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# ASSESSING DAMAGES IN CONSTRUCTION CONTRACTS

## - ALIGNING EXPECTATIONS WITH THE JUDICIAL NARRATIVE

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# Introduction

Construction contracts are entered into between one or more owners and one or more contractors for development and construction in terms of the owner's specifications. One of the most common forms of such contracts are the Engineering, Procurement and Construction contracts ("**EPC Contracts**") which are executed between the principal employer (or the client) and the contractor.

There are various types of disputes which may arise out of such contracts but such disputes are typically due to delay in execution of the work by the contractor, premature termination of the contract by the principal employer or any other form of breach of contract by either of the parties.

Since a large majority of the EPC contracts are for turnkey projects of a very high value and time is the essence of the contracts, the contractor is obligated to deliver the agreed upon project within a fixed time frame and budget. Any delay or breach results in huge losses for the affected party. Thus, the affected party in such cases seek damages suffered owing to the non-performance or breach or termination of the contract as the case maybe. In any dispute arising out of construction contracts the damages that are typically claimed are loss of profit, loss of opportunity, overheads and such damages are difficult to establish based on documentary evidence. In such cases reliance is placed on well-established engineering concepts and formulae. The aim of this paper is to look into the methodologies adopted by courts and arbitrators alike and to evaluate if there is a broad consensus on standard of proof in any given situation.

# Damages vis-à-vis Construction Contracts

Section 37[1] of the Indian Contract Act, 1872 (hereinafter referred to as the "**Contract Act**") mandates that every party to a contract must perform or offer to perform their contract unless they are discharged of their obligations. Hence, once the contractor or the principal employer is in breach of their obligations a claim against them for specific performance or damages, as the case maybe, would lie[2].

Before delving into the basis and mechanism for calculation of damages in construction contracts, it may be relevant to examine the certain key provisions which are typically activated in these situations. Breach of a contract typically triggers Section 55[3] read with Sections 51 to 54[4], Section

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[1] Section 37: "*The parties to a contract must either perform, or offer to perform, their respective promises, unless such performance is dispensed with or excused under the provisions of this Act, or of any other law*".

[2] *Sunrise Associates v. Govt. of NCT of Delhi,* AIR 2006 SC 1908.

[3] Section 55: "*When a party to a contract promises to do a certain thing at or before a specified time, or certain things at or before specified times, and fails to do any such thing at or before the specified time, the contract, or so much of it as has not been performed, becomes voidable at the option of the promisee, if the intention of the parties was that time should be of the essence of the contract.*".

[4] Section 51: "*When a contract consists of reciprocal promises to be simultaneously performed, no promisor need perform his promise unless the promisee is ready and willing to perform his reciprocal promise.*".
Section 52: "*Where the order in which reciprocal promises are to be performed is expressly fixed by the contract, they shall be performed in that order; and where the order is not expressly fixed by the contract; they shall be performed in that order which the nature of the transaction requires.*".
Section 53: "*When a contract contains reciprocal promises, and one party to the contract prevents the other from performing his promise, the contract becomes voidable at the option of the party so prevented; and he is entitled to compensation from the other party for any loss which he may sustain in consequence of the non-performance of the contract.*".
Section 54: "*When a contract consists of reciprocal promises, such that one of them cannot be performed, or that its performance cannot be claimed till the other has been performed, and the promisor of the promise last mentioned fails to perform it, such promisor cannot claim the performance of the reciprocal promise, and must make compensation to the other party to the contract for any loss which such other party may sustain by the non-performance of the contract.*".

73[5] and Section 74[6] of the Contract Act. However, the terms and conditions of the contract will determine the exact quantum of damages payable. There are contracts where the terms and conditions provide for a pre-determined amount in the event of any breach and contracts where no such pre-determined amount is provided for.

