

## Research Article

## Impact of COVID-19 on Labor Management; A Case of Reconstruction Works at Bharatpur Metropolitan City, Nepal

Er. Bijay Raj Neupane<sup>1\*</sup>, Dr. Anjay Kumar Mishra<sup>2</sup><sup>1</sup>Master's Scholar, United Technical College, Pokhara University, Nepal<sup>2</sup>Associate Professor, United Technical College, Pokhara University, Nepal**Article History**

Received: 14.07.2020

Accepted: 07.08.2020

Published: 14.10.2020

**Journal homepage:**<https://www.easpublisher.com/easjebm>**Quick Response Code**

**Abstract:** Nepal government had established National Reconstruction Authority (NRA) for the Reconstruction of Earthquake Affected Structures. Chitwan is one of the least affected districts where Bharatpur Metropolitan City lies. In Bharatpur, there were 711 total victims whose houses were completely destroyed by Earthquake. According to NRA, the Earthquake victims are the beneficiary of 3 lakhs grants for reconstruction of their houses in three installments. In the case study of Bharatpur Metropolitan City, we had conducted research on effect of COVID-19 on labor management for reconstruction works of those victims from 15<sup>th</sup> September 2019 till 07<sup>th</sup> September 2020. The reconstruction activities were halted completely for two and half months in lockdown periods. The major problem for this was due to lack of labors and materials scarcity in local market. As most of the labors working on Bharatpur were found to be from Country Border areas like Bara, Parsa, Siraha, Saptari, Sarlahi, Sunsari, Morang, etc and from India too; lockdown had stopped them to reach their destiny and other problem was the fear of COVID-19 transmission. Local government shall manage labors effectively by producing local masons of its own area rather than depending upon outsiders and provide the local masons with proper trainings and uplift the reconstruction works by following the health protocols as explained by WHO and Health Offices. The study is limited to assess the impact new provision of labour permit system.

**Keywords:** COVID-19, Labor Management, Reconstruction, Lockdown.

**Copyright © 2020 The Author(s):** This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

### INTRODUCTION

First detected in Wuhan City in late 2019, SAR-COV-2, the new corona virus that causes COVID-19 has set off a global pandemic. WHO declared it a Public Health Emergency of International concern; many countries have declared national lockdown after a few cases seen in their territories too. Nepal Government has announced complete lockdown from 24<sup>th</sup> March 2020 to 14<sup>th</sup> June 2020 and continued the partial lockdown till now on different local states as per the cases seen. Due to this, the construction activities of Nepal are also affected including Reconstruction activities. Nepal was hard hit by Gorkha Earthquake 2015, just 5 years ago and most people had lost their houses and properties (Mishra and Thing, 2019). As WHO declared that lockdown will be one of the best remedies to stop the transmission of COVID-19 globally, Nepal Government also decided to go for complete lockdown from 24<sup>th</sup> March 2020 to 14<sup>th</sup> June 2020 and continued the partial lockdown till now on different local states as per the cases seen [1]. This research was done to find out the effects of COVID-19 and lockdown on labor management for the reconstruction of private houses of Earthquake victims in Bharatpur Metropolitan City who had lost their

houses in Gorkha Earthquake 2015. Bharatpur lies at the Heart of Chitwan district and is the only Metropolitan City of this district. Many construction works of Bharatpur Metropolitan City are done by labors from Border areas and from India too. There is strict provision of Registration and Licenses for the Contractors to get permission for construction works in Bharatpur. Many contractors are found to be searching for cheap labors from border areas or india who are hard hit by poverty and are very laborious for any works. Many workers also come from farming who does seasonal agricultural works at their farms and spends their remaining time for construction works [2]. This research was done with the help of telephone communication and data collection from concerned offices by following health protocols as set up by WHO and Health Ministry of Nepal.

### PROBLEM STATEMENT

National Reconstruction Authority of Nepal have reported that due to the advent of corona pandemic which hampered and delayed many construction works it had negative impact on reconstruction too. The NRA had also realized that the reconstruction progress in the urban areas like Bharatpur Metro City had not been

satisfactory due to numerous reasons (NRA, 2020). No specific researches have been done on the local level to identify what types of negative impact had been created on reconstruction activities due to COVID-19 and lockdown. COVID-19 had bothered many construction related works including reconstruction of Bharatpur Metropolitan City. It had completely halted reconstruction works for two and half months from April to 2<sup>nd</sup> week of June. The purpose of this study was to find out the impact of pandemic and lockdown on labor management for reconstruction activities relative to previous and upcoming months. Furthermore it was done to analyse the reasons for halt in reconstruction works. About 30 house owners were selected as sample for finding out their rationale to stop their reconstruction works.

