
Assessment Report

COPE Nepal

copenepal.org

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Authors:

Mahesh Dahal | Data Consultant
maheshdahal@live.com

Anup Satyal | Data Consultant
anup.r.satyal@gmail.com

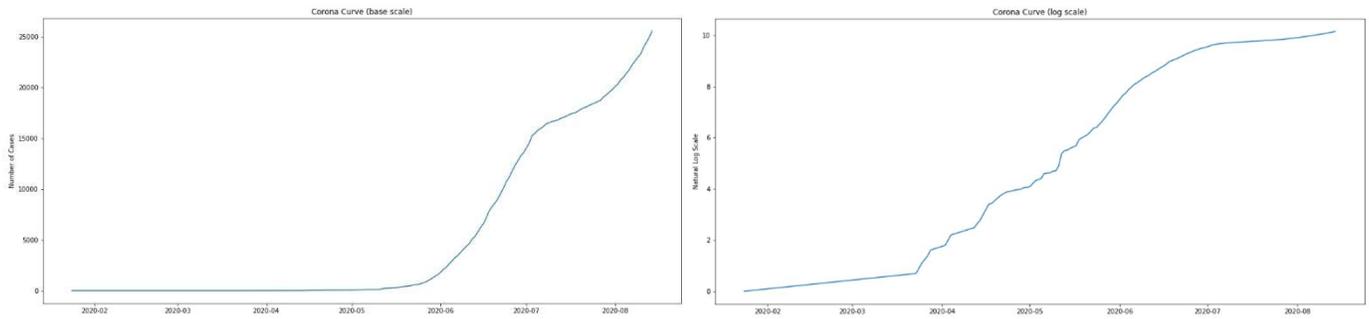


Photo by Bimal Ranabhat from Pexels

Introduction

Cope Nepal is a group of volunteers whose sole purposes is to analyze publicly available data on the ongoing COVID-19 and water borne disasters in Nepal. We hope to provide insights to public and private stakeholders (Government bodies and I/NGOs), who might utilize some of the information for intervention and relief programs.

Confirmed Cases

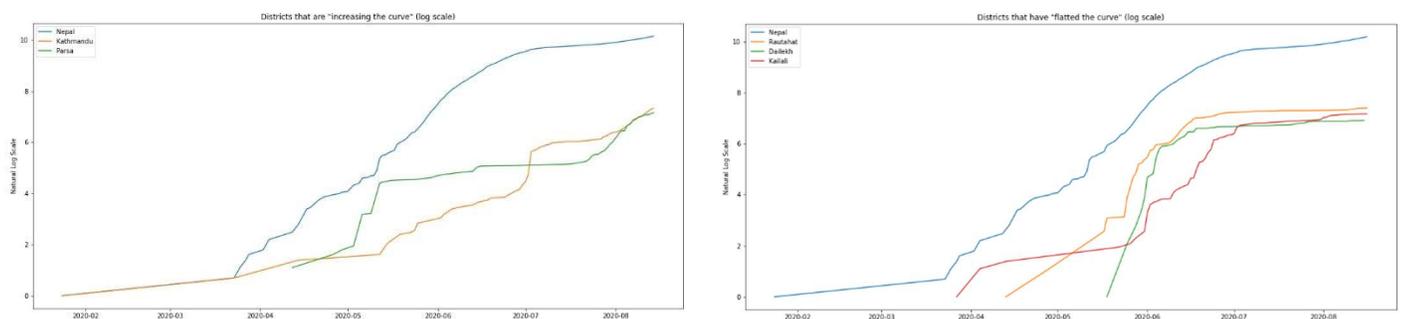


The charts above show the progression of COVID-19 in Nepal ever since the first case was detected in January of this year.

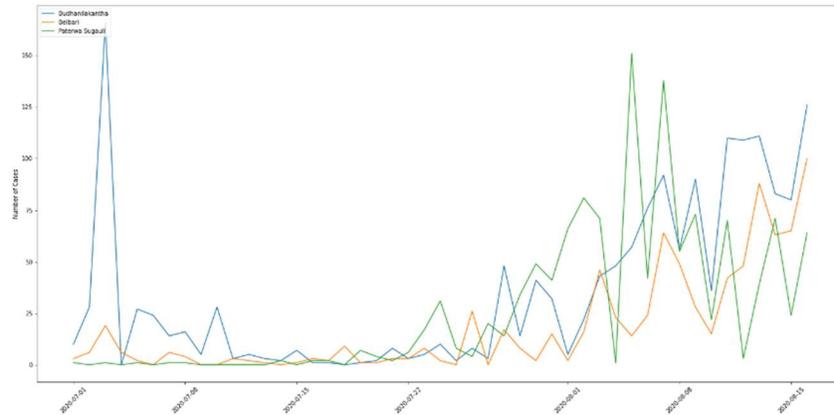
The chart on the left shows the growth in the total number of cumulative cases across the country. We noted that while the cases had started to stabilize around July, in August, the increase has taken an exponential growth. As of the day of writing **26660 cases have been identified across the country**, of which **9221 cases are still active**. Identified cases have been growing at a rate of **2.15% over the past week**.