## Contracts which include a pre-determined Mechanism in the Event of any Breach

In some contracts, at the time of execution, the parties agree to an amount of compensation payable in the event there is any breach of the contract, by way of liquidated damages. The Black's Law Dictionary[7] defines a liquidated damages clause as *"a contractual provision that determines in advance the measure of damages if a party breaches the agreement".* In such cases, where the amount payable in the event of breach of contract is pre-determined, the Court may award any sum of money which is reasonable, but not exceeding the amount agreed to between the parties. The question which therefore begs consideration is what quantum should be specified in the liquidated damages clause and whether the entire amount stipulated in the liquidated damages clause may be awarded in case of breach.

The Supreme Court has considered this substantially in *Kailash Nath Associates v. Delhi Development Authority and Another*[8] wherein it was observed that the party complaining of the breach can receive the entire amount stipulated in the liquidated damages clause only if it is a genuine pre-estimate of damages suffered. While assessing the quantum of damages suffered, the Court has jurisdiction to award amounts as it deems reasonable but not exceeding the limit stipulated in the contract. The Court went on to observe that while Courts have the jurisdiction to grant reasonable compensation, the liquidated damages as stipulated for in the contract would be the upper limit and the Court cannot award any compensation beyond that upper limit.

The Supreme Court's view in *Kailash Nath* (supra) appears to suggest that even in situations where the contracting parties have bargained for a reasonable pre-estimate as measure of damages (i.e. liquidated damages) the party alleging breach is still required to satisfy the adjudicator of the loss suffered and possibly to some extent the quantum of it. Is this a departure from trends established earlier? In the not so distant past, the Supreme Court[9] held that in contracts containing a liquidated damages clause "*it would be difficult to prove exact loss or damage which the parties suffer because of the breach thereof. In such a situation, if the parties have pre-estimated such loss after clear understanding, it would be totally unjustified to arrive at the conclusion that party who has committed breach of the contract is not liable to pay compensation. It would be against the specific provisions of Sections 73 and 74 of the Indian Contract Act*."

[5] Section 73: "*When a contract has been broken, the party who suffers by such breach is entitled to receive, from the party who has broken the contract, compensation for any loss or damage caused to him thereby, which naturally arose in the usual course of things from such breach, or which the parties knew, when they made the contract, to be likely to result from the breach of it. Such compensation is not to be given for any remote and indirect loss or damage sustained by reason of the breach.*".

[6] Section 74 : "*When a contract has been broken, if a sum is named in the contract as the amount to be paid in case of such breach, or if the contract contains any other stipulation by way of penalty, the party complaining of the breach is entitled, whether or not actual damage or loss is proved to have been caused thereby, to receive from the party who has broken the contract reasonable compensation not exceeding the amount so named or, as the case may be, the penalty stipulated for.*".

[7] Seventh Edition (1999).

[8] (2015) 4 SCC 136.

[9] *Oil & Natural Gas Corporation Ltd. vs. SAW Pipes Ltd*, (2003 )5SCC 705.

## Travelling beyond pre-determined Amounts in the Event of any Breach

In *Steel Authority of India Limited v. Gupta Brother Steel Tubes Limited*[10] the Supreme Court has duly recognised that there are contracts where pre-estimated damages for all kind breaches is not provided and in such cases, reliance cannot be placed only upon the pre-determined amount agreed to between the parties. In this connection, the Court observed:

> "*We are not aware of any principle that once the provision of liquidated damages has been made in the contract, in the event of breach by one of the parties, such clause has to be read covering all types of breaches although parties may not have intended and provided for compensation in express terms for all types of breaches*'." (emphasis supplied)

Such observation was made because the liquidated damages clause in that case did not provide for all types of breaches of the contract. While majority of the contracts include an all-encompassing liquidated damages clause but in certain cases (such as above) the contract may not provide for pre-determined damages and there would remain certain types of breaches for which there would be no pre-estimated damages. Whether this opens a pandora's box is to be weighed against skilful drafting of contract clauses and tests of advocacy although one may emphasize that for calculation of undetermined damages (where there is no agreement as to the amount payable in the event of breach of contract) Section 73 of the Contract Act would be a guiding force.

