

NEPAL RISK OUTLOOK

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Covid-19 Pandemic and Nepal's Road to Post-Pandemic Recovery

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Table of Contents

1 Introduction

12 Sectoral Impacts

12 Health

26 Education

36 Service

44 E-Governance

48 Public Finance

53 Future of Work

56 Conclusion

In our study, we identify key sectors of the Nepali economy and dig into the details of their performance over the period, prior to and during the crisis. We come up with a few recommendations that if GoN and other key policy stakeholders work on can help Nepal to secure a healthier post-pandemic economic recovery.

Introduction

Nepal reported the first confirmed case of Covid-19 in the entire South Asia region in Jan 2020. In the following months, as the virus began spreading to countries around the world and in South Asia, following China and other countries' footsteps, Nepal too imposed a nationwide lockdown beginning the fourth week of March 2020 with an aim to mitigate the crisis. However, the nationwide lockdown, that ultimately lasted for almost four months, didn't do much to control the spread of the virus but rather severely hit the country's key economic sectors. Some of the initial impacts of the pandemic across sectors have been visible and based on our analysis Nepal is going to suffer in the long-run due to some steps taken during the first two years of the pandemic. However, if Government of Nepal (GoN) takes some cautious steps and formulates relevant plans and policies, we can think of Nepal minimizing some of the possible long-term damages from the pandemic.

In our study, we identify key sectors of the Nepali economy and dig into the details of their performance over the period, prior to and during the crisis. Based on available evidence so far, we also come up with a few recommendations that if GoN and other key policy stakeholders work on can help Nepal to secure a healthier post-pandemic economic recovery.

Study Framework

For our analysis, we are looking at major changes in Nepal's key economic sectors between two phases namely the pre-pandemic period and pandemic period. To make our analysis more forward-looking, we are also highlighting some aspects across all the sectors that need to be done to make these economic sectors more vibrant and efficient in the post-pandemic era Nepal. In addition, to give more contextual details for the readers on what needs to be done during a major crisis, we are also discussing one of the major risks that Nepal faced recently - Nepal Earthquake 2015. Furthermore, as Covid-19 hit Nepal while the country was busy implementing the first phase of federal governance in the country, we are also substantially focusing on overall governance during the pandemic and related issues across key sectors, including health, economy, education, and labor migration among others.



**Pre-Pandemic
Conditions**



Enablers



Financing

Historical Lessons

In 2015, Nepal was rattled by two major earthquakes on 25 April followed by a major aftershock on 12 May with subsequent aftershocks. As a result, approximately 9,000 lives were lost, 22,000 people were injured and over half a million houses were destroyed. The 2015 earthquakes were the most widespread and recent disaster faced by Nepal before the pandemic. During both the crises Nepal depended on international organizations, donor agencies, and other foreign governments to combat the multi-pronged health and economic crises.

There were various challenges Nepal faced while responding to both disasters. After the earthquake,

Nepal set up a National Reconstruction Authority (NRA) that would expedite the reconstruction process. An International Conference on Nepal's Reconstruction (ICNR) was held in June 2015. At the conference, foreign countries and development partners pledged USD 4.4 billion in grants and loans to help Nepal's reconstruction process. However, there were multiple issues related to the disbursement of the pledged amount.

The delay in disbursing the committed funds in the first year (2015-16) after the earthquake was due to a combination of factors. The hindrance occurred because of political bickering and the sluggish functioning of the NRA¹. In addition, there were frequent changes in the leadership of authority of the NRA. Disbursement was further exacerbated² when Nepal's supply chain was obstructed by the Indian blockade. This initial hindrance in the first year was primarily caused by the political squabbling and insensitivity towards the public.

Most of the aid and assistance Nepal received were bilateral. SAARC³ as the pre-eminent regional body hardly had collaborative measures to assist Nepal. The response of SAARC to the Nepal earthquake was somewhat absent. During the same period, a Nepali national was the chair of the regional body and no delegation from SAARC was included in the disaster response.

During the pandemic, Nepal took a top-down centralized approach even though health is a shared responsibility of all three tiers of government: local, provincial, and federal. The government formed Covid-19 Crisis Management Center (CCMC) in June 2020, dissolving the three-month-old High-Level Coordination Committee (HLCC), a high-level GoN body formed to manage Covid-19 crisis in Nepal. Instead of employing an existing mechanism to combat the pandemic – Disaster Risk Reduction and Management Act 2017 (DRRM) the government has been relying on the CCMC. The federal government was hesitant to employ the DRRM. DRRM labeled the pandemic as a non-natural calamity and had identified specific and collective roles to be played by the stakeholders at the three-tiers of the government.

The Federal government continues to empower the chief district officer (CDO), the field unit of the Ministry of Home Affairs (MoHA) to contain the spread of the pandemic and reduce the roles of the provincial and local government. The federal government provided guidance, medical resources, and major decisions, which the provinces and the local units carried out. The federal government also provided the bulk of the budgetary requirements for all three tiers of government. The three-tier government's response to the pandemic has received a combination of both positive feedback and criticisms. Many have questioned the role of the provincial government as their role lacks clarity amidst the crisis. The local governments have complained about the limited funds provided by the federal government to manage the quarantine facilities and the incoming migrants from India. Some have also stated federalism as a "winner" to overcome the crisis.

The provincial government, with support from the federal government, established testing labs, and managed medicines and other essential services. The local governments had been tasked to establish quarantine facilities, to organize, help, and provide relief materials for the community. Later, the wards also served as the inoculation centers for Covid-19 vaccines.

Pandemic Governance

On 13 Jan 2020, Nepal reported its first coronavirus case. According to a (WHO, 2022) study, more than 896,584 cases of Covid-19 have been recorded in Nepal, with 11,635 deaths. In Nepal, one or more cases of Covid-19 have been documented in each of the seven provinces and 77 districts since Jan 2020. (WHO, 2021). The Coordination Committee created at the federal level, the Covid-19 Crisis Control Center Operation (CCMC), is the primary decision-making body in the Covid-19 pandemic's management in Nepal. The Covid Coordination Management Committee was also formed at the provincial and local levels. Other informal actors such as the media appeared to be another unofficial decision influencer, with the administration preferring to make judgments based on media reports rather than expert deliberations. The federal government also had a tendency to copy pandemic-management strategies from neighbouring India and China at random.

The pandemic response led by the government was reasonably successful in curbing the spread of the virus in its early stages. All important decisions, ranging from policy formation to national lockdowns, restrictions on international travel, and quarantine administration, were made at the federal level or by federal entities such as the Covid-19 Crisis Management Centre. To curb the rapid transmission of Covid-19 at the community level, the federal government came up with testing strategies, contact tracing, vaccination strategies, public information, awareness campaigns, and economic support packages.

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Testing labs have been created and furnished almost entirely from scratch. Along with the Patan Hospital and the Armed Police Forces Hospital, the GoN designated the Sukraraj Infectious and Tropical Disease Hospital (SITDH) in Kathmandu as the principal hospital for Covid-19 treatment. In addition, GoN has established Covid-19 specific hospitals, divided into three levels: Level one hospitals for mild cases, Level two hospitals for intermediate cases, and Level three hospitals for advanced and specialized care for severe cases. In collaboration with provincial and local governments, quarantine and isolation facilities were created around the country.

Even though the pandemic was widespread across all provinces, the pattern and degree of its spread occurred due to numerous reasons. As the pandemic spread across India's major cities, thousands of Nepali migrant workers were forced to return home, contrary to the government's hopes. Except for Karnali Province, all other provinces share an open border with India, resulting in a larger inflow of covid cases due to migrant workers' significant mobility across the border. The open-border policy between the two countries, as well as cultural affinity and geographic proximity, have aided this migration trend. At one point, 175,000 individuals were crammed into quarantine facilities, the majority of which did not fulfil WHO requirements.

In the aftermath of the pandemic, GoN boosted the budget allocation for health for two consecutive budgets: by 32 percent in the last FY 2020/21 and by 35 percent to an all-time high of NPR 122.77 billion in the CFY 2021/22. NPR 26.75 billion has been set aside for free immunization against Covid-19 from NPR 37.53 billion set aside for Covid-related health initiatives. The federal government established a Covid-19 (Prevention, Control, and Treatment) Fund to address fiscal concerns, which was then imitated at the provincial and local levels under federal government guidance. The Covid-19 Fund was created to promote Covid-19 patient prevention, control, and treatment, provide relief to the poor and vulnerable, and cover the costs of infrastructure and human resources dedicated to Covid-19 response. Most local units had established emergency funds through reallocation of budgets from different headings received through fiscal transfers as per the instructions by the federal government. Additional funds were being generated from internal revenue sources, funds received from the province, and monetary contributions received from elected representatives and local government employees.

With regards to monetary policy, the NRB took a number of steps to mitigate the impact of the Covid-19 pandemic on the financial industry and the broader economy. Some of the measures taken by NRB are; lower interest rates on loans, interest rebates on credit, concessional loans, refinancing facilities, easing liquidity and credit conditions, flexible cash and capital reserve requirements, and flexible loan recovery provisions. These measures have been very successful in reducing the pandemic's negative impact on the banking industry.

Local governments have been at the forefront of managing and monitoring efforts connected to basic healthcare delivery and the prevention of the Covid-19 virus's spread. Their contributions to the pandemic response effort have been crucial. Local governments have been developing and implementing various Covid-19 prevention and control actions on their own. Local governments have held public awareness campaigns, set up health booths at major entry points, and run fever clinics. Due to heterogeneity in the geographical environment (open border with India), the net effects of nationally adopted policies on province-level epidemic indicators can vary greatly (population size and urbanization). Overall, all provincial governments were responsible for establishing isolation facilities, setting up their own testing labs, and managing medicines and other vital services. Local governments focused their efforts on creating and supervising quarantine facilities as well as delivering help to those in need.

In mid-June 2020, groups of youths in Kathmandu and other main cities flocked to the streets to protest what they saw as government indifference,

The Covid-19 Fund was created to promote Covid-19 patient prevention, control, and treatment, provide relief to the poor and vulnerable, and cover the costs of infrastructure and human resources dedicated to Covid-19 response.

incompetence, and corruption. The coronavirus crisis has highlighted and exacerbated numerous flaws of the Nepali government, including corruption, poor service delivery, and a failure to provide employment opportunities for millions of citizens who have migrated for foreign employment to the Middle East, and elsewhere for labor jobs. Migrant workers returned home and now face the brunt of unemployment. These issues predate even before the Covid-19 pandemic. As Torres et al. point out, the pandemic has exacerbated social inequality in low-income countries like Nepal, which must be addressed primarily by prioritizing disadvantaged and vulnerable groups. To contain the rapidly spreading Covid-19 in local communities, the federal government could not provide special attention to mass testing and quarantine management through effective coordination of its three tiers of government (federal, provincial, and local). However, Nepal's vaccine diplomacy could serve as a model for many nations who have yet to begin vaccination against Covid-19, particularly low- and middle-income countries (LMICs)⁴.

How changes in governments and frequent transfer of ministers at key ministries affected the overall pandemic governance

In every uncertain situation, the population places entire trust in leaders to make critical judgments in a difficult situation. Changes in governments and frequent transfers of ministers at key ministries affected the overall pandemic governance. The mobilization of resources and procurement of medicines and equipment to combat the coronavirus were being hampered by a complete lack of coordination among government agencies, as well as increasing personality clashes between key cabinet members like the then Defence Minister and the Home Minister⁵. Despite the existence of the Central Natural Disaster Relief Committee, Pokhrel was appointed as the chairman of the High-Level Coordination Committee for the Prevention and Control of Covid-19. The Home Ministry maintains a designated Disaster Management Division that oversees disaster assistance committees at the provincial and district levels. A permanent Disaster Management Centre is run by the Nepal Police. A new Covid-19 Crisis Management Centre has been established by the Nepal Army. The Ministry of Health also has a distinct health emergency response strategy. Such entirely avoidable duplication of authority at the expense of taxpayer money in the guise of dealing with the Covid-19 situation demonstrates both an extra-legal exercise of political power and a whole new degree of incompetence.

Amidst the pandemic, the case of corruption could not falter back, which has been one of the major problems in Nepal even before the pandemic. Nepal Communist Party, which came to power in 2017, was severely criticized for failing to take action to curb it. After a healthcare procurement-related controversy surfaced in early April 2020, the corruption seemed inevitable even in the midst of Covid-19. The health minister and several senior advisers in Prime Minister KP Oli's cabinet have been accused of corruption scandals (commission deal) while purchasing Chinese personal protective equipment (PPE)⁶. The long delay in the delivery of testing machines was clear evidence. The health minister resigned after the outbreak of the secret commission deal with regards to the purchase of protective gears and other equipment. There were two independent investigations against the Oli-led government; Oli had officially distanced himself from the alleged plot and delegated a number of crisis-management responsibilities to the Army. Even the Army has been accused of corruption⁷. Surprisingly the Army is not subject to the government's anti-corruption watchdog body, unlike other branches of government. The NCP-led government tried to divert people's attention from the ongoing corruption scandal by endorsing a constitutional amendment changing Nepal's official map to include the area in dispute (Kalapani-Lipulekh), an area along Nepal's western border with India. Nepal not only faced health and economic crises but also went through a massive shift in political power. Nepal's president dissolved parliament for the second time in less than six months and called snap elections in the midst of a rising Covid-19 outbreak. The power politics did not stop when hospitals in the country were running out of

beds and oxygen. Power politics led NCP to split, which was founded in 2018 with the merger of two communist parties. The other two prominent NCP leaders namely Puspa Kamal Dahal and Madhav Kumar Nepal accused KP Oli of authoritarianism, also accusing him of excluding them from appointing members to key commissions and watchdog groups. KP Oli lost the no-confidence vote and then the political limbo was prolonged as the opposition party struggled to garner majority votes in the parliament. Under the leadership of Sher Bahadur Deuba, the Nepali Congress party formed a coalition government with the support of the CPN Maoist Center and a few leaders that split from the CPN UML party. The NCP had the golden opportunity to lead the nation for a full tenure of 5 years and showcase a perfect example of political stability before the next election. Unfortunately, the political chaos looped back to the same rabbit hole making it to the list of the long history of political instability. Even though Deuba resumed his office, the government failed to appoint the ministers in time. The Deuba administration decided to recall the ambassadors nominated by the previous Oli-led cabinet on political grounds. Moreover, the convention of the major political parties showed that the musical chair is usually played by the same group of politicians with each succeeding change. On this backdrop, political stability seems to remain a myth in Nepal. The political drama had a massive blow on the struggling health system with the shortage of staff, health bed capacity, and required equipment (machine for the Polymerase Chain Reaction (PCR) testing), which are so important for diagnosing Covid-19 quickly.