## RESEARCH OBJECTIVES

The general objectives of this study was to assess the impact of COVID-19 on labor management for reconstruction works at Bharatpur Metropolitan City of Nepal and the reasons for home owners to stop the reconstruction works.

## LITERATURE REVIEW

Profoundly qualified work force ought to be readied directing a few expert preparing programs, compulsory arrangement of Value Management in rules of public substances and all the development ventures ought to be delegated experienced Value Manager for best result from the task which spares alarm asset of least created nation like Nepal. Human Resource Capacity of A class contractors were satisfactory. In contrast COVID further adding stresson labour resource. First detected in Wuhan City in late 2019, SAR-COV-2, the new corona virus that causes COVID-19 has set off a global pandemic. WHO declared it a Public Health Emergency of International concern; many countries have declared national lockdown after a few cases seen in their territories too [3]. In Nepal, one positive case was seen among 212 samples on 20<sup>th</sup> February 2020. He was a native student studying in Wuhan with symptoms onset on 3 Jan 2020 [4].

Nepal Government has announced complete lockdown from 24<sup>th</sup> March 2020 to 14<sup>th</sup> June 2020 and continued the partial lockdown till now on different local states as per the cases seen (1). According to Report of Worldometer, there were 46,257 corona virus cases, 289 death cases and 28,941 recovered till 7<sup>th</sup> September 2020 in Nepal. The lockdown done by many countries had negative impact on various construction sectors of the world [5]. Similiarly the construction activities of Nepal are also affected including Reconstruction activities [6]. Nepal was hard hit by Gorkha Earthquake 2015, just 5 years ago and most people had lost their houses and properties. So Nepal government had established National Reconstruction

Authority (NRA) according to the Article 3 of the Act Related to the Reconstruction of Earthquake Affected Structures, 2015. The scope of work of the NRA is as specified by the Government of Nepal by a notification in the Nepal Gazette. 32 districts, including 14 highly affected and 18 less affected districts, fall under the scope of work of the NRA according to the notification in the Nepal Gazette by the Government of Nepal (NRA, 2015). Among the 18 districts, Chitwan is one of the least affected districts where Bharatpur Metropolitan City lies. In Bharatpur, there were 711 total victims whose houses were completely destroyed by Earthquake.

According to NRA, the Earthquake victims are the beneficiary of 3 lakhs grants for reconstruction of their houses in three installments as:

- 1<sup>st</sup> installment of Rs 50,000 after completing the contract with local government for reconstructing house
- 2<sup>nd</sup> installment of Rs 150,000 after completing D.P.C level of house
- 3<sup>rd</sup> installment of Rs 100,000 after completing upto roof band level (NRA, 2020)

Every construction works needs 4Ms i.e manpower, materials, machine, minutes (time). Among them manpower or labors are the vital components for construction in the developing countries like Nepal. Labors are the primary source of any construction works everywhere and they are the factor of performance and profitability (2). Human are backbone for any construction works mostly in the labor based technology. But such worthy manpower at the construction site are deprived of health facilities and have to work with health hazards and risks without proper sanitary facilities, safe drinking water, etc [7].

In the case study of Bharatpur Metropolitan City, we had conducted research on effect of COVID-19 on labor management for the reconstruction of houses of those earthquake victims from 15<sup>th</sup> September 2019 till 07<sup>th</sup> September 2020. Due to the effect of COVID-19 and lockdown, there was scarcity of labors and local labors were also not ready to work due to the fear of COVID-19 transmission. Works were missing for heaping work, retrofitting and electromechanical works. Works were not being given any preparation nor has any exhibition test been performed, just 6% of work were prepared rest obtained ability through working experience which is the test for drenching work [2].

## RESEARCH METHODOLOGY

### STUDY AREA

This was a research to explore the impacts of COVID-19 on reconstruction activities at Bharatpur Metropolitan City. The location of study area is shown in fig 2.1.