Section 73 of the Contract Act incorporates the two rules laid down in the celebrated English case[11] on consequential damages arising from breach of contract which are as follows:

i. the damages which the other party ought to receive in respect of such breach of contract should be such as may fairly and reasonably be considered either arising naturally, i.e., according to the usual course of things, from such breach of contract itself[12]; or
ii. such as may reasonably be supposed to have been in the contemplation of both parties, at the time they made the contract, as the probable result of the breach of it[13].

(emphasis supplied)

However, while the provision lays down that the damages have to be reasonably foreseeable and should not be too remote or indirectly resulting from the breach, they do not lay down any procedure for calculation of the damages[14] and the Supreme Court has observed that the method to calculate damages would depend upon the facts and circumstances of each case[15].

Breach of an EPC contract typically entails damage claims in the nature of loss of profits, delay, disruption, loss of opportunity, underperformance or non-performance[16], cost of overheads[17]. As a matter of fact the Supreme Court in *A.T. Brij Paul Singh v. State of Gujarat*[18] (hereinafter '**AT Brij Case**) observed that commercially works contracts are entered into for the purpose of earning profits and the party committing the breach of the contract would therefore be liable to compensate

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[10] *Steel Authority of India Limited v. Gupta Brother Steel Tubes Limited*, (2009) 10 SCC 63.
[11] *Hadley & Anor v Baxendale & Ors,* [1854] EWHC Exch J70.
[12] *Ibid.*
[13] *Ibid.*
[14] *McDermott International Inc. v. Burn Standard Co. Ltd*, (2006) 11 SCC 181.
[15] *M.N. Gangappa v. Atmakur Nagabhushanam Shetty & Co. and Anr.*, AIR 1972 SC 696.
[16] John A Trenor, *The Guide to damages in International Arbitration*, (2nd ed., Law Business Research Ltd, 2017) United Kingdom.
[17] *Supra* Note 14.
[18] AIR 1984 SC 1703.

the affected party for their expected loss of profit.

It is an uphill task to establish damages purely based on documents. Neither the Contract Act nor any other statute of relevance provides an exact methodology. As a consequence, thereof certain arithmetical principles have now been adopted as reasonably accurate tools for computing losses.

## Calculation of Damages using Formulae

The Supreme Court's ruling in the AT Brij Case was one of the first instances where the Court observed that while adjudicating upon the claim for loss of profit it would not be necessary to go into the minutest details of the work executed but a broad evaluation of the same would be sufficient. The Court went on to observe, placing reliance on *Hudson's Building and Engineering Contracts*[19] that "*in major contracts subject to competitive tender on a national basis, the evidence given in litigation on many occasions suggests that the head office overheads and profits is between 3 to 7 per cent of the total price of cost*".

Subsequently, a comprehensive deliberation on some of the formulae which can be relied upon by parties for the purpose of calculation of damages was discussed by the Supreme Court in *McDermott International Inc. v. Burn Standard Co. Ltd.*[20] (hereinafter '**McDermott Case**'). The Court recognized the following formulae:

*"(a)* ***Hudson Formula:*** *In Hudson's Building and Engineering Contracts, Hudson formula is stated in the following terms:*

*'(Contract head office overhead and profit percentage)* **X** *(Contract sum/Contract period)* **X** (Period of delay) *'*

*In the Hudson formula, the head office overhead percentage is taken from the contract. Although the Hudson formula has received judicial support in many cases, it has been criticized principally because it adopts the head office overhead percentage from the contract as the factor for calculating the costs and this may bear little or no relation to the actual head office costs of the contractor.*

*(b)* ***Emden Formula****: In Emden's Building Contracts and Practice, the Emden formula is stated in the following terms:*

*'(Head office overhead and profit/100)* **X** *(Contract sum/Contract period)* **X** (Period of delay)*'*

