

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Mainly in Sri Lanka construction contracts are prepared based on standard conditions of contracts such as ICTAD or FIDIC. ICTAD is used for local contracts, whereas FIDIC is used for International contracts. In International Contracts, at least one party to the contract is not based in Sri Lanka. These conditions of contracts have withstood test of time as FIDIC Red Book has been first published in the year 1999 and ICTAD SBD 02 Second Edition has first been published in the year 2007. These conditions of contracts have got all features for being included in contracts of most complex projects. But disputes are on the rise. Gunarathna and Fernando (n.d), have stated that magnitude of having conflicts in Sri Lankan construction industry was continuously increasing with time.

As such in this study, it is investigated to see if FIDIC red Book and ICTAD SBD 02 have actually got in-built features to manage the disputes that are occurred. Disputes occur due to various causes. Therefore, it was necessary to identify true causes of disputes. The impetus of causes of disputes emerges in different stages of construction process. As such, it was also essential to identify the stages that causes of disputes were belonging to. Hence, the causes of disputes were categorized in to four main stages of construction namely, Selection of Procurement Method and Contract Type, Designing and Drafting of Tender Documents, Tendering and Contract Administration. The Contract Administration is the stage, where physical construction is carried on. The physical construction is governed by a contract. In accordance with this research study, the contracts are based on either FIDIC Red Book or ICTAD SBD 02. Hence, it was required to relate Contract Administration related causes of disputes to FIDIC Red Book and ICTAD SBD 02 Conditions of Contract. The disputes are most of the time emerge as surprises to parties to contracts. This becomes a huge threat to successful completion of projects. Therefore, it is always beneficial for parties to know if a dispute is on the way. As such, it was advantageous to identify foreseeable hints for disputes that may occur. As known, prevention is better cure. If a dispute can be mitigated before occurrence, it is good for general health of a project. In doing so, the relationships will not be sore and budget will not go up. Therefore, an effort was made to investigate if FIDIC red Book

and ICTAD SBD 02 have got adequate dispute mitigation measures. Recently, the alternative dispute resolution (ADR) methods have become very useful for parties to disputes as those take less time and less money compared to litigation. Though, ADR methods are cheaper, they are not free of charge. The parties to disputes still need to spent time and money on those. In these circumstances if parties to disputes can resolve issues within the contractual provisions of FIDIC red Book and ICTAD SBD 02, it becomes a huge relief. Hence, it is examined to ascertain if FIDIC red Book and ICTAD SBD 02 have got suitable dispute resolution provisions to resolve disputes that are occurred due to various causes of disputes emerge in different stages. All in all, the aim of the study is to investigate adequacy of dispute mitigation and dispute resolution measures available in conditions of contracts used for construction projects in Sri Lanka.

5.2 Conclusion

Identifying causes for disputes which frequently occur in Sri Lanka was the first and foremost objective of this research study. There were ninety one short listed causes of disputes included in the questionnaire. The respondents to the questionnaires agreed that 81% of the listed causes were true causes of disputes. The validity of the remainder of the study was always dependant on this conclusion. Now, as bulk of the listed causes of disputes was considered to be true causes of disputes, the rest of the conclusion also becomes valid and true.

Categorising causes of disputes in to main stages of construction process was the second objective of the study. The identified causes of disputes were categorised into four main stages of construction process as Stage 1 – Selection of Procurement Method and Contract Type – This is early stage of construction process. After investment decision is taken by the developer, the project team decides on the method of procurement that is suitable for the construction of the particular project and selection of type of contract which fulfils the requirements of the client., Stage 2 – Designing and Drafting of Tender Documents – This is the stage where concept, schematic and details designs are completed and tender documents are prepared., Stage 3 – Tendering – During this stage the bidders are short listed, tender invitations are sent out, tender documents are issued, tender quarries are answered, tender submissions are received, tender evaluations and negotiations are carried out, and contract awarding process is completed and Stage 4 –

Contract Administration – This stage starts from the award of the contract and finishes when completion certificate is issued at the end of the defects liability period.

As third objective of the study, the causes of disputes were related to FIDIC Red Book and ICTAD SBD 02 Conditions of Contract by listing them under each and every heading of conditions of contract. All the Contract Administration related causes of disputes were appropriately related and listed under FIDIC Red Book and ICTAD SBD 02 headings of Conditions of Contract during the desk review. Hence, it was apparent that Contract Administration related causes of disputes have a direct relationship and relevance with FIDIC Red Book and ICTAD SBD 02 Conditions of Contract.

Identifying precursor situation, as a hint, prior to occurrence of a dispute, was the fourth objective of the study. The respondents to the questionnaires, during the questionnaire survey were asked to reveal in relation to the main stages identified in Chapter 4.4 whether the surfacing of precursor situations of disputes of different causes are actually could be identified as hints for disputes. Overall 83% of the respondents agreed that precursor situations of disputes that are located with regard to identified causes of disputes during Contract Administration Stage which has direct relevance to FIDIC Red Book and / or ICTAD SBD 02 Conditions of Contract serves as hints for disputes.

