projects. In terms of the WB SBD for Works this is Clause 15 Alternative A, which consequently requires the use of ITB Clause 30 Option 1. (See Appendix A - Extracts from WB SBD for Procurement of Works)

Method (b) - Local and Foreign Currency

Item No	Description	Unit	Quantity	Rate (ETB)	Amount (ETB)	Rate (USD)	Amount (USD)
13.01	Contractors General Obligations						
	a) Fixed obligations	LS	1	7,500.00	7,500.00	16,764.71	16,764.71
	b) Value-related obligations	LS	1	131,250.00	131,250.00	28,676.47	28,676.47
	c) Time-related obligations	month	36	1,875.00	67,500.00	514.71	18,529.41
21.01	Clearing and Grubbing	ha	30	3,500.00	105,000.00	764.71	22,941.18
42.01	Cut and Borrow to fill						
	(a) Material in compacted layer thickness of 200mm and less:						
	(ii) Compacted to 93% ModAASHTO	m3	20,000	6.80	136,000.00	1.20	24,000.00
52.01	Base Layer Construction						
	(a) Gravel Base from cut or borrow, incl free haul up to 1.0km						
	(i) Gravel base compacted to 98% ModAASHTO	m3	15,000	8.40	126,000.00	1.48	22,235.29
63C.01	Double Surface treatment						
	(c) 13.2mm and 6.7mm aggregate with 80/100 pen grade bitumen	m2	100,000	7.25	725,000.00	2.56	255,882.35
63C.02	Variations in bitumen application rate						
	(b) 80/100 pen grade bitumen	l	1,000	0.00	0.00	0.06	58.82
	Total			ETB	1,298,250.00	USD	389,088.24

This example uses an exchange rate of 1USD to 8.5ETB. Using this exchange rate the "bottom line" proportion of USD to Birr is 72 to 28. This is similar to the 70/30 requested in the Method (a) example above. However, the USD/ETB proportions of the individual BOQ items vary between 60/40 and 95/5 and the final contract proportion will depend on the actual quantities of the individual items. In this case the currencies of bid, and subsequently of contract, are the ETB and USD and the currencies of payment are also the ETB and USD.

Although this method appears to be "more complicated" than Method (a) it avoids the need to define and use exchange rates. The Contractor has priced the contract and its unit rates in two parallel bills of quantities, one in ETB and one in USD.

This method of bidding and pricing is not generally favoured by ERA for its projects. In terms of the WB SBD for Works this is Clause 15 Alternative B, which consequently requires the use of ITB Clause 30 Option 2. (See Appendix A - Extracts from WB SBD for Procurement of Works)

2.1 CURRENCY(S) OF BID VS. CONTRACT

The currency(s) of Bid will in general be the same as the currency(s) of contract. The reason for this is that a contract is established by the acceptance of a contractor's offer to undertake the works for an amount paid in specified currencies and as that offer would have been made in a particular currency(s) the conditions of that offer would become the conditions of the contract. The bid currency(s) would accordingly become the contract currency(s).

The only time that the currency(s) of Bid would not be the same as the currency(s) of contract would be if there was some agreement made between the Client and the Contractor during the contract negotiation stage. Although this is unlikely, it could happen if there were, for example, an international change in material supplier which warranted a change in the bid.

2.2 CURRENCY(S) OF BID/CONTRACT VS. PAYMENT

The standard WB SBD for Works gives the Employer the option to define the currency(s) of bid in either one currency (WB Alternative A, Method (a) example above) or in more than one currency (WB Alternative B, Method (b) example above). In both cases the currency(s) in which the bill of quantities is presented will be the currency(s) of the Bid and subsequently of the Contract.

Having agreed upon the currency of the bid and contract the contract will be administered and managed using only that currency(s) and the final contract amount will be defined in that currency(s). As stated above, the currency of ERA's contracts is usually the Ethiopian Birr i.e. the single local currency option of Alternative A.

The discussion above explains that payments to Contractors are made in proportion to their actual foreign and local expenditures and that this may have little or no relationship to the currency of the bid and contract.

It is conceivable that for some very-specialised project where items are manufactured externally that the currency of the contract could be local and that all payments are made in foreign currency.

In summary the Currency(s) of Bid and Contract are not necessarily the same as the Currency(s) of Payment, but in every contract it is necessary to define these clearly.

3 CURRENCY EXCHANGE RATES

The value of any particular country's currency is determined by the financial world's perception of the strength of that country's economy, rate of inflation and political stability. This perception changes daily and as it does so, the rate of exchange between the country's currency and those of every other country in the world changes. When dealing in contracts worth millions of dollars, exchange rate fluctuations of even a few percent can be significant and therefore need serious consideration.

These fluctuations can be positive or negative resulting in increases or decreases in a contract's ultimate cost. As stated in paragraph 2 of item 2 above; to avoid this, possibly, unnecessary additional cost, it is normal²³ for clients take on the responsibility for changes in exchange rates.

3.1 CONTRACT EXCHANGE RATE

By accepting the risk, the Client allows the contractor to calculate the true cost of the project and know that they will receive exactly that amount in the currency in which they calculated it at the time of tender. This is achieved by fixing the exchange rate to be used for all payments. The date of fixing is usually the rate ruling 28 days before the closing of bids.

This is best demonstrated by means of a simple example, which will be used and expanded upon in the remained of this document.

A contractor tenders to construct a project at a cost of ETB 1,000,000 and specifies that he requires ETB 200,000 to be paid in ETB and ETB 800,000 to be paid in USD at an exchange rate of 8ETB = 1 USD i.e. USD 100,000. The Client is Ethiopian and is using local currency to fund the project.

In terms of this example the following can be/ have been defined:

²³ FIDIC IV Clause 72.1 - Where the Contract provides for payment ... to be made ... in foreign currency ... , such payment shall not be subject to variations in the rate of exchange between ...