Other countries in Asia also witnessed similar political chaos. Sri Lanka Prime Minister Mahinda Rajapaksa's government had stepped up efforts to suppress independent reporting and critical speech by demanding the detention of anyone who criticizes or disputes the official position on the coronavirus. As the outbreak spread, early elections in Sri Lanka had to be postponed, leaving the national assembly out of session over the constitutional deadline and reducing balances on executive power. Similarly, in Cambodia, Hun Sen's government used Covid-19 as an excuse to crack down on the political opposition and attempted to demolish democratic space for the normal netizens. According to the report, some of the key government abuses the world witnessed during the pandemic were electoral disruption, legislative meeting disruption, media restriction, restriction on protest, detention or arrest, and police violence. According to the Freedom House report, the condition of democracy and human rights has deteriorated in around 80 countries all over the world.

In Nepal, the government would have dealt Covid-19 pandemic better had politicians kept their political differences aside to defeat the virus. Poor governance has already diverted funds from Covid-19 relief operations and jeopardized economic recovery plans. A shattered economy would not only stifle growth but will also exacerbate long-standing structural inequality patterns. As a result, corruption and mismanagement of finances by the Nepalese government have intensified the pandemic's economic impact.

Response of and cooperation from opposition parties to support the ruling party (-ies) effectively manage the overall pandemic-related crises

The world economy has been significantly hampered by the health and economic crisis ignited by the Covid-19 epidemic, with several research indicating that the crisis is disproportionately harmful to low- and middle-income countries. As governments around the world strive to respond to emergency needs, this has a major blow on development cooperation. Against this backdrop, the Development Cooperation Report 2019/20 showed that Nepal's ODA disbursements increased by 26.9 percent in 2019/20 compared to the previous year, rising from 1,578.5 million USD to 2,002.8 million USD. However, ODA's contribution to the national budget has decreased from 24.7 percent in 2018/19 to 23.3 percent this year. INGOs' contributions, on the other hand, have declined significantly, from 215.3 million USD in 2018/19 to 131.8 million USD in 2019/20. In Nepal, out of a total of 2,002.8 million USD, 512.9 million USD of ODA in 2019/20 was disbursed exclusively for Covid-19 response and recovery. In 2019/20, the top ten disbursing development partners contributed 94.7 percent of ODA. 71.0 percent of total ODA came from multilateral development partners. The Asian Development Bank, the World Bank, the International Monetary Fund (IMF), the European Union, and the United Nations were the major disbursing multilateral partners in 2019/20. Bilateral development partners accounted for 29.0 percent of total ODA. The United States of America, the United Kingdom, India, China, and Japan were the leading disbursing bilateral development partners. INGOs play a critical role in development, contributing across sectors and geographical regions and assisting with service delivery, advocacy, public awareness, and accountability. Over the last year, the volume of distribution from INGOs' core financing has declined by 38.8 percent, from 215.3 million USD in 2018/19 to 132.8 million USD in 2019/20. Save the Children topped the list of highest disbursements among INGO in 2019/20, with yearly disbursement of 21.4 million USD, accounting for 16.3 percent of all INGO funding. The list was followed by World Vision International (13.7 million USD), Plan Nepal (9.5 million USD), Heifer International Nepal (6.2 million USD), and Oxfam Great Britain (5.5 million USD).

The Nepalese government involved private companies in the ongoing Covid-19 immunization campaign. The Ministry of Health and Population (MoHP) authorized the private sector to purchase and import vaccines and support in vaccinating the population at a price set by the government⁸. When offering vaccination services, private hospitals were allowed to charge a 10% premium. The Federation of Nepalese Chambers of Commerce and Industries (FNCCI), Nepal Chamber of Commerce (NCC), and the Confederation of Nepalese Industries (CNI), three private sector umbrella organizations, were allowed monopoly by law to dominate the policy-making discourse. To combat Covid-19, the Federation of Nepalese Chambers of Commerce and Industry (FNCCI), the main umbrella body of industrialists, has established a 'Covid-19 Help Center.' The business sector collaborated with the government to ensure that a criterion for the vehicular mobility pass for industries was adopted by the Council of Ministers. Industries must be registered, have their taxes cleared, and be recommended by the FNCCI and the NCC in order to acquire the pass. It was impossible to obtain passes for vehicular mobility for organizations that were not registered with these political organizations.

Initially, Nepal Government set up a Covid-19 fund contributing NPR 500 million in it to fight against the spread of the coronavirus⁹. The government provided headway to private sectors to contribute to the funds and prepared working guidelines to mobilize the funds. The fund has received contributions from a variety of corporate sectors. Ncell was one of the first big corporations to contribute NPR 100 million to the government to set up the Covid-19 fund. Moreover, most of the private banks and corporate

houses like Himalayan Bank, Global IME Bank, Nepal Bank, Laxmi Group, Bhatbhateni Supermarket vouched to contribute to the fund. The private sector helped the government to buy relief supplies, including N95 masks, sanitizers, personal protective equipment, and infrared thermometers, among other things.

The private sector was at the forefront facing the brunt of the Covid-19 economic crisis. As mentioned above, the central bank's monetary policy prioritized relief and recovery for the pandemic hit sectors. For example, banks and financial institutions must keep a separate account for interest paid by the hotel, travel, trekking, and aviation industries until the end of the current fiscal year, and no penal interest or punishment can be levied on such interest. Overall, INGO and the private sector's support to help the government in fighting the deadly Covid-19 pandemic is highly commendable. Similarly, government fiscal and monetary policy focussed on helping private sectors in order to revive Nepal's economy.

Critical analysis on whether the federal structure of Nepal helped to better govern the pandemic-related crises

Nepal shifted to a federal structure after renouncing its long-standing, highly centralized, and unitary governing system. This clarifies why the centralized system persists in form and practice; politicians' and bureaucrats' mindsets and working cultures, both inherited from an earlier system, remained centralized. So far, the Nepali federalization process has been a battle between constitutionally mandated devolution of political authorities and a decentralization campaign led by politicians and bureaucrats clinging to the past. Governmental response to Covid-19 involves clear roles and duties, coordination structures, information channels, and budgetary relations that allow for a contextualized response and actions that successfully respond to the immediate health and economic issues. Nepal, which is still in the early stages of federalization, lacks several of these essential needs. Nepal's 2015 Constitution established a federal form of government with three levels of government: federal, provincial, and local, each with exclusive and concurrent competencies. Since Nepal is still in the process of instituting a federal structure in place, the federal government refused to delegate decision-making authority to the provinces, resulting in a highly centralized approach to managing the pandemic. The provincial government was purposefully excluded from decision-making related to Covid-19 policy formulation.

The federal government's reluctance to involve provincial governments in decision-making is related to a number of causes. To begin with, many federal leaders still have a "centralized worldview." Federal officials' unwillingness to relinquish power has been a big issue in many other domains. Furthermore, provincial and local government recommendations had little or no impact on enacting Covid-19 related policies. In the federal structure,

the majority of the workload should be carried out at the provincial and local levels due to heterogeneity in the geographical environment. For instance, many provincial and local officials complained about quarantine policies that were deemed to be overly ambitious and not practical. Duplication of tasks and responsibilities as a result of the creation of several committees, and local level agencies were sometimes confused about who to report to. The lack of data and adequate data management has also hindered the decision-making process. There was no one window for collecting and data handling of Nepali people arriving from overseas, particularly across India's porous border. Multiple government entities gathered data, including the district agency (at the district level), the health unit (all health-related information), and the local level (at the local level).

As per Nepal's Constitution, district's role in Nepal's federal structure are fold. 1) To define the functions and responsibilities of the District Assembly and the District Coordination Committee, both of which were created only to serve as coordinating bodies. 2) To define the jurisdiction of District Courts as Nepal's judiciary is still based on a unitary system. In terms of the constitution, the districts have no further jurisdictional powers.

With federal restructuring, various roles of district level offices were disbanded, in accordance with the constitution's mandates. Local and provincial governments were given more power. Local governments were in charge of offices like the District Public Health Office (DPHO), District Education Office (DEO), and District Agriculture Development Office (DADO). Following the dissolution of the DPHOs, 35 province-level Health Offices were established, each of which was tasked with coordinating with local governments in numerous districts. In a similar manner, 51 Agriculture Knowledge Centers were established to take on part of the DADO's responsibilities. The rationale for establishing these offices to oversee several districts were unclear, and concerned residents raised some valid concerns about the impact of this change in service delivery.

While the constitution does not directly grant districts considerable powers, it implicitly encourages the federal and provincial governments to establish their own district-level bodies. This is one of the primary reasons why districts will remain relevant in the future. The federal and provincial governments cannot directly advise local governments because they are separate entities. Given the federal and provincial governments' limited power to implement their plans and programs at the grassroots level, district headquarters are appropriate locations for them to set up their lower-level procedures. Because of their importance in the unitary system, district headquarters already have the informal institutional processes required for governance. The problem with this model is that federal and provincial directives may conflict with local government goals, producing conflict and eventually concentrating authority in district headquarters.

The District Level Crisis Management Center (DCMC) headed by Chief District Officer (CDO) constituted members like District Hospital Medical Superintendent, Representatives from Nepal Police, Armed Police Force (APF), Nepal Army, and an Advisory Team consisting of Chairman of District Coordination Committee (DCC), District Chairman of MuAN, and NARMIN). The DCMC, on the other hand, lacks

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direct participation from municipal and rural elected officials. Other stakeholders, such as business sector actors, civil society/media members, or non-governmental organizations (NGOs), are also not represented on the committee, which is a concerning move considering their importance at the district level. While the DCMC reports to the CCMC Ops at the federal level, it does transmit certain information to the provincial level. Despite the fact that the provincial committee gives resources and orders to the district and local levels, the role of the provincial government during the COVID-19 response is ambiguous due to the existence of the DCMC. By establishing the DCMC, the GoN appears to have bypassed the provincial level as well.

The other cause arises from provincial governments' distrust. Many federal departments continue to believe that provincial governments lack the capacity to fully carry out their responsibilities. Third, participation in the decision-making process, particularly in the purchase of medical supplies, provides a profitable chance for leaders to earn commissions and other financial incentives, thus federal officials do not opt to transfer control. Despite the fact that all three levels of government collaborated, a systematic yet centralized approach was used, leaving little room for subnational governments to influence the pandemic response other than to carry out routine obligations with their limited resources.

Compared to the terrible 2015 earthquake that shook Nepal, the present response to the pandemic has been far more effective. The response methods were similar in nature, therefore their timeliness, quality, and effectiveness were all comparable (Mathew and Upreti, 2018). However, the COVID-19 scenario differs significantly from previous scenarios because no individual or sector remain untouched. As the entire population was affected, the government was expected to have immediate and/or long-term solutions in place to meet the basic requirements of COVID-19 victims. It was difficult to forecast the government's immediate plans and measures to address COVID impacted population in such a different circumstance (changing nature of crisis and changed government structure). Nepal didn't have provincial or local government in place at the time of 2015 earthquake, hence, offices were mostly operated by civil servants who were largely in charge of the earthquake response (Adhikary et al., 2021). The new federal structure placed elected governments in key decision-making roles, which is an improvement. This had a significant impact on how the current pandemic was handled, particularly in terms of democratic accountability.

As of 30 Jan 2022, GoN has vaccinated 74 percent with the first dose and 69 percent with full dose/ second dose for over 18 years population¹¹. Until mid of Jan, GoN has safely provided about 28 million doses of Covid-19

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vaccinations, attaining 52 percent first-dose coverage and 40 percent second-dose or full vaccines coverage among the whole population. Nepal is the first country in the Asia Pacific region to provide Covid-19 jabs to refugees through its national vaccination rollout¹². Nepal was able to accomplish this achievement because of the government's strong commitment. The three-tier governance approach was also used for the distribution of vaccines to the last mile in the most recent Covid-19 vaccination campaign. MoHP coordinated the vaccine campaign with provincial and local governments, deploying it through 60+ hospitals in seven provinces and 201 vaccination centers in 77 districts, guaranteeing equal distribution to the public. The diligent health workers who have toiled hard during difficult times and conquered difficult terrain to ensure that people living in even the most remote corners of the country have access to Covid-19 vaccines deserve credit as well. Despite some political hiccups, the quick rollout of the Covid-19 vaccination campaign backed up by government fiscal and monetary measures have been crucial in bringing the economy back to normal. The use of vaccines as a diplomatic tool by neighboring nations would also assist Nepal in resuming tourism and trade far sooner than expected.

The pandemic of Covid-19 has provided an opportunity for subnational governments, particularly local governments, to connect to the public and demonstrate the true meaning of federalism. It has also aided them, as well as the federal government, in gaining a better understanding of their duties and responsibilities, as well as the importance of working together in times like these. Their community-level approach to the pandemic has aided federalism in gaining greater prominence in a country where anti-federal sentiment still abounds. The Covid-19 pandemic could be the big lesson for Nepal to institutionalize and formalize the federal system.