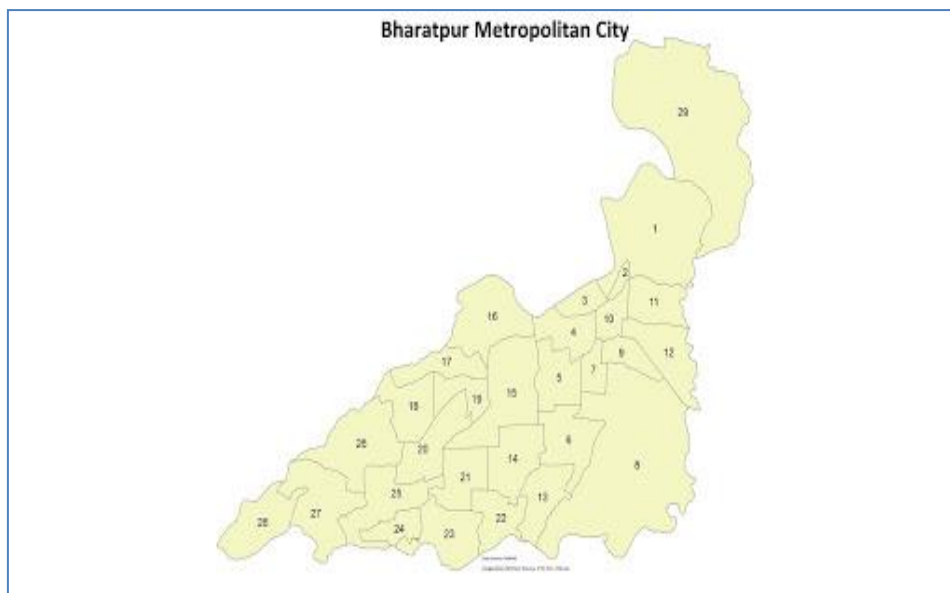


Fig-2.1: Map of Bharatpur Metropolitan City

## RESULT AND DISCUSSION

Number of Earthquake victims eligible for second and third tranche:

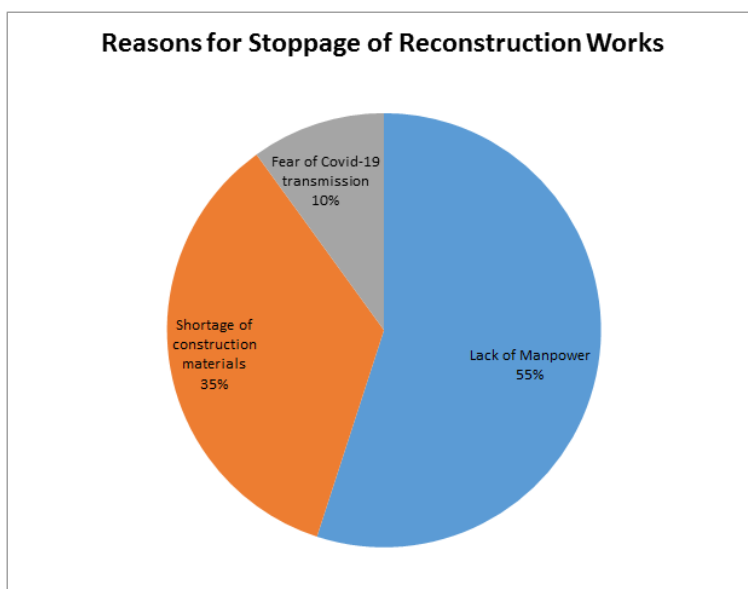
The data were collected from DLPIU office and analysed in table as given below:

Date \ Installment	15 <sup>th</sup> Aug 2020	15 <sup>th</sup> Sept 2019	15 <sup>th</sup> Oct. 2019	15 <sup>th</sup> Nov 2019	15 <sup>th</sup> Dec 2019	15 <sup>th</sup> Jan 2020	15 <sup>th</sup> Feb 2020	15 <sup>th</sup> March 2020	15 <sup>th</sup> April 2020	15 <sup>th</sup> May 2020	15 <sup>th</sup> June 2020	15 <sup>th</sup> July 2020
Second (Rs.1.5 lakh)	391	401	465	508	523	523	529	546	549	549	549	580
Third (Rs. 1 Lakh)	179	218	301	387	441	453	458	474	477	477	477	520

From the above table, it was revealed that there is no progress in reconstruction activities during the complete lockdown periods. Among the total Earthquake Victims, about 30 Household owners were telephoned for finding the potential drawbacks of lockdown which stopped their reconstruction works.

