

Impact of COVID-19 on the Construction Sector of Nepal

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Abstract

The construction industry is an inseparable part of the national economy which thrives through the utilization of technical and non-technical resources. Since the COVID-19 outbreak hit Nepal, it has been a really difficult task for the construction sector to initiate a new project or to continue it at a normal pace. Most of the major projects have been affected, and the result is the increase in the project duration and costs. The availability of resources due to disruption of the supply chain is the prime setback the construction industry has dealt with. Additionally, the cut off in labor forces, and the nationwide lockdown clearly exacerbates the situation of this industry. During this unprecedented time, every sector needs monetary assistance from the central and provincial governments, and the construction sector is no exception. However, the lack of rigid policies and monetary guidance seem to add further hardships in coping up with the economic challenges of the present time.

Keywords : Construction sector, COVID-19, economy, labour, lockdown, major projects, supply chain

I. INTRODUCTION

COVID-19, first identified in Wuhan, China was declared a pandemic by the World Health Organization on March 11, 2020. As of November 3, 2020, more than 47.4 million cases have been reported globally, registering death of more than 1.21 Million [1], and 1,80,000 cases have been reported accounting for the deaths of 1004 patients in Nepal [2].

With the rapid increase in COVID-19 cases, the Government of Nepal decided for a nationwide lockdown from March 23, 2020, for a week. Along with this decision, the government announced the suspension

of international flights and sealed borders for a week. However, the lockdown was extended furthermore because of the rapid spike in COVID-19 cases. The complete lockdown announced on March 23, 2020 was extended till June 14, 2020 and later a partial lockdown strategy was implemented till July 21, 2020. The ease off caused even more surge in COVID cases with the virus's spread in the community. Hence, the cabinet gave Chief District Officers (CDOs) the power to impose curfew and prohibitory orders in high COVID risk districts. The local level governments then started their prohibitory orders keeping in mind the community level COVID spread, like Bharatpur Municipality, Kaski District, Saptari District,

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etc. The authorities decided to re-impose the lockdown for a week in Kathmandu Valley from August 20, 2020 after Nepal registered 1,016 cases, its highest daily COVID case till then. After the country went through a region-wise lockdown for some time, the prohibitory order was slightly relaxed. With slight changes in its prohibitory order, Kathmandu Valley and other districts, like Chitwan extended lockdown till September 16.

With almost all the countries worldwide forced to nullify their economic activities during the lockdown, it is inevitable that the GDP growth would even take a small leap to showcase some positive turn. Statistically, in the second quarter of 2020, GDP growth rate of United States was -9.5%, India -23.9%, Australia -7%, Brazil -9.7%, Canada -12%, Italy -12.8%, France -13.8%, and Great Britain -20.4%. However, since China could contain the virus in the second quarter, it maintained a positive growth rate of GDP at 12.3% [3]. In comparison to other developed nations, China seems to mend up the economic adversities quite promptly.

On the other hand, Nepal measures its GDP growth rate yearly, and it shows that there has been an increase of 2.3% in July 2020 compared to 7% last year. The reduction was due to several other key factors, along with COVID-19, as a notable one. The growth contributed by the construction sector was about 8.05% in FY 2018–2019. Unfortunately, it reduced to -0.31% for the 2019–2020 term [4]. The contraction resulted in tapering off other sectors like trade, manufacturing, transportation, and services.

The construction sector contributes a significant share in the national economy. This paper explores various impacts that COVID-19 has had on the construction industry of Nepal.

II. LABOUR CONDITIONS IN THE COURSE OF THE PANDEMIC

The labor force in Nepal has its share of both national and international workers. Internal migrant workers include people from the rural and under-developed areas within the country, whereas Indian and Chinese workers represent the major international labor force. Some of the urban settlements and informal settlements were overcrowded by these labor forces, where practicing physical distancing does not seem feasible. The impact of the pandemic in those cities compelled the informal workers to walk back to their homes, deprived of proper

food and water, despite the nationwide lockdown. As the border was shut, the Indian workers who went to celebrate "Holi" (a widely celebrated festival in India) were stuck in their nation. Besides, during the lockdown, both the nations took back their citizens to their respective countries, resulting in a decline in Nepal's labor force.