Health

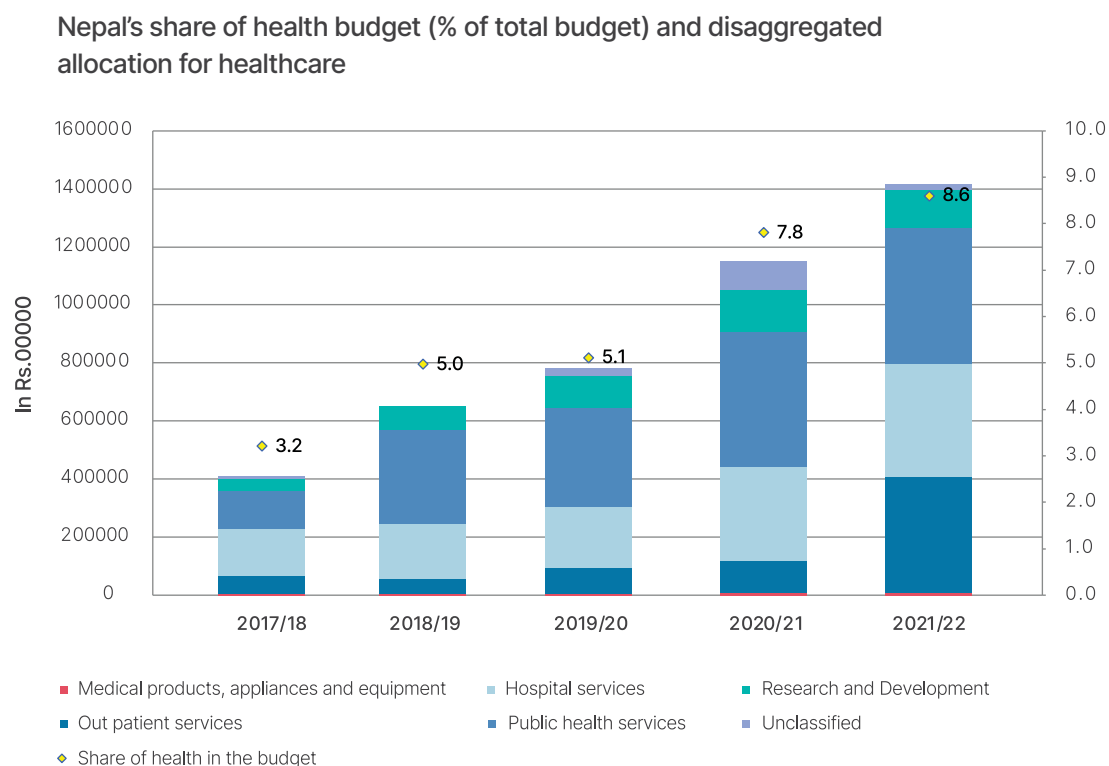
Nepal's Basic Health Scenario

Nepal is among the least developed countries. Its GDP per capita was USD 1155 (current prices) in 2020. Despite the political instability and economic challenges, Nepal has made some remarkable progress in health. Under-five mortality has been reduced by 67 percent and infant mortality by 59 percent during the twenty-year period. Similarly, maternal mortality has been reduced significantly (56 percent) between the period 1996 and 2016. The immunization coverage since 2011 had consistently remained above 90 percent for DPT3 and Polio, however slightly decreased during 2015 – 2016. On the other hand, measles coverage has been improved and reached 88 percent in 2016 from 83 percent in 2014, which may be due to health sector efforts toward measles elimination. The country has achieved polio eradication and measles elimination is targeted for 2019. The “Full Immunization Declaration” approach aims at immunizing all children through a strong community engagement. Leprosy is at the elimination stage and malaria is in the pre-elimination phase. Considerable efforts have been made to halt and reverse the trends of tuberculosis and HIV. New HIV infections have been significantly declined; however, the gap still remains between the estimated and identified HIV infection, resulting in low treatment coverage of 30 percent in 2015. Despite the stable CPR, the Total Fertility Rate (TFR) declined significantly from five births per woman in 1990 to 2.6 in 2011 and 2.3 in 2016. The increasing trend of migration is exposing labor migrants to certain health risks and poses an additional challenge to address their health needs.

Yet, Nepal lags behind in health infrastructure and human resources. It stands highly vulnerable to the unfolding Covid-19 pandemic. The pandemic has exposed the long-standing fragile health care system of Nepal. The country has battled the worst health effects while responding to Covid-19 with an under-resourced and understaffed health care system. In 2016, the number of total health care personnel including doctors, nurses, and midwives in Nepal was 3.15 per 1000 population. The numbers of intensive care beds and advanced respiratory support (ventilators) were 1395 and 480 respectively¹³. This has created a public demand throughout the country for quality and timely health services. Currently, secondary and tertiary health systems in Nepal are overwhelmed with the management of Covid-19 cases and, at the same time, the priority to address the needs of other infections and NCD has not been prioritized due to a lack of quality human resources, health system capacity and significant resource

constraints. The following section will analyze the way Nepal responded to the pandemic, especially in the supply of medical supplies such as masks, PPE, oxygen, and ventilators.

Nepal's share of health budget (percent of total budget) and disaggregated allocation for healthcare



Source: Budget Speech of various years; Ministry of Finance.

The government's health expenditure as a share of the budget has hovered between three to five percent between 2017/18 and 2019/20. However, following the Covid-19 outbreak, the government has drastically increased the share of its health expenditure to seven percent, and to 8.6 percent in 2020/21 and 2021/22 respectively. Given the unprecedented health crisis Policy Brief Risk Outlook 2 the increase is a welcome move. A similar pattern was also witnessed across other neighbouring economies. For example, India has almost doubled the country's healthcare and wellbeing budget for FY 2021/22 to INR 2.2 trillion rupees. In the case of Bangladesh, the new budget has proposed to spend BDT 292.4 billion (23 percent higher than the revised allocation for the last fiscal year but still just 1.3 percent of the GDP) given the Covid-19 emergency. The WHO recommends 5 percent of GDP healthcare spending as the healthy annual spending in this sector.

The budget categorizes health expenditure into six components – medical products, appliances, and equipment; outpatient services; hospital services and public health services; research and development; and an unclassified component for expenses that do not fall under any of these categories. Over the years, expenses for public health services have had the largest share of the health budget, followed by hospital services. For instance, in this year's budget, 33 percent of the health budget has been allocated toward public health services and 28 percent towards hospital services. Unlike previous years, expenditure on outpatient services has taken a large share of 28 percent this year, probably owing to the possible rise in 'out-patients' who have been infected with Covid-19.

Despite the increase in the government's health budget, it is important to note that private households remain the largest financier of health care expenditure, contributing 56.3 percent of the total health expenditure in 2011/12. With the share of health expenditure amounting to around seven percent in 2011/12 and at eight percent in 2021/22, private households are still likely to be the major financier of healthcare expenditure even today. In subsequent years, the government-funded 17 percent of the total current health expenditure while external funds financed 13 percent of the amount; non-profits and other enterprises funded the remaining share.

Status of Healthcare infrastructure

Overall, the status of Nepal's health infrastructure has shown much improvement in the last six years. There were 107 hospitals in 2014, while in March 2021 there were 125 hospitals. Likewise, physical health infrastructures such as primary health centers, health posts, sub-health posts, and consequently hospital beds have also markedly increased. In 2014, there were 7,550 beds, which in 2021 had gone up to 11,640 – a 35 percent increase. There have also been additions in the number of health care workers - over 11,118 new nurses and 45,191 volunteers since 2014. But the number of doctors has seen a modest increase in the same period, from 2,154 to 2,640 – an 18 percent increase.

Status of health infrastructure in Nepal

Headings	Up to July 2014	Up to March 2020	Up to March 2021
Hospitals	107	125	125
Primary Health Center	215	203	205
Health Post	2175	3805	3870
Ayurvedic	293	382	395
Sub-Health post	1695	1200	2626
Hospital Beds	7550	8172	11640
Doctors	2154	2640	2640
Nurses	9535	20653	20653
Health Assistants	1155	14347	14347
Women Health Volunteer	6332	52000	51523

Source: Economic Survey 2021, Ministry of Finance

According to the 2019 GHS Index, Nepal falls under the 'more prepared' category to maintain health security, though it lags in all six categories used by the GHS Index¹⁴. Despite the ranking, Nepal lacks robust laboratory systems, real-time surveillance and reporting, a workforce to work on epidemiology, and data integration among the human, animal, and environmental health sectors.

Despite the overall improvement in the health sector, Nepal's health

infrastructure and health-related quality human resources are largely inadequate. Take the patient-to-doctor ratio, for instance. The WHO recommends patient to doctor ratio to be at 100 doctors per 100,000; however, Nepal has only nine doctors for every 100,000 people. Similarly, there are three beds per 10,000 people, which is lower than the number recommended by the Human Development Report 2020 to qualify for a 'medium' level of preparedness to fight Covid-19. Even by the poor South Asian standards, Nepal stands below its peers, such as Pakistan (6), India (7), Bangladesh (8), and Bhutan (17) in hospital beds per capita.

Evolving Healthcare Financing

Nepal has seen a sudden uptick in imports of healthcare services during the pandemic. As reflected in Table 1.2, the substantial growth in the credit for medical equipment and the imports of medical equipment and tools shows the direct impact of Covid-19. In addition, substantial growth in a credit of hospitals, clinics, and health service is suggestive of both the increased investment of the existing hospitals (because no new hospital has been built in this period) in Covid-19 related measures as well as their increased dependence on bank loans to maintain their operations amidst the fall in revenues. Overall, Nepal's health sector registered a healthy growth of 5.2 percent in the PFY compared to the negative economic output growth rate of 2.1 percent. The health sector is also expected to register a robust growth of 6.3 percent in the CFY.

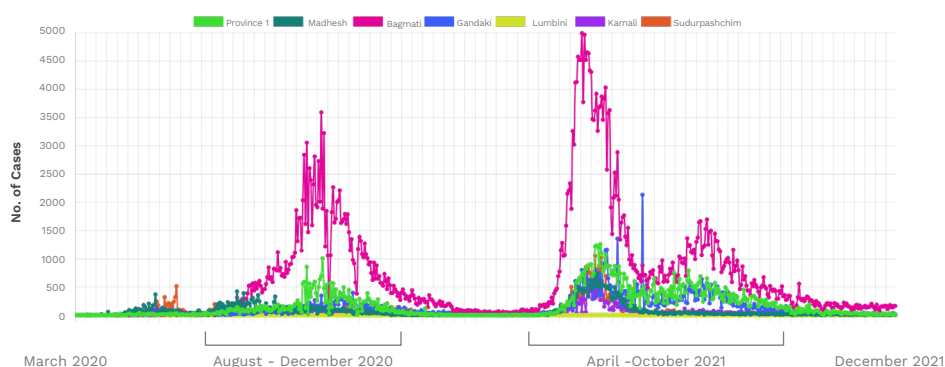
Credit to Health Sector							
	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
	Annual	Annual	Annual	Annual	Annual	Annual	10 months
Medicine	8346.1	9756.6	10746.8	12,133	16,137	20,237	23,594
Medical Equipment	611.5	675.7	777.9	978	1,111	,714	2,726
Hospitals, Clinic, etc./ Health Service	17695.7	21023.3	23914.1	28,079	31,296	36,127	45,572
Total Bank Credit to Health Sector	26,653	31,456	35,439	41,191	48,544	58,078	71,891
Total Bank Credit	1,362,087	1,681,853	1,986,225	2,422,779	2,911,897	3,266,012	4,061,405
Share of health sector credit	2.0	1.9	1.8	1.7	1.7	1.8	1.8
Annual Credit Growth in Health Sector		18.0	12.7	16.2	17.9	19.6	23.8
Annual Credit Growth		23.5	18.1	22.0	20.2	12.2	24.4
Imports							
	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
	Annual	Annual	Annual	Annual	Annual	Annual	10 months
Medicine	23,635	28,756	25,458	29,785	33,070	30,663	28644.4
Medical Equipment & Tools	5,816	6,599	6,468	10,628	8,285	8,991	10157.6
	29,451	35,355	31,926	40,413	41,355	39,654	38,802
Increase in imports of health supplies		13.5	(2.0)	64.3	(22.0)	8.5	18.8
Increase in imports		(0.1)	28.0	25.8	13.9	(15.6)	22.3

As the pandemic increases demands for essential healthcare supplies for Covid-19 management, the GoN – through Budget FY 2021/22 – has announced some useful provisions that aim to further facilitate imports and distribution of these goods and services. For example, the GoN has announced to exempt all customs duties and VAT on the import of equipment needed for the establishment of oxygen industries. Similarly, the GoN has promised to provide 50 percent of the total costs needed by the community and private hospitals who wish to have in-house oxygen facilities in addition to providing a 50 percent discount on electricity bills incurred from oxygen production during the pandemic period. Furthermore, to encourage active participation of the private players, the GoN has also promised to exempt customs and excise duties and VAT on import, production, sale, and distribution of oxygen (liquid and gas), oxygen cylinders, and concentrators, and related life-saving goods and services till mid-Jan 2022.

Pandemic and vaccine

Nepal experienced three waves of Covid-19. The first wave was in the third quarter of 2020, which evoked the most fear among the general public and brought with it some of the strictest restrictions to manage the conflict. The second wave, which came about in mid-2021 was the most lethal and lasted the longest, was because of the Delta variant. This wave highlighted the chronic lack of hospital beds, health care workers, and oxygen supply in Nepal. The death rate was high too. The third wave, brought about by the Omicron variant, in early 2022 was short. The infection spiked but declined at a similar rate too.