- *The currency of bid/contract is ETB*
- *The currencies of payment are ETB and USD*
- *The contract exchange rate between the ETB and USD is $8\text{ETB} = 1\text{USD}$*

The Contractor can therefore be sure that no matter how the exchange rate fluctuates during the contract period he will still receive the same amounts as he based his tender on.

3.2 FUNDING EXCHANGE RATE

Although a fixed rate "protects" the contractor it does not protect the Client. In the event of the rate improving, in favour of the ETB, it would be cheaper for the Client to purchase the USD required by the Contractor and the contract price would effectively reduce. The opposite is, however, also true i.e. when the ETB weakens against the USD it becomes more expensive to purchase the USD and the contract price effectively increases. Continuing the above example:

In the original example the Client was required to use ETB 800,000 to purchase the USD 100,000 the Contractor wanted. If the rate improved to $7.5\text{ETB} = 1\text{USD}$ the Client would only need to use ETB 750,000 to purchase USD 100 000 a saving of ETB 50,000. However, if the ETB weakened to $8.5\text{ETB} = 1\text{USD}$ the Client would need to use ETB 850,000 to purchase USD 100,000 and the contract cost would effectively increase by ETB 50,000.

The only way in which the Client can protect itself from such fluctuations would be to buy forward i.e. purchase the full USD 100 000 today for later disbursement to the Contractor. There are ways of doing this, through the banking system, which are designed to ease the difficulties which purchasing the whole foreign component would create for the clients cash flow.

In summary, as the Client initiates the development in the environment of his choice. It is only reasonable that the Client should accept the financial risks associated with that development. It is, therefore, important during the feasibility stage of any project that the Client makes a calculated estimate of the likely effect of such exchange rate fluctuations and that the necessary financial provisions are made. Failure to do so could well lead to insufficient funding for the completion of the project.

Obviously any improvement in the local exchange rate will realise a saving for the Client by reducing the project cost in foreign currency.

3.3 SOURCE OF EXCHANGE RATES

As stated above, exchange rates reflect the "personal" perception of financial institutions and, accordingly, even exchange rates for the same currency(s) on the same day will differ from institution to institution. In addition, these institutions offer different exchange rates for buying and selling. The Bank's selling rate for any particular currency will always be slightly higher than their buying rate.

If on 11 December 2006 one wishes to purchase 1USD at the Commercial Bank of Ethiopia it would have cost 8.8814ETB whilst on the same day if one wished to exchange 1USD for ETB at the same bank one would only have received 8.7073 ETB.

Although the tenderers will usually specify the exchange rate upon which they have based their tender, Clients often wish to specify which banking institution should be used as the source of the exchange rates. Because of the differences between the rates of different institutions and the differences between the selling and buying rates it is very important, when defining bid currencies and contract exchange rates, that the exact source and type of rate (buying or selling) be specified.

4 PROJECT FUNDING

The above example under item 0, assumed a single local source of funding for the project. In terms of ERA's projects, funding is usually provided by the GoE and an external funding agency. In these cases, the effect of exchange rate fluctuations becomes more complicated. In addition, conditions imposed by the funding agency can further complicate matters. Continuing the example above:

The local funding is provided by the Client and the foreign funding is provided by the Funding Agency.

Under these circumstances the problems of and complications associated with fluctuating exchange rates fall away. We have the same scenario as with the Method (b) way of pricing i.e. we effectively have two parallel contracts with separate sources of funding.

Unfortunately the above example is not typical of ERA contracts. The following extension of the example more closely describes the normal funding regime for ERA projects:

30% of the project is funded by the Client and 70% by the Funding Agency²⁴.

This means that the Client pays 30% of the ETB and USD and the Funding Agency pays 70% of the ETB and USD. Under these circumstances the effect of and need to monitor the fluctuations in the exchange rates becomes very important. The reason for this is that an improvement in the strength of the ETB will reduce the project cost for the Client but increase it for the Funding Agency and a weakening of the ETB will have the opposite effect.

4.1 SOURCE OF FUNDS

All of the GoE funds are held locally in ETB. All ETB payments are therefore easily made directly from local bank accounts without the need for any currency exchange rates. However, when the GoE is required to make payments in foreign currency(s) they are required to purchase that foreign currency(s) through the Banking system at commercial or current exchange rates. The lower the ETB falls in relation to the foreign currency(s) the more expensive the project becomes for ERA and the higher the ETB rises in relation to the foreign currency(s) the cheaper the project become for ERA.

In the case of foreign funding agencies it is more complicated and depends on how they make the project funds available. The foreign funding agency could do any one of the following:

1. transfer all of the projects funds to GoE ETB accounts for disbursement (e.g. ASDI)
2. transfer all of the project funds to GoE Foreign Currency(s) accounts for disbursement (e.g. IDA)
3. retain all of the project funds "at home" in foreign currency and disburse directly to Contractors on the request of ERA (e.g. EU)

Each of these scenarios will be affected differently by exchange rate fluctuations, as explained below:

Scenario 1 - All funds transferred to local ETB account

In this case the foreign funds would be no different to the GoE funds and discussion under the first paragraph of this section remains unchanged. The opportunity to off-set local currency losses and CPA with foreign currency gains, in the event of the ETB weakening, would be lost.

²⁴ The ratio of funding can vary between the extremes of ETB 0 -100 and USD 0 -100

Scenario 2 - All funds transferred to local Foreign Currency(s) accounts

In this case the foreign funds would respond in exactly the opposite way to the GoE funds, as discussed under the first paragraph of this section. Because the foreign funding usually accounts for a greater percentage of the project costs than the local funding, the available funds are more dramatically affected by exchange rate losses and gains.

Weakening of local currency usually results in an increase in the rate of CPA, which is then off set by the resulting foreign currency exchange gains.

Scenario 3 - All funds retained in foreign currencies "at home".

In this case the funds would be retained in foreign currency and only converted when payments were due. Foreign currencies tend to fluctuate a little less than local currency(s) and therefore the risk of incurring foreign exchange losses is reduced. The risk of incurring gains or losses with local currency payments sourced from the foreign funds remains the same as with scenarios 1 and 2 above.