*Using the Emden formula, the head office overhead percentage is arrived at by dividing the total overhead cost and profit of the contractor's organization as a whole by the total turnover. This formula has the advantage of using the contractors actual head office and profit percentage rather than those contained in the contract. This formula has been widely applied and has received judicial support in a number of cases including Norwest Holst Construction Ltd. v. Cooperative Wholesale Society Ltd., decided on 17 February, 1998, Beechwood Development Company (Scotland) Ltd. v. Mitchell, decided on 21 February, 2001 and Harvey Shoplifters Ltd. v. Adi Ltd., decided on 6 March, 2003.*

*(c)* ***Eichleay Formula:*** *The Eichleay formula was evolved in America and derives its name from a case heard by Armed Services Board of Contract Appeals, Eichleay Corp. It is applied in the following manner:*

[19] 10th Edition (1970).

[20] *Supra* Note 14.

*Step 1*

*(Contract billings/Total billings for contract period)* **X** (*Total overhead for contract period) = Overhead allocable to the contract*

*Step 2*

*(Allocable overhead/Total days of contract) = Daily overhead rate*

*Step 3*

*(Daily contract overhead rate)* **X** (*Number of days of delay) = Amount of unabsorbed overhead*

*This formula is used where it is not possible to prove loss of opportunity and the claim is based on actual cost. It can be seen from the formula that the total head office overheads during the contract period is first determined by comparing the value of work carried out in the contract period for the project with the value of work carried out by the contractor as a whole for the contract period. A share of head office overheads for the contractor is allocated in the same ratio and expressed as a lump sum to the particular contract. The amount of head office overhead allocated to the particular contract is then expressed as a weekly amount by dividing it by the contract period. The period of delay is then multiplied by the weekly amount to give the total sum claimed. The Eichleay formula is regarded by the Federal Circuit Courts of America as the exclusive means for compensating a contractor for overhead expenses.*" (emphasis supplied)

The Court observed that the use of formulae was neither prohibited, nor inconsistent with Indian law. The computation of damages would depend on the facts and circumstances of each case. Also, the use of one formula over the other and the determination of quantum of damages would fall within the domain of the arbitrators and reliance upon a formula by the arbitrator would not warrant interference by a court.

This was in line with the consistent view of the courts that when the decision of an arbitrator on certain amounts awarded is a plausible one though perhaps not the only correct estimate, the award cannot be examined by the Court and the reasonableness of the reasons cited by the arbitrator cannot be analyzed. If the parties have selected their own forum, the deciding forum must be bestowed with the power of evaluation of evidence. The arbitrator is the sole judge of the quality as well as quantity of evidence and it would not be for the court to take upon itself the task of being a judge on the evidence before the arbitrator[21].

The Delhi High Court[22] relying on the Supreme Court's ruling in the McDermott Case held that the decision of the arbitral tribunal, which comprised of engineers, to apply the Hudson's formula cannot be faulted merely because they had chosen to rely on the formula to calculate damages and the objection raised purely on the basis that the tribunal could not have used the formula was found devoid of merit.

Further, even though the Supreme Court criticized the Hudson's formula in the McDermott Case stating that the formula "*adopts the head office overhead percentage from the contract as the factor for calculating the costs, and this may bear little or no relation to the actual head office costs of the contractor*", when the division bench of the Delhi Court set aside an arbitral award which was based on the Hudson's formula stating that the arbitrator had mechanically adopted the formula without taking into consideration the value of the work completed and not the entire contract value, the Supreme Court[23] set aside such ruling. The Court held that the Division Bench had faulted in their

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[21] *ONGC Ltd. v. Comex Services* (2003)3LR 197; *Daelim Industrial Company vs. Numaligarh Refinery Ltd.* 2006(4) GLT847.

[22] *National Thermal Power Corporation Limited v. Wig Brothers Builders and Engineers Limited,* ILR (2009) IV Delhi 663.

[23] *Associate Builders v. Delhi Development Authority,* (2015) 3 SCC 49.

observation and reliance on the formula is within the domain of the arbitrator and the Division Bench should not have interfered with the award.