Daily number of COVID-19 cases



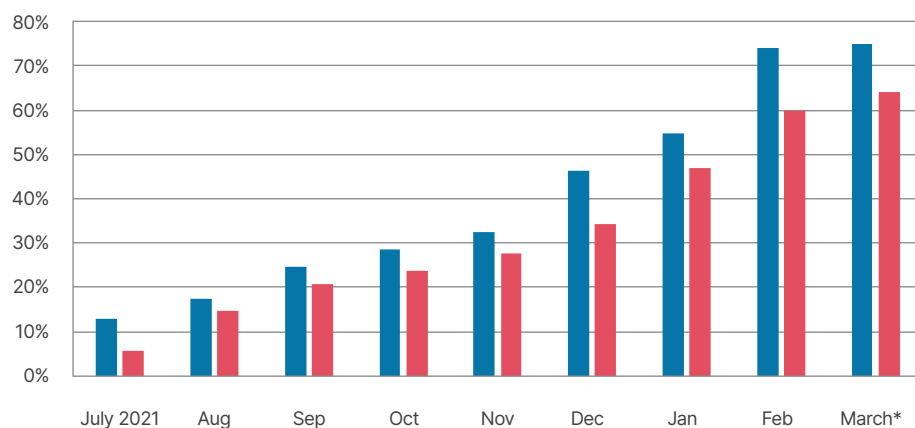
Source: MoHP

In saying that, the impact of Covid-19 was not the same across all regions in Nepal. Province 3, which includes the capital city, was among the most infected in all the phases. This reflects its larger population, but it is also the economic hub. It has the only international airport and is relatively denser than the rest of the nation. The number of cases could also have been higher because of the availability of testing centers and awareness among the general populace. Therefore, attempts at pandemic management would have to be specific to the variances in risk and infection. It is therefore not a

surprise that vaccination started in Province 3 and was more widely available in the province compared to the rest of the nation.

Vaccination rate

Covid-19 Vaccination Rate, Total Population



Source: Daily Situation Reports, MoHP (Compiled by NIPoRe)

Vaccination against Covid-19 started in Nepal after Nepal received the delivery of 1 million doses of Covishield vaccine from India as a grant in January 2021. In the early stages, Nepal had a hard time procuring Covid-19 vaccines. By the end of May 2021, Nepal was able to receive a total of 4.2 million doses of vaccine, which was administered to frontline workers and the elderly population. Nepal was successful in procurement since June 2021. Nepal has administered five different kinds of vaccines: Covishield, Verocell, J&J, Moderna, and AstraZeneca vaccines. In the early phases, it relied on Verocell, developed in China, primarily for mass vaccination. The following table summarizes vaccine procurement in Nepal, quantity procured and the type of procurement.

Vaccine procurement (As of 20 March 2022)

SN	Vaccine Name	Quantity	From	Type	Date	Remarks
1	Covishield	1,000,000	India	Grant	21-Jan-21	
2	Covishield	1,000,000	India	Bought	22-Feb-21	
3	Covishield	348,000	COVAX	Grant	7-Mar-21	
4	Covishield	100,000	Indian Army	Grant	28-Mar-21	Nepal Army
5	Verocell	800,000	China	Grant	29-Mar-21	
6	Verocell	1,000,000	China	Grant	1-Jun-21	
7	Verocell	4,000,000	China	Bought	9-June-21 to 30-June-21	
8	J&J	1,538,850	US-COVAX	Grant	12-Jul-21	
9	AstraZeneca	230,000	Bhutan	Grant	7-Aug-21	
10	AstraZeneca	1,614,740	Japan-COVAX	Grant	7-Aug-21 to 23-Aug-21	

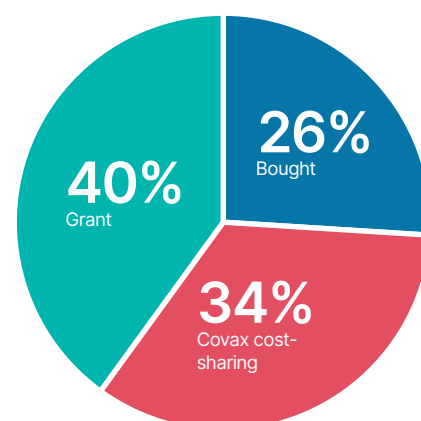
11	Verocell	1,600,000	China	Bought	18-Aug-21; 19-Aug-21	
12	AstraZeneca	131,120	UK	Grant	26-Aug-21	
13	Verocell	4,400,000	China	Bought	17-Sep-21	
14	Verocell	100,000	China-Red Cross	Grant	24-Sep-21	Red Cross
15	Covishield	1,000,000	India	Bought	9-Sep-21	
16	Pfizer	100,620	COVAX	Grant	25-Oct-21	
17	Verocell	1,020,000	COVAX	Cost sharing	27-Oct-21	
18	AstraZeneca	201,600	Maldives	Grant	31-Oct-21	
19	Verocell	1,600,000	China	grant	3-Nov-21	
20	Verocell	300,000	China-PLA	Grant	5-Nov-21	Nepal Army
21	AstraZeneca	300,048	covax	Grant	10-Nov-21	
22	AstraZeneca	100,044	Switzerland-COVAX	Grant	10-Nov-21	
23	Verocell	1,058,892	COVAX	Cost sharing	11-Nov-21	
24	Verocell	411,768	COVAX	Cost sharing	15-Nov-21	
25	Verocell	1,058,940	COVAX	Cost sharing	15-Nov-21	
26	AstraZeneca	368,100	Canada	Grant	16-Nov-21	
27	Covishield	725,500	COVAX	grant	29-Nov-21	
28	Covishield	972,000	COVAX	Grant	1-Dec-21	
29	Moderna	188,400	COVAX	Cost sharing	3-Dec-21	
30	Covishield	600,000	COVAX	Cost sharing	8-Dec-21	
31	Moderna	1,497,200	COVAX	Cost sharing	9-Dec-21	
32	Moderna	1,965,600	Germany-COVAX	Grant	12-Dec-21	
33	Covishield	1,871,000	COVAX	Cost sharing	15-Dec-21	
34	J&J	2,176,650	Germany-COVAX	Grant	16-Dec-21	
35	Verocell	1,201,887	COVAX	Cost sharing	20-Dec-21	
36	Covishield	1,870,500	COVAX	Cost sharing	20-Dec-21	
37	Pfizer	664,560	US-COVAX	Grant	24-Dec-21	
38	Verocell	1,184,913	COVAX	Cost sharing	11-Jan-22	
39	Moderna	2,339,200	COVAX	Cost sharing	31-Jan-22; 1-Feb-22	
40	Moderna	1,660,800	COVAX	Cost sharing	25-Jan-22	
41	AstraZeneca	685,000	France	Grant	26-Jan-22	
42	AstraZeneca	663,000	Italy	Grant	26-Jan-22	
43	AstraZeneca	862,080	COVAX	Grant	7-Feb-22	
44	Covaxin	100,000	Indian Army	Grant	24-Feb-22	
	Total	47,882,800				

Source: <https://swasthyakhabar.com/story/44474>; various newspaper reports, MoHP updates, compiled by the NIPoRe

By type of procurement

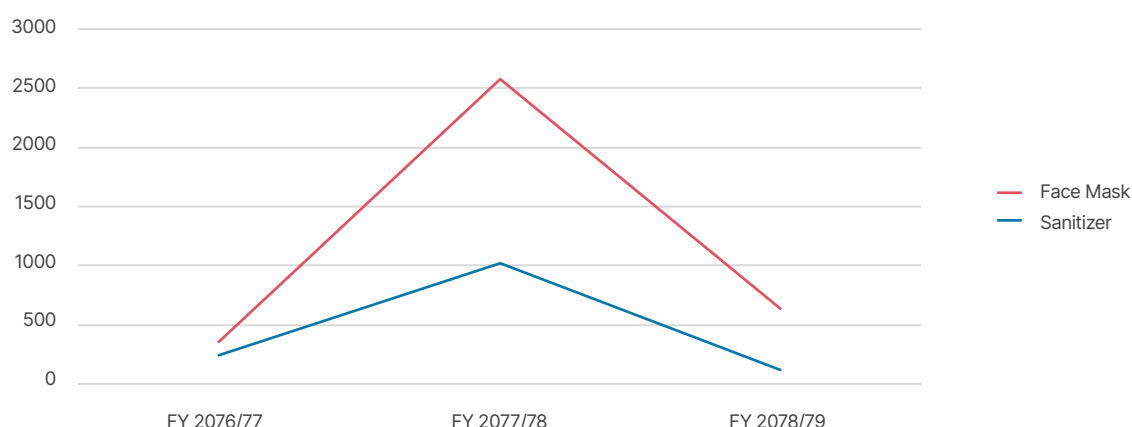
Around 40 percent of Nepal's vaccine procurement has been via grants. China, India, the US, Germany, Japan, and some major European countries have been significant donors. COVAX, the vaccine sharing platform supported by the UN, too has been a major contributor. Nepal has also purchased a third of the vaccines via COVAX using a cost-sharing scheme. The rest of the vaccine has been procured on a commercial basis. Asian Development Bank (ADB) and the World Bank (WB) have provided financial support for vaccine procurement.

Vaccine procurement



Masks, PPE, and Sanitizers

Sanitizer and Face Mask Import (NRs million)



Source: Customs department, compiled by NIPoRe

*Till Magh only. Also, Customs did not have a separate category for sanitizer and face masks before FY2076/77.

Mask and physical distancing were recommended as preventive mechanisms. The production of masks in Nepal was limited and was primarily limited to cloth masks for safety from pollution. In early Feb 2020, when the Covid-19 infection was rapidly increasing in Wuhan, Nepal sent 100,000 protective masks to China. However, soon, Nepal would experience masks shortages. Nepal prepared to go in lockdown in early March, most sellers had run out of masks, with black marketers selling masks at an exorbitant price.

Nepal received donations from friendly countries, international organizations, private donors, and non-governmental organizations¹⁵. In the meantime, Nepal's import of face masks, PPE, and sanitizers sky rocketed. In the year 2020, Nepal imported a total of NPR 714 million worth of masks from China and NPR 58 million worth of masks were imported from India. The import of masks increased even further in 2021. Production of masks increased domestically too. However, most of the production required the

For the list of donations made by INGOs associated with the Social Welfare Council, see <http://www.swc.org.np/covid-updates>. A list of support provided by states and/or their development agencies in 2020 can be found in Nepal's effort to address the Covid-19 crisis through international engagement (2021), published by the Institute of Foreign Affairs (IFA).

import of raw materials from India and China, which faced problems due to the crisis in both countries. Hence, bulk import from foreign countries was encouraged.

The situation for hand sanitizer was especially acute. Before the first wave of the Covid-19 pandemic, Nepal had no registered hand sanitizer producer. By April 2021, 26 companies, including the government-run *Nepal Aushadi Limited*, have received the permit¹⁶. However, the hand sanitizers produced by six Nepali companies were found to be sub-standard. Hence, the Department of Drug Administration (DDA) banned the distribution and sale of such sanitizers as per the Instant Hand-Sanitizer Standard-2076¹⁷. Further two companies were banned from the distribution and sale of sanitizers a month later in Oct 2020¹⁸. In 2020, Nepal imported NPR 421 million worth of sanitizer from India (accounting for 61 percent) and Rs. 216 million worth of sanitizer from China (accounting for 31 percent). In 2021, India accounted for almost all of the imports to Nepal.

Oxygen and medical supplies

The demand for oxygen cylinders shot up in Nepal, especially during the second wave brought about by the Delta variant of Covid-19. By April 2021, hospitals in the capital were running at capacity, and oxygen was in short supply. The peak daily demand in pre-Covid-19 times was about 6,000 cylinders. However, before May 2021, Nepal had a total supply of 7,000 to 8,000 oxygen cylinders, which accounted for around half of the total demand¹⁹. The total oxygen demand shot up to 50,000 to 60,000 cylinders during the peak subsequent month.

In May, the government formed a task force to monitor and manage the supply of medical oxygen to hospitals across the country in a bid to address the oxygen cylinders. The government also banned all non-medical use of oxygen.

By late May, the demand for oxygen had increased to 35,000 cylinders a day, but the generation capacity of 22 factories across the country was 20,000, out of which only 8,500, including production in private hospitals, was produced in Kathmandu valley, the epicenter of second wave²⁰ as most of Nepal's oxygen plants are in the Eastern region. The ad hoc quota system imposed by the CCMC to manage the supply of oxygen in Kathmandu's hospital made the matters worse, creating an artificial shortage. The supply of liquid oxygen from India was also affected by the Indian ban on export due to their Covid-19 surge. Black marketing and hoarding were not helpful either.

Issues in pandemic management

1) Federalism (PB-IV) and inter-agency cooperation

Health is a shared responsibility of all three tiers of government: local, provincial, and federal. Nepal's response in the aftermath of the pandemic for the most part during the pandemic was centralized with a condescending top to down attitude. The government formed Covid-19 Crisis Management Center (CCMC) in June 2020. Instead of employing an existing mechanism to combat the pandemic – Disaster Risk Reduction and Management Act 2017 (DRRM)¹⁴ the government has been relying on the CCMC. The federal government was hesitant to employ the DRRM. DRRM labeled the pandemic as a non-natural calamity and defines the role of each three-tier government. Although Nepal's current government structure is a three-tiered government - Centre, Province, and Local, there exists a fourth one which is the CDO. CDO is a pre-federal government structure in Nepal. Nevertheless, The federal government continues to empower the obsolete chief district officer (CDO), the field unit of the Ministry of Home Affairs (MoHA) to curb the negative effects of the pandemic, while, at times, bypassing the provincial and local government.

The federal government provided guidance, medical resources, and major decisions, which the provinces and the local units carried out. The federal government also provided the bulk of the budgetary requirements for all three tiers of government. The three-tier government's response to the pandemic has received a combination of both positive feedback and criticisms. Many have questioned the role of the provincial government as their role lacks clarity amidst the crisis. The local governments have expressed their disdain about the limited funds provided by the federal government to manage the quarantine facilities and the incoming migrants from India. Some optics have also stated federalism as a "winner" to overcome the crisis.

The provincial government, with support from the federal government, established testing labs, and managed medicines and other essential services. The local governments have been tasked to establish quarantine facilities, to organize, help, and provide relief materials for the community. Later, the wards also served as the inoculation centers for Covid-19 vaccines. The rollout of the Vero Cell (produced by Sinopharm) vaccine in April 2021 was marred by overcrowding at the designated hospitals and the Kathmandu Valley. Therefore, the second dose of the vaccination in June 2021 was carried out through local governments. Some local governments too faced allegations of misappropriation and inequitable vaccine distribution, ultimately leading to rollout through four major public hospitals in Kathmandu.