The respondents to the questionnaires, during the questionnaire survey, were requested to provide their opinion on if FIDIC Red Book / ICTAD SBD 02 have inbuilt mitigation measures to mitigate the disputes that may occur due to the causes of disputes identified in chapter 4.3 in relation to the main stages discussed in Chapter 4.4 which is related to achieving of fourth objective of this study. 61% of the respondents agreed that FIDIC Red Book / ICTAD SBD 02 have got mitigation measures to mitigate disputes that may occur due to identified causes of disputes during Contract Administration Stage which has direct relevance to FIDIC Red Book and / or ICTAD SBD 02 Conditions of Contract.

As of achieving of final objective the respondents to the questionnaires, during the questionnaire survey, were requested to provide their opinion on if FIDIC Red Book / ICTAD SBD 02 have inbuilt resolution provisions to resolve the disputes that may occur due to the causes of disputes identified in chapter 4.3 in relation to the main stages discussed in Chapter 4.4. 66% of the respondents agreed that FIDIC Red Book / ICTAD

SBD 02 have got resolution provisions to resolve disputes that may occur due to Contract Administration related causes of disputes which has direct relevance to FIDIC Red Book and / or ICTAD SBD 02 Conditions of Contract.

5.3 Recommendations

Overall 95% of the respondents agreed that precursor situation of disputes that is occurred due to Selection of Procurement Method and Contract Type related causes of disputes serves as hints for disputes. 50% of the respondents agreed that FIDIC Red Book / ICTAD SBD 02 have got mitigation measures to mitigate disputes that may occur due to the causes of disputes identified for the same stage. 50% of the respondents also agreed that FIDIC Red Book / ICTAD SBD 02 have got resolution provisions to resolve disputes that may occur due to Selection of Procurement Method and Contract Type related causes of disputes. However, 90% of the respondents agree that the causes, categorized under Selection of Procurement Method and Contract Type Stage, are true causes of disputes. Hence, it seems apparent that respondents do not believe that the embedded causes of disputes during the Selection of Procurement Method and Contract Type in the construction process have been adequately addressed in FIDIC Red Book / ICTAD SBD 02 in terms of mitigation and resolution. Therefore, it is recommended that the governing bodies of construction in Sri Lanka take note of these findings and take action to alleviate these deficiencies.

Around 85% of the respondents agreed that precursor situation of disputes that is occurred due to Designing and Drafting of Tender Documents related causes of disputes serves as hints for disputes. 49% of the respondents agreed that FIDIC Red Book / ICTAD SBD have got mitigation measures to mitigate disputes that may occur due to the causes of disputes identified for the same stage. 52% of the respondents agreed that FIDIC Red Book / ICTAD SBD 02 have got resolution provisions to resolve disputes that may occur due to Stage 2 Designing and Drafting of Tender Documents related causes of disputes. However, 84% of the respondents agree that the causes, categorized under Designing and Drafting of Tender Documents Stage, are true causes of disputes. Hence, it seems apparent that respondents do not believe that the embedded causes of disputes during the Designing and Drafting of Tender Documents stage in the construction process have been adequately addressed in FIDIC Red Book / ICTAD SBD

02 in terms of mitigation and resolution. Therefore, it is recommended that the governing bodies of construction in Sri Lanka take note of these findings and take action to alleviate these deficiencies.

Overall 84% of the respondents agreed that precursor situation of disputes that is occurred due to Tendering related causes of disputes serves as hints for disputes. Alarmingly, only 18% of the respondents agreed that FIDIC Red Book / ICTAD SBD 02 have got mitigation measures to mitigate disputes that may occur due to Tendering related causes of disputes. Disturbingly, only 32% of the respondents agreed that FIDIC Red Book / ICTAD SBD 02 have got resolution provisions to resolve disputes that may occur due to Tendering related causes of disputes. However, 76% of the respondents agree that the causes, categorized under Tendering Stage, are true causes of disputes. Hence, it seems apparent that respondents do not believe that the embedded causes of disputes during the Tendering stage in the construction process have been adequately addressed in FIDIC Red Book / ICTAD SBD 02 in terms of mitigation and resolution. Therefore, it is recommended that the governing bodies of construction in Sri Lanka take note of these findings and take action to alleviate these deficiencies.

As much as 83% of the respondents agreed that precursor situations of disputes that are occurred due to overall Contract Administration Stage related causes of disputes serves as hints for disputes. 61% of the respondents agreed that FIDIC Red Book / ICTAD SBD 02 have got mitigation measures to mitigate disputes that may occur due to Contract Administration related overall causes of disputes. 66% of the respondents agreed that FIDIC Red Book / ICTAD SBD 02 have got resolution provisions to resolve disputes that may occur due to causes of disputes related to the same stage. However, 81% of the respondents agree that the causes, categorized under Contract Administration Stage, are true causes of disputes. Even though, fairly higher percentage of respondents believe that the embedded causes of disputes during the Contract Administration Stage in the construction process have been adequately addressed in FIDIC Red Book / ICTAD SBD 02 in terms of mitigation and resolution, still, it seems there is much room for improvement. Therefore, it is recommended that the governing bodies of construction in Sri Lanka take note of these findings and take action to improve current provisions.

