

# Causes of Dispute in International Competitive Bidding Road Contracts Funded by Asian Development Bank in Nepal

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## Abstract

Asian Development Bank (ADB) has been working as the first International organization for road development like any other projects; ADB Projects are not able to avoid disputes. The study was focused to assess causes of dispute in International Competitive Bidding (ICB) road contract.

Based on area sampling eight ADB funded projects were selected for case study. Intensive reviews of available literatures on causes of disputes in the construction industries were done. One set questionnaire survey was carried out among the stakeholders involved in the ICB road projects to assess the causes of disputes. Semi-structure interview were conducted with the stakeholders.

The findings of the study revealed that disputes in the construction contracts are caused mainly due to Change of material, Source, Inadequate design and site information, Commencement and Delay information, Unforeseen physical/ Site condition resulting to variation, Strikes, Bandh, Riot (disturbance) or Disorder, Delay in decision making and settlement of dispute, Possession of site and Access to site, Unusual weather condition and Inflation, Unavailability of fuel and Construction material.

There is a need to revise the construction project contracts and standardize it to include the proposed ADR for disputes resolution through establishing an official committee, which consists of all related sectors working in public construction projects, contracting union, engineering syndicate, and specialist engineering consulting firms

**Keywords:** Contract Documents, Project Manager, Site Condition

## Background

Construction industry is complex, unique, and span for long period, which make more challenging to avoid disputes. Depending upon delivery method, type of skills, and required type of contract to use and employ, have different forms of disputes. Disputes are never budgeted for therefore occurrence of any disputes turn out to be very costly. It can damage financial and human resources,

time, quality of work, and opportunity cost. Therefore, disputes are unavoidable. It should be managed properly by assessing the causes. Nepal does not have a long history of construction contract. For a long time the government has been the main investor for construction works. Due to their limited sized in economy, investment capacity remained very small. In 1955, Nepal has become a member of the United Nations Organization (UNO). After the member of UNO, relationship with other nations has been gradually

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developed and financial aid was received from them. This helped to expand the construction activity within the country. In the early period, the donor agency/country has executed projects directly with their own technical work force. The government-funded works were used to be initially carried out on departmental basis without employing any contractors. After 1970, due to the ambitious national development plan of the government, a large number of capital construction projects were initiated (Sharma, 1991). In 1976, the Asian Development Bank (ADB) was the first organization to work in road development in Nepal. Transportation of goods and services from the market centers to the rural areas and vice-versa was difficult, insufficient, and costly. The Participants of financial agencies in Road Construction i.e. ADB, World Bank (WB), Japan International Corporation Agency (JICA), International Non-Governmental Organizations (INGOs), and other agencies assisted the Government of Nepal (GoN) to expand, upgrade, and maintain the road network. The provided advisory and operational technical assistance focused on institutional strengthening within the road sector. Many of the road projects are multi-component, addressing different road development needs in several places at the same time. Especially ADB's involvement in the road sector has been significant, addressing a large proportion of the road upgrading and periodic maintenance activities. About one quarter of the road development expenditure in Nepal was funded under ADB project since the 1980s. Among several agencies, ADB has its unique contribution for the progressive development of construction in Nepal (Chand, 2009).

Nepalese construction industry depends highly on government (public sector) development activities than private sector development activities. Therefore, one of the parties in construction contract would be Government Bureau or public corporations. Hence, the employer generally carries out the contract administration. In the large projects funded by the donor agencies, the involvement of international consultants (Engineer) is also important for administering the contract. In the large projects funded by donor agencies, different types of Condition of Contract (COC) were used for the preparation of tender documents. Tender document is extremely important in construction contract. Improper bid documents and contracts would not be able to establish proper contractual relationships between the contracting parties, which may lead towards costly consequences during contract execution. Therefore, in the preparation of contract documents, joint involvement of very competent professional experts (i.e. lawyers, experience engineer, architects, environmentalist etc) and highly experienced contract management professionals are recommended to make a proper contract documents. The most commonly used bid documents are based on the conditions of contract developed by the World Bank, ADB, and International Federation of Consulting

Engineer (FIDIC). There should also be clarity regarding the probable causes of disputes in contract document. It is very important to understand the causes and problems relating to disputes (Kayastha, 2006). The construction projects are becoming increasingly more and more complex due to new standards, advanced technologies, and the owner-desired additions and changes. In the meantime, successful completions of projects have been thought to depend mainly on the cooperation between main stakeholders (i.e. Employer/ Donor agency, Consultant/Engineer, and Contractor). Problem and disputes have always erupted due to conflicting opinions as to the various aspect of design of construction (Pathak, 2003). It is very difficult to imagine a disputes free ICB road contract. However, It can be expected fewer disputes by preparing good bid document. Effects of disputes can be minimized in road construction projects by introducing appropriate mechanism for dispute resolution in conditions of contract. Unnecessary disputes and delays hamper the project implementation by cost overrun and time overrun. They may also cause quality degradation of the project (Kayastha, 2006). Disputes/claims refer to differences in opinion or disagreement mostly between the two parties i.e. employer and the contractor due to ambiguity in understanding the conditions of contract. Due to many party involvements in road construction with their own interests, the disputes are being raised during the implementation of the road project.