In summary, the currencies of payment, proportions and sources of funding and applicable exchange rates can have very different effects on project cost. The spreadsheet below shows the variation in the project cost with changes in the payment currency proportions, funding proportions and exchange rate fluctuations.

Contract Price ETB	Currency of Payment		RoE	Equiv	Source of Funding						Project Cost ETB	
	ETB 20%	USD 80%			ETB/USD	USD	GoE 30%			Funding Agency 70%		
			ETB	ETB/USD			ToT ETB	USD/ETB	USD	ToT		
1,000,000	200,000	800,000	8.0	100,000	60,000	240,000	300,000	17,500	70,000	87,500	1,000,000	
			9.5	100,000	60,000	285,000	345,000	14,737	70,000	84,737	1,150,000	
			9.0	100,000	60,000	270,000	330,000	15,556	70,000	85,556	1,100,000	
			8.5	100,000	60,000	255,000	315,000	16,471	70,000	86,471	1,050,000	
			7.5	100,000	60,000	225,000	285,000	18,667	70,000	88,667	950,000	
			7.0	100,000	60,000	210,000	270,000	20,000	70,000	90,000	900,000	
			6.5	100,000	60,000	195,000	255,000	21,538	70,000	91,538	850,000	
RoE Variation			19%	GoE ETB Cost Variation			15%	FA USD Cost Variation			3%	15%
			-19%				-15%				-5%	-15%
											ETB Project Cost Variation	
↑												
Contract Price ETB	Currency of Payment		RoE	Equiv	Source of Funding						Project Cost ETB	
	ETB 80%	USD 20%			ETB/USD	USD	GoE 30%			FA 70%		
			ETB	ETB/USD			ToT ETB	USD/ETB	USD	ToT		
1,000,000	800,000	200,000	8.0	25,000	240,000	60,000	300,000	70,000	17,500	87,500	1,000,000	
			9.5	25,000	240,000	71,250	311,250	58,947	17,500	76,447	1,037,500	
			9.0	25,000	240,000	67,500	307,500	62,222	17,500	79,722	1,025,000	
			8.5	25,000	240,000	63,750	303,750	65,882	17,500	83,382	1,012,500	
			7.5	25,000	240,000	56,250	296,250	74,667	17,500	92,167	987,500	
			7.0	25,000	240,000	52,500	292,500	80,000	17,500	97,500	975,000	
			6.5	25,000	240,000	48,750	288,750	86,154	17,500	103,654	962,500	
RoE Variation			19%	GoE ETB Cost Variation			4%	FA USD Cost Variation			13%	4%
			-19%				-4%				-18%	-4%
											ETB Project Cost Variation	
↑												

5 CONTRACT PRICE ADJUSTMENT (CPA)

Although the fixing of the exchange rate ensures that the Contractor will receive exactly the same amounts (in the respective currencies) as tendered for, it will provide no protection against increases in the market prices of labour and materials.

In the section 0 example, the Contractor requested ETB 200 000 and ETB 800 000 in USD at an exchange rate of 8/1. These amounts were based on the price of labour and materials at the time of tender. If, however, the cost of the materials and labour increased the Contractor would still only receive the originally tendered ETB 200 000 and would accordingly have to fund this increase from his own "pocket".

Once again, because the Client initiates the development and selects the location, it is reasonable that the Client should accept the risks associated with the development. Any other decision would mean that the Client would "get something for nothing". Therefore, if the Contractor were asked to accept the risk of increases in labour and materials, he would increase his tendered price to provide cover for that risk.

These labour and material price variations can be positive or negative, resulting in an increase or decrease in a contract's ultimate cost. Rather than making the contractor responsible for price increases and running the risk of paying for events, which may never occur, it is normal²⁵ for Clients to accept the labour and material price variation risks.

By accepting the risk, the Client allows the contractor to calculate the true cost of the project and know that they will receive exactly that amount in the currencies in which they calculated it at the time of tender, duly adjusted for changes in cost. The time of tender is usually assumed to be the date 28 days before the submission of tenders and the base prices upon which the tender was based those ruling on the same date.

It is normal that contracts of reasonably short duration (say < one year) are not subject to CPA and those of reasonably long duration (say > eighteen months) are subject to CPA. The decision lies with the Client and should be determined in consideration of the complexity of the project and the stability of prices. The greater the uncertainty the more important it is to include CPA. IDA recommends that all contracts with a contract period greater than eighteen months should be subject to CPA.

In summary, Contractors are compensated for the difference in the prices of labour and materials between the time when they submit their tenders and purchase the materials. By doing this the basis of the contractor's tender remains unchanged.

5.1 CALCULATION OF CPA

CPA is generally calculated by using one of the following two methods:

- The Proven Cost Method
- The Adjustment formula(e) Method

²⁵ FIDIC IV Clause 70.1 - There shall be added to or deducted from the Contract Price such sums in respect of rise or fall in the cost of labour and/or materials or any other matters affecting the cost of execution of the works ...

5.1.1 The Proven Cost Method

When this method is used the contractor is required, at tender stage, to list those elements of his costs which he requires to be subject to CPA. In support of this he includes a list of the actual costs and suppliers of the various elements upon which the tender was based. When the Contractor purchases these materials he presents proof of the actual price paid and is compensated for the difference between the "Basic Cost" and the "Actual" invoiced cost of those same items. It is therefore important to ensure that all purchases are from the suppliers identified at the time of the tender. Any change in suppliers is likely to result in an invalid comparison of prices and accordingly overcompensation.

A typical month's CPA calculation using the Proven Cost Method might be as follows:

DESCRIPTION	UNIT	QTY	BASIC PRICE	CURRENT PRICE	DIFFERENCE (THIS IPC)	CPA
CEMENT	PK	200	55.00	61.00	6.00	1,200.00
DIESEL	L	5000	4.50	5.50	1.00	5,000.00
TOTAL CPA FOR THIS MONTH (BIRR)						6,200.00

Although this example's CPA has only been calculated in one currency i.e. ETB, it would not be unusual for the calculations to be presented in the currencies of payment. In this case, the Contractor would present CPA schedules in each currency of payment

It is important, when using this method, that the Client verify the authenticity and reliability of the suppliers and prices quoted as the base prices. Any change in supplier is likely to result in different base prices, which will complicate the calculation of CPA.