5.4 Further Studies

A comprehensive research study needs to be done to see how FIDIC red Book and ICTAD SBD 02 conditions of contracts could be improved in terms improving dispute identification, mitigation and resolution aiming at if not international at least Sri Lankan construction industry. Due to the importance and scope of this study, it is recommended that governing bodies of construction in Sri Lanka should pay attention in terms of organizing and funding the research study.



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7.0 APPENDIX A: LIST OF CAUSES OF DISPUTES

**8.0 APPENDIX B: CATEGORIZATION OF LIST OF DISPUTES
IN TO STAGES OF CONSTRUCTION PROCESS**

**9.0 APPENDIX C: SORTING OF CONSTRUCTION
ADMINISTRATION RELATED CAUSES OF DISPUTES INTO
FIDIC RED BOOK GENERAL CONDITIONS AND/OR
ICTAD/SBD/02 CONDITIONS OF CONTRACT**

10.0 APPENDIX D: DATA EVALUATION TABLES

11.0 APPENDIX E: QUESTIONNAIRE



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APPENDIX A - LIST OF CAUSES OF DISPUTES AS PER LITERATURE SURVEY

1. Kumaraswamy (1997) attempted to examine causality of disputes. In that, he sought to determine the root causes, which means the underlying reason of the problem, which, if eliminated, would prevent recurrence and proximate causes, which immediately precedes and produces the effect.

1.1 The root causes identified by Kumaraswamy (1997) include the following:

- Unfair risk allocation;
- Unclear risk allocation;
- Unrealistic time/cost/quality targets by the client;
- Uncontrollable external events;
- Adversarial industry culture;
- Unrealistic tender pricing;
- Inappropriate contract type;
- Lack of competence of project participants;
- Lack of professionalism of project participants;
- Client's lack of information or decisiveness; and
- Contractor's unrealistic information expectations.

1.2 Proximate causes identified by Kumaraswamy (1997) include the following:

- Inadequate brief;
- Poor communications;
- Personality clashes;
- Vested interests;
- Changes by client;
- Slow client responses;
- Exaggerated claims;
- Estimating errors;
- Other (eg. Works) errors;
- Internal disputes (eg. In jvs);
- Inadequate contract administration;
- Inaccurate design information;
- Incomplete tender information;
- Inadequate design documentation;
- Inappropriate contractor selection
- Inappropriate payment modalities; and
- Inappropriate contract form.

2. Semple, Hartman, and Jergeas (1994) described that the fundamental causes and real costs associated with conflicts and disputes in Canadian Construction Industry were not well understood. They identified the following causes as common causes of claims which might end up as disputes.
 - Acceleration;
 - Restricted access;
 - Weather / cold; and
 - Increase in scope.

3. Watts and Scrivener (1993) identified most frequent sources of disputes as listed below;
 - Violation of operational provisions in the agreement;
 - Variations;
 - Negligence in tort; and
 - Delay.

4. As per Waldron (2006), the main issues that lead to disputes were as follows;
 - Variations to scope,
 - Contract interpretation,
 - Extension of time claims,
 - Site conditions,
 - Late, incomplete or substandard information,
 - Obtaining approvals,
 - Site access,
 - Quality of design and
 - Availability of resources.

5. Cheung and Yiu (2006) listed, as follows, general types of disputes in the order of perceived significance following a literature review, interviews and a questionnaire survey;
 - Variations due to site conditions,
 - Variations due to client changes,
 - Variations due to design errors,
 - Unforeseen ground conditions,
 - Ambiguities in contract documents,
 - Variations due to external events,
 - Interferences with utility lines,
 - Exceptional inclement weather,
 - Delayed design information and
 - Delayed site possession.

They, further, identified the basic factors that drive the development of disputes. Those include;

- Project uncertainty,
 - Contractual problems and
 - Opportunistic behaviour.
6. As per Acharya, Lee, and Man Im, (2006), there were six critical conflicting factors in construction projects in Korea; which would be helpful for project planners and implementers in assessing and taking proactive measures for reducing the adverse effects of conflict. The six critical conflicting factors were;
- Differing site condition,
 - Public interruption,
 - Differences in change order evaluation,
 - Design errors,
 - Excessive contract quantities variation and,
 - Double meaning of specifications.
7. Cheung and Pang (2014) described that traditionally subject matter approach has been used to identify the construction disputes. The diagnostic approach aims to uncover the underlying causes that lead to disputes. They believe that this approach is more informative as far as understanding construction disputes is concerned.