## Applying the Formulae

The next question that arises is whether an arbitral tribunal or a Court can solely rely upon a formulae and award damages without any evidence being led to prove that the claimant has actually suffered a loss.

In this regard, it may be pertinent to mention that the Delhi High Court[24], while adjudicating upon an application filed under Section 34[25] of the Arbitration and Conciliation Act, 1996 (hereinafter referred to as the '**Arbitration Act**') assailing an award wherein the arbitrator had rejected the claim for damages (overheads) as the claimant had not led any evidence to show that they had suffered any loss and had merely relied upon the Hudson's formula, upheld the award as not being perverse or against the public policy of India. The Court observed:

> "*standard formulae adopted for computing loss of profits or overheads are essentially tools used for computing the extent of overheads in profits. Undoubtedly, in a given set of facts, the said formula may be effectively used for computing the amounts of overheads/profits. However, that cannot lead to the conclusion that in all cases, the Arbitral Tribunal would be bound to accept computation of overheads/loss of profits based on standard formulae and the claimant is absolved from producing any other material to establish its claims of loss on account of overheads/loss of profits. Whether it is apposite to use the standard formulae in a given case is also required to be established by the contractor. This would necessarily require the claimant to produce some material to justify norms as adopted in the standard formula relied upon by him. A claimant is also required to establish as a matter of fact that it had incurred expenditure on overheads attributable to the works executed during the extended period.*" (emphasis supplied)

The Bombay High Court[26] in an appeal from a Section 34 application under the Arbitration Act had the opportunity to consider whether damages may be awarded by applying the formulae as above even when no evidence has been adduced to show that expenditure on account of overhead had been incurred. In this case, placing reliance on the AT Brij Case and the McDermott Case, the arbitrator held that a contractor becomes entitled to overhead losses on the basis of Hudson's Formula, even in the absence of direct evidence to prove such losses when resources are mobilized and delay is caused in the execution of the work not attributable to the contractor.

The High Court, however, held that the AT Brij Case notes what must be the measure of the profit and what evidence should be tendered to sustain the claim are different matters, and does not stipulate that the formula which has been prescribed in Hudson's treatise must invariably be accepted in all cases as a measure of damages sustained on account of loss of overheads. Upholding the order of single bench setting aside the award, the Court went on to observe:

> "*In the present case the Arbitrator proceeded on the basis that it was only Hudson's Formula which was to be applied and that even though no direct evidence had been adduced on behalf of the Appellant, nonetheless the Appellant would be entitled to damages measured with reference to the aforesaid formula. This approach of the Arbitrator is manifestly in the teeth of the law laid down by the Supreme Court in McDermott International.*"

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[24] *Indo Nabin Projects Ltd. v. Powergrid Corporation of India Ltd.,* 2018 SCC Online Del 8405.

[25] Section 34: *"(1)…*
*(2)(a) …*
*(b) (i) …*
*(ii) the arbitral award is in conflict with the public policy of India.".*

[26] *Edifice Developers and Project Engineers Ltd. v. Essar Projects (India) Ltd.,* 2013 SCC Online Bom 5.

Similarly, in *Essar Procurement Services Ltd. v. Paramount Construction,*[27] the Bombay High Court relied on the Supreme Court ruling in *Kailash Nath Associates v. Delhi Development Authority and Another*[28] to hold that an award is patently illegal and is in conflict with the public policy of India when a claim for overhead is based merely upon the application of the Hudson Formula and not on any evidence.

It is therefore interesting to note that while the Supreme Court in the AT Brij Case had taken a view that for adjudication upon the claim for loss of profit it would not be necessary to go into the minutest details of the work executed, the judicial trend has been to interpret the judgment to distinguish between the measure of the profit and what evidence should be tendered to sustain the claim. The measure of profit may well be determined by the formulae, however, whether such formulae may be made applicable shall depend on the evidence adduced by the claimant, in order to ascertain whether such formulae may be applied at all. Generally, the Courts have been inclined to set aside arbitral awards where claims were allowed merely on the basis of formula and without leading any evidence as to whether any loss was incurred.