### Statement of the Problem

Among several infrastructure, roads infrastructure has huge amount of investment. It is made for road development through International Contract Bidding (ICB) contract by ADB in Nepal and disputes management in those projects could result into a successful projects. Therefore, the researcher is interested to avoid non-budgetary expense of disputes to prevent the project to be costly. For the management of disputes its causes must be identified.

### Research Objectives

The objective is to identify the causes of disputes in ICB road contract along with its ranking funded by ADB Projects.

### Literature Review

#### Disputes/Claims in Construction Contract in Nepal

A dispute/claim as stated is demand for money, time or an adjustment as per the contract terms. The National Highway Institute, US Department of Transportation assumes that contractor believes a change exists but the owner disagrees and both Parties agree that a change exists but cannot agree on the impact and costs of the change. Problem associated with claims and disputes are unique in the Nepalese construction industry. One common thing in our context is that many of claims, which are initially launched

and eventually abandoned. The main reason for this may be due to employ favored contract document in which the contractor's right is minimally protected. In addition, the other reason is the low level of knowledge regarding contractual rights and obligation among the contracting parties. Neither the employer nor the contractor gives adequate attention to the need for exhaustive provision in the contract. Therefore, it provides adequate grounds to give rise to a problem during contract execution. There are many causes for emergence of disputes. A dispute arises when a demand is made by a party (either contractor or employer) and denied by the other and the contradiction is not accepted by the demanding party (either employer or contractor). The dispute originates due to disagreement on a decision or action taken by one party on the ground of effect to be borne by the other as consequence of the decision. It is found that many construction projects in all sector of development either completed or ongoing have suffered from time and cost overrun. A major reason for this is poor management of contract resulting in disputes leading to intermittent stoppage of works or slow progress or even abandonment of work requiring fresh call of tenders to engage a new contractor for execution. There is no such contract document, which is universally acceptable. Contract documents differ from place to place due to difference in social and business norms and values, intellectual capacity, experiences in contracting of the parties and business environment. Therefore, contract documents should be prepared taking into consideration of those matters mentioned above in order to minimize and to resolve the potential disputes.

In construction contract, dispute may arise because of several factors. They could be broadly classified into three categories; Frivolous (playful) claims with practically no basis either in the contract or in law. Genuine claims, which are not entertained, by the client or his representative, because of their unwillingness to give decision for the fear of being questioned by audit etc. Honest difference of opinion on the interpretation of contract conditions.

For purpose of designing a better contract document in Nepalese context, it is necessary to consider the disputes that arise in the previously executed contracts in Nepal. They may give understanding about the nature and types of disputes encountered in the execution of construction contract. After the analysis of the types of disputes, attempts will be made to suggest provisions to be incorporated in the contract documents. So that number of disputes could be minimized and settlement could be made easy in future construction contracts.

Disputes are to be prevented and if it exists, its early resolution is important. To resolve disputes, several methods are in practice in the world. These methods are classified in two types. One is litigation and other is

ADR method. This study attempts to shed some light in the condition of contract related to disputes in construction contract (Hirachan, 2005).

### Causes of Disputes/Claim in Construction Contract

Claims occur when one of the parties to a contract seeks consideration, or both the change and consideration from an expressed or implied contract provision (Ahuja, 1994).

For the purpose of avoiding and resolving disputes on construction contract, it is important to understand and essentially prevent, the specific type of problems that commonly causes dispute. Transportation Research Board, National Research Council, Washington DC, Nepal cooperative Highway research program (NCHRP), Synthesis of Highway Practices 105: Causes and methods of settlement -II (1983) addressed different types of disputes.

A research carried out by the same institutions, Synthesis of Highway Practices 214. Resolution of disputes to avoid construction claims (1995), based on the information provided by 42 agencies (based on 102 representative projects) found following type of common disputes, which were related to contract adjustments: Design error (38 percent of the projects), Concerns over utility relocation (34 percent), and Differing site conditions (32 percent).

The differing site condition disputes were mainly due to the site differed from those reflected in contract documents. In addition, survey and staking layout is difficult. The latter has effect on change in quantities than estimated causing contractors to seek an increase in unit price. Similarly, design deficiencies often resulted in change dispute. Some disputes also involved interpretation of specification and contract requirements.

William and Ashley (1986) mentioned that following clauses (In change clause family) in construction contract have significant adverse effect on project performance if dispute arises out of these and themselves are most prone to dispute. Work scope definition, design change, Construction change, workmanship variations and Design rework.

The research also stresses that simply writing best contract clauses is no panacea. Intelligent and fair administration of the clauses (i.e., the "people-side" of contracts and contracting) is just as crucial (Hirachan, 2005).