7.1 Subject Matters

- Change of scope,
 - Change conditions,
 - Delay,
 - Disruption,
 - Acceleration and
 - Termination
-
- Determination of the agreement
 - Payment related
 - The site and execution of work
 - Time related
 - Final certificate and final payment and
 - Tort related
-
- Contract terms
 - Payments
 - Variations
 - Extensions of time

- Nomination
- Re-nomination
- Availability of information

- Payment
- Performance
- Delay
- Negligence
- Quality and administration

- Variation due to site conditions
- Variations due to client changes
- Variations due to design errors
- Unforeseen ground conditions
- Ambiguities in contract documents
- Variations due to external events
- Interferences with utility lines
- Exceptional inclement weather
- Delayed design information
- Delayed site possession
- Variations
- Ambiguities in contract documents
- Inclement weather
- Late issue of design information/ drawings
- Delayed possession of site
- Delay by other contractors employed by the client (e.g. Utility companies)
- Postponement of part of the project

- Valuation of variations
- Valuation of final account
- Failure to comply with payment provisions

- Payment
- Delay
- Defect/quality
- Professional negligence

- Ambiguous contract documents
- Competitive/ adversarial attitude
- Dissimilar perceptions of fairness by the participants

- Project uncertainty
- Contractual problems



- Opportunistic behaviour
- Contractors' financial position
- Cost of conflict and culture

7.2 Underlying Causes

- People,
- Process
- Product

- Management
- Culture
- Communications
- Design
- Economics
- Tendering pressure
- Law
- Unrealistic expectations
- Contracts
- Workmanship
- Technical
- Legal
- Managerial dispute issues must have a contractual reference

- Construction contracts
- Unpredictable events

- Dispute is the formation of a position to maintain in conflict

- Dispute can be viewed as a class or kind of conflict that require resolution

- Construction dispute is the opposition of interests, values or objectives

- Construction dispute is linked with difference in perspectives, interests and agenda of human beings

- Construction dispute is the incompatibility of two (or more) people's (or groups') interests, needs or goals

- Dispute requires resolution is associated with distinct justifiable issues

- Construction disputes are due to unrealistic expectation, lack of team spirit and misunderstandings



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8. El-Razek, Bassioni and El-Salam (n.d.), identified the following as causes of Disputes by researching the international literature.

- Delays in payments to contractors and resulting cash problems during construction
- Inferior quality of design, drawings and/or specifications,
- The contract documents have errors, defects, omissions, and poor management
- Delays of approval of shop drawings, instructions and decision making
- Restricted access
- Faulty and/or late owner-supplied equipment and material
- Unbalanced bidding , underestimation and incompetence of contractors
- Stakeholders involved in the project
- Relatively low profitability of the construction industry
- Variations initiated by the owner/consultant (additive/deductive)
- Acceleration and stop-and-go operations
- Insufficient time for bid preparation and Inadequate investigation before bidding
- Changed conditions
- Increased of complexity and scale of building process
- Weather

9. El-Razek, Bassioni and El-Salam (n.d.), following consultation with the industry experts, short listed the below mentioned causes of disputes as main causes of Disputes in Lebanon.

- Delays in payments to contractors and resulting cash problems during construction
- Inferior quality of design, drawings and / or specifications
- The contract documents have errors, defects and omissions
- Delays of approval of shop drawings, instructions and decision making

- Restricted access
- Faulty and / or late Owner-supplied equipment and material
- Unbalanced bidding, underestimation and incompetence of contractors
- Stakeholders involved in the project
- Relatively low profitability of the construction industry
- Variations initiated by the owner/consultant (additive/deductive)
- Acceleration and stop-and-go operations
- Insufficient time for bid preparation and inadequate investigation before bidding
- Changed conditions
- Increase of complexity and scale of building process
- Delay of Owner representative/ consultant in inspection work
- Unexpected changes in exchange, interest, and inflation rate
- Unexpected change in materials prices

10. Malak, Wood, and Yonis (2008) as continuing incidence of costly disputes in the construction industry had led to a common interest of researchers in different countries to identify the generic aspects of conflicts, claims, disputes and their resolution, undertook a comprehensive review of literature in the field of construction disputes and identified

- The relationship between procurement selection (with the inherent risk allocation) and
- The behavioural attitudes of key stakeholders as critical factors in the incidence of disputes.



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APPENDIX B - CATEGORIZATION OF ABOVE LIST OF DISPUTES IN TO STAGES OF CONSTRUCTION PROCESS

1.0 Selection of Procurement Method and Contract Type

- Unfair risk allocation (1.1)
- Unclear risk allocation (1.1)
- Inappropriate contract type (1.1)
- Stakeholders involved in the project (8, 9)
- The relationship between procurement selection (with the inherent risk allocation) (10)

2.0 Designing and Drafting of Tender Documents

- Unrealistic time/cost/quality targets by the client (1.1)
- Client's lack of information or decisiveness (1.1)
- Inadequate brief (1.2)
- Inadequate contract administration (1.2)
- Inaccurate design information (1.2)
- Incomplete tender information (1.2)
- Inadequate design documentation (1.2)
- Inappropriate payment modalities (1.2)
- Inappropriate contract form (1.2)
- Quality of design (4)
- Design errors (6)
- Double meaning of specifications (6)
- People (7.2)
- Process (7.2)
- Product (7.2)
- Management (7.2)
- Culture (7.2)
- Communications (7.2)
- Design (7.2)
- Economics (7.2)
- Law (7.2)
- Unrealistic expectations (7.2)
- Contracts (7.2)
- Construction contracts (7.2)
- Inferior quality of design, drawings and/or specifications (8, 9)
- The contract documents have errors, defects and omissions (9)