Informal jobs share a considerable portion of employment (80.8 %) in Nepal. Likewise, the majority of the workers in all sectors have informal employment. For instance, 97% of the construction industry workers, 74% in trade, and 84% in manufacturing are holding informal jobs [5]. However, the nature of their job contract determines the impact on laborers. Every formal and informal sector employs formal and informal workers to run their business effectively. These seasonal and informal workers representing 85% of the total labor force, faced job cuts and losses. Permanent formal workers faced either pay cuts or unpaid hiatus. Since the lockdown started, a significant portion (74%) of total workers have not been paid, and 31.5% of the total workers have even lost their job. Here, the most vulnerable are the workers who earn on a per-day basis. The slowdown caused by the lockdown affected the lives of these workers heavily.

For a country like Nepal, where a woman earns a fraction (7/10) of the money earned by a man, gender pay gap adds to the disproportionate impact on women from lower-income groups than men [4]. This inequality is indicated by a survey in which more than 41% of women lost their jobs as compared to 28% of men. International Labor Organization (ILO) estimates 1.6 to 2 million jobs to be disrupted either with complete job loss or with a decline in daily wages and working hours [5]. Such job losses for informal workers of manufacturing, construction, transport, storage, and tourism industry will be more crucial as their lack of earnings could significantly worsen global poverty. United Nations Development Programme (UNDP) suggested an average of 50% to 60% decline in the number of paid workers for almost 50% reduction in operation days [4]. Moreover, 404,000 workers in construction, 446,000 in manufacturing, and 211,000 in transport are expected to be affected by the crisis [5].

The pandemic's actual impact on the construction industry from the harsh labor conditions can be discussed based on the scale of the project. As mentioned earlier, we can say that the Nepalese labor force depends on both local and global labor forces. The small scale projects

usually utilize locally available resources and workforce. So, these projects are slightly affected from the point of labor availability. The safe working conditions and the necessary precautions to contain the virus in the workplace differs from site to site. This shows that proper physical distancing and sanitation in the workplace could facilitate in containing the virus to a much larger extent. However, most of the small and large scale projects ignore these measures. Along with this, large-scale projects encounter problems with labor management, declining labor productivity, and ultimately resulting in the loss of both time and money. The workforce for an entire project has both national and international laborers and experts. The void created due to the reduced number of those workers has directly affected the project duration. The link between the different phases of work is disturbed. Thus, the project duration extends for which the contractors are highly susceptible to bear the losses. In summary, it is the complications in the labor-management strategy that impede the construction project duration.

III. REPERCUSSIONS ON THE FINANCIAL ASPECT OF CONSTRUCTION

According to the Central Bureau of Statistics of Nepal, the construction sector, which had seen a robust 8% growth in the fiscal year 2018–2019, accounting for output of over Nepalese ₹ 232 billion, is expected to plunge to –0.31% [6].

Nepal Central Bank surveyed that the lockdown has forced nearly 61% of businesses to close down completely. In this faltering economy, the construction sector is no exception. The report published on The Kathmandu Post mentions that only 15 to 20% of construction work was taking place during lockdown till the end of fiscal year 2019/20. In the same report, the expected construction sector's loss was mentioned to be around Nepalese ₹ 65 billion [6].

During the lockdown, lack of demand, labor availability, and supply chain problems have financially affected the construction sector. However, even after the lockdown, inflation, additional health precautionary measures on the construction sites, and change in the project schedule will be affecting the financial output of the construction industry.

Though the Force Majeure clause in the contract will

allow both the client and the contractor to ease their liability during the lockdown period, the time extension comes with its own consequences. The time extension is followed by cost escalation, which may be overhead cost or additional cost for following workplace safety guidelines. Additionally, inflation in the economy further causes the cost escalation of the project. According to the report by Asian Development Bank (ADB), average annual inflation will inch up to 6.0% in FY 2020, up from 4.6% a year earlier [7]. As the inflation rises, there will be an increase in the cost of construction materials, labor, renting and hiring fees, which causes an increase in the overall project cost.

IV. SETBACKS IN SUPPLY CHAIN

A. Manufacturing

The shortage of raw materials and labor availability has seriously affected the production capacity of the manufacturing industry. Moreover, the decrease in demand from the construction sector has forced the manufacturing industries to operate on a lower potential. Manufacturing industries like cement, steel, and brick were the most affected, and the effect was governed by a supply shock.