## Weighing the Evidence – What is the Threshold

Judicial precedents seem to be in favor of weighing evidence both qualitatively and quantitatively alongside the use of mathematical formulae. However, taking into consideration the challenges faced in matters of execution of complex contracts one needs to test evidentiary thresholds against practical considerations and further taking into account that a party whose contractual rights have been violated be compensated adequately.

In this regard, reliance may be placed on the Delhi High Court's decision in *National Highway Authority of India v. Progressive Constructions Limited*[29] where an award was challenged on the premise that the Arbitral Tribunal had proceeded on equity and surmises in calculating the "*approximate cost*" for overhead charges and therefore, committed a patent illegality. The Court, while upholding the award, held that as the claim was owing to delay and the delay in handing over the construction site had been established, the threshold of evidence for the purposes of application of the formula for calculation of damages had been reached. The Court observed:

> "*The AT referred to the Standard Data Book for Analysis of Rates (First Revision) 2003 of MORTH in calculating the overhead charges for 12 months' delay. It also referred to the Hudson formula. This was on the basis of the basic foundational facts having been established by the Respondent regarding the delay in the construction activity as far as handing over of the site to it by the Petitioner was concerned. The failure to hand over the required site to the Respondent by the Petitioner is a finding of fact. The view taken by the AT was reasonable in the circumstances.*"

In a similar case,[30] an arbitral award was challenged on the ground that no overhead expenditure, (calculated on the basis of analysis of rates provided in the Standard Data Book by applying the Hudson's formula), could be allowed by the arbitral tribunal as there was no record proving the same. The Tribunal noted that the monthly progress reports filed by the petitioner showing details of monthly deployment of manpower is enough to establish that the petitioner suffered a loss during the extended period of contract due to overheads. No error was found in the methodology adopted by the learned arbitral tribunal to compute the overhead charges and the award of compensation to the respondent.

Thus, the courts recognize the fact that it is not possible for a contractor in a large scale contract

[27] 2016 SCC Online Bom 9697.

[28] *Supra* Note *8*.

[29] 2015 SCC Online Del 7887.

[30] *National Highways Authority of India v. Som Dutt Builders-NCC(JV),* 2018 SCC Online Del 10783.

to prove each item of cost and therefore as long as it is proved that the claimant has incurred unrealized costs due to repudiation or unjustified termination of the contract, he may rely on well-established formulae to compute and claim damages suffered.

## Conclusion

An arbitral award needs to be a reasoned award[31], even if the reasoning is for one line[32], hence even though an arbitrator is not required to get into the minutest details of the work executed, a mere breach of contract does not entitle the other party to claim damages[33]. If the breach is not accompanied by a loss to the other party, the question of awarding damages or of applying one formula or the other does not arise. The arbitrator even if by applying guesswork and relying upon rough and ready formula arrives at a figure then the same would not be interfered by Courts[34] but there has to be some reasoning based upon facts and evidence as to why a claim has been allowed.

Thus, while it may not be possible to prove each item of cost incurred but that does not absolve the affected party from the burden of proving that there has in fact been some loss that has been suffered. The burden of proof would not be so high as to prove the exact figure of the damages that is being claimed but it has be sufficient to evidence that loss has indeed been suffered and that there is a necessity to resort to the use of well-established formulae to arrive at a figure which would be just and equitable in the given facts and circumstances.

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[31] Section 31: "*(1) …*
*(2) …*
*(3) The arbitral award shall state the reason upon which it is based*".

[32] *Prem Laxmi and Co. v. Himachal Pradesh State Electricity Board*, 2019 SCC Online HP 2605.

[33] *M/s Budhiraja Electricals v. Rites*, 2010 SCC Online Del 2273.

[34] *Mahanagar Gas Ltd., Mumbai v. Babulal Uttamchand and Co., Mumbai*, 2013 (2) Mh.L.J. 94.

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