3.0 Tendering

- Unrealistic tender pricing (1.1)
- Estimating errors (1.2)
- Inappropriate contractor selection (1.2)
- Determination of the agreement (7.1)
- Contract terms (7.1)
- Tendering pressure (7.2)
- Relatively low profitability of the construction industry (8, 9)
- Insufficient time for bid preparation and inadequate investigation before bidding (8, 9))
- Unbalanced bidding, underestimation and incompetence of contractors (8, 9)

4.0 Contract Administration

- Lack of professionalism of project participants (1.1)
- Contractor's unrealistic information expectations (1.1)
- Poor communications (1.2)
- Personality clashes (1.2)
- Vested interests (1.2)
- Changes by client (1.2)
- Slow client responses (1.2)
- Exaggerated claims (1.2)
- Estimating errors (1.2)
- Other (eg. Works) errors (1.2)
- Internal disputes (eg. In jvs) (1.2)
- Inadequate contract administration (1.2)
- Acceleration (2)
- Restricted access (2)
- Weather / cold (2)
- Increase in scope (2)
- Violation of operational provisions in the agreement (3)
- Variations (3)
- Negligence in tort (3)
- Delay (3)
- Variations to scope (4)
- Contract interpretation (4)
- Extension of time claims (4)
- Site conditions (4)
- Late, incomplete or substandard information (4)
- Obtaining approvals (4)
- Site access (4)
- Availability of resources (4)
- Variations due to site conditions (5)

- Variations due to client changes (5)
- Variations due to design errors (5)
- Unforeseen ground conditions (5)
- Ambiguities in contract documents (5)
- Variations due to external events (5)
- Interferences with utility lines (5)
- Exceptional inclement weather (5)
- Delayed design information (5)
- Delayed site possession (5)
- Differing site condition (6)
- Differences in change order evaluation (6)
- Excessive contract quantities variation (6)
- **Double meaning of specifications (6)**
 - Change of scope (7.1)
 - Change conditions (7.1)
 - Delay (7.1)
 - Disruption (7.1)
 - Acceleration (7.1)
 - Termination (7.1)
 - Payment related (7.1)
 - The site and execution of work (7.1)
 - Time related (7.1)
 - Final certificate and final payment (7.1)
 - Tort related (7.1)
 - Payments (7.1)
 - Variations (7.1)
 - Extensions of time (7.1)
 - Nomination (7.1)
 - Re-nomination (7.1)
 - Availability of information (7.1)
 - Payment (7.1)
 - Performance (7.1)
 - Delay (7.1)
 - Negligence (7.1)
 - Quality and administration (7.1)
 - Variation due to site conditions (7.1)
 - Variations due to client changes (7.1)
 - Variations due to design errors (7.1)
 - Unforeseen ground conditions (7.1)
 - Ambiguities in contract documents (7.1)
 - Variations due to external events (7.1)
 - Interferences with utility lines (7.1)
 - Exceptional inclement weather (7.1)
 - Delayed design information (7.1)

- Delayed site possession (7.1)
- Variations (7.1)
- Ambiguities in contract documents (7.1)
- Inclement weather (7.1)
- Late issue of design information/ drawings (7.1)
- Delayed possession of site (7.1)
- Delay by other contractors employed by the client (e.g. Utility companies) (7.1)
- Postponement of part of the project (7.1)
- Valuation of variations (7.1)
- Valuation of final account (7.1)
- Failure to comply with payment provisions (7.1)
- Payment (7.1)
- Delay (7.1)
- Defect/quality (7.1)
- Professional negligence (7.1)
- Ambiguous contract documents (7.1)
- Competitive/ adversarial attitude (7.1)
- Dissimilar perceptions of fairness by the participants (7.1)
- Project uncertainty (7.1)
- Contractual problems (7.1)
- Opportunistic behaviour (7.1)
- Contractors' financial position (7.1)
- Cost of conflict and culture (7.1)
- Workmanship (7.2)
- Technical (7.2)
- Legal (7.2)
- Managerial dispute issues must have a contractual reference (7.2)
- Unpredictable events (7.2)
- Delays in payments to contractors and resulting cash problems during construction (8, 9)
- The contract documents have errors, defects, omissions, and poor management (8)
- Delays of approval of shop drawings, instructions and decision making (8, 9)
- Restricted access (8, 9)
- Faulty and/or late owner-supplied equipment and material (8, 9)
- Variations initiated by the owner/consultant (additive/deductive) (8, 9)
- Acceleration and stop-and-go operations (8, 9)
- Changed conditions (8, 9)
- Increase of complexity and scale of building process (8, 9)
- Weather (8)
- The contract documents have errors, defects and omissions (9)
- Delay of Owner representative/ consultant in inspection work (9)
- Unexpected changes in exchange, interest, and inflation rate (9)

- Unexpected change in materials prices (9)
- The behavioural attitudes of key stakeholders as critical factors in the incidence of disputes (10)

5.0 Third Party Interference

- Uncontrollable external events (1.1)
- Public interruption (6)

6.0 Construction Industry

- Adversarial industry culture (1.1)
- Relatively low profitability of the construction industry (8, 9)