On the issue of procuring vaccines, the federal government is at the forefront of vaccine procurement. Challenges and procurement delays in obtaining vaccines in the global market the last year and a half have prompted some provincial and local governments to urge the federal government to permit the former to procure vaccines. However, decentralization of procuring vaccines was attempted by India when the central/union government permitted states to acquire 25 percent of vaccines from manufacturers. However, global manufacturers informed the state governments that they only deal with central/union governments, subsequently, foiling the attempt of state procurement. Global manufacturers informed state governments like Punjab and Delhi about their policy that they only deal with the union governments.

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state governments like Punjab and Delhi about their policy that they only deal with the union government. The local governments are dependent on the federal government for the distribution of medical equipment like – oxygen cylinders, ventilators, PPE kits, and vaccines.

2) Controversies and corruption

In a controversial directive, Nepal's the Ministry of Health and Population has told private and public medical facilities to use RDT (Rapid Diagnostic Test) kits for Covid-19 despite evidence that the method gives inaccurate results. The directive instructs health facilities to use the RDT method, with kits supplied by nine international firms even though multiple investigations have shown that some of these firms have produced equipment that provides false negatives and positives. Seven of these companies are Chinese, one American, and one Canadian. Two of the suppliers, both from China, were strict 'not recommended for use by the WHO, and ICIJ (International Consortium of Investigative Journalists) found the equipment of three other suppliers (two from China and one from the US) defective²¹. In March, the government signed an agreement with Omni Business Corporate International (Moni) on 25 March to purchase RDT kits (more on this later). Later in April 2020, the MoHP stopped the use of RDTs.

In March, the Department of Health Services purchased five portable Real-time PCR machines through the private contractor Omni, the company was dragged into controversy in April for a large order of medical equipment and test kits from China that were found to be overpriced. All seven Omni-supplied portable machines distributed by NHPL to the seven provincial labs also stopped being used after a few tests because of their unreliability. In addition to that, Nepal also received a significant amount of testing kits from China, India, Singapore, Switzerland, the US, South Korea among others on various dates. Later, the private labs as well as provincial and local governments imported the testing kits, reducing the pressure on the public testing labs. Currently, there are 96 testing labs, of which 58 are public and 38 belong to the private sector.

Nepal relied on international assistance and massive import of oxygen cylinders. Nepal imported a large number of oxygen cylinders and liquid oxygen from Tibet, China. The oxygen gap was also filled by the construction of oxygen generators, with support from donors such as India ²², the UK²³, and China²⁴. Bilateral donors and multilateral organizations such as World Bank²⁵ and the UN agencies too supported Nepal by providing oxygen cylinders and oxygen concentrators. The non-Resident Nepali Association, along with multiple other volunteers, also supplied oxygen concentrators to Nepal. In the meantime, the private sector also imported a significant amount of oxygen concentrators. Though there is a challenge of logistics, equitable distribution, and cost²⁶, Nepal had a supply of more oxygen than it needed by early July.

Before the second wave, existing suppliers brought oxygen cylinders via

the sea route. Given the sea route was not practical, Nepal imported most of its oxygen cylinders from China via air or land route. Despite the expressed commitment of the government, there was still some delay at the border because of the road conditions²⁷.

The increase in import of medical supplies was significant in 2020/21. According to NRB statistics, Nepal imported medical equipment worth NPR 15.24 billion during the first 11 months, up from NPR 8.08 billion during the same period in 2019/20. Nepal imported these items mostly from China and countries other than India because India faced its second wave earlier in 2021. Imports from China accounted for more than 43 percent of total imports whereas the third countries accounted for 56 percent²⁸.

Issues in the procurement and distribution

Corruption and Profiteering: The procurement of medical supplies and PPE was not smooth. In March 2020, the government awarded Omni Business Corporate International the contract for medical supplies. After the cancellation of the first bidding process, Omni got the USD 10 million contracts to supply medical equipment. Other companies were rejected because they were not deemed capable of procuring on time. Ironically, Omni could not supply the equipment as promised. By the deadline, it was able to deliver only 10% of the total amount of goods it had promised to procure from China. The company also imported questionable RDT kits. The price for the medical supplies procured by the Omni was almost three times higher than the usual market price²⁹. The deal was later scrapped and was given to the Nepal Army (more on this in the next section).

The blatantly corrupt practice led to the 'enough is enough' movement/protest by Nepali youth. The Omni's deposit was confiscated, and the company was blacklisted later. However, no major leader or the members of the procurement committee faced any major consequences. The deal was probed by the Public Accounts Committee of Parliament which found involvement of unauthorized persons in the decision-making process for procurement at unusually high rates. However, there has been little headway in the CIAA's pursuit of case³⁰. Many analysts believe that the delay in the investigation is because two ministers from the Oli government were among the individuals involved in the decision-making process, and the CIAA was under pressure not to pursue the case. The case highlighted the collusion between private companies and government decision-makers. The collusion would profit both the parties at a great cost to the country and its attempts at pandemic control.

The private sector cannot be absolved of its responsibilities either. The private sector (especially the PPE suppliers) benefitted massively from the high demand for masks and sanitizers. The black market flourished, with masks being sold at more than 1000 percent of the regular price. Additionally, many producers attempted at making quick bucks by creating sub-standard sanitizers. This shows the lack of teeth for both the CIAA and the Nepal Bureau of Standards and Metrology.

The capacity of Procurement: After the Omni deal was scrapped (for reasons stated above), the Nepal Army was tasked with procuring the medical supplies. This indicated the lack of capacity of private and civil organizations in Nepal to procure either because of lack of capability or the system of graft. The procurement by the Nepal Army was not entirely criticism-free. Many civil society leaders criticized the deal for involving the NA on issues not directly related to 'national security, increasing the militarization of the civilian process. Though the urgency of the matter could be used for justification, they criticized the deal based on the involvement of the NA on 'profit-oriented ventures in the past. Many saw the decision as a way to bypass accountability³¹. CIAA cannot investigate the deals by the military or corruption cases in the military. The NA also faced criticisms because of the higher cost of the PPEs and Army's lack of prior experience in the procurement of goods.

Whatever the criticism, it speaks volumes about Nepal's governance and capability of the private companies that procuring medical supply which was readily available during a global pandemic was an onerous task in itself.

Aid dependency: As per the 2076/77 budget, Nepal spent Rs. 68.78 billion on health. That accounts for less than NPR 2500 per capita. The health budget for FY 2078/79 has increased substantially to NPR 90.69 billion (a 31 percent increase), however, it is still very low by all standards. In this context, external support from bilateral donors and multilateral agencies is expected to fill the gap. This was especially essential during the pandemic. In this context, various development partners and aid agencies provided Nepal with medical supplies, technical support, and financial help. Multilateral institutions such as Asian Development Bank and World Bank, along with SAARC Emergency Fund, helped Nepal plug the gap and mitigate the impact of Covid-19.

The dependency on aid is especially jarring because Nepal has not been able to spend capital expenditure. In the last fiscal year, only 60 percent of the capital expenditure budget was spent, which in itself was an improvement from the year before (when it was 46 percent)³² despite the pandemic. This shows that the Nepal government is capable of providing additional funds, though external support may be required for longer-term macro-economic stability.

3) Vaccine cooperation or vaccine diplomacy (PB-III)

South Asian countries, like most other developing economies, have received extensive support in terms of vaccine supplies from India, China, and COVAX. President Xi Jinping has said that any vaccine developed in China would be a 'global public good'. Similarly, India, a vaccine-manufacturing powerhouse with 60 percent of the global vaccines supply, has introduced 'vaccine maitri' (Vaccine Friendship) initiative to deploy its vaccines all over the world, not least in its neighborhood.

By 14 March 2022, China has supplied 2.4 billion doses of vaccines globally to more than 120 countries, including both grants and commercial supply³³. Almost 200 million of those doses are grants, and the rest is supplied commercially. Chinese foreign minister Wang Jisi claimed that one in two vaccines used globally is made in China³⁴. India has supplied 167 million doses of vaccines globally (143 million as a grant; 111 million commercial; 415 million to Covax) by 16 March 2020³⁵. Bangladesh, Myanmar, and Nepal have been the main beneficiaries.

This has been in stark contrast to other vaccine producers in the West, whose vaccines have largely been bought by developed countries, though some have provided support through COVAX. Some advanced countries resorted to 'hoarding'. The UN Secretary-General Antonio Guterres has rightly called out the developed countries, saying 'vaccine equity is the biggest moral test.'

India and China have received much acclaim in the developing world and beyond for their vaccine supply. Yet, some have criticized them for engaging in overt 'vaccine diplomacy'. However, it would be wrong to view the actions of both countries in black and white. Rather, it should be understood as a convergence of strategic concerns, diplomatic currency, and altruism. The narratives and literature around India's vaccine diplomacy have given a sanguine thrust to its position as a prospective global leader and improved its global status as a responsible rising power

Interestingly, the distribution of vaccines by China and India follows the expected patterns. China has focused on South-East Asia, the Middle-East, Africa, and South America, regions which are key cogs in the Chinese supply chain. Meanwhile, South Asia (including Myanmar but barring Pakistan) has been the major beneficiary of the Indian vaccine grant. The diplomatic dividends are obvious. The vaccine exports have lowered the tensions between India and its neighbors, such as Bangladesh and Nepal, whose relations with India had soured recently due to Citizenship Amendment Act and border dispute, respectively. Indian Ocean island states, South-East Asia, Central Asia, and Africa are the other major beneficiaries of the Indian gesture. This aligns with India's 'Neighborhood First', 'Act East', and 'Indo-Pacific' policies.

Nevertheless, Chinese and Indian approaches differ in crucial ways. Beijing is trying to rebuild its image after it mishandled the Covid-19 diplomacy in the early stages. China has got the leaders of some beneficiary states to receive the jab publicly to boost trust in its vaccines. Yet, because of the lack of transparency surrounding the trial results of its vaccines and the questionable efficacy in some cases, trust in the Chinese vaccines remains comparatively low.

Chinese and Indian militaries have also participated in vaccine diplomacy in their own ways. People's Liberation Army (PLA) provided 500,000 vaccines to the army of its 'all-weather strategic partner' Pakistan. PLA also provided 300,000 vaccines to Nepal Army later. And the Indian Army provided two tranches of 100,000 doses of Covishield/ Covaxin vaccines to the Nepal Army. The first supply to the NA came after the NA requested the Indian Army for support. It seems like an attempt by the two to generate goodwill among the military elites, who have significant domestic influences. The army-to-army support boosts mutual confidence-building efforts but also risks securitizing the vaccine distribution.

The Quad, an alliance of the US, India, Japan, and Australia, has found a new priority area to cooperate. The members have decided to prioritize vaccine production and distribution. In the context of vaccine distribution, all four countries will pool financial resources to produce one billion vaccines by 2022. And India will be the production hub. This could provide a key opportunity for the grouping to show that Quad is not merely about keeping an eye on China, but also aimed at addressing global public health concerns

Multinational organizations and multilateral efforts have been a key element of Nepal's foreign policy. The pandemic has further underscored the point. Nepal has received guidance and support from organizations such as the WHO, who have been involved in Covid-19 vaccination programs in South Asia - from manufacturing, funding, procuring, and delivering Covid-19 vaccines to increasing vaccine awareness and advocating for equitable vaccine distribution. Nepal is among the first countries to receive vaccines under COVAX and its support remains critical for Nepal.

Education

Education Sector Prior to Covid-19

When the pandemic erupted, Nepal's education system, which educates around nine million students³⁶ from pre-primary level to higher level, had just been transitioning from a unitary to a federal system for three years following a constitutional change in 2015, Nepal drafted a new constitution- the Constitution of Nepal (2015). The new constitution mandated a reorientation of the educational system's administration and management, as well as its delivery systems. Also, Nepal's education system was recuperating from the cataclysmic earthquake in 2015, which had a significant impact on the education system's infrastructure. Prior to the pandemic, only 26 percent of the 7,553 educational institutions devastated during the earthquake had been rebuilt and only around 8,000 of the nearly 20,000 public schools had the most basic infrastructure³⁷.

Under the new system, the federal government (ministries, national commissions, line agencies) is in charge of overseeing central university planning, provincial governments (seven provincial governments, sector ministries, education institutions), are bagged with the role of resolving issues relating to higher education at provincial universities, and local governments (753 local governments with urban and rural municipalities) are in charge of school education. Earlier under the unitary system, the districts (non-elected body of the government) handled matters related to education following the guidance of the Ministry of Education.

Table: Structural changes in the three-tier system.

Centralized Model	Decentralized Model	Role in SSDP/Education
Ministry of Education (MoE)	Ministry of Education, Science and Technology (MoEST)	Policy & Regulations
Department of Education (DoE)	Centre for Education and Human Resource Development (CEHRD)	SSDP Implementation
National Centre for Educational Development (NCED)		
Non-Formal Education Centre (NFEC)		
Ministry of Federal Affairs and Local Development (MoFALD)	Ministry of Federal Affairs and General Administration (MoFAGA)	Model Laws and direct linkage with LGs
5 Regional Education Directorates (RED)		SSDP Implementation
	7 Provincial Ministry of Social Development (PMoSDs)	Provincial level policy
	7 Provincial Education Development Directorates (PEDDs)	SSDP progress monitoring & facilitation

Source: SOFRCO Data, 2019

34 Education Training Centers (ETC A and ETC B)	7 Education Training Centers (ETCs)	Teacher professional development at provincial and municipal levels
75 District Education Offices (DEO)	77 Education Development and Coordination Units (EDCUs)	Technical support in SSDP implementation
3157 Village Development Committees (VDCs) and 217 municipalities	753 Municipal Level Education Unit/Local Governance (LGs) Bodies	SSDP implementation at LG level
1053 Resource Centre (RCs) and 75 Lead RCs		Education quality

The government devolved a wide range of responsibilities to local governments in education sector under the federal system. But without upgrading local governments'³⁸ capacity to fulfill the responsibility. The transition presented a serious challenge in coordination between three levels of government and resulted in a conflict³⁹ over jurisdiction among them. The constitution⁴⁰ of Nepal empowers local governments to oversee education up to grade 12. The Local Level Governance (LLG) Act⁴¹ outlines what the local government can do in the education sector (including curriculum design, teacher management, infrastructure development, school monitoring and evaluation, school opening and closure decisions, and providing school operation licenses, among other things). However, in practice, the federal government has a firm hold over education and has been making significant decisions on its own, leaving local governments toothless. The power struggle has troubled students unnecessarily and delayed⁴² significant educational acts on several occasions. The government is yet to formulate three bills⁴³; Local, Provincial, and Federal Education Act which would clarify the roles of local, provincial and federal governments.

