Abstract: Nepal is located at the foot of the Himalayas and has numerous perennial rivers flowing from North to South, making it an ideal place for production of massive scale of hydropower. Hence, there are many hydropower projects in construction phase, but they are facing several contractual issues such as, contractual inefficacy of the parties, payment problems, Force Majeure and claims handling mechanism. In order to build the capacity of existing contract personnel working in various projects, it is high time for the stakeholders of Nepalese construction industry to train their human resources to the required standard, such that they can properly prepare, assess and handle the contractual issues that may arise, in the international standard.

Keywords: Hydropower, construction, contracts, Force Majeure, capacity building, Nepal

Introduction

Nepal is a landlocked country in South Asia and is surrounded by China and India. It is located in the Himalayas and contains eight of the world's ten highest peaks. There are many perennial rivers flowing from the Northern Himalayas to the Southern flat plains, making the country ideal for hydropower development on a massive scale. The government system is a federal democratic republic where the chief of state is the president, and the head of government is the prime minister. Nepal has a traditional economic system in which the majority of the population are engaged in agriculture, and the collection of available resources is done mainly via primitive methods.

Nepal is blessed with abundant water resources with huge hydropower potential. Nepal’s theoretical hydropower potential has been estimated to be around 83,000 MW, of which 43,000 MW has been identified as techno-economically viable. Currently, Nepal’s installed hydropower capacity is 972.49 MW (NEA 2017), of which 477.93 MW is developed by the state-owned entity, Nepal Electricity Authority (NEA) and remaining 441.05 MW has been developed by the Independent Power Producers (IPPs). Nepal is also expected to become a net exporter to the Indian market, but Nepal currently suffers energy shortages and frequent blackouts. For example, the shortfall in electricity supply to meet domestic load requirements was about 410 MW in late 2013, when peak demand reached 1,202 MW (IHA, 2018).

There are a number of hydropower projects in construction phase, at present, in Nepal. The projects which are ongoing construction are suffering from a different kind of contractual problem. This paper tries to analyse in general, the contractual problems faced by hydropower projects ongoing construction in Nepal.

Unclear Contractual Documents

The technical specification, conditions of contracts and drawing documents are unclear, catering the contractual problems. Some of the reasons being; roughly prepared documents signed without thorough review and some of the clauses related to compensation and payment to the other party are created in biased footing.

Payment Disputes

As the hydropower projects are often associated with high construction costs, it is a common trend in Nepal to delay payments to the contractor, sometime creating many issues related to severe cash flow problems. In addition, the Contractor always claims for more than what it has really performed. Thus, the Client/the Consultant wants to delay or decrease the items to be certified. Furthermore, the timing of payment is usually prolonged by the clients citing different reasons like their issues with financiers and shareholders.

Changed Circumstances during Construction

As everybody knows, the circumstances anticipated during the project planning, designing and contracting changes during the construction of the project. However, due to improper investigations and lack of use of modern knowledge and experimentations, the original planning before construction changes significantly during construction. The changed circumstances often require lengthy variation order procedures. The approval and payment are often laden with difficulties from various watchdogs and authorities.

Unforeseeable Conditions

Nepal is a mountainous country, with rugged terrain and varying geology. The project proponents have limited fund for geological investigation and subsequent research and analysis. Thus, the underground works are often encountered by unforeseeable conditions during the construction. Since, thorough investigation before construction and tendering are lagging by the Client, the subsequent design changes are lengthy and often encountered with risks. Hence, proper Geophysical, Seismic, Core drilling and hydraulic modelling shall be added as a ritual before commencing the construction works to minimize such construction and contractual risks.
Contractual Ability of the Parties under Contract
Since the construction industry in Nepal is moving at very slow pace, full professionalism within the contractual parties has not yet been developed. Hence, due to the limited capacity of the consultants and clients, the financial position of the contractual party is not assessed properly and furthermore, the volume of works in hand is not properly estimated. The situation is getting even worse due to incomplete assessment of technical and managerial experiences of the parties and proper understanding of litigation condition of the contractor. It is high time for the stakeholders in the construction industry of Nepal to train their human resources in sufficient capacity, such that they can properly prepare, assess and handle the contractual problems in international standard.

Force Majeure
Nepal is often associated with different types of Force Majeure events like landslide, earthquake, flood, GLOF and landslide damming. Lots of construction works remain at a halt for prolonged periods due to such natural disasters. It is often very difficult to resume works after temporary demobilization due to these conditions. The assessment of payment of delay due to force majeure events is very vague and needs higher contractual inputs, which in general is often unavailable in Nepalese market.

Dispute and Claim Handling Mechanism
The construction industry often encounters various disputes and claims. Hence, proper record keeping, investigation and assessment are needed to resolve such contractual problems. However, during the assessment of claims standard Protocols are not followed correctly and sometimes not followed at all. As the contractor intends to claim more than actual loss and the client often tries to ignore the claims from the other party; it is often very difficult to find the win-win situation within our existing capabilities.

Conclusion and Recommendation
Although Nepal has a large potential for hydropower development, only a fraction of it has been harnessed so far. Although many hydropower constructions are ongoing in Nepal, some of the major challenges like the ability to handle the contractual problems are not at a sufficient degree; as required by the industry. Hence, it is high time for the stakeholders in the construction industry of Nepal to train their human resources in sufficient capacity, such that they can properly prepare, assess and handle the contractual problems according to international standards.

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Reference
Article published in different Newspapers of Nepal (Kantipur, Nagarik, The Himalayan Times and Annapurna post etc.)
International Hydropower Association, 2018, Data retrieved from https://www.hydropower.org/
Society of Construction Law, UK, https://www.scl.org.uk/