7.0 Statements

- Dispute is the formation of a position to maintain in conflict (7.2)
- Dispute can be viewed as a class or kind of conflict that require resolution (7.2)
- Construction dispute is the opposition of interests, values or objectives (7.2)
- Construction dispute is linked with difference in perspectives, interests and agenda of human beings (7.2)
- Construction dispute is the incompatibility of two (or more) people's (or groups') interests, needs or goals (7.2)
- Dispute requires resolution is associated with distinct justifiable issues (7.2)
- Construction disputes are due to unrealistic expectation, lack of team spirit and misunderstandings (7.2)

APPENDIX C - SORTING OF CONSTRUCTION ADMINISTRATION RELATED CAUSES OF DISPUTES INTO FIDIC RED BOOK GENERAL CONDITIONS AND/OR ICTAD/SBD/02 CONDITIONS OF CONTRACT

1.0 General Provisions

- Contractor's unrealistic information expectations (1.1)
- Poor communications (1.2)
- Slow client responses (1.2)
- Obtaining approvals (4)
- Contract interpretation (4)
- Late, incomplete or substandard information (4)
- Delayed design information (5)
- Ambiguities in contract documents (5)
- Availability of information (7.1)
- Ambiguities in contract documents (7.1)
- Delayed design information (7.1)
- Late issue of design information/ drawings (7.1)
- Ambiguous contract documents (7.1)
- The contract documents have errors, defects and omissions (9)
- Delays of approval of shop drawings, instructions and decision making (8, 9)
- Double meaning of specifications (6)
- Contractual problems (7.1)
- Legal (7.2)
- Technical (7.2)

2.0 The Employer

- Restricted access (2)
- Site access (4)
- Delayed site possession (5)
- Delayed site possession (7.1)
- Delayed possession of site (7.1)
- Restricted access (8 9)
- Lack of professionalism of project participants (1.1)
- Personality clashes (1.2)
- Vested interests (1.2)
- Opportunistic behaviour (7.1)
- Managerial dispute issues must have a contractual reference (7.2)
- The behavioural attitudes of key stakeholders as critical factors in the incidence of disputes (10)
- Performance (7.1)

- Violation of operational provisions in the agreement (3)
- Competitive/ adversarial attitude (7.1)
- Dissimilar perceptions of fairness by the participants (7.1)

3.0 The Engineer

- Lack of professionalism of project participants (1.1)
- Personality clashes (1.2)
- Vested interests (1.2)
- Inadequate contract administration (1.2)
- Opportunistic behaviour (7.1)
- Managerial dispute issues must have a contractual reference (7.2)
- The behavioural attitudes of key stakeholders as critical factors in the incidence of disputes (10)
- Performance (7.1)
- Violation of operational provisions in the agreement (3)
- Competitive/ adversarial attitude (7.1)
- Dissimilar perceptions of fairness by the participants (7.1)
- Double meaning of specifications (6)
- Contractual problems (7.1)
- Technical (7.2)

4.0 The Contractor

- Site conditions (4)
- Unforeseen ground conditions (5)
- Interferences with utility lines (5)
- Quality and administration (7.1)
- Defect/quality (7.1)
- The site and execution of work (7.1)
- Unforeseen ground conditions (7.1)
- Interferences with utility lines (7.1)
- Contractors' financial position (7.1)
- Faulty and/or late owner-supplied equipment and material (8, 9)
- Differing site condition (6)
- Performance (7.1)
- Contractual problems (7.1)
- Technical (7.2)

5.0 Nominated Subcontractors

- Nomination (7.1)
- Re-nomination (7.1)



6.0 Staff and Labour

- Lack of professionalism of project participants (1.1)
- Personality clashes (1.2)
- Vested interests (1.2)
- Opportunistic behaviour (7.1)
- Managerial dispute issues must have a contractual reference (7.2)
- The behavioural attitudes of key stakeholders as critical factors in the incidence of disputes (10)
- Performance (7.1)
- Violation of operational provisions in the agreement (3)
- Competitive/ adversarial attitude (7.1)
- Dissimilar perceptions of fairness by the participants (7.1)

7.0 Plant, Material and Workmanship

- Availability of resources (4)
- Quality and administration (7.1)
- Defect/quality (7.1)
- Workmanship (7.2)
- Delay of Owner representative/Consultant/Inspector work (9)
- Other (eg. Works) errors (1.2)
- Performance (7.1)
- Increase of complexity and scale of building process (8, 9)

8.0 Commencement, Delays and Suspension

- Acceleration (2)
- Weather / cold (2)
- Delay (3)
- Extension of time claims (4)
- Exceptional inclement weather (5)
- Delay (7.1)
- Disruption (7.1)
- Acceleration (7.1)
- Time related (7.1)
- Extensions of time (7.1)
- Delay (7.1)
- Delay by other contractors employed by the client (e.g. Utility companies) (7.1)
- Postponement of part of the project (7.1)
- Delay (7.1)
- Exceptional inclement weather (7.1)
- Inclement weather (7.1)