Although this is the method generally used on EU funded projects, it is not the preferred method as it has the potential for abuse by:

- Under quoting base prices
- Over invoicing current prices
- Changing suppliers

5.1.2 The Adjustment formula(e) Method

This method uses a mathematical model²⁶ of the construction contract to calculate the CPA. The Client/Contractor develops the model by identifying the items of greatest expenditure and then combining these with statistically derived indices, which indicate the changes in the cost of those items. Once again this is best explained via an example:

In a typical road construction project the items of greatest expenditure might account for the percentages of local and foreign currency costs as indicated in the table below:

²⁶ Model n. - a simplified mathematical description of a system or process, used to assist calculation and predictions (Oxford English Dictionary)

Expenditure	Local Currency %age	Foreign Currency %age
Fixed	10	10
Local Labour (LL)	20	0
Foreign Labour (FL)	0	15
Cement (C)	12	0
Bituminous Products (B)	0	25
Fuel (F)	33	0
Plant & Equipment (P)	0	40
Crushed Stone (CS)	25	0
Steel (St)	0	10
Total	100	100

Although there will be expenditure on a number of additional items the percentages of these in relation to the overall contract amount will be very small and any variations in the cost of these items is unlikely to significantly effect the final contract amount. It is, therefore, not worthwhile unnecessarily complicating the CPA formula(e) with insignificant items or items to which the outcome is not sensitive. Examples of these other items are road marking paint, road signs, pre-cast culverts, road barriers etc.

The first item in the expenditure schedule above is termed "Fixed", which is obviously not a materials or materials associated expenditure. It is, however, normal to include an item such as this to cover a small portion of the expenditure for which the Client does not assume the risk of price variations. The reason for this is that the Client believes there is a certain percentage of the expenditure over which the Contractor must exercise control. Examples of this might be the type of vehicles, which the Contractor chooses to purchase for his staff, the insurer with whom he chooses to place the works insurance, the bankers who issue the guarantees etc.

This fixed element of the expenditure will not be subject to increases. Further explanation of this is given below.

The first step in the formulation of the mathematical model can now be taken as it is now possible to state that the project's expenditure can be modelled as follows:

$$\text{Expenditure} = f_{\text{ETB}}(0.10 + 0.20\text{LL} + 0.12\text{C} + 0.33\text{F} + 0.25\text{CS}) + f_{\text{USD}}(0.10 + 0.15\text{FL} + 0.25\text{B} + 0.40\text{P} + 0.10\text{St})$$

The formula as it is above models the expenditure of the project in terms of some unknown mathematical functions. What is required is a formula, which will allow one to calculate a factor by which the monies due to the Contractor may be adjusted to compensate for price increases. This is done by introducing statistically determined indices²⁷ for each of the expenditures and adjusting those in proportion to the changes in the indices.

²⁷ Index n. (pl. indexes or indices) measure of prices or wages compared with a previous month, year, etc. (retail price index).

index-linked adj. related to the value of a price index.

5.2 CPA INDICES

Indices are a measure of the prices of materials or groups of materials and their current values are compared with their values at some time in the past. An index usually represents a "basket" of similar materials or products e.g.

A fuel index may be made up from the prices of petrol, diesel, paraffin and lubricants combined in proportion to the quantity of each used in that country or region. Similarly a Steel index may comprise Rolled Steel Sections, Steel Plate, Cold Rolled Sections and Reinforcing Steel similarly combined to produce a representative index.

Each of the expenditure components of the above model can be adjusted by the ratio of today's value of the index divided by the base value of the index. As with the rates of exchange and base prices the date and value of the base index is usually fixed on the date and value 28 days before the submission of tenders e.g. the local labour component of the above expenditure model would be adjusted as follows ... $+0.20LL_{\text{today}}/LL_{\text{base date}}$.

Where:

LL is the local labour index and LL_{today} and $LL_{\text{base date}}$ are the current and base values of the index respectively. The "today" or current index is usually designated by a subscript "n" i.e. LL_n , and the base index by a subscript "o" i.e. LL_o .

By applying the indices to the ETB and USD elements of the above model, two formulae can be generated and used to determine a factor by which the monies due to the Contractor may be adjusted. These forms of the formulae are typical for FIDIC and ERA projects.

$$P_{n\text{ETB}} = 0.1 + 0.2 LL_n/LL_o + 0.12 C_n/C_o + 0.33 F_n/F_o + 0.25 CS_n/CS_o$$

and

$$P_{n\text{USD}} = 0.1 + 0.15 FL_n/FL_o + 0.25 B_n/B_o + 0.4 P_n/P_o + 0.1 St_n/St_o$$

Where:

$P_{n\text{ETB}}$ and $P_{n\text{USD}}$ are the adjustment factors to be applied to the amounts for payment of the work carried out in month "n", in ETB and USD respectively.

The general form of these formulae is the following²⁸:

²⁸ See FIDIC IV Clause 70 and/or the WB, MDB and ERA standard bidding documents

$$\mathbf{P_n = a + b L_n/L_0 + c C_n/C_0 + d F_n/F_0 + etc.}$$

Where:

P_n is a price adjustment factor to be applied to the amount for the payment of the work carried out in the subject month

a is a constant, representing the nonadjustable portion in contractual payments i.e. it has no representative or linked indices;

b, c, d, etc., are weightings or coefficients representing the estimated proportion of each cost element (labour, materials, equipment usage, etc.) in the Works or sections thereof, net of Provisional Sums.

L_n, C_n, F_n, etc., are the current cost indices or reference prices of the cost elements for month "n", applicable to each cost element; and

L₀, C₀, F₀, etc., are the base cost indices or reference prices corresponding to the above cost elements at the base date.