In general, the causes of disputes arise from Contract document as Inadequate design / drawings and information, Changes in the scope of work / material source, Too short construction schedule, Commencement and Delay in information, Due to Action of parties of the contract, Possession of site, Delay in decision making, Delay in settlement of dispute, Timely payment of the certified invoice / Late payment. Similarly from Force majeure

as Unforeseen physical / site condition (Geological and Geographical conditions) resulting to variation, War and hostilities, Strike, BANDH, Riot (Disturbance) or Disorder and Natural catastrophe; like unpredictable weather condition, Earthquake, damage due to natural disaster etc. Even from Project characteristics as unusual inflation, unusual weather condition, Variation in quantities (Additional work) and Unavailability of Resources like fuel and construction material

### **Dispute/ Claims Resolution Practices in Nepal**

Since the small size of construction industry of Nepal, the problems associated with it regarding disputes are not so similar to developed countries. Some of which has been already mentioned above. However, construction industry of Nepal is not free of problem regarding dispute. A common problem generally found in Nepalese context is launching many claims but abandoned at last. The main reason of this may be due to Employer dominated contract documents, Contractor's right minimally protected and low level of knowledge regarding contractual rights and obligation among the contracting parties. Neither employer nor contractor gives adequate attention about status of contract documents before entering into the contract. Therefore, it provides adequate ground to give rise of many problems during contract execution. Due to no adequate provision incorporated in contract to tackle the probable situation liable to dispute, its resolution seems very difficult. Therefore, party-initiating disputes, a contractor has only two options these are: 1) abandons the claims or disputes or 2) go to litigation in court. The later being very time consuming contractor is compelled to choose former one otherwise he suffers of payment delay of due amount. The main reason of delay was improper provision of disputes resolution in contract clause. The clause prevented to enter into arbitration process unless the work is completed (Pathak, 2001).

"In Nepal, the provision of arbitration was introduced in 1957, while the Development Committee Act 1956 was amended. The provisions were confined up to the dispute to which the Development Broad is a party to the contract. However, the real practice of dispute settlement through arbitration was stated after the enhancement of Nepal Arbitration Act 1981. Now, this Act is replaced by the new

Arbitration Act 1998. It attempt to address issue not entitled in the previous Act. This is based on UNCITRAL model law. It is believed that this act has rectified shortcomings of previous act" In England and India arbitration has been p [practiced since 1697 and 1972 respectively. Nepal has very short history of modern arbitration concept. Before enactment of the Arbitration Act 1981, arbitration was carried out through a local celebrity when it becomes necessary to settle the disputes between the villagers and it has been in practice for a long time. Slowly business people felt necessary of a quick and cheap methodology of settling disputes and came up with arbitration proceedings. The government realized the necessity of arbitration Act very late and then the above-mentioned Act was enacted. It was stated that the disputes arising out of the agreement made with foreign donor agency shall be settled through arbitration, It had not been in practice as per the its sprit. So, some example of excessive delay up to four or five years for the settlement of disputes through arbitration can be found. Similarly, it is also felt as expensive as well as cumbersome in the meantime. Hence, it has adverse effect on the main purpose of arbitration. There are some reasons for concurrence of such situation. In order to solve the problems associated with arbitration and to assist in the development of adequate infrastructure, Nepal Council of Arbitration has been established in 1991 through initiation of non government sector" (Giri, 2055).It is important to understand the problem related to dispute and try to mitigation it in construction contract in the context of Nepal.

### **Cause of Dispute in Global Context of Construction Industry**

In every industry where people have to work together and cooperate, there is a possibility of disputes to arise (Table 1), and construction industry is not an exception. Often there is a lack of understanding about the reasons behind the disputes, but to avoid disputes from accruing and resolving them if they occur, it is vital to understand the causes of disputes (love et al., 2008).Effects of price fluctuation has been analyzed in Nepal (Mishra & Regmi, 2017). Risk Management process also focuses on dispute avoidance (Mishra & Malik, 2017). Causes of dispute in Bandipur municipal master transport plan has focused for listing causes (Mishra & Magar, 2017).



Table 1. Disputes in construction projects

Location	Factor contributing to disputes
Middle East (2012)	<ul style="list-style-type: none"> <li>• Failure to properly administer the contract</li> <li>• Failure to make interim awards on extensions of time and compensation</li> <li>• Employer imposed change</li> <li>• Contract selection was not a best for when compared to projects characteristics.</li> <li>• Third party or force majeure events</li> </ul>
Asian 2012	<ul style="list-style-type: none"> <li>• Incomplete and or unsubstantiated claims</li> <li>• Failure to make interim awards on extension of time and compensation</li> <li>• Differing site conditions</li> <li>• Failure to understand and or comply with its contractual obligation by the employer/ contractor/ subcontractor</li> <li>• Failure to properly administer the contract</li> </ul>
United State (2012)	<ul style="list-style-type: none"> <li>• Incomplete and / or unsubstantiated claims</li> <li>• Errors and / or omissions in the contract document</li> <li>• Failure to understand and / or comply with its contractual obligations by the employer/ contractor/ sub contractor</li> <li>• Differing the site condition</li> <li>• Failure to make interim awards on extension of time and compensation</li> </ul>
United Kingdom (2012)	<ul style="list-style-type: none"> <li>• Failure to properly administer the contract</li> <li>• Failure to understand and or comply with its contractually obligation by the employer/ contractor/ subcontractor</li> <li>• Employer imposed change</li> <li>• Conflicting party interests</li> <li>• Incomplete and / or unsubstantiated claims</li> </ul>
Main land Europe (2012)	<ul style="list-style-type: none"> <li>• Failure to understand and or comply with its contractually obligation by the employer/ contractor/ subcontractor</li> <li>• Unrealistic risk transfer from employers to contractors</li> <li>• Failure to make interim awards on extensions of time and compensation</li> <li>• Conflicting party interests</li> <li>• Third party or Force majeure events</li> </ul>

(Adapted from Allen, 2013)

## Research Methodology

### Study Area

The study area of the research is the ADB funded project of Nepal. Among the ADB funded projects, researcher had taken as following projects based on disputes issues, which complain in NEPCA from 2003 to 2015. Details of these projects are given as follows.