- Acceleration and stop-and-go operations (8, 9)
 - Weather (8)
- 9.0 Tests on Completion (As per literature survey this is not a cause for dispute)
- 10.0 Employer's Taking Over (As per literature survey this is not a cause for dispute)
- 11.0 Defects Liability (As per literature survey this is not a cause for dispute)
- 12.0 Measurement and Evaluation
- **Estimating errors (1.2)**
 - Differences in change order evaluation (6)
 - Valuation of variations (7.1)
 - Valuation of final account (7.1)
- 13.0 Variations and Adjustments
- Changes by client (1.2)
 - Increase in scope (2)
 - Variations (3)
 - Variations to scope (4)
 - Variations due to site conditions (5)
 - Variations due to client changes (5)
 - Variations due to design errors (5)
 - Variations due to external events (5)
 - Excessive contract quantities variation (6)
 - **Double meaning of specifications (6)**
 - Change of scope (7.1)
 - Change conditions (7.1)
 - Variations (7.1)
 - Variation due to site conditions (7.1)
 - Variations due to client changes (7.1)
 - Variations due to design errors (7.1)
 - Variations due to external events (7.1)
 - The contract documents have errors, defects, omissions, and poor management (8)
 - Variations initiated by the owner/consultant (additive/deductive) (8, 9)
 - Changed conditions (8, 9)
 - Unexpected change in materials prices (9)
 - Legal (7.2)

14.0 Contract Price and Payment

- Payment related (7.1)
- Final certificate and final payment (7.1)
- Payments (7.1)
- Payment (7.1)
- Failure to comply with payment provisions (7.1)
- Payment (7.1)
- Delays in payments to contractors and resulting cash problems during construction (8, 9)
- Unexpected changes in exchange, interest, and inflation rate (9)

15.0 Termination by Employer

- Termination (7.1)

16.0 Suspension and Termination by Contractor

- Termination (7.1)

17.0 Risk and Responsibility

- Negligence in tort (3)
- Tort related (7.1)
- Negligence (7.1)
- Professional negligence (7.1)
- Project uncertainty (7.1)

18.0 Insurance

- Contractors' financial position (7.1)

19.0 Claims, Disputes and Arbitration

- Exaggerated claims (1.2)
- Internal disputes (eg. In jvs) (1.2)
- Cost of conflict and culture (7.1)

20.0 Force Majeure

- Unpredictable events (7.2)

APPENDIX D – QUESTIONNAIRE

No.	Cause	Is this a hint for dispute occurrence? Yes / No	Is this a cause for dispute occurrence? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
1	Selection of Procurement Method and Contract Type Stage				
1.1	Unfair risk allocation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
1.2	Unclear risk allocation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
1.3	Inappropriate contract type	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
1.4	Hostile attitude of Stakeholders involved in the project	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
1.5	Improper risk allocation in procurement method selection	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2	Designing and Drafting of Tender Documents Stage				
2.1	Unrealistic time/cost/quality targets by the client	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.2	Client's lack of information or decisiveness	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.3	Inadequate client's brief	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

No.	Cause	Is this a hint for dispute occurrence? Yes / No	Is this a cause for dispute occurrence? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
2.4	Incorporation of inappropriate contract administration provisions	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.5	Inaccurate design information	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.6	Incomplete tender information	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.7	Inadequate design documentation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.8	Selection of inappropriate payment modalities	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.9	Inappropriate contract form	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.10	Inadequate quality of design	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.11	Inadequate quality of specifications	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.12	Participation inappropriate Personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.13	Selection of inappropriate Construction Process	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.14	Undecided nature of ultimate Product	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

No.	Cause	Is this a hint for dispute occurrence? Yes / No	Is this a cause for dispute occurrence? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
2.15	Inclusion of weak Construction Management process	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.16	Prevalent dispute avoiding industry culture	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.17	Miscommunication communication among stakeholders	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.18	Unfavourable economic condition	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.19	Unavailability of unbiased legal provisions	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
2.20	Unrealistic expectations of stakeholders	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3	Tendering Stage				
3.1	Unrealistic tender pricing	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3.2	Estimating errors	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3.3	Inappropriate contractor selection	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3.4	Unilateral determination of the agreement	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3.5	Unfavourable Contract terms	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

No.	Cause	Is this a hint for dispute occurrence? Yes / No	Is this a cause for dispute occurrence? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
3.6	Undue tendering pressure	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3.7	Relatively low profitability of the construction industry	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3.8	Insufficient time for bid preparation and inadequate investigation before bidding	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
3.9	Unbalanced bidding, underestimation and incompetence of contractors	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4	Contract Administration Stage				
4.1	General Provisions				
4.1.1	Contractor's unrealistic information expectations	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.2	Poor communications	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.3	Slow client responses	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.4	Late approvals	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.5	Improper contract interpretation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

No.	Cause	Is this a hint for dispute occurrence? Yes / No	Is this a cause for dispute occurrence? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
4.1.6	Late, incomplete or substandard information	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.7	Delayed design information	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.8	Ambiguities in contract documents	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.9	Unavailability of information	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.10	Late issue of design information, drawings	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.1.11	Weak specifications	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2	The Employer				
4.2.1	Restricted site access	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.2	Delayed site possession	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.3	Lack of professionalism of Employer's Personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.4	Personality clashes among Employer's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.5	Vested interests of the Employer	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.6	Opportunistic behaviour of the Employer	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