Prices and accordingly indices can increase and decrease and P_n can, therefore, be either greater than or less than one. In summary:

$$\mathbf{Amount\ Due\ this\ Month = Value\ of\ Work\ Done\ this\ Month \times P_n}$$

and

$$\mathbf{The\ actual\ CPA\ due\ this\ month = Value\ of\ Work\ Done\ this\ month \times (P_n - 1)}$$

5.2.1 Sources of Indices

Indices are usually produced by governmental departments of statistics to represent the costs of those materials or groups of materials within the areas of influence of those departments. Indices are therefore directly linked to the economy and accordingly the rate of inflation, political stability and exchange rates, of that particular country or area of influence. Because indices are area specific they can not be used as being representative of other areas i.e. a fuel index from Zimbabwe would, today, reflect the hyper inflation currently being experienced in that country and would give no indication of what was happening with the cost of fuel in Ethiopia.

If one were to use arbitrary indices, one would effectively "import" the inflation from that area into the project and over or under compensate the Contractor for CPA. It is therefore essential that the sources of indices coincide with the currencies of payment i.e. in the above example the Contractor requested payment in ETB and USD. The source of the indices must therefore be Ethiopia and the United States of America.

All well developed countries produce such indices, which are up to date and readily available, usually via the internet. However, were these are not produced it becomes necessary to use proxy indices, which more often than not, are actual material or product prices from reliable manufacturers or producers e.g. a cement factory, government published minimum wage or fuel price.

Where even proxy indices are unavailable, it is possible to use indices from a source other than the country of the currency of payment. However, in this case it is necessary to apply a correction factor Z_o/Z to the respective component factor in the formula.

Where:

Z_o is the number of units of the currency of the country of the index, equivalent to one unit of the currency of payment on the date of the base index, and

Z is the corresponding number of such currency units on the date of the current index.

The following example may assist with a better understanding of this paragraph.

Imagine in the Pn_{ETB} formula above that there was no cement index or even producer in Ethiopia and the contractor chose to purchase his cement from Japan in Yen and therefore use a Japanese cement index.

To make this acceptable it would be necessary to "correct" the Japanese index to suit the contract and its payments in ETB and USD.

To do this one would require the rate of exchange between the Yen and ETB on the base date (say) 1 Yen = ETB 0.0757 and today (say) 1 Yen = ETB 0.0800.

The index would be corrected as follows

$$(CETB_n/CETB_o) = (CJAP_n/CJAP_o) \times 0.0757/0.0800$$

Where:

CETB = The "corrected" Japanese index suitable for the ETB Pn formula

CJAP = The Japanese index

6 DOUBLE COMPENSATION

The fixing of the contract exchange rate and the compensation of the Contractor for price increases via CPA, compliment each other and ensure that the Contractor is properly compensated for the work undertaken.

However, great care must be taken if any changes are made to this model e.g. not fixing a contract exchange rate or changing the contract currency to a foreign currency, as such changes combined with the payment of CPA can result in the Contractor being either under or over paid.

The table below contains a number of different scenarios which demonstrate how the combination of Contract Currency, Currencies of Payment and Exchange rates can result in very different payments and that if this is combined with CPA the effects can be either increase or decreased. All of the examples assume the same contract amount (ETB 1000 000) and same payment currency ratio 20/80 ETB/USD).

Currency of Contract	Contract Value	Currencies of Payment	Amounts Due	Exchange Rate	Amounts Receivd	Currency Received	
ETB	1,000,000.00	→ ETB	200,000.00	→ 8/1	200,000.00	ETB	Correct
		→ ETB/USD	800,000.00	→	100,000.00	USD	
	1,000,000.00	→ ETB	200,000.00	→ 20/1	200,000.00	ETB	Under Paid
		→ ETB/USD	800,000.00	→	40,000.00	USD	
USD	125,000.00	→ USD/ETB	25,000.00	→ 8/1	200,000.00	ETB	Correct
		→ USD	100,000.00	→	100,000.00	USD	
	125,000.00	→ USD/ETB	25,000.00	→ 20/1	500,000.00	ETB	Over Paid
		→ USD	100,000.00	→	100,000.00	USD	
USD	125,000.00	→ USD/ETB	25,000.00	→ 5/1	125,000.00	ETB	Under Paid
		→ USD	100,000.00	→	100,000.00	USD	

Appendix A - Extracts from WB SBD for Procurement of Works

Extract from the Instructions to Bidders from the World Bank's standard bidding documents for Procurement of Works (May 2002 revised March 2003)

- 14. Bid Prices**
- 14.1 Unless stated otherwise in the bidding documents, the Contract shall be for the whole Works as described in Sub-Clause 1.1, based on the unit rates and prices in the Bill of Quantities submitted by the bidder.
- 14.2 The bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
- 14.3 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Bid Price submitted by the bidder.
- 14.4 Unless otherwise provided in the Bidding Data and Conditions of Particular Application, the rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 70 of the Conditions of Contract. The bidder shall furnish the indices and weightings for the price adjustment formulae in the Appendix to Bid, and shall submit with its bid such other supporting information as required under Clause 70 of the Conditions of Contract. The Employer may require the bidder to justify its proposed weightings.
- 15. Currencies of Bid and Payment**
- 15.1 The currency(s) of the bid shall follow Alternative A or B, as specified in the Bidding Data
- Alternative A:
Bidders quote
entirely in local
currency**
- 15.2 The unit rates and the prices shall be quoted by the bidder entirely in the currency of the Employer's country specified in the Bidding Data and Conditions of Particular Application. A bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country (referred to as "the foreign currency requirements") shall indicate in the Appendix to Bid the percentage(s) of the Bid Price (excluding Provisional Sums) needed by him for the payment of such foreign currency requirements, limited to no more than three foreign currencies of any member country of the Bank
- 15.3 The rates of exchange to be used by the bidder in arriving at the local currency equivalent and the percentage(s) mentioned in Sub-Clause 15.2 above shall be specified by the bidder in the Appendix to Bid, and shall apply for all payments under the Contract so that no exchange risk will be borne by the successful bidder
- 15.4 Bidders shall indicate their expected foreign currency requirements in the Appendix to Bid

15.5 Bidders may be required by the Employer to clarify their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Appendix to Bid are reasonable and responsive to Sub-Clause 15.2, in which case a detailed breakdown of its foreign currency requirements shall be provided by the bidder.