- Road Network Development Project (RNDP), Biratnagar-Rangeli-Bardanga; Urlabari - Bardanga (BBUB) Road, Contract no.- RNDP/ICB/BBUB
- Road Network Development Project( RNDP), Strengthening of East-west Highway Project, Belbari - Choharba (BC) Road, Contract no.- RNDP/ICB/BC
- Road Connectivity Sector-I Project(RCSP-I), Upgrading of Betravati- Devighat section of Galchhi-Trishuli-Syaphrubesi Road, Contract no.- RCSP/ICB/GTS/02
- Road Connectivity Sector-I Project(RCSP-I), Upgrading of Trishuli - Syaphrubesi section of Galchhi-Trishuli-

Syaphrubesi Road, Contract no.- RCSP/ICB/GTS/04

- Sub regional Transportation Facilitation Project (STFP), Constructions of Road form Birgunj ICD to Tribhuvan Highway & Jeetpur widening. Contract no. - STFP/ICB/BT
- Sub regional Transportation Facilitation Project (STFP), Construction of road from Macau to Bhumahi Road, Contract no. - STFP/ICB/MH
- Sub Regional Transport Enhancement Project (STEP), Upgrading & Strengthening of Belbari - Chaurahawa Road Project of East-West National Highway, Contract no.- STEP/ICB/BC/02
- Sub regional Transportation Facilitation Project (STFP), Construction of Kakarbhitta Inland Depot (ICD), Contract no. - STFP/ICB/KB

### Sampling

The sample for this research is all the stakeholders (i.e. Clients, Consultants/ Engineers and Contractors) who are familiar to the disputes management in the different ICB

projects. The studied population was the companies (i.e. Clients, consultants, and contractors) work at both management and operational levels during the construction process. The interviews aimed to classify responses arising from the questionnaire. The interviews, two (2) responded from each project who is at least second-class officer and senior post i.e. project managers, Deputy Project director's etc. Similarly, two (2) nos. of respondent from each projects who are involve in both management and operational levels during the construction process of various disciplines i.e. Project coordinators, planning, and contract administrator, and in the case of contractor one (1) no. of responded from each projects who face the disputes management and contract document i.e. contract manager or legal advisor.

**Table 2. Sample size**

Respondent Institution	Respondent No.	No. of Project	Size of Population	Sample Size
Clients	2.0	-	-	-
Consultants	2.0			
Contractors	1.0			
Total	5.00	8.00	40	39.00

## Data Collection

Eight (8) cases were studied followed by one set of questionnaire survey was done. During the questionnaire one of the respondents did not respond for the secrecy of the project so, only thirty-nine respondent's responses were considered for the analysis. With a view to avoid biasness of the respondent, semi structure interview were done with the 5 ADB personnel and 8 project contractors as professional ethics do not allow them to give their opinion freely on the specific issues of the projects on the causes, effects and resolution. The selected sample has different field of experience, which actually demonstrate the different ICB road construction projects. They also selected with suitable duration of experience so that their answers can represent valuable information.

## Data Compilation and Analysis

The research was conducted through observation and interviews (both structured and unstructured) using the single set of questionnaire. The data was collected from both primary and secondary sources from Nepalese as well as from foreign jurisdictions have been studied. The primary data obtained from questionnaire survey and secondary data obtained from case study of the ICB road contracts. Both data are compiled and analyze by content analysis and descriptive analysis method. The ranking of disputes is evaluated based on the matrix rank percentage analysis method.

## Result and Discussion

Following are the causes identify during cases of selected road projects.

Table 3. Causes of Disputes in Particular Road Project

S.No.	Project	Contract no.	Issues
a	Road Network Development Project (RNDP), Biratnagar-Rangeli-Bardanga; Urlabari - Bardanga (BBUB) Road.	RNDP/ICB/BBUB	Idle of Resources
b	Road Network Development Project (RNDP), Strengthening of East-west Highway Project, Belbari - Choharba (BC) Road,	RNDP/ICB/BC	Idle of Resources (Madhesh Banda)
c	Road Connectivity Sector-I Project (RCSP-I), Upgrading of Betravati-Devighat section of Galchhi-Trishuli-Syaphrubesi Road.	RCSP/ICB/GTS/02	1. Loss and compensation due to Bandha,
			2. Additional cost of Insurance, performance security,
			3. Overhead due to prolongation of time,
			4. Loss of productivity due to change in design,
d	4) Road Connectivity Sector-I Project (RCSP-I), Upgrading of Trishuli - Syaphrubesi section of Galchhi-Trishuli-Syaphrubesi Road.	RCSP/ICB/GTS/04	Idle of Resources
e	Subregional Transportation Facilitation Project (STFP), Construction of Road from Birgunj ICD to Tribhuvan Highway & Jeetpur widening.	STFP/ICB/BT	Additional cost for idle resources due to bandha, Constituent assembly polls, heavy rain fall and disruption cost due to road accident
f	Sub regional Transportation Facilitation Project (STFP), Construction of road from Mahu to Bhumahi Road,	STFP/ICB/MH	Cost compensation due to bandha, and non availability of diesel
g	Sub Regional Transport Enhancement Project (STEP), Upgrading & Strengthening of Belbari - Chaurahawa Road Project of Mahendra Rajmarga (East-West National Highway),	STEP/ICB/BC/02	Idle of Resources (Band)
h	Sub regional Transportation Facilitation Project (STFP), Construction of Kakarbhitta Inland Depot (ICD),	STFP/ICB/KB	

