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India-CRUX Construction Dispute Causation Series Part III: Unforeseen Physical Conditions

HKA-Shardul Amarchand Mangaldas & Co. Joint Publication

CRUX is HKA's integrated research program which provides unprecedented insight in relation to common dispute causation factors for engineering and construction projects on a sectoral and regional basis. At present, the CRUX database encompasses more than 1,400 projects in 94 countries (including India) representing a total capital expenditure of more than US\$2 trillion. An interactive [dashboard](#) has been developed which allows the user to search by region and sector thus giving free-range and allowing searches relevant to any criteria.

The aim of this publication series is to focus on top dispute causative factors, prevalent in the Indian project landscape.

Previously, we have discussed in Part I [Change in scope](#) and Part II [Access issues](#). In the remaining parts of the series, HKA together with renown Indian law firms will present topics on late delivery of materials and/or products, late approvals, design issues, poor subcontractor/supplier management, spurious claims, cashflow and payment issues, and contract management and/or administration failures.

This Part III of the ten-part series focuses on 'Unforeseen Physical Conditions' as CRUX identifies this to be a main cause of disputes on projects. The narrative below covers potential triggers for Unforeseen Physical Conditions ("UPC"), guidance on how to manage these challenges and their legal stance/position under Indian law.

Potential triggers

UPCs are not necessarily limited to below the ground (i.e., subsurface) conditions as it may also include above the surface latent issues. Based on HKA project involvement, below is a consolidated plausible list of UPCs.

- Soil conditions/type compared to ground survey
- Lower load-bearing ground capacity
- Changing groundwater levels
- Hard material/solid rock unexpectedly encountered
- Contamination (including dangerous gases and radiation bursts)
- Environmental factors

Managing unforeseen physical conditions

UPCs arise both at tender and project execution phases and ultimately affects the effectiveness of the design and whether consequent work execution meets Project requirements.



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Pre-execution stage

The tender stage is the earliest opportunity to identify what could be categorised as foreseeable physical conditions. This is achieved through site inspection, ground surveys (particularly boreholes & trial pits) and inspection of available data such as historical records on the area in question. The use of an independent reputable laboratory to undertake both strength and chemical analysis of soil and rock samples is highly recommended.

Understanding ground conditions, and possible foreseeable factors will influence the engineering parameters in design calculations to ensure safety and workable execution. It also serves as basis to establish a clear delineation of what constitutes unforeseeable conditions to map out relief provisions relating to extension of time and cost claims in construction contracts.

In circumstances where the ground conditions, records or the surveys are insufficient, it is advisable to take steps to provide for contingencies through tender clarifications early on. Alternatively, parties will need to adopt appropriate risk allocation strategies in the contract to counter any unforeseeable factors. Protection through insurance indemnification is also encouraged.

Execution stage

In the event an UPC is encountered, compliance with the procedural requirements under the contract is key. This will involve issuance of a timely and compliant notice, capturing adequate details of the impending situation. The detailed particulars must identify unforeseen factors with appropriate reference to the ground condition surveys and other known records at the time of tender. The actual impact to immediate works and potential domino effect on other works should be stated, capturing the time and cost impact. The contractor must also show any mitigatory factors implemented.

UPCs may also trigger a requirement for change under the contract (e.g., design or work methods), which must be formalised through appropriate instructions from the engineer/employer's representative, or confirmation of the same in engaging the variation clause under the Contract.

Legal position in India

The following section summarises certain key considerations from the Indian legal standpoint relating to UPCs.

- UPC clauses reflect appropriate risk allocation between a contractor and an employer which may affect the final price and/or completion time of a contract. Generally, UPC clauses entitle a contractor to extension of time and/or additional cost provided contractor establishes that despite exercising due diligence, it was not reasonably foreseeable that adverse physical conditions would be present.