In a recent interview given by Rabi Singh, President of the Federation of Contractors Association of Nepal to The Kathmandu Post, he mentioned that the demand for construction material has declined by 80%. According to the Director of Narayan Strips, the steel industry's daily production capacity has dropped by 75%, and only 30% of steel factories are currently running [6]. The steel factories which depend entirely on imported steel are seriously affected by the travel restriction on borders and disruption of the global supply chain. The report from the World Bank shows a 3.9% decrease in good imports in the first half of FY 2020 of Nepal [8]. Likewise, the cement industry is currently operating at 20% capacity. During the lockdown period, this industry has suffered a loss of ₹ 30 billion, according to Dhurba Raj Thapa, president of the Cement Manufacturers Association of Nepal. The brick industry also sees a similar impact, with demand decreasing by more than 50% [6].

B. Distribution

The significant impact of COVID-19 is seen in the transportation sector, which is affected by demand shock.

The lockdown announcement brought the entire transportation and aviation industry to a sudden halt, and even until now, the sector has not been in full operation. Because of the prohibitory orders issued at the district level, with concerns for further spread of COVID-19 the industry has not been running at its maximum capacity.

C. Unfavorable Economy to Strengthen Construction Works

During the first half of FY 2020, Nepal's economy downturned massively. Specifically, in the manufacturing sector, the execution rates of public investment projects have been very low. Due to the reduction in demand, the import of goods contracted during the first half of FY 2020 [7]. For instance, construction materials and machinery, and supplies from industries were halted along with the daily household commodities.

The policies adopted by the Central bank have been largely ineffective in providing monetary guidance to the economy. Although there has been a low inflation rate for the past three years, the interest rate still remains high. An over-leveraged economy is about 86% of the GDP along with household debt of 37%, which is the highest among our neighboring peers [4]. In such conditions, private sectors and financial aspects of households face major impediments in managing finances. It accounts for price inflation of the construction sector, and the predictions often portray this to be at a worrying level even after the pandemic eases.

Even though Nepal itself contributes to the production of construction materials like aggregates, there has still been a high dependence of our industry on steel manufacturing. Imports for materials like HR Sheet, MS Billet, Pig Iron, and Steel Wire Rods had a very high demand due to post-earthquake reconstruction works and upsurge in the involvement of private sectors. In recent times, COVID-19 has significantly reduced India's imports, but one of the aspects that seem likely to add disturbance is the depreciation of Indian currency to dollars. Since the start of the year 2020, it has been depreciated by 9%, and because Nepalese currency is pegged to the the Indian Rupee, this adds noticeable pressure to inflation as well [4]. As our imports on materials are mostly through the southern border, the price of these steel products also seem to inflate.

Banks and financial institutions attribute the highest

loan exposure to acquiring land and buildings in the present context [9]. During such a restless period, these sectors may face hardships to recuperate loans from construction, especially real estate. Before the pandemic, individuals and companies who took a loan to buy the land may not pay out on time because of the shutdown in business, and diminution of economic activities, thereby restricting individual and firms to generate a source of income. This builds up the non-performing assets for financial institutions, which results in stockpiling of bad debt. The increase in bad debt could propel these sectors to be reserved in issuing further loans for the construction industry. Primarily, loans are crucial for the availability of monetary resources. Without a substantial amount, it is hard to bring back the construction works to an average pace.

D. Change in Priorities to Alleviate Financial Difficulties

Nepalese have a long tradition of getting involved in foreign employment, and the substantial income through remittance goes for health, food, education, and clothing. Besides this, appreciable investment also goes towards physical infrastructure to maintain a good living place after returning to their home country. Most of them like to invest in real estate for making their own home and earn through rentals. The COVID-19 outbreak has made 15–20 lakhs people return to their homes, give up their jobs with the uncertainty to go back and earn. The World Bank predicts that the remittances to Nepal would drop by a mighty 14% a year. No doubt, all these scenarios directly affect the real estate sector by downsizing investment as people would be looking to pivot their primary livelihood over buying a new property. Indeed, clients show less interest in new construction. After the nationwide lockdown from March 24, the data shows that the real estate transaction decreased by 35% compared to the previous month. For instance, in February, the total sum of land revenue was Nepalese ₹ 297.77 million in Kalanki. However, it was only about Nepalese ₹ 193.67 million in June. Janak Raj Joshi, Joint Secretary, Ministry of Land Management, Cooperatives, and Property Alleviation pointed out that transactions declined by about 70 % all across the country after the lockdown [10]. This shift in preference also adds pressure to the construction industry. As a result, there seems to be a possibility of economic contraction in this promising sector, even in FY 2020–2021. Indeed, people need time

to stabilize even after the pandemic ceases. To get back on one's feet, the companies are now subsidizing the value of construction by taking a marginal profit.