With the commencement of the decentralization process in 2017, the Nepalese government began focusing more on improving the education sector, recognizing its significance and ramifications for future growth, given the country's huge youth base, with 32 percent of the total population aged 14 and under.

Major reforms brought by the government during the transition period in education sector

- » **2015**- the government reconfirmed its commitment within the international agenda and developed national targets for the Sustainable Development Goals (SDG)
- » **2016**- School Sector Development Plan (SSDP) adopted - government's major education plan for the period 2016- 2023 aimed at improving the quality and efficacy of the education system. SSDP is a follow up to government's previous education plan from 2009 to 2016 – School Sector Reform Plan (SSRP)
- » **July 2016**- 8th Amendment to the Education Act of 1972 – categorized school education into two levels; basic and secondary education, scrapped SLC exams, transformed Higher Secondary Education Board (HSEB) into National Education Board,
- » **Sept 2017**- 9th Amendment to the Education Act of 1972- solved the problems of temporary teachers, government decided to bring new education policy
- » **2017**- The Local Level Governance Act (LLG)- it guides the functioning of the local government
- » **2018**- Free and Compulsory Basic Education Act

- » **August 2018**- Institutional Reorganization in Transition-Transitional Plan and Roadmap for the Implementation of the School Sector Development Plan (SSDP) in the Federal Setup
- » **August 2018**- The government formed the High-Level National Education Commission to make recommendations for the formulation of a new education policy
- » **August 2018**- Revised Contingency Plan for the Education Cluster in Nepal
- » **Jan 2019**- The High-Level National Education Commission submitted the final report but the government is yet to formulate the new education policy
- » **2019**- Digital Nepal Framework –it contains governments’ plan to make maximum use of ICT in the education sector
- » **Sept 2019**- The government adopted the National Curriculum Framework with a plan to replace the old curricula

With different education plans and reforms in place, Nepal’s education system has improved in recent times with advances in net enrolment rates in elementary school, inclusivity, basic education survival, and literacy among 15-24-year-olds⁴⁴. As per the midterm review of the School Sector Development Plan (SSDP), the government’s major education plan for FY 2017 to FY 2023, in 2019, the enrolment rate of children in primary education was about 96 percent compared to 72 percent in 2000 and the adult (15+) literacy rate was 68 percent compared to 21 percent in 1981⁴⁵. Similarly, a high number of out-of-school children have been enrolled in formal and non-formal settings. However, the enrolment in secondary education is significantly lower (58 percent in 2019), students’ learning outcomes and the completion rate in basic education is also low⁴⁶ and 777,000 children aged five-12 years are still out of school⁴⁷. Though gender parity at all levels of schooling has been achieved, other forms of gender discrimination⁴⁸ still exist in education. As per UNICEF⁴⁹, the poor quality of education and unequal access to school-based on remoteness, gender, and unequal socioeconomic conditions are glaring holes in Nepal’s current education system.

The quality of education in Nepal remains poor due to various inherent and longstanding challenges such as : inadequate funding or funding delays; coordination challenges among three levels of government(as mentioned earlier); unequal development between rural and urban areas; lack of basic infrastructure; socio-economic issue leading to high absenteeism, high dropout, child labor, child marriage; shortages of teachers per student; lack of dutiful qualified teachers and insufficient training to teachers; lack of learning materials; poor teaching practices such as rote-learning, exam oriented; poor ICT related infrastructure; poor quality of public schools; outdated curriculum or lack of proper curriculum that will address the

diverse learning needs; disparity in infrastructure and resources between private and public schools; disparity in access of education; widespread poverty in remote areas; and lack of basic requirements in schools such as hygienic school environment, among others.

The Covid-19 outbreak exposed and exacerbated these pre-existing vulnerabilities. Furthermore, it placed the decentralized system's ability to respond to a crisis in the early days of the transition to the test. The coordination problem between the three-tier of government for example became increasingly apparent during the pandemic. Local governments were dissatisfied with the federal government's decision to close schools many times throughout the outbreak, so they opened schools without waiting for the federal government to decide. Covid-19 pandemic also delayed the formulation of governments' new plans and policies. For example, the implementation of a new curriculum, which was supposed to begin in 2020, was hampered by the epidemic, which halted textbook manufacturing⁵⁰.

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Education Sector amid the Pandemic

The Covid-19 pandemic and the accompanying lockdown led to massive and recurrent school closures, resulting in an unprecedented change in the education system and a profound impact on students, educators, teachers, parents, and others, regardless of their geographic location, socioeconomic status, educational backgrounds, or gender differences.

Government's Key Decisions

In 2020, educational institutions across the country were closed since 18 March⁵¹ and reopened after nearly nine months in Nov 2020. After two months of complete closures of educational institutions, different remote learning practices were adopted⁵² by the government in June 2020 to give continuity to learning. MoEST formulated and published guidelines to help students learn by alternative means⁵³. Students were categorised based on their access to resources such as mobile phones, radio, television, computers, and the internet, and an array of mechanisms for remote learning were curated accordingly. MoEST launched a learning portal incorporating digital contents like interactive learning games, recorded videos of classroom lessons, and audio and e-books for those with internet access, television and radio programs for those without internet access, and take-home printed learning packages for those with no access to either of the resources. MoEST also slashed the prescribed study hours and course by 30 percent⁵⁴ as per the Curriculum to reduce the load for students.

Then, in Nov 2020, after nine months of complete closure and virtual learning, schools and colleges were reopened⁵⁵ as the number of Covid cases fell. The government-endorsed School Resumption and Working Guidelines⁵⁶ and instructed⁵⁷ local governments to reopen schools at their discretion with proper health and safety measures. As a part of the school reopening strategy and to compensate for time lost during school closures, the government extended⁵⁸ the ongoing academic session till June 2021, despite reducing the curriculum by 30 percent.

But, as the Covid-19 infections resurged in mid-April 2021 resulting in the second wave of Covid-19,

the government⁵⁹ once again chose virtual learning without any strategy to address the issues that came with it in the earlier closure period. Schools and colleges were reopened in Sept 2021-only to be closed after four months in Jan 2022 with the rise of new variant- Omicron. Schools and colleges started running physical classes in the second-half of Feb this year. A long-term approach other than virtual learning and ad-hoc fixes is required as there are no signs of the threat of the pandemic subsiding.

Decisions taken by Government during pandemic

- » **18 March 2020**- Covid-19 Education Cluster Contingency Plan – Nepal closed all educational institutions and postponed all academic activities to contain the virus from spreading.
- » **07 May 2020**- Education and Health Committee of Parliament directed the schools not to admit students and charge tuition fees until the situation returns to normal. It asked the Ministry of Education to ensure that private academic institutions follow the directive.
- » **30 June 2020**- the Ministry of Education, Science, and Technology formulated and published guidelines to help students learn by alternative means. Students were divided into groups based on their access to resources such as mobile phones, radio, television, computers, and the internet, and a system for remote learning was curated accordingly.
- » **02 July 2020**- the National Private and Boarding Schools' Association, Nepal (N-PABSAN) and Private and Boarding Schools' Organization, Nepal issued a joint notice and threatened to discontinue the online classes if they are not allowed to charge tuition fees for online classes
- » **10 Sept 2020**- government allowed private schools to take fees as per the amount set by the local governments.
- » **20 Sept 2020**- the government slashed the prescribed study hours and reduced the course load for students by 30 percent as per the Curriculum Adjustment Framework prepared by the Curriculum Development Centre,
- » **In Nov 2020**- MoEST instructed local governments to reopen schools at their discretion with proper health and safety measures.
- » **11 Jan 2021**- Government and partners (UNICEF, the School Management Committee Federation, Confederation of Nepalese Teachers, CMC Nepal, Educational Pages, ENPHO, Plan International, Save the Children, Setogurans National Child Development Services, United Mission to Nepal, UKAID through BBC Media Action, USAID's Early Grade Reading Program II, VSO, World Education, and Nepal Education Cluster) launched Learning Continuity Campaign in alignment with the Emergency Action Plan related to School Education 2077 by the Ministry of Education, Science and Technology's Center for Education and Human Resource Development (CEHRD).

- » **Feb 2021**- The government decided to extend the ongoing academic year by two months to compensate for time lost due to the Covid-19 pandemic.
- » **26 April 2021**- the government once again decided to close all the educational institutions and run online classes.
- » **Sept 2021**- schools were reopened
- » **11 Jan to 29 Jan 2022**- with the rise of the omicron variant, the government closed all the educational institutions
- » **13 Feb 2022**- the government decided to let the schools resume in-person classes from February 13

Increased disparities in learning opportunities

Covid-19 crisis mutated itself into an education emergency layered in pre-existing problems. It exposed and widened the already existing educational gaps in Nepal, between private and public schools, urban and rural learners, and privileged and underprivileged groups. The uneven availability of computers and internet throughout provinces, nationalities and socioeconomic backgrounds stymied government efforts at remote learning, rendering the virtual classes mostly inaccessible. According to the recent data by Nepal Telecommunications Authority, around 87 percent of the population in Nepal has access to the internet, with mobile data being used by the vast majority. Only 12 percent of the population has broadband internet connection. And just 15.4 percent households were reported to own a computer in a Multiple Indicator Cluster Survey⁶⁰ done by UNICEF. The present ICT infrastructure and internet distribution in urban and rural regions has produced two-tiered disparities among Nepalese learners, namely, between urban and rural learners, and between the affluent and poor who can hardly afford to use the internet. More than two-thirds⁶¹ of schoolchildren in 2020 were deprived of distance learning in Nepal. And only five percent of children in the poorest households⁶² had access to and could use remote learning. The number of children living in poverty in Nepal increased from 1.3 million pre-pandemic to seven million during pandemic⁶³ due to the tremendous impact of Covid-19. As a result, the pandemic has fuelled child labour in Nepal⁶⁴.

Students from urban areas and privileged backgrounds, aided by their parents, made their way through closed school doors to alternate learning opportunities. On the other hand, students from rural areas and underprivileged groups were left behind because they lack access to digital learning tools as well as the resilience and engagement to learn on their own. In a phone survey conducted by World Vision Nepal in 15 districts, it was reported that 83 percent of students in Kathmandu district were learning online, compared to only 7 percent in Parsa. Another study⁶⁵ showed online and distance education increased inequality because most educational institutions failed to give effective pedagogical support to students from marginalized and underprivileged groups. Children with disabilities who were already marginalized before the outbreak are the most affected as they were not included in government's remote learning programs.

Increased domestic tasks and obligations for girls—particularly in low-income families—inadequate access to gadgets as the male child and his teaching gets more priority, and other distractions at home kept girls from getting enough learning time. Covid-19 is anticipated to exacerbate the achievements gained in women's education in Nepal, as girls are more prone to dropping out, early marriage, and not returning to school. According to a study⁶⁶ done by Room to Read Nepal last year, 279 girls out of 3,992 surveyed in 11 districts said they would not be able to return to school once it reopens. The

study discovered that 20 of the questioned girls had married since school had closed. A recent report⁶⁷ by UNESCO Institute of Statistics says an estimated 4.5 million girls are at danger of not finishing their education due to Covid-19 pandemic and accompanying lockdown. Increased gender-based violence (GBV) and Violence Against Children (VAC) have been observed with the emergence of lockdowns in Nepal⁶⁸.

In 2020, the digital divide⁶⁹ and inequality were so high that the National Human Rights Commission of Nepal⁷⁰ had to ask the Ministry of Education and private schools not to pressure children for online education. Pokhara Metropolitan City⁷¹ instructed schools to stop online classes, citing the digital divide was so wide that conducting remote classes infringes the principle of equitable access to education. Only 27 percent of students from public schools and 44 percent of students from private schools had access to online classes. 50 percent of the private school teachers were connected to their students through online/virtual classrooms. The rate was about half (27 percent) for public school teachers⁷².

Even those who had access considered virtual classrooms to be ineffective in comparison to conventional ones. Distance learning was deemed inefficient by 64.3 percent⁷³ of students in a study conducted by the National Campaign for Education. The lack of student's reach to virtual learning platforms, teachers' failure to deliver effectively through such platforms, and a lack of engagement, mostly through television and radio, living conditions, economic difficulties, and low-education levels of parents including digital skills, meant that many children lacked the stability and learning support they needed to acclimatize to these new models of learning. Besides, students get easily distracted and have a proclivity to use phones and social media as there are no strict disciplinary standards like in traditional in-person teaching-learning settings. Schools had to revise the course content taught during online classes when the government permitted schools to reopen because most students had not grasped the content effectively.