An exponential resurgence of cases is supported by the chart on the right, which shows the same data (cumulative cases) but in the Logarithmic (natural) scale. Essentially, the scale allows us to see what the “curve” in Nepal looks like. Since a 1-point increase in the log scale is equivalent to estimated 3000 new cases, the increase in the curve on right shows some cause for concern.

High Growth Areas

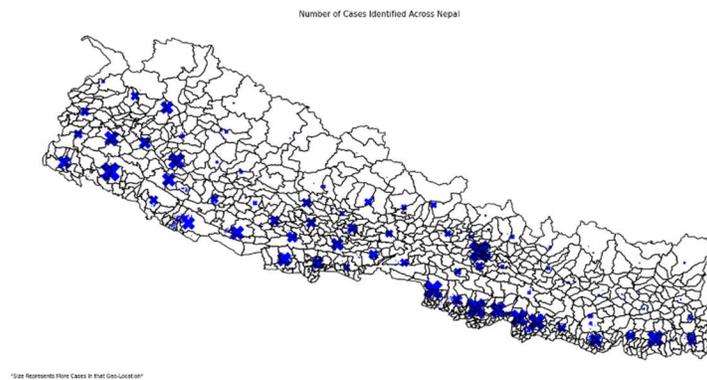


The chart above compares the “curve” for Nepal with that of specific districts. It is evident that the recent **spike in cases in the country has been driven by two districts in particular: Kathmandu and Parsa**; whereas districts which were previously hot-spots (**Rautahat, Dailekh and Kailali**) seem to have flattened the curve to a certain extent.



Digging a little deeper, the chart above – which shows the number of cases for specific municipalities since July - highlights areas where the growth in COVID-19 cases has spiked only recently. Official records show that **Budhanilkantha (Kathmandu district)**, **Belbari (Morang district)** and **Paterwa Sugauli (Parsa district)** are being affected particularly strongly.

Geographic Breakdown



Unlike other countries where there was steady growth in COVID-19 cases through local transmission, in Nepal the situation seems to have been quite different. The combination of a porous border with neighboring India, where a large proportion of the population live and work, and a phased out lockdown in both countries, **Nepal saw a significant inflow of people in the bordering areas, where – as the map above shows – the number of identified COVID-19 cases have been the highest to date.**

Demographic Breakdown



A demographic analysis of identified COVID-19 cases shows that most cases have been identified in a much younger portion of the population. This holds true regardless of gender and one of the hypotheses could be the result of a correlation between the younger and migrant worker populations. This requires further analysis to confirm. In terms of gender breakdown, where data on gender is available, **83% of the identified cases so far have been Male while only 17% have been female.** Once again, this could be the result of migratory factors and requires further analysis.

Key Takeaways

COVID-19 is rising exponentially at national Level

1. We are seeing an average rise of around 2.15% confirmed cases per day over the past week.
2. The death rates are increasing by around 1.19% per day over the past week with the highest at 9 deaths on the 11th of August 2020. Paterwa Sugauli (21), Belbari (9) and Dhanushadham (9) municipalities, show the highest death rates so far.
3. In the Kathmandu and Parsa the number of cases is increasing while in prior hotspots of Rautahat, Dailkeh and Kailali, the cases are declining.
4. The new municipal hotspots for the COVID-19 are Budhanilkantha, Belbari and Paterwa Sugauli. From a district perspective, Kathmandu is fast becoming a hotspot.

New government regulations

1. Government has allowed all local governments to form their own regulations and apply necessary measures as when required.

Natural Disasters

1. Flood and Landslides are also increasing. 45 landslides and floods have been reported in August alone, of which 6 were reported in Bajura, 4 in Sindhupalchowk and Panchthar.
2. When we cross validated the data and situation with the local levels, we found that there is limited resources in the flood and landslide affected districts and very few I/NGO are working in these areas for relief.

Bibliography & Acknowledgements

The authors of this report (Mahesh Dahal and Anup Satyal) work as a part of the team that started the Cope initiative. Cope was formed in early May 2020 by a group of volunteers with experience in Data Analytics and Social Media Management.

The team's sole purpose is to derive insights from publicly available data that might help combat the ongoing COVID-19 crisis in Nepal.

For COVID-19 data, we rely on an API provided by the National Disaster Risk Reduction and Management Authority (NDRRMA). NDRRMA provides daily updates on each individual case identified in the country along with – for our purposes – the age, gender, occupation, geographic location (point-coordinates) of the same. NDRRMA's API has been simplified and made freely available by Nepal Coronavirus Information website: <https://nepalcorona.com/data/api>. Our system is plugged in to the Nepal Coronavirus Information API. For data on natural disasters, we rely on the NDRRMA's Bipad platform. We use data on the location (Municipality), type and date of incident to match it with the COVID-19 cases aggregated on a municipal level. We have also cross-validated our work by contacting stakeholders at the local level to ensure correctness of analysis.

This report has been prepared voluntarily through Cope Nepal and If you have any feedback on the report or believe we can be of any help to your organization, please get in touch with us at maheshdahal@live.com or anup.r.satyal@gmail.com