### Causes of Disputes in ICB Road Contract Based on Semi-Structure Interview

Based on semi structure interview has been found the major causes of disputes in of ICB road construction contract without specifying projects. i.e., unclear contract document, incomplete drawing and specifications, suspension of works, lack of understanding of bidding correctly, lack of understanding and agreement in contract procurement, bad weather, lack of communication problem, issuing in instruction, discrepancy between drawing and bill of quantity, inadequate tracing mechanism for request for

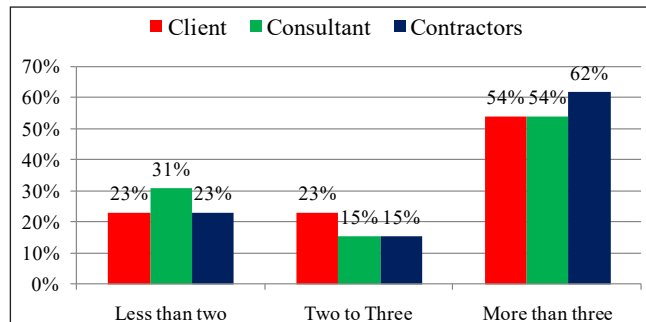
information, delaying in information in work are.

### Causes of Disputes in The ICB Road Contract From Questionnaire Survey

The responses of main stakeholders (i.e. Employer, Engineers, and Contractors) were collected through the questionnaire survey in ICB road contract. Therefore, the responses over all the questionnaire related to the causes of disputes in the ICB road contract has been described in table and figures.

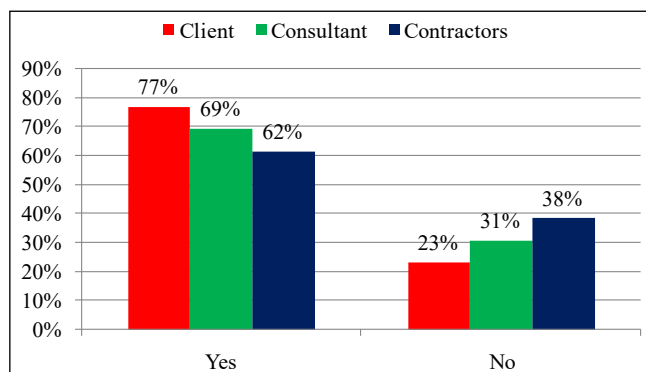
## Completed ICB Road Projects under the Initiation of Respective Stakeholders

According to figure 2, the main stakeholders (i.e. Clients, Consultants, and Contractors) completed the less than two ICB road projects have been found 23%, 31% and 23% respectively. Similarly, two to Three projects have been completed 23%, 15% and 15% on respectively and two to Three projects have been completed 54%, 54%, and 62% on respectively. It is noticed that all the stakeholders have been completed and familiar to the ICB road contract.



**Figure 2. Completed ICB Road Projects under the initiation of respective Stakeholders**

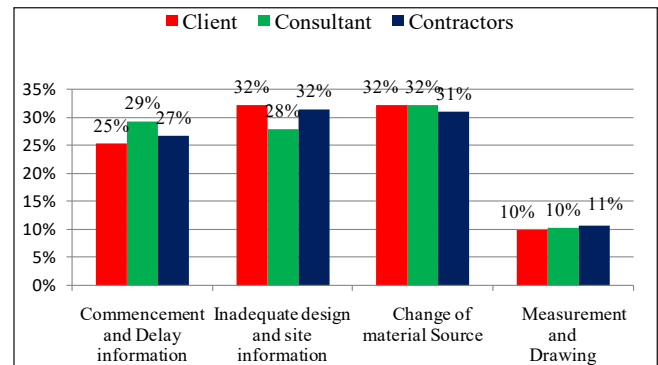
Executed or Make/ Face Disputes/ Claims on ICB Road Projects under the Initiation of Respective Stakeholders According to figure 3, it is noticed that most of the stakeholders have been made / faced the ICB road contract.