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Impact on assessment

The closure of educational institutions has necessitated changes in how students are examined. Key assessments have been disrupted at all levels, with many exams being postponed, cancelled, or replaced with alternative evaluation modalities in some cases. As the government gave sole authority to respective schools over students' evaluation in the Secondary Education

Examinations (SEE) in both 2020 and 2021, both public and private schools overstated⁷⁴ student's grades in both the years. The number of students receiving a GPA of four in SEE jumped from 106 in 2019 to a staggering 9,319 in 2020 and 8444 in 2021, after schools evaluated their student's performance. The academic quality of these students who have been advanced to the next level without developing the skills they need to cope with higher education remains in question and is likely to aggravate the already deteriorating standard of education. The university assessments have also been disrupted since big universities such as Tribhuvan University were reluctant to switch examinations online. This negligence on the part of policymakers and political leaders indicates that they are just interested in completing the courses in a timely manner. They are not bothered about objective evaluations of learners or the overall quality of teaching-learning pedagogy. Assessment interruption has a severe influence on students' learning since their educational and occupational futures are reliant on their outcomes. Fear of loss of academic session⁷⁵, pressure to keep up with peers, and uncertainty around school re-openings and resumption of examinations have taken an ineffable social, mental and academic toll on students.

Impact on Educational Institutions, Teachers and Parents

Closures of schools equally affected educational institutions, teachers, and parents. Several private schools and colleges were able to offer online classes, but the classes were disturbed due to disputes with the government over fees⁷⁶. For public schools, the transition from conventional to technology-based teaching methods was not easy. According to the Economic Survey of 2019-2020⁷⁷, only 12 percent of public schools, out of 30,000, had the capacity to deliver learning through information and communication technology (ICT), only 30 percent had the access to a computer, and only 1% of public school teachers were able to run online classes before the pandemic. Apart from logistical and financial challenges⁷⁸, schools, and colleges suffered due to the lack of directives from the government to address their problems. Local authorities, without adequate resources, relied on the federal government for decisions while the federal government remained largely noncommittal and offered no clear plans and strategy⁷⁹ to address the problem of resources. The government's failure to assign Ministers to crucial ministries such as the Ministry of Education, Science, and Technology (MoEST) during the pandemic further stymied decisions on pressing issues that directly impact educational institutions and students.

With remote learning, teachers had⁸⁰ to adapt to new teaching modalities without adequate preparation, resources, and funding. Teachers from public educational institutions found it difficult to deliver classes through an online medium without basic digital skills and training all while coping with new teaching models, pressure to complete curriculum, increased workloads, and family responsibilities, especially for female teachers. Teachers from private educational institutions, on the other hand, were able to adapt to the new advances thanks to their digital expertise. They were, however, afraid of poor pay, no salary, and losing their jobs. School closures affected the ability of parents to work as they had to look after their children and many parents lost their jobs due to the pandemic which reduced their ability to afford education.

Attempts made to make distance learning more accessible

Some public and private schools organized a door-to-door⁸¹ campaign in which teachers visited students' homes and encouraged them to attend remote learning classes. This not only encouraged students to attend classes on a regular basis, but also improved communication and guidance between teachers,

parents, and students. This practice improves distance learning participation during school closures and encourages students to return to school once it reopens. Some schools also experimented with small community group-based⁸² learning. While their efficacy is yet to be proven, they are more accessible to all than online learning. Some community schools in Kavre⁸³ mobilized their teachers in 'Homework copy distribution and collection' tasks to give continuity to learning as they lacked infrastructure and internet for online classes.

Positive Disruptions

This crisis, on the other hand, has sparked technological innovation in Nepal's education sector. It fast-forwarded the governments' plan of integrating digital technology in the education sector as envisioned in the Digital Nepal Framework which is demonstrated by Nepal's swift transition to different alternative learning techniques such as e-learning portals, radio, and television broadcast, and take-home packages. One example is MoEST's learning portal with digital reading materials. Admissions, fee collecting, information exchange, and result publication are all handled by schools and colleges using digital mediums in an unprecedented way. Some private institutions and universities have begun to use new technology to conduct online tests. There are new apps being created for online classes, exams, and assessments. Both public and private schools are putting increasing effort to enhance their ICT infrastructure and introducing different digital skill development training to teacher training. For example, Kathmandu University (KU) has successfully operationalized the complete 'environment' of online education; conducting online entrance exams, teaching the entire semester virtually, administering all needed exams, and publishing the results online.

Compared to the pre-pandemic time, Nepal is better prepared for disruptions in physical classes compared to the pre-pandemic era though disparities remain. This will come in handy if schools have to be closed for pandemics, natural disasters, or political strikes in the coming time.

Parents have become more engaged⁸⁴ in their children's learning process, and they were able to assess the quality of education their children were receiving from their schools. With mobile phone surveys and performance statistics from online learning platforms, parents can keep track of their children's growth. Moreover, the challenges of distance learning have prompted schools, teachers, and students to assess the importance of human connection and interactive pedagogical approaches.

Covid-19 has offered Nepal's policymakers the opportunity to rethink education by presenting a picture of how schools will be structured in the future – a future that has already arrived. Given the fast progress of technology, it seems evident that online or distant learning will become increasingly popular in the twenty-first century. Furthermore, it is anticipated that a pandemic of this magnitude occurs in rounds and is recurrent. WHO

also recently stated that the Covid-19 may never be eradicated and that people would have to live with it. So, it is crucial to integrate an aspect of distance learning even in normal education parallelly. When the crisis strikes, this will make things easier for Nepal's education system to cope with and eliminate negative impacts such as the digital divide. As a result of the challenges recognized by the Covid-19, policymakers now know what needs to be done to improve learning outcomes in the future: reducing the digital disparity, providing digital training to teachers, ensuring equitable internet distribution, and improving education conditions at home, among other things.

Way Forward

- » The government should engage in approving a new education act which is expected to clearly define the roles and responsibilities of the local, provincial, and federal governments. Local governments should be given the resources they need to oversee the education system.
- » Academic institutions should assess the time the students lose each time there is a closure and plan remedial measures in order for students to follow their lessons and to prevent dropouts. There should be a particular focus on marginalized groups and in rural areas.
- » Academic institutions should invest in developing learning environments and tools for the current and future emergency situations (for example, during extended school closures due to natural and manmade major calamities).
- » As planned in Digital Nepal Framework, Nepal's ambitious plan to digitize the entire economy, the government must redouble efforts to meet its targets in digitizing the education sector by making ICT usage compulsory in schools, strengthening ICT infrastructure at schools and universities, and providing the required training to the teaching and non-teaching staff members.
- » To avoid outbreaks, the government must assist schools in developing and implementing strategies that safeguard the health and safety of children in school. This includes supporting vaccination programs and adhering to epidemiological criteria for sanitation and hygiene.
- » Academic institutions must endeavor to increase parent and community involvement by educating parents and caregivers about the value of involvement in their children's education as well as offering training on how to use instructional learning resources.
- » Academic institutions should create inclusive resources for disabled children, and provide technology and media in a range of accessible formats.
- » In addition to delivering classes, academic institutions should embrace e-learning platforms to help students think critically, be creative, enjoy their surroundings and nature, gain life skills, provide psychosocial support, and assure mental welfare.

Service

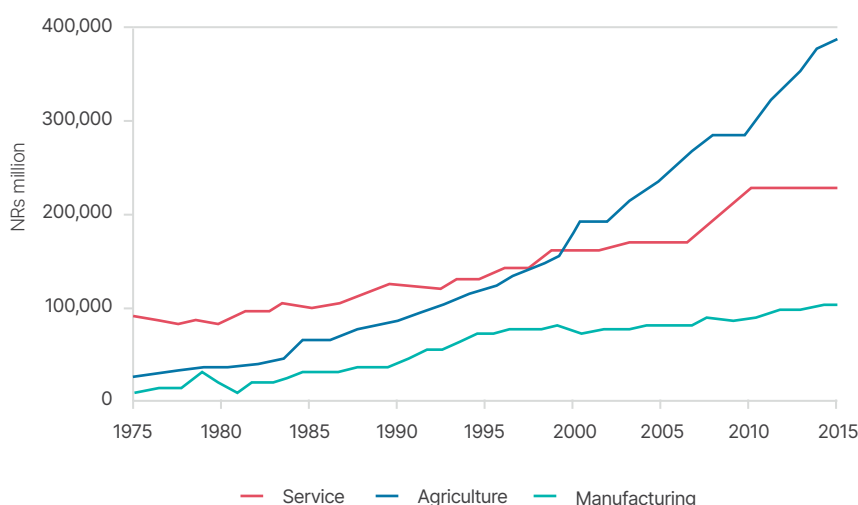
An economy comprises three major sectors, agriculture, manufacturing, and services. Earlier theoretical contributions proposed a linear path of transformation in which resources, for instance, labor and capital, move from the agriculture sector to the manufacturing sector.⁸⁵

Lewis's two-sector development model emphasizes the concept of transformation in terms of shifts in labor shares from agriculture to industry. The long-held view on structural change in the broad sectors of an economy is thus "the basic shift in the center of gravity of the economy from primary production to manufacturing and later to service"⁸⁶.

Recent studies have suggested that the service sector's growth does not happen in a linear path from agriculture to manufacturing and finally to service. For instance⁸⁷, proposed that the share of services in an economy increases in two waves: during the first wave, traditional services arise at low levels of income; and a second at higher levels of income, the share of services increases more and mainly includes modern services. They also point out evidence of the second wave occurring at lower income levels after 1990, especially in democracies, in countries that are open to trade, and in countries close to global financial centers.

Nepal has shown a similar trend as Eichengreen and Gupta⁸⁸ proposed in its economic development. The evolution in the size of the broad sector-wise real output of the economy of Nepal over the period of 1975-2016 as analyzed by Dahal⁸⁵⁼⁹ is revealed in Figure 1. This shows that after 2000, the contribution of the service sector eclipsed the other two broad sectors. Meanwhile, the move from the linear development model of agriculture to manufacturing does not seem to occur.

Evolution of Broad Sector-wise Real Gross Value Added



Therefore, an analysis of the service sector due to the current COVID-19 pandemic seems prudent. Being the largest broad sector to contribute to GDP output, the sector was also one which faced the major brunt of the pandemic.

Table 1: GDP and Service Sector contribution [at basic price (constant) in million rupees], and percentage contribution of the service sector to GDP

Fiscal Year (FY)	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21 ⁹⁰
Service Sector	746913	780382	813958	863198	909576	920370	997497	1089800	1163506	1117366	1166908
Total GDP	1436073	1507172	1553502	1642711	1700405	1700448	1846506	1982653	2109263	2064600	2146824
Percentage of Service sector to GDP	52.01	51.78	52.40	52.55	53.49	54.13	54.02	54.97	55.16	54.12	54.36

Table 2: Percentage growth of service sector and GDP

Fiscal Year (FY)	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21 ⁹¹
Service Sector	4.481	4.303	6.049	5.373	1.187	8.380	9.253	6.763	-3.966	4.434
Total GDP	4.951	3.074	5.742	3.512	0.003	8.589	7.373	6.386	-2.117	3.983

⁹⁰Preliminary Data, Source: Central Bureau of Statistics CBS GDP 2021

⁹¹Data calculated from Table 1. [Formula: (FY N+1 - FY N)*100 / FY N]

Although the total contribution of the service sector to the total Gross Domestic Product remained substantial at around 55 percent over the period of 2017 to 2021, the considerable decrease in the growth rate of the service sector during the peak period of the first wave (FY 2019/20) is noteworthy. During this period the service sector shrunk from a growth rate of 6.763 percent to -3.966 percent while the total GDP decreased from a growth rate of 6.386 percent to -2.117 percent. As seen in Table 2, the service sector had outperformed the national GDP in terms of the growth rate from fiscal years 2011/12 to 2020/21 except for the fiscal year 2019/20.

As we can see, the pandemic had a consequential impact on the overall economy of the country and the service sector. Specific sub-sectors took advantage of the lockdown economy to grow even in the service sector, while some suffered immensely.

Sectoral Analysis of some affected sectors:

Tourism

The tourism sector in Nepal has always been a focus of the government due to the potential it has to bring economic advancement to the country. In 2019, Asian Development Bank⁹² showed that the tourism industry contributes an average of 25 percent of the total foreign exchange.

In fact, within the next five years, the Ministry of Culture, Tourism & Civil Aviation⁹³ intends to draw in more than two and a half million tourists with this purpose in mind (2021). However, as was the case globally, the impact Covid-19 has on the tourism industry in Nepal was severe. The severity was felt even more so due to the pre-pandemic Visit Nepal 2020 campaign. The government had aimed to have

a high growth target of 8.5 percent from the tourism industry in the fiscal year (Shrestha, 2020).⁹⁴

Visit Nepal 2020, a tourism campaign by the Government of Nepal, aimed at hosting two million tourists in the year 2020 with a daily spend of over USD 75 (2019).⁹⁵ It claimed not only to be a travel campaign but also a national development strategy that would advance economic growth (2021). Following the National Tourism Strategic Plan 2016-25 which had 11 plans of action for tourism and its overall development (2019). However, on 22 March 2020, due to the pandemic, the campaign was officially called off by a Council of Ministers. This was soon followed by the dissolution of the VNY Secretariat on 13 April⁹⁶. Furthermore, prior to the pandemic, several infrastructure initiatives were underway to promote the industry including airports, highways, and hospitality projects⁹⁷.