15.6 During the progress of the Works, the foreign currency portions of the outstanding balance of the Contract Price may be adjusted by agreement between the Employer and the Contractor in order to reflect any changes in foreign currency requirements for the Contract, in accordance with Sub-Clause 72.4 of the Conditions of Particular Application. Any such adjustment shall be effected by comparing the percentages quoted in the bid with the amounts already used in the Works and the Contractor's future needs for imported items

**Alternative B:
Bidders quote in
local and foreign
currencies**

15.2 The unit rates and prices shall be quoted by the bidder separately in the following currencies:

- (a) for those inputs to the Works that the bidder expects to supply from within the Employer's country, in the currency of Employer's country specified in the Bidding Data and Conditions of Particular Application; and
- (b) for those inputs to the Works that the bidder expects to supply from outside the Employer's country (referred to as "the foreign currency requirements") in up to any three currencies of any member country of the Bank.

15.3 Bidders shall indicate their expected foreign currency requirements in the Appendix to Bid.

15.4 Bidders may be required by the Employer to clarify their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Appendix to Bid are reasonable and responsive to Sub-Clause 15.2, in which case a detailed breakdown of its foreign currency requirements shall be provided by the bidder.

15.5 During the progress of the Works, the foreign currency portions of the outstanding balance of the Contract Price may be adjusted by agreement between the Employer and the Contractor in order to reflect any changes in foreign currency requirements for the Contract, in accordance with Sub-Clause 72.4 of the Conditions of Particular Application. Any such adjustment shall be effected by comparing the amounts quoted in the bid with the amounts already used in the Works and the Contractor's future needs for imported items.

30. Conversion to Single Currency for Comparison of Bids

Option 1: To be used with Clause 15, Alternative A

30.1 For comparison of bids, the Bid Price, corrected pursuant to Clause 29, shall first be broken down into the respective amounts payable in various currencies by using the exchange rates specified by the bidder in accordance with Sub-Clause 15.3.

30.2 In the second step, the Employer will convert the amounts in various currencies in which the Bid Price is payable (excluding Provisional Sums but including Daywork where priced competitively) to either:

(a) the currency of the Employer's country at the selling rates established for similar transactions by the authority specified in the Bidding Data on the date stipulated in the Bidding Data;

or

(b) a currency widely used in international trade, such as the U.S. dollar, stipulated in the Bidding Data, at the selling rate of exchange published in the international press as stipulated in the Bidding Data on the date stipulated in the Bidding Data, for the amounts payable in foreign currency; and, at the selling exchange rate established for similar transactions by the same authority specified in Paragraph 30.2 (a) above on the date specified in the Bidding Data for the amount payable in the currency of the Employer's country.

Option 2: To be used with Clause 15, Alternative B

30.1 The Employer will convert the amounts in various currencies in which the Bid Price, corrected pursuant to Clause 29, is payable (excluding Provisional Sums but including Daywork where priced competitively) to either:

(a) the currency of the Employer's country at the selling rates established for similar transactions by the authority specified in the Bidding Data on the date stipulated in the Bidding Data;

or

(b) a currency widely used in international trade, such as the U.S. dollar, stipulated in the Bidding Data, at the selling rate of exchange published in the international press as stipulated in the Bidding Data on the date stipulated in the Bidding Data, for the amounts payable in foreign currency; and, at the selling exchange rate established for similar transactions by the same authority specified in Paragraph 30.1 (a) above on the date specified in the Bidding Data for the amount payable in the currency of the Employer's country.

Appendix B - FIDIC IV Changes in Cost and Legislation

Extract from FIDIC IV conditions of contract, as used by World Bank in their standard bidding documents for Procurement of Works (May 2002 revised March 2003)

Changes in Cost and Legislation

- | | | |
|---|-------------|---|
| Increase or
Decrease of Cost | 70.1 | There shall be added to or deducted from the Contract Price such sums in respect of rise or fall in the cost of labour and/or materials or any other matters affecting the cost of the execution of the Works as may be determined in accordance with Part II of these Conditions. |
| Subsequent
Legislation | 70.2 | If, after the date 28 days prior to the latest date for submission of tenders for the Contract there occur in the country in which the Works are being or are to be executed changes to any National or State Statute, Ordinance, Decree or other Law or any regulation or bye-law of any local or other duly constituted authority, or the introduction of any such State Statute, Ordinance, Decree, Law, regulation or bye-law which causes additional or reduced cost to the Contractor, other than under Sub-Clause 70.1, in the execution of the Contract, such additional or reduced cost shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be added to or deducted from the Contract Price-and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. |

Currency and Rates of Exchange

- | | | |
|---|-------------|---|
| Currency
Restrictions | 71.1 | If, after the date 28 days prior to the latest date for submission of tenders for the Contract, the Government or authorised agency of the Government of the country in which the Works are being or are to be executed imposes currency restrictions and/or transfer of currency restrictions in relation to the currency or currencies in which the Contract Price is to be paid, the Employer shall reimburse any loss or damage to the Contractor arising therefrom, without prejudice to the right of the Contractor to exercise any other rights or remedies to which he is entitled in such event. |
| Rates of
Exchange | 72.1 | Where the Contract provides for payment in whole or in part to be made to the Contractor in foreign currency or currencies, such payment shall not be subject to variations in the rate or rates of exchange between such specified foreign currency or currencies and the currency of the country in which the Works are to be executed. |
| Currency
Proportions | 72.2 | Where the Employer has required the Tender to be expressed in a single currency but with payment to be made in more than one currency and the Contractor has stated the proportions or amounts of other currency or currencies in which he requires payment to be made, the rate or rates of exchange applicable for calculating the payment of such proportions or amounts shall, unless otherwise stated in Part II of these Conditions, be those prevailing, as determined by the Central Bank of the country in which the Works are to be executed, on the date 28 days prior to the latest date for the submission of tenders for the Contract, as has been notified to the Contractor by the Employer prior to the submission of tenders or as provided for in the Tender |
| Currencies of
Payment for
Provisional Sums | 72.3 | Where the Contract provides for payment in more than one currency, the proportions or amounts to be paid in foreign currencies in respect of Provisional Sums shall be determined in accordance with the principles set forth in Sub-Clauses 72.1 and 72.2 as and when these sums are utilised in whole or in part in accordance with the provisions of Clauses 58 and 59. |