No.	Cause	Is this a hint for dispute occurrence? Yes / No	Is this a cause for dispute occurrence? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
4.2.7	Hostile Behaviour of Employer's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.8	Lack of Managerial skills of Employer's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.9	Weak performance of Employer's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.10	Violation of operational provisions in the agreement by the Employer's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.11	Competitive/ adversarial attitude of Employer's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2.12	Dissimilar perceptions of fairness by the participants of Employer's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3	The Engineer				
4.3.1	Lack of professionalism of the Engineer and his Personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.2	Personality clashes among the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
No.	Cause	Is this a hint for dispute occurrence?	Is this a cause for dispute	Does FIDIC and/or ICTAD	Does FIDIC and/or ICTAD

		Yes / No	occurrence? Yes / No	SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
4.3.3	Vested interests of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.4	Inadequate contract administration skills of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.5	Opportunistic behaviour of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.6	Lack Managerial skills of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.7	Hostile behaviour of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.8	Weak performance of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.9	Violation of operational provisions in the agreement by the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

No.	Cause	Is this a hint for dispute occurrence? Yes / No	Is this a cause for dispute occurrence? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt measures to mitigate the resultant dispute? Yes / No	Does FIDIC and/or ICTAD SBD2 has inbuilt provisions to resolve the resultant dispute? Yes / No
4.3.10	Competitive/ adversarial attitude of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.11	Dissimilar perceptions of fairness by the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3.12	Lack of contract interpretation skills of the Engineer and his personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4	The Contractor				
4.4.1	Adverse site conditions	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4.2	Differing site condition	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4.3	Interferences with utility lines	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4.4	Faulty and/or late owner-supplied equipment and material	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4.5	Insufficient Contract amount	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4.6	Lack of Quality assurance	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

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4.4.7	Lack of managerial skills of the Contractor's representative	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4.8	Lack of co-operation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.4.9	Faulty setting out	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.5	Nominated Subcontractors				
4.5.1	Controversial nominations	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6	Staff and Labour				
4.6.1	Lack of professionalism of Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6.2	Personality clashes among Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6.3	Vested interests of Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6.4	Opportunistic behaviour of Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

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4.6.5	Lack of managerial skills of Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6.6	Hostile behaviour of Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6.7	Violation of operational provisions by the Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6.8	Competitive/ adversarial attitude of Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.6.9	Dissimilar perceptions of fairness by the Contractor's personnel	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.7	Plant, Material and Workmanship				
4.7.1	Unavailability of resources	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.7.2	Lack of quality and workmanship	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.7.3	Delay in inspection	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.7.4	Defects of works	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

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4.7.5	Increase of complexity and scale of building process	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.8	Commencement, Delays and Suspension				
4.8.1	Acceleration	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.8.2	Adverse weather				
4.8.3	Delaying of work by the Contractor	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.8.4	Delay by other contractors employed by the client (e.g. Utility companies)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.8.5	Extension of time claims	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.8.6	Disruption	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.8.7	Postponement of part of the project	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.8.8	Stop-and-go operations	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.9	Tests on Completion (As per literature survey this is not a cause for dispute)				

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4.10	Employer's Taking Over (As per literature survey this is not a cause for dispute)				
4.11	Defects Liability (As per literature survey this is not a cause for dispute)				
4.12	Measurement and Evaluation				
4.12.1	Estimating errors	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.12.2	Differences in change order evaluation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.12.3	Faulty Valuation of variations	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.12.4	Valuation of final account	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.13	Variations and Adjustments				
4.13.1	Variations to scope				
4.13.2	Variations due to site conditions	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.13.3	Variations due to client changes	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.13.4	Variations due to design errors	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

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4.13.5	Variations due to external events	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.13.6	Excessive contract quantities variation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.13.7	Double meaning of specifications	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.13.8	Variations due errors, defects and omissions in Contract Documents	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.14	Contract Price and Payment				
4.14.1	Payment related issues	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.14.2	Final certificate and final payment related issues	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.14.3	Failure to comply with payment provisions	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.14.4	Delays in payments and resulting cash problems during construction	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.14.5	Unexpected changes in exchange, interest, and inflation rate	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

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4.15	Termination by Employer				
4.15.1	Issues pertaining to termination by Employer	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.16	Suspension and Termination by Contractor				
4.16.1	Issues pertaining to Suspension and Termination by Contractor	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.17	Risk and Responsibility				
4.17.1	Due to tort related negligence	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.17.2	Due to professional negligence	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.17.3	Due to project uncertainty	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.18	Insurance (As per literature survey this is not a cause for dispute)				
4.19	Claims, Disputes and Arbitration				
4.19.1	Exaggerated claims	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

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4.19.2	Internal disputes within JV etc.	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.19.3	Cost of conflict and culture	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.20	Force Majeure				
4.20.1	Unpredictable events	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
5	Third Party Interference				
5.1	Uncontrollable external events	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
5.2	Public Interruption	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>