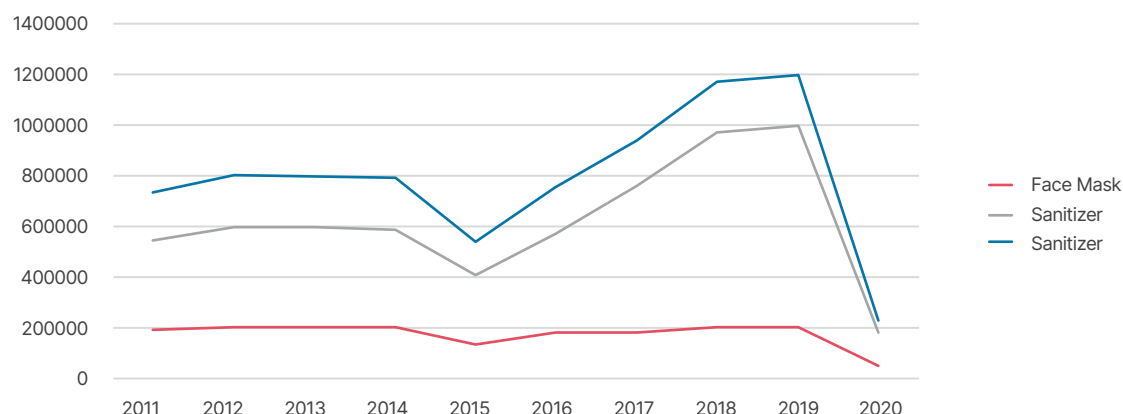
On 14 March 2020, the first travel restriction including visa suspensions, excluding diplomatic and official visas, came into effect⁹⁸. Through the next two years, a variety of other travel policies came about including Covid-19 tests, quarantine periods, and vaccine requirements. This coupled with nationwide lockdowns created an environment that would make it impossible for the tourism industry to flourish. Each month during the lockdown, there was a loss of ten billion Nepali Rupees approximately (83 million U.S. dollars) each month⁹⁹. While Jan and Feb of 2020 had a steady stream of tourists at 79,702 and 98,190, March only had 42,776. From then on, tourist numbers dropped even going as low as 14 in April. In December, its highest of the year during Covid-19, only 4,242 tourists came into Nepal (2021). In previous years, Oct has had an especially high intake of tourists. In 2020, there were only 2,025 tourists in Oct, in comparison to 134,096 in 2019. This showcases how the pandemic has directly affected the tourism industry. According to the Ministry of Culture, Tourism & Civil Aviation (2021), the number of tourists traveling into Nepal via land and airdropped by 80.8 percent. While in 2019 there were a total of 11,97,191 tourists, in 2020, there were only 2,30,085. Adding new travel protocols, the Government was hoping to lure tourists to the country in 2021. However, due to fears of the Delta variant and delays in government approvals, their hopes were not met¹⁰⁰. While the revenue earned from tourism decreased by 70 percent within the year. In 2021, while the number of tourists was increasing between May to November, due to the Omicron variant tourism dropped again in Dec¹⁰¹.

With the decline of the number of tourists coming in, various sub-sectors of the tourism industry have been greatly affected. By April 2020, there were 1254 registered hotels that incurred a loss of 332 million USD (2020)¹⁰². Similarly, there were 2649 registered trekking agencies that were affected. According to the ILO (2020),¹⁰³ in 2018, 573,000 people were employed in

The number of tourists traveling into Nepal via land and airdropped by 80.8 percent. While in 2019 there were a total of 11,97,191 tourists, in 2020, there were only 2,30,085.

the tourism sector. However, since three-quarters of those employees are in informal jobs, they may have no protection during the pandemic.

Tourist Arrivals in Nepal 2011-2020



Source: Ministry of Culture, Tourism & Civil Aviation, 2021)

Once the nationwide lockdown was loosened, however, domestic tourism rose. With the help of locations going viral on social media, a new wave of domestic tourists sought out adventure within Nepal. However, many in the industry have asked the government to lend help in this area. In 2018, domestic tourism contributed to 58 percent of the industry's earnings, an estimated NPR 240 billion¹⁰⁴. With the help of the government in making domestic tourism more accessible, this could have the potential to go further.

On 14 March 2022¹⁰⁵, the Ministry of Home Affairs: Department of Immigration announced their updated Travel Advisory requirements. Travelers are to forgo previous requirements that were added due to Covid-19 meaning there would be no quarantine obligations regardless of vaccination status and a visa could be provided on arrival. However, unvaccinated travellers will have to provide a negative PCR report. This could be a hopeful sign to those in the industry. Furthermore, the government has given certain firms refinance loans of NPR 8.99 billion, out of which tourism firms received NPR 4.95 billion (2021)¹⁰⁶. Various luxury and international chain hotels are also in the works in various parts of Nepal which could increase tourism revenue.

Recreational Services

The recreational industry which includes service providers such as restaurants, bars, cinema halls, gyms, and museums has greatly been affected by Covid-19. The Government of Nepal's initial response to the Covid-19 pandemic was a nationwide lockdown from 21 March to 21 July 2022¹⁰⁷. During this lockdown, the NTB estimated a loss in the hospitality sector of NPR 10 billion (83 million USD) each month.

The lockdown directly affected the approximately 3,300 registered restaurants and 80,000 employees in the country¹⁰⁸. However, many restaurants explored takeaway and online delivery services for the first time due to this. By 17 Sept 2021, restaurants were allowed to function in person, however, due to fear of the pandemic, customers were still reluctant to eat out¹⁰⁹. However, by the end of 2021, Nepal Rastra Bank revealed that transactions of the hotel and restaurant sector nationally have risen 57.2 percent compared to the pre-pandemic levels of 74.7 percent¹¹⁰. Yet, dining habits have changed through the

pandemic with a focus on health and hygiene both for consumers and providers.¹¹¹ While restaurants have not made a full recovery, they are making a slow recovery.

Similarly, cinema halls had also not been allowed to open through the lockdown and further. However, by the end of 2021, cinema halls were also set to open at full capacity. Furthermore, cinema hall operators have also asked for help from the government in the form of tax exemptions as they have suffered major losses during the pandemic¹¹².

Finance

The finance sector had to adapt drastically due to the changes caused by the pandemic. As the pandemic began largely affecting the lives of Nepalese, banks started reducing the number of operational branches and took out schedules of when which branch would stay open hoping to work in the lockdown conditions set by GoN. The issues of the spread of the virus still remained though as a limited number of open branches caused them to be more crowded than usual. Banks themselves also suffered from limited available personnel due to the spread of the Covid-19 virus and thus it affected their service delivery.

Cash withdrawals also occurred on a massive scale from banks and financial institutions signalling diminished consumer confidence. There was also a potential for loan defaults which posed a risk of systemic failures for the banks. With government spending halted due to the pandemic, banks did face higher costs for deposit mobilization. The public also held higher than average cash during the pandemic facing uncertainties over shortages and price hikes. Meanwhile, industries were shutting down and economic activity in the country was reduced due to the pandemic. All these put pressure on the financial health of the banks and financial institutions (BFIs). Although remittance unexpectedly maintained its flow during the pandemic, Nepal has started now facing a massive reduction in its foreign reserves. The government has therefore begun implementing policies banning illegal activities like cryptocurrency trading/investing and betting more strictly and has also imposed more stringent limits in foreign currency being taken out of the country.

According to the Financial Stability Report by Nepal Rastra Bank, the BFIs deposits were somewhat affected by the pandemic as the rate of deposit growth declined. The deposits of BFIs increased by 17.27 percent in FY 2019/20 as compared to a growth of 18.24 percent in the previous year. Meanwhile, credit flows from BFIs increased by 12.32 percent in FY 2019/20 compared to a growth of 20.18 percent a year ago.¹¹³ This decline in the rate of growth can be attributed to the slowdown in the overall economy due to the Covid-19 pandemic and the subsequent deterioration in the investment climate.

The report, also mentions that the strength of the banking sector in terms

of profitability during the times of pandemic came under stress. The overall profitability of the banking sector decreased by 20.61 percent in the review year and reached NPR 58.92 billion from NPR 74.22 billion in the previous year. The growth rate of profitability of the banking sector in the last year was 21.01 percent. All of this shows that the pandemic had significant effects on BFIs and their capacity for service delivery. It also paints an overarching picture of how there need to be better protective laws from the government to help BFIs in terms of unprecedented crises like the pandemic.

Another challenge for the BFIs was that the medium of transactions taking place also shifted due to constraints imposed by the government during the pandemic. Prior to the pandemic, cash-based transactions were used primarily, a forced shift towards digital transactions began to take place. Although the shift was slowly taking place, the pandemic forced people to move towards digital payments causing even BFIs to make modifications to their traditional systems to accommodate this change.

During FY 2018/19, companies and the public had begun towards digital payments but adoption was not as wide as it is today. The pandemic forced a sudden change in consumer behavior. According to NRB's Oversight Report (2020), during the FY 2019/20, the total number of connectIPS transactions increased significantly by a massive 1431.90 percent and reached 2,849,964. ConnectIPS is one of the most popular products, at the public level, where the system allows bank customers to make instant payments. Similarly, the number of mobile banking users increased by 35.46 percent and reached 11,306,797 while the number of internet banking users increased by 12.41 percent and reached 1,031,227.¹¹⁴

The QR-based payment was also started by FonePay Payments Pvt. Ltd. (NRB, 2020) and NRB was also actively developing QR Code Standard and Guidelines to promote this form of the payment system.

The adoption of digital methods did not stop after the first wave of the pandemic subsided but has gained further ground. ConnectIPS transactions have increased to 1,88,33,752 up 560.8 percent from the previous year. The number of mobile wallet users rose from 6,274,129 to reach 8,885,914. QR-based payments have also taken hold and have already made transactions of NPR 20,282 million during the FY 2020/21.¹¹⁵

BFIs faced massive challenges during the pandemic but were able to come out of it relatively unscathed due to the quick adoption of newer technologies and prior safeguards employed by themselves as well as the regulating bodies. With transactions moving towards the digital realm, BFIs now face newer challenges in protecting user data, competing with other payment providers, and reducing operational costs.

Digital Economy

Digital economy refers to an economy wherein digital computing technologies are used in economic activities. As payment systems have gone digital due to the pandemic, so have the other businesses.

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The world was already moving towards e-commerce and a gig economy model, and the pandemic helped further accelerate this shift. Nepal also has been following similar shifts in businesses going online. Consumers now have started demanding even traditional businesses to have an online presence. An online presence for the company helps even them build a voice for their brand and send out messages projecting their brand identity.

Nepal's e-commerce journey started at the turn of the 21st century with companies that helped Nepalese based abroad buy gifts for their relatives in Nepal, especially during major festivals. Companies such as muncha.com and thamel.com helped Nepalese understand what e-commerce could look like and how the internet could be used to facilitate shopping. Later, other companies began to provide basic services like getting SLC results through text messaging at a time when every household did not have internet access, and mobile internet was something for the future.

Currently, Nepal has a large number of companies working in the e-commerce and gig-economy sector providing a range of services like food delivery, shopping, payments, other deliveries, ride-hailing, and this is only increasing daily. This boom in the e-commerce and gig-economy sector can be largely credited to the increase in internet usage in addition to large international investments in the sector, helping provide better operational mechanisms and practices.

Furthermore, this push in the sector exclusively began with the COVID-19 pandemic. Both e-commerce and gig-economy were on the rise with higher internet penetration, but the pandemic and the subsequent lockdown forced people to move to digital. People using ride-hailing services increased massively while public transportation was restricted. Additionally, restaurants and retail businesses remained only open for home deliveries. Therefore, companies that provided delivery services boomed during the pandemic, with even local retail shops offering to bring goods to homes. Larger online stores were also able to negotiate with the government to allow their deliveries to go through, which helped the public get basic food items at their homes at a time of panic and confusion over the lockdown. This online delivery mode also helped manage shortages as loads of businesses popped up offering similar services.

Additionally, as offices remained closed, people began to adopt work-from-home models allowing people to diversify their workspace. Freelancing became a much more important source of extra income, and Nepalese could successfully explore work even outside their countries.

Currently, there are no laws governing e-commerce, specifically in Nepal.

Both e-commerce and gig-economy were on the rise with higher internet penetration, but the pandemic and the subsequent lockdown forced people to move to digital. People using ride-hailing services increased massively while public transportation was restricted.

The Ministry of Commerce, Industry, and Supplies had drafted an Electronic Commerce Bill back in early 2021, but the parliament has not yet approved the bill. There is also the need to draft laws to regulate the gig-economy sector. For example, both drivers and users need to be offered basic protections in the ride-hailing sector.

According to the Digital Nepal Framework 2019, the e-commerce industry was valued at USD 30 million, with an expected growth of more than 41 percent. E-commerce's employment impact was also estimated to be 1:4, where four indirect jobs were created for each direct job. Also, the increase in the online seller base created additional 12 jobs in support services such as delivery, customer service, warehousing, etc.¹¹⁶ The growth potential of this sector remains immense, and its impacts on employment opportunities and contribution to the country's GDP can be monumental. Even currently, only in Kathmandu, many youths have been supported by working as riders on ride-hailing apps. When people faced job losses due to the pandemic, they turned towards working as delivery riders or ride providers and have been able to sustain their income. Expanding these services outside of the capital, stringent regulations, and widespread adaptability can help create job opportunities and boost the whole economy during this recovery phase from the pandemic.

Nepalese, especially urban youth, have always been early adopters of technology and digitalization. A large number of the Nepalese Diaspora abroad, either for studies or work, have either necessitated or made it easier for their family members to adopt new technologies. However, the adoption of such technology was slow in the production of goods or service delivery sectors. The Covid-19 pandemic, and the ensuing lockdown measures, forced different sectors of the economy, including the government, to integrate technologies in the delivery of services.

Now it is up to the various companies to take advantage of the public's change in behaviors and provide better service to the public. Widespread adoption of digital services will be helpful for all. On the other hand, the government needs to try and match its laws and regulations with the pace of innovation and the rapid changes in technology. Outmoded thinking will only affect consumers accessing these services while banning new technologies might increase illicit activities. Proper regulation can secure consumer interests while providing a way to increase government revenue. The pandemic-affected economy will much quickly return to its previous highs supported by the base of these newer economic models.

E-Governance

E-governance helps restructure the way governments work, share data and information, connect citizens, and deliver services using technology to external and internal clients for the benefit of both government and the clients they provide¹¹⁷. ICT plays a key role in creating, accessing, circulating, processing, analyzing, and using information. It helps to transform traditional government by making it accessible, transparent, effective, and accountable¹¹⁸. Many developing and least developed countries though are still grasping to make sense of how IT can help solve their problems. This same trend is true in the case of e-Governance too¹¹⁹.

The movement to e-government is significant for governments. E-governance provides a massive potential to locate innovative ways to reach the public. Developing and least developed countries though continue to face massive challenges in the adoption of e-governance. According to Heeks¹²⁰, most implementations of e-Governance implementation in developing and least developed countries fail