Extract from the World Bank conditions of particular application in their standard bidding documents for Procurement of Works (May 2002 revised March 2003)

Changes in Cost and Legislation

<p>Clause 70</p> <p>Changes in Cost and Legislation</p>	<p>(WB-R)</p> <p>(*)</p>	<p>Note: In Works contracts financed in whole or in part by the Bank, it is mandatory to include price adjustment provisions if the contracts extend beyond 18 months (or even shorter periods in countries with high inflation rates). The method of price adjustment prescribed (i.e., the use of a formula) is for cases where official or proxy indices for the fluctuation of the prices of constructional inputs are available. Use of the “documentary evidence” method of price adjustment is discouraged and should be applied only in the rare cases where there are no official indices available and it is not possible to determine proxy indices. Use of the “documentary evidence” method will require different clauses, and care and diligence in the checking of base price documents and actual invoices submitted by the Contractor. If this document is used for a fixed-price contract, only Sub-Clause 70.8 should be retained (and renumbered) with the omission of the last sentence therein.</p>
<p>Sub-Clause 70.1</p> <p>Price Adjustment</p>	<p>(WB-R)</p>	<p>Delete Clause 70 in its entirety, and substitute:</p> <p>The amounts payable to the Contractor, in various currencies pursuant to Sub-Clause 60.1, shall be adjusted in respect of the rise or fall in the cost of labor, Contractor’s Equipment, Plant, materials, and other inputs to the Works, by applying to such amounts the formulae prescribed in this clause.</p>
<p>Sub-Clause 70.2</p> <p>Other Changes in Cost</p>	<p>(WB-R)</p>	<p>To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall of costs.</p>
<p>Sub-Clause 70.3</p> <p>Adjustment Formulae</p>	<p>(WB-R)</p>	<p>The adjustment to the Interim Payment Certificates in respect of changes in cost and legislation shall be determined from separate formulae for each of the currencies of payment²⁹ and each of the types of construction work to be performed and Plant to be supplied.³⁰ The formulae will be of the following general type:</p>

²⁹ In contracts involving various currencies, formulae, or families of formulae that derive price adjustment factors for each currency are **essential**.

³⁰ For complex Works involving several types of construction work with different inputs, a family of formulae will be necessary. The various items of Daywork may also require different formulae, depending on the nature and source of the inputs.

$$pn = A + b \frac{Ln}{Lo} + c \frac{Mn}{Mo} + d \frac{En}{Eo} + etc.$$

Where:

pn is a price adjustment factor to be applied to the amount in each specific currency for the payment of the work carried out in the subject month, determined in accordance with Paragraph 60.1 (d), and with Paragraphs 60.1 (e) and (f), where such variations and daywork are not otherwise subject to adjustment;

A is a constant, specified in the Appendix to Bid, representing the nonadjustable portion in contractual payments;³¹

b, c, d, etc., are weightings or coefficients representing the estimated proportion of each cost element (labor, materials, equipment usage, etc.) in the Works or sections thereof, net of Provisional Sums, as specified in the Appendix to Bid; the sum of A, b, c, d, etc., shall be one;

Ln, Mn, En, etc., are the current cost indices or reference prices of the cost elements in the specific currency of origin for month “**n**,” determined pursuant to Sub-Clause 70.5, applicable to each cost element; and

Lo, Mo, Eo, etc., are the base cost indices or reference prices corresponding to the above cost elements at the date specified in Sub-Clause 70.5.

If a price adjustment factor is applied to payments made in a currency other than the currency of the source of the index for a particular indexed input, a correction factor **Zo/Zn** will be applied to the respective component factor of **pn** for the formula of the relevant currency. **Zo** is the number of units of currency of the country of the index, equivalent to one unit of the currency of payment on the date of the base index, and **Zn** is the corresponding number of such currency units on the date of the current index.³²

Sub-Clause 70.4	(WB-R)	The sources of indices shall be those listed in the Appendix to Bid, as approved by the Engineer. Indices shall be appropriate for their purpose and shall relate to the Contractor’s proposed source of supply of inputs on the basis of which his Contract Price and expected foreign currency requirements shall have been computed. As the proposed basis for price adjustment, the
Sources of Indices and Weightings		

³¹ Insert a figure for factor **A** only where there is a part of the Contractors’ expenditures that will not be subject to fluctuation in cost (for example, stamp duties and other expenses incurred in formalizing the Contract), or to compensate for the unreliability of some indices. **A** should normally not exceed 0.10.

³² The correct procedure for price adjustment is to use an index relating to the country of supply for a particular input and to make payment in the currency of that country. However, if price adjustment payments are made in a currency other than the currency of the source of the indexed input, distortions may occur due to differential rates of price variation and periodic exchange rate changes. Hence, the need for a correction factor.

Contractor shall have submitted with his bid the tabulation of Weightings and Source of Indices in the Appendix to Bid, which shall be subject to approval by the Engineer.