- Some of the commonly employed standard form of contracts in India include conditions of contract published by International Federation of Consulting Engineers (“**FIDIC**”) and New Engineering and Construction Contracts (“**NEC**”), and by Government authorities in India, such as the National Highways Authority of India (“**NHAI**”), and the Public Works Department.
- The implication of UPC clauses in certain standard forms of construction contracts are noted below:
 - (i) **FIDIC**: If delays and/or costs are incurred on account of adverse physical conditions which contractor regards unforeseeable, contractor is required to notify the Engineer. Application for an extension of time and/or additional cost must be made within 28 days of becoming aware of the conditions. Upon inspection and investigation of these physical conditions, the Engineer will determine the extent to which it was unforeseeable and award an extension of time and/or additional cost, accordingly.
 - (ii) **NEC**: If physical conditions are encountered with only a small chance of it materialising to the extent that it would be unreasonable for any allowance on the same by the contractor, then the project manager is to be notified within 8 weeks from becoming aware of such event. In evaluating the contractor’s claim entitlement, foreseeability factors like site information and publicly available information are considered before a determination is made.
 - (iii) **NHAI**: The EPC agreements provide obligate the contractor to bear entire responsibility for foreseeing UPC’s and associated costs in order to successfully completing the works. The contract price and/or the scheduled milestone dates are not modified.
- Under Indian law, there is no stipulation of a contractor’s right to inspect the site. However, contracts generally stipulate for site inspection to aid conclusive evaluation of the local conditions and the contemplated work to be executed under the contract. In fact, employers rely on contractors’ site inspection at tender to avert any future claims for extension of time and/or extra cost. Equally, employer’s obligation to inspect the site and provide information to the contractor is dependent on contract terms and not a requirement under Indian law.
- There is no implied obligation under Indian law, which mandates contractor’s responsibility for UPC. In the absence of a UPC clause, a contractor may rely on the *force majeure* clause instead; which sets out certain specific events and the consequences of the same as agreed by parties to be the basis to claim *force majeure*. To successfully invoke such a clause, a contractor must establish that the unforeseen event

satisfies the *force majeure* provision criteria. Only then would a contractor be entitled for a claim seeking extension of time and/or additional cost as relief under the applicable *force majeure* clause.

- In the absence of *force majeure* clause in the contract, a contractor may claim frustration of contract in respect of UPC. Section 56 of the Indian Contract Act, states that if the performance of the contract becomes impossible, the parties are excused from its obligations. However, the Supreme Court in *M/s Alopi Parshad & Sons Ltd. v. Union of India and Energy Watchdog and Others v. Central Electricity Regulatory Commission* clarified that a party will not be absolved from performing its portion of the contract just because performance has become commercially onerous or unviable. Therefore, the contractor faces the challenge of establishing impossibility of performing the contract as a direct consequence of UPC.

Where a claim pursuant to *force majeure* claim or frustration of contract is not plausible, the employer may be entitled to damages and compensation (costs and liquidated damages) from the contractor. This is especially if the UPC could have been ascertained if reasonable due diligence was exercised.

- Should a liquidated damages clause not exist, then a party may only claim 'actual losses' suffered, arising as a natural and proximate consequence of the breach or which the parties knew at the stage of contract formation, to be likely to result from the breach of it. This would include delay associated and disruption costs (idling, mobilisation, loss of productivity).
- In the event of a claim entitlement under a UPC and where an employer fails to approve a reasonable extension of time, it would constitute a breach of the contract. In such situations, the contractor can claim damages, losses and even plead time is at large. Any consequential costs stemming from employer's delay in awarding extension of time, is also compensable subject to any contract limitations/exclusions.
- Suspension of works by the contractor is an option where UPC occurs, and the employer fails to comply with its obligations under the contract. This is at the risk of employer seeking damages through an injunction in the event of a suspension to compel contractor to perform its obligations.
- Termination of contract by the contractor is an option, where UPC is listed as basis of termination. This could also arise where there is proof of employer's repudiatory or fundamental breach of contract, an act of prevention by employer or circumstances where the contract is frustrated as a direct result of UPC.
- A party can terminate the contract where there is evidence of fraudulent or false information in respect of UPC affecting the site. Actively concealing site information relevant to project

timelines and costs is considered a fraudulent act. Misrepresentation by positive assertion of an untrue statement without an intent to deceive, is also a basis to terminate. The contract cannot be avoided by parties if they had the means of discovering the truth with ordinary diligence.