As per the information provided by the 30 house owners, the reasons for the stoppage of reconstruction works were due to:

- 1) Lack of Manpower or labors – 55%
- 2) Shortage of Construction Materials – 35%
- 3) Fear of Covid-19 transmission – 10%

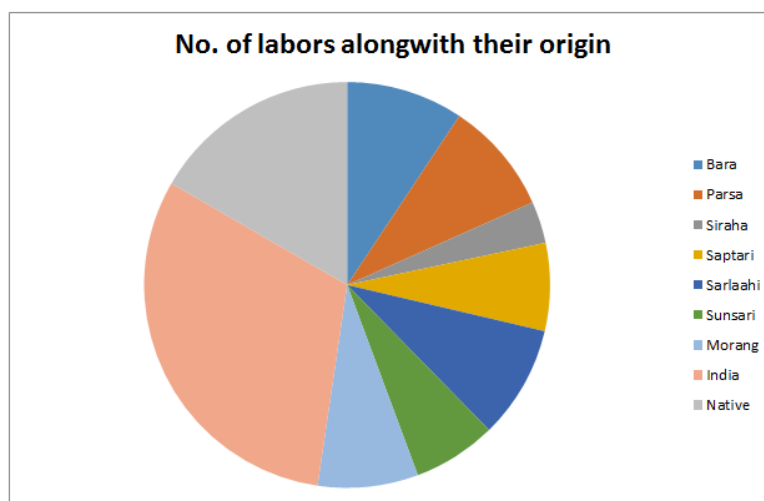


Now since the first reason seem to be the major cause for the stoppage of reconstruction works in Bharatpur, so we started to do research on the impact of COVID-19 on the labor management. After telephoning the 30 house owners about the labor management process for their houses reconstruction, we found out that (approximately 250) labors initially deployed were from border areas like Bara, Parsa, Siraha, Saptari, Sarlahi, Sunsari, Morang, etc and from India too. Remaining 50 were local peoples of native places. Before the lockdown started, those labors from the other districts headed towards their homes. Nepal Government had strictly stopped the domestic and long-distance transportation till now and had made the rules to those who enter to one district from others should

stay in HOME QUARANTINE for 14 days. Such people can only come out of their quarantine after having their positive PCR Report. Nepal Government has set up price of Rs. 5500/- for PCR test which is very expensive for normal peoples who are at the poverty line and labors from such families can never do such tests and come back to works. During the lockdown periods, those labors from outsides couldn't come while the local labors were afraid of COVID transmissions to them and family during the works. So they didn't participate in reconstruction works. As per the information provided by the house owners, numbers of labors from each district are presented in the table and line diagram below:

Districts or Place	Bara	Parsa	Siraha	Saptari	Sarlaahi	Sunsari	Morang	India	Native
No. of labors	28	27	10	21	27	20	24	93	50

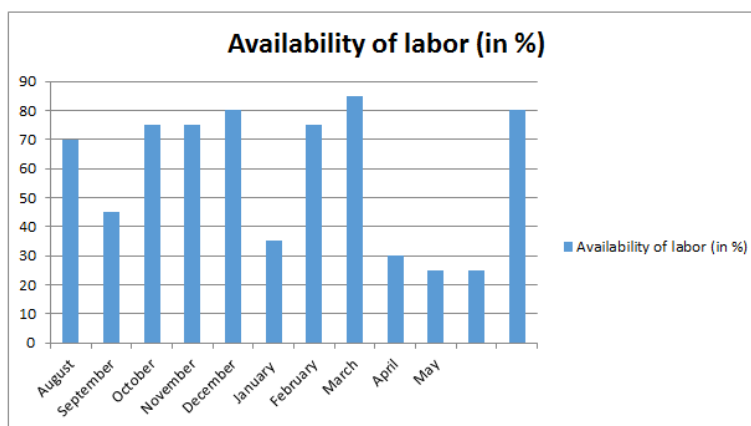
The number of labors according to the place of their origin is given in pie-chart below:



**Status of Labor Availability**

As per the information provided by the House owners, the trends of labor availability from August

2019 till July 2020 (in percentage) with respect to the time are given below:



From the above bar chart it is revealed that optimum numbers of Labors were available on the months of March, December, July, etc and least

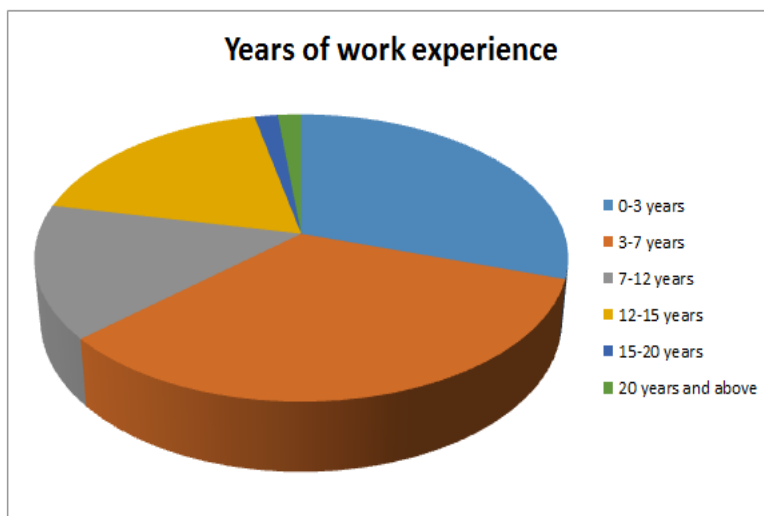
numbers of labors on the months of May, June, April, etc.

Due to the complete lockdown done by Government of Nepal, transportation was completely halted and thus the labors from out districts were not able to come to their sites during the months of April, May and June and the above shown percentages were of local labors.

**Labor Management Practice**

Rules and policies governing and organizing employment may be called as labor management practice. Labor management practice may of different styles in different cases.

**Status of Labors**



From the above figure, it can be concluded that labors of 0-3 years experiences and 3-7 years' experience were high in number rather than other criteria as shown above. Labors having experiences more than 20 years were very least in numbers. From this we can conclude that it is difficult to find experienced labors that are always attracted by foreign currency and bright future in abroad countries. i.e they work for few years locally, acquire the needed skills and migrate to other countries for foreign currency.. This ha created negative impact on Nepalese Construction Industry.

Reconstruction data were collected from District Level Project Implementation Unit, (Building), Chitwan which is a part of N.R.A while reasons for stoppage of reconstruction works were collected by calling the house owners via telephone. From the above data, we can easily say that Bharatpur Metropolitan City is depending upon the labors of outer districts rather than the native labors. There may be shortage of skilled or non-skilled labors in native place but Bharatpur Metropolitan City should provide enough training related to construction and produce their own native workers so as to sustain their economy within Bharatpur Metropolitan City and also to provide the

**Interview with clients about the issues related to labors**

During the interview it was found that the clients had good trust on labors from other districts rather than natives. They believe that the labors from other districts have better skills and techniques for aesthetically pleasant designs and finishing. The local labors were also low in numbers. During the lockdown period it was difficult for the house owners to find the skilled labors for the reconstruction of their houses and they couldn't trust the local labors too.

Employment opportunities to its native citizens along with reduction in the Unemployment ratio.

Most of the Nepalese currency goes to India via labor charges and many of the Bharatpur Citizens are thriving for jobs and employments but such potential employment opportunities are still not seen by those youth. So the local government must open its eyes to fulfill labor demands by its own native labors along with the creation of employment opportunities inside it's territory.

**CONCLUSIONS**

This study gives us the clear understanding of the labor management for reconstruction works on Bharatpur Metropolitan City, Nepal. From the limited scope of present study, the following conclusions can be drawn:

- The reconstruction activities were halted completely for two and half months in lockdown periods.
- There was scarcity of Manpower and construction materials during complete lockdown periods which completely halted the reconstruction activities.
- House owners trust less on native labors rather than outside ones due to their skills and expertise.