E. Impact on Progress of Major Projects

Construction projects in Nepal have always been affected by the monsoon's inclement weather, topographical difficulties, and lack of stable governmental policies. Now, COVID-19 has further crippled the already precarious state of development.

Some of Nepal's major projects are hydropowers, international airports, irrigation projects, and projects related to the expansion of the current road network. The construction of the ongoing Gautam Buddha International Airport was expected to be complete by the end of this year. The construction work at the airport has witnessed 92% physical progress and 63% financial progress [11]. The remaining works at the airport include installation of lights and equipments. The technical works of the construction project have been delayed due to COVID-19 pandemic. Also, Upper Tamakoshi of 456 MW capacity has been affected, delaying its completion time. These are one of many examples of major projects that have been hit hard by the ongoing pandemic. The major reason for this disastrous effect is the country's over-reliance on neighboring nations for its technical manpower, experts, and special equipments.

According to an interview in The Kathmandu Post, Shailendra Guragain, immediate past President of the Independent Power Producers Association of Nepal mentioned that over 90% of the private sector projects have been at a standstill for the last six months. He further added that neither construction work of new projects could start nor maintenance work on ongoing ones could be done, as the necessary spare parts and human resources were not available. It is estimated that, if it were not for the lockdown imposed due to COVID-19, around 1500 MW of electricity would have been added to the national grid from private sectors [12]. Projects like the 140MW Tanahu Hydropower Project on the Seti River, the 111MW Rasuwagadhi Hydroelectric, the 120MW Rasuwa-Bhotekoshi Hydropower, the 102MW Madhya Bhotekoshi Hydropower, and the 37MW Upper Trishuli 3B Hydropower are all severely affected. These projects, as mentioned earlier, were being constructed on schedule before the pandemic struck, but now, due to the lack of Chinese staff who had

gone to their country for the Chinese new year have sadly not been able to return due to travel restrictions, keeping the projects construction at a standstill. To further exacerbate the situation, many construction equipments have not been transported to construction sites.

Another project whose construction has nearly been brought to a halt is the Rani Jamara Kulariya Irrigation Project, also a national pride project, in Kailali district. The works on intake and feeder canals on this project had already been completed. However, works of the main canal along with the 4.71 MW hydropower project has been hit hard. In an interview with The Kathmandu Post, Prem Lasiwa, Information Officer at the Rani Jamara Kulariya Irrigation Project, said that the works on the 8.86-km main canal should have been completed by mid-April but it could not happen as the workers could not be brought to the project site due to lockdown. Once the situation normalizes, the work in the main canal will be completed within a month. The 14.65 km extended main canal has been facing slow progress with only 75% completion to date. This section was supposed to have been completed by mid-June but the deadline has to be extended now as per Lasiwa. There were around 180 workers deployed before the lockdown. Now, there are only around 60 of these workers. Once the project enjoys its completion, around 14,300 hectares of land will enjoy the benefits of the irrigation project [12].

The Fast Track construction project, which is to be constructed based on Asian Highway Class I standards has also been affected. The Government of Nepal on May 4, 2017 decided to give the responsibility of construction management to Nepali Army [13]. The project, already delayed several times due to the conflicting approval of the Detail Project Report (DPR) and the selection of international consultants, delay in mobilizing technical teams along with the necessary equipment due to the lockdown has impeded the progress of this project. A budget of Nepalese ₹ 4.46 billion has been set aside for this project which now is expected to increase due to the unexpected delays.

V. CONCLUSION

The impact of the pandemic on the construction sector is expected to have a severe effect on the Nepalese economy. Nepalese construction sector has relied mostly on capital from foreign donations and loans, private sector investment, and the low contribution from the allocated

national budget. This combined with the fact that the whole world is suffering from the deadly pandemic which is sure to affect the world economy is likely to have a huge impact on the nation. With these existing challenges, there will be either meager growth or decline in the national economy in the current fiscal year thereby derailing the overall development of this nation.

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