Disputes surrounding determination of whether an event is unforeseeable and the consequent time and/or additional cost arising because of UPC, remains key in the Indian legal landscape.

Conclusion

Ground conditions are often the cause of great uncertainty in projects as its not necessarily within the control on contracting parties. However, it would be prudent to provide for such a contingency through:

- Sufficient diligence and investigations at tender stage to identify level of foreseeability which is key towards design, time and cost planning;
- Securing commercial protection through insurance coverage;
- Appropriate risk allocation in contract clauses namely, unforeseen physical condition, extension of time, cost claims, *force majeure*, suspension and termination clauses; and
- Timely appointments of geotechnical experts and legal counsel to provide advice and support in respect of UPC avoidance, mitigation and resolution.

If you require any further information, please contact benjaminhighfield@hka.com or shamilaneelakandan@hka.com or anandudayakumar@hka.com from HKA, and binsy.susan@amsshardul.com or akshay.sharma@amsshardul.com or palak.kaushal@amsshardul.com from Shardul Amarchand Mangaldas & Co.

ABOUT HKA

HKA is the world's leading consultancy of choice for multi-disciplinary expert and specialist services in risk mitigation and dispute resolution within the capital projects and infrastructure sector. We also have particular experience advising clients on the economic impact of commercial and investment treaty disputes, forensic accounting matters and in cybersecurity and privacy governance and compliance. In addition, HKA supports companies that conduct business with the US Federal Government, providing them with consulting services on complex government contracting matters.

As trusted independent consultants, experts and advisors, we deliver solutions amid uncertainty, dispute and overrun, and provide the insights that make the best possible outcomes a reality for public and private sector clients worldwide.

HKA has in excess of 1,000 consultants, experts and advisors in more than 40 offices across 18 countries.

ABOUT SHARDUL AMARCHAND MANGALDAS & CO.

Shardul Amarchand Mangaldas & Co. is one of India's leading full service law firms known for its expertise in the litigation and arbitration sector. Our services include Dispute Avoidance, Strategic Advice, Pre-Litigation and Litigation Advice and Enforcement Advice.

Shardul Amarchand Mangaldas & Co. has deep experience in representing domestic clients before the Supreme Court of India, various High Courts and Tribunals in India. Their lawyers have acted in numerous landmark cases involving complex legal nuances of law that have contributed to the development of jurisprudence in India. Shardul Amarchand Mangaldas & Co. have over 148 dispute lawyers, including 25 partners. The team is led by senior litigators who are acknowledged leaders in their field, many of whom have over twenty years of experience at the bar.

Shardul Amarchand Mangaldas & Co. has been recognised as one of the leading law firms in India for international and domestic arbitration, with specialised Arbitration Practice Group consisting of members with extensive experience and expertise in handling all phases of complex commercial and treaty arbitrations, including advising on negotiation strategy, developing dispute resolution plans, drafting pleadings, conducting arbitration hearings and, where necessary, seeking resource from courts etc. Shardul Amarchand Mangaldas & Co. also have significant experience in representing clients in both domestic and international arbitrations, having seat in India and abroad, including London, Paris, Dubai, Chicago, Kuala Lumpur, Singapore, The Hague, and Stockholm.

Shardul Amarchand Mangaldas & Co. have been recognized as a 'Band 1 firm' for Dispute Resolution by Chambers and Partners Global, 2022. As a 'Band 1 firm' again for Dispute Resolution and White Collar Crime by Chambers and Partners Asia Pacific, 2022 and 'Tier 1 firm' for Dispute Resolution: Litigation and Arbitration by the Legal 500, 2016-2022.