- It is difficult to find more skilled labors with more than 20 years of experience due to their migration to abroad countries for earning foreign currency.
- Fear of Covid transmission also discouraged labors from involving themselves in reconstruction works.
- Most labors were from India (about 31% of taken data) taking off Nepalese currency to India and only few (about 16.67%) from native city.
- Most of the labors were outside the native place from outer districts so increasing the unemployment ratio in Bharatpur.
- Many workers interested to come back to work were found to be afraid of doing PCR test (an expensive test of worth Rs. 5500/- or more) and also to stay in quarantine for 14 days which seems to be long period for those who have to work daily for their daily foods.

## RECOMMENDATIONS

To effectively manage the availability of labors in Bharatpur Metropolitan City, following recommendations are done:

- Local Government must uplift the reconstruction works by managing manpower (giving priority to local peoples), assure the availability of construction materials and create working environment by following the health protocols as explained by WHO and Health Sector.
- Local government must encourage the local people to work by providing them enough trainings and incentives for construction works.
- Native people should be made aware that instead of going abroad or outside for jobs, they can earn better in native place if they have interest, enough skills and knowledge. So they should be encouraged for that.
- Local People shall be provided with extra facilities and job securities as explained by International Labor Organization for their involvement in construction works.
- Bharatpur Metropolitan City shall conduct enough Mason Trainings and even provide licenses to the local people with skills and knowledge to work as contractors. Thus creating manpower of its own vicinity.
- Hence Bharatpur Metropolitan City can sustain its internal economy in its own territory and even provide jobs opportunities to many local peoples reducing unemployment rates.
- There must be proper implementation of labor laws and respect their skills with scientific method of remuneration systems to reduce brain drain approach on construction industry.
- National Reconstruction Authority shall also provide certain incentives to the homeowners or labors working for reconstruction of houses so as to

obey the health protocols and reduce their fear of Covid transmission.

- Nepal Government shall also impose certain health protocols with flexibility for labors so as to speed up the reconstruction works by reducing the price for PCR test to free if possible and provide alternatives to stay in quarantine for 14 days which is a long period for poor labors.

## ACKNOWLEDGEMENT

We are very grateful to the DLPIU (Building), Chitwan and Bharatpur Metropolitan City for providing research data without whom this work would remain incomplete. We are very thankful to all who are directly or indirectly associated with this research.

## REFERENCES

1. Mishra A. K., & Thing R. (2019). Structural Features for Earthquake-Resistant Load-Bearing Residential Buildings in Nepal. *J Adv Res Geo Sci Rem Sens*, 6(1), 1-16.
2. Dev, E. R., & Mishra, A. K. Assessment of Casual Labor Management Practices in Construction Projects.
3. Poudyal, B. H., Maraseni, T., & Cockfield, G. (2020). An assessment of the policies and practices of selective logging and timber utilisation: A case study from natural forests of Tarai Nepal and Queensland Australia. *Land Use Policy*, 91, 104422.
4. Asian Development Bank. (2020). Nepal - Macroeconomic Update, 08(1):1-22.
5. Shrestha, R., Shrestha, S., Khanal, P., & KC, B. (2020). Nepal's First Case of COVID-19 and public health response. *Journal of Travel Medicine*, 27(3), taaa024.
6. Alenezi, T. A. N. (2020). The Impact Of Covid-19 On Construction Projects In Kuwait.
7. Impact of Covid-19. (2020). Measures on Vulnerable Communities in Earthquake-Affected Areas Need Assessment Report.
8. Mishra, A. K. (2018). Assessment of Human Resource Capacity of Construction Companies in Nepal. *J Adv Res Jour Mass Comm*, 5(4), 14-25.
9. Mishra, A. K. (2019). Implementation status of value management in project management Practice in Nepal. *Internafional Journal of Management Studies*, 6(1), 92-108.
10. NRA. (2020). Article of NRA available at
11. [http://www.nra.gov.np/np/resources/details/5UuVtvr75RmB5-g7g\\_-pcHUA7xcspIgc1uI8RSjpOY](http://www.nra.gov.np/np/resources/details/5UuVtvr75RmB5-g7g_-pcHUA7xcspIgc1uI8RSjpOY)
12. Worldometer. (2020). Coronavirus [online] available at
13. <https://www.worldometers.info/coronavirus/country/nepal/>.