**Figure 3. Executed or Face Disputes/ Claims on ICB Road Projects under the Initiation of Respective Stakeholders**

## According to Inadequate Information in Contract Document

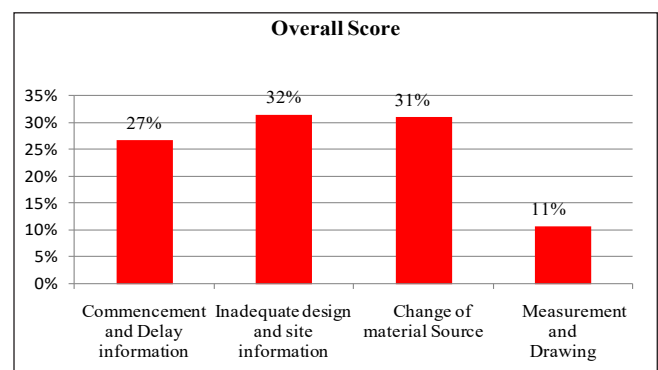
According to figure 4, it is noticed that the Clients have realized that mostly contractors raise the claim from these causes. It is noticed that the Consultants/ Engineers have noticed that mostly claims arise from these clauses. Contractor's response on the main causes of disputes/ claims due to Inadequate design and site information, Change of material Source, Commencement and Delay information, and Measurement have been found 25%, 35%, 28% and 12% respectively. It is noticed that the contractors have mostly claimed from these causes as per their rank.



**Figure 4. Causes of Disputes on ICB Road Project due to Inadequate Information in Contract Document**

## Overall Response

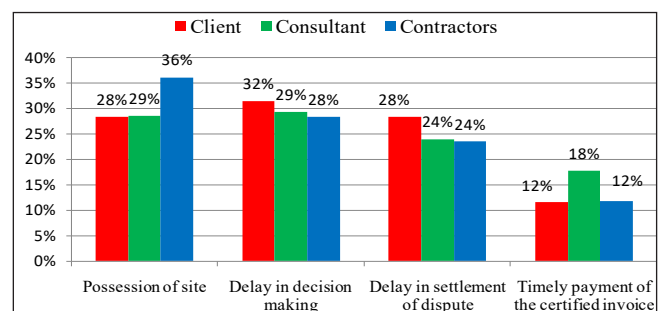
The main stakeholders have been found towards causes of Dispute/claim according to inadequate information in contract document.



**Figure 5. Overall Response of stakeholders due to Inadequate Information in Contract Document According to Timely Action**

The response from the clients towards the cause of dispute/ claim according to Timely Action with their ranking has been shown in the figure 6.

It is noticed that the Clients have realized that mostly contractors raise the claim from these causes. It is noticed that the Consultants/ Engineers have noticed that mostly claims arise from these clauses. It is noticed that the contractors have mostly claimed from these causes as per their rank.



**Figure 6. Causes of Disputes in the ICB Road Contract due to Timely Action**



## Overall Response

The main stakeholders have been found towards causes of Dispute/claim due to timely action. Delay in settlement of dispute, and Timely payment of the certified invoice have been found 31%, 30%, 25% and 14% respectively.

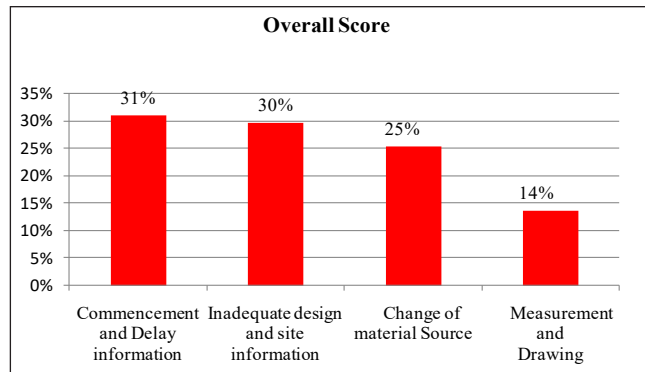


Figure 7. Overall Response of stakeholders due to Timely Action

## According to Force Majeure

The response from the clients towards the cause of dispute/claim according to Force majeure with their ranking is shown in the figure 8. It is noticed that the contractors have mostly claimed from these causes as per their rank.

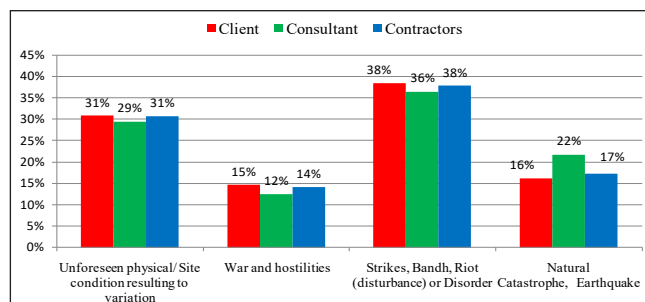


Figure 8. Causes of Disputes in the ICB Road Contract due to Force Majeure

## Overall Response

The main causes of disputes/claims due to Unforeseen physical/site condition resulting to variation, War and hostilities, Strikes, Bad, Riot (disturbance) or Disorder, Natural Catastrophe, Earthquake have been found 30%, 14%, 38% and 18% respectively. It is noticed that the main stakeholders have mostly raise the disputes/claim from these causes as per their rank.