Sub-Clause 70.5	(WB-R)	The base cost indices or prices shall be those prevailing on the day 28 days prior to the latest date for submission of bids. Current indices or prices shall be those prevailing on the day 28 days prior to the last day of the period to which a particular Interim Payment Certificate is related. If at any time the current indices are not available, provisional indices as determined by the Engineer will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available.
Base, Current, and Provisional Indices		
Sub-Clause 70.6	(WB-R)	If the Contractor fails to complete the Works within the time for completion prescribed under Clause 43, adjustment of prices thereafter until the date of completion of the Works shall be made using either the indices or prices relating to the prescribed time for completion, or the current indices or prices, whichever is more favourable to the Employer, provided that if an extension of time is granted pursuant to Clause 44, the above provision shall apply only to adjustments made after the expiry of such extension of time.
Adjustment after Completion		
Sub-Clause 70.7	(WB-R)	The weightings for each of the factors of cost given in the Appendix to Bid shall be adjusted if, in the opinion of the Engineer, they have been rendered unreasonable, unbalanced, or inapplicable as a result of varied or additional work already executed or instructed under Clause 51 or for any other reason.
Weightings		
Sub-Clause 70.8	(F-M)	If, after the date 28 days prior to the latest date for submission of bids for the Contract, there occur in the country in which the Works are being or are to be executed changes to any National or State Statute, Ordinance, Decree, or other Law or any regulation or by-law of any local or other duly constituted authority, or the introduction of any such State Statute, Ordinance, Decree, Law, regulation, or by-law that causes additional or reduced cost to the Contractor, other than under the preceding sub-clauses of this clause, in the execution of the Contract, such additional or reduced cost shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be added to or deducted from the Contract Price and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same shall already have taken into account in the indexing of any inputs to the Price Adjustment Formulae in accordance with the provisions of Sub-Clauses 70.1 to 70.7.
Subsequent Legislation	(*)	

Currency and Rates of Exchange

<p>Sub-Clause 72.2</p> <p>Currency Proportions Alternative A: To be used with Clause 60, Alternative A</p>	<p>(WB-M)</p>	<p>Delete the words from “prevailing, as determined by the Central Bank...” to the end of the sub-clause and substitute with “stated by the Contractor in the Appendix to Bid, included with its original bid.”</p> <p>Add to end of paragraph “All payments shall be made in the currency or currencies specified in the Appendix to Bid pursuant to GCC 72.2. ”</p>
<p>Sub-Clause 72.2</p> <p>Currency Proportions Alternative B: To be used with Clause 60, Alternative B.</p>	<p>(WB-M)</p>	<p>Delete entirely and replace with “All payments shall be made in the currency or currencies specified in the Appendix to Bid.</p>
<p>Sub-Clause 72.4</p> <p>Substantial Changes in Currency Requirements</p>	<p>(WB-M)</p>	<p>The proportions of foreign and local currency payments of the balance of the Contract Price shall be amended by agreement between the Employer and the Contractor to reflect any substantial changes in the expected foreign and local currency requirements of the Contractor during the execution of the Works, provided that</p> <p>(a) the Contractor shall inform the Employer and the Engineer whenever any such substantial change may occur; or</p> <p>(b) the Engineer may recommend a review of such expected requirements if in his judgment there is evidence of a change in the country of origin of materials, Plant, or services to be provided under the Contract that should result in any substantial change of such expected requirements.</p>
<p>Sub-Clause 73.1</p> <p>Foreign Taxation</p>	<p>(WB-M) (*)</p>	<p>The prices bid by the Contractor shall include all taxes, duties, and other charges imposed outside the Employer’s country on the production, manufacture, sale, and transport of the Contractor’s Equipment, Plant, materials, and supplies to be used on or furnished under the Contract, and on the services performed under the Contract.</p>
<p>Sub-Clause 73.2</p> <p>Local Taxation</p>	<p>(WB-M) (*)</p>	<p>The prices bid by the Contractor shall include all customs duties, import duties, business taxes, and income and other taxes that may be levied in accordance with the laws and regulations in being on the date 28 days prior to the latest date for submission of bids in the Employer’s country on the Contractor’s Equipment, Plant, materials, and supplies (permanent, temporary, and consumable) acquired for the purpose of the Contract and on the services performed under the Contract. Nothing in the Contract shall relieve the Contractor from his responsibility to pay any tax that may be levied in the Employer’s country on profits made by him in respect of the Contract.</p>

Sub-Clause 73.3	(WB-R)	The Contractor's staff and labour will be liable to pay personal income taxes in the Employer's country in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.
Income Taxes on Staff	(*)	
Sub-Clause 73.4	(WB-R)	Notwithstanding the provisions of Sub-Clause 73.2, Contractor's Equipment, including essential spare parts therefor, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from the payment of import duties and taxes upon initial importation, provided the Contractor shall post with the customs authorities at the port of entry an approved export bond or bank guarantee, valid until the time of completion of the Contract plus six months, in an amount equal to the full import duties and taxes that would be payable on the assessed imported value of such Contractor's Equipment and spare parts, and callable in the event that the Contractor's Equipment is not exported from the Employer's country on completion of the Contract. A copy of the bond or bank guarantee endorsed by the customs authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon export of individual items of Contractor's Equipment or spare parts, or upon completion of the Contract, the Contractor shall prepare, for approval by the customs authorities, an assessment of the residual value of the Contractor's Equipment and spare parts to be exported, based on the depreciation scale(s) and other criteria used by the customs authorities for such purposes under the provisions of the applicable law. Import duties and taxes shall be due and payable to the customs authorities by the Contractor on (a) the difference between the initial imported value and the residual value of the Contractor's Equipment and spare parts to be exported; and (b) on the initial imported value of that Contractor's Equipment and spare parts remaining in the Employer's country after completion of the Contract. Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining.
Duties on Contractor's Equipment ³³	(*)	

³³ Sub-Clause 73.4 should apply where import duties and taxes are to be levied on the value of the Contractor's Equipment that depreciates during construction. Its use is recommended in situations where domestic contractors who have paid full duties for the Contractor's Equipment they use are to compete with foreign contractors. If the Employer wishes to exempt the Contractor from import duties, the sub-clause can be modified by deleting in the first sentence the words "temporarily" and "initial" and concluding the sub-clause on the word "importation" of the same sentence.

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