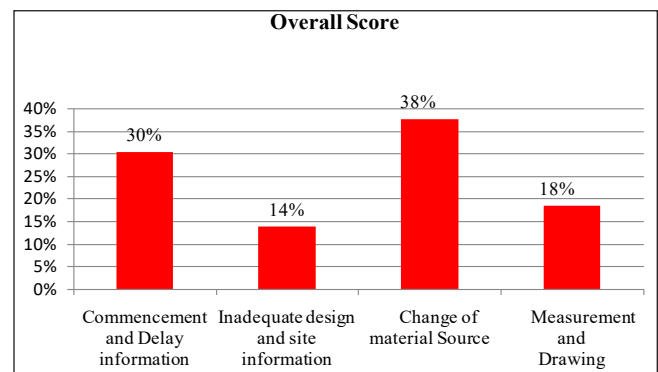


Figure 9. Overall Response of stakeholders due to Force Majeure

## According to General Characteristics

General (Project) Characteristics unusual inflation, unusual weather condition, access to site and shortage of material are shown in figure 10 as cause of dispute.

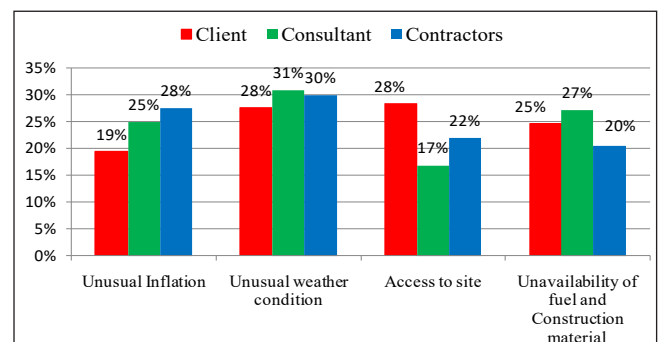


Figure 10. Causes of Disputes in the ICB Road Contract due to General (Project) Characteristics

## Overall Response

It is noticed that the stakeholder's have realized that mostly raise the dispute/claim from these causes as per their rank.

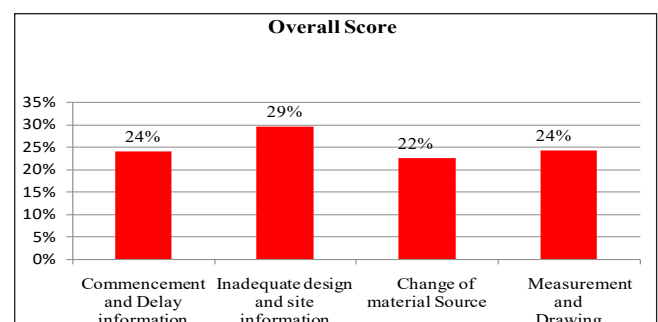


Figure 11. Overall Response of stakeholders due General (Project) Characteristics

## Different Type of the Causes of Dispute/Claims

The major disputes may arise due to different type of causes of disputes, i.e. inadequate information in contract document, timely action, force measure, general project characteristics. Hence, various measures will have to be taken to offset probable conflicts in construction projects of Nepal.

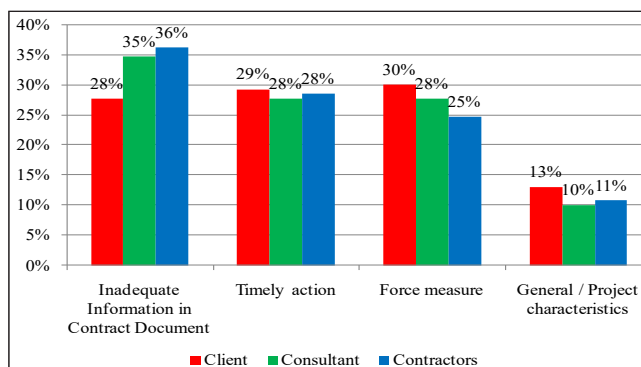


Figure 13. Top Five Reasons for the Disputes / Claim in the ICB Road Contract

## Top Five Reasons for the Disputes / Claim

An effort has been made to rank the reason for the dispute/claim made in ICB road contract. In order to obtain the opinion to find the reason for the disputes/ claims, responses of are collected through the questionnaire survey carried out from the Employer, Engineers, and Contractors. The responses over the following reasons for the disputes/ claims have been described below in figure 13.

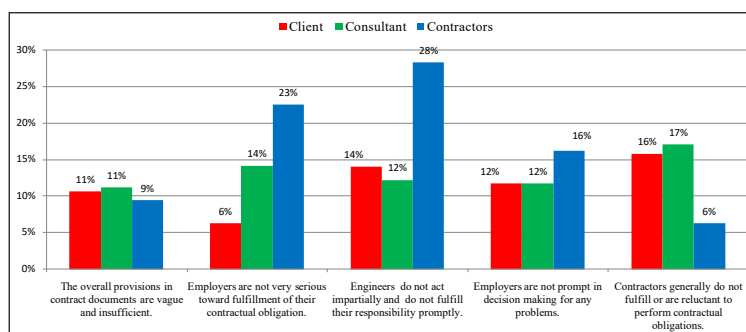
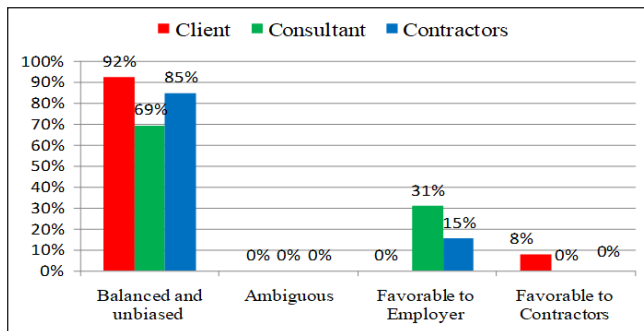


Figure 13. Top Five Reasons for the Disputes / Claim in the ICB Road Contract

## Appropriate Model of Contract Document and Its Fairness for ICB Road Contracts

Table 4. Appropriate Model of Contract Document for ICB Contracts

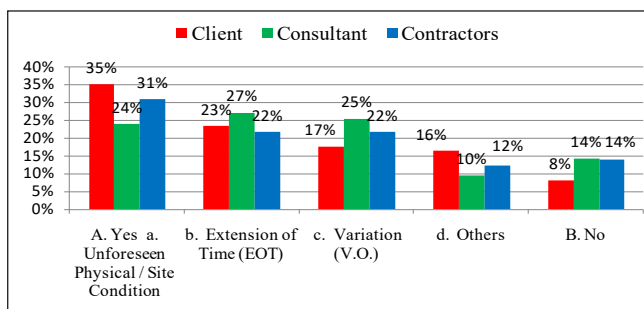
S.No.	Description	Client's Response		Consultant's Response		Contractor's Response	
		Score	Rank	Score	Rank	Score	Rank
a	FIDIC	-	-	-	-	-	-
b	FIDIC Harmonized	13	100%	13	100%	13	100%
c	ADB	-	-	-	-	-	-
d	Others (Specify)	-	-	-	-	-	-



**Figure 14. Fairness of Contract Document for ICB Contracts**

### Necessity of additional Clause in Condition of Contract of FIDIC for Smooth Functioning of ICB Road Contract

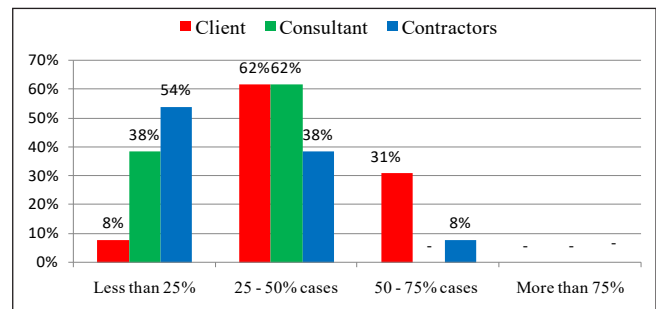
An effort has been made to necessity or not any additional clause in condition of contract of FIDIC for smooth functioning of ICB road Contract.



**Figure 15. Necessity or not any additional Clause in FIDIC Condition of Contract**

### Succeeded Rate of Claims

According to figure 16, the response of the main stakeholders (i.e. Employer, Engineers and Contractors) have been found succeeded rate of claims in ICB road Contracts. The Client, Consultants and Contractor's response on the succeeded rate in claim have been found 8%, 38% and 54% on Less than 25 % cases respectively. Similarly, The Client, Consultants, and Contractor's response on the succeeded rate in claim have been found 62%, 62% and 38% on 25 to 50 % cases and 31%, 0% and 8% on 50 to 75% respectively. It is noticed that the Client have been often lesser succeed in claims rather than Consultants/ Engineers.



**Figure 16. Succeeded rates of Claims**

### Conclusion

Out of four areas of disputes, contract document, force measure, timely action, and project characteristics, following are the major causes of disputes.

- Change of material Source
- Inadequate design and site information
- Commencement and Delay information
- Unforeseen physical / Site condition resulting to variation
- Strikes, Bandh, Riot (disturbance) or Disorder
- Delay in decision making and settlement of dispute
- Possession of site and Access to site
- Unusual weather condition and Inflation
- Unavailability of fuel and Construction material

Following are the identified areas that are problematic for the claim and disputes.

- Engineer doesn't work impartial and do not fulfill their responsibility promptly.
- Contractors generally do not fulfill or are reluctant to perform contractual obligations
- Employers are not prompt in decision making for any problems.
- Employers are not very serious toward fulfillment of their contractual obligation.
- Incorrect and inconsistent Drawing

### Recommendation

- Claims arising from unforeseen physical conditions can be reduced by comprehensive site investigation during the phase of details design preparation. The employer

/ executing agency should prepared to bear all risk and allocate with add proper budget in contingencies for the issues arises from disputes / claims.

- Consultants (i.e. Engineer) should ensure that BOQ and contract periods, which specified in the bid documents, are realistic and take account of existing site conditions.
- Consultants (i.e. Engineer) should provide any information with corrected drawings timely on site to facilitate regular execution work and make prompt decisions regarding the technical and contractual issues by taking employer approval where necessary in specified time as required.
- Consultants (i.e. Engineer) should organize a kick off meeting with contractors to confirm material availability, constructability and other constraints flagged up by contractors before their site mobilization.
- A dispute settlement unit should be established to amicably (negotiation) settle any disputes before referring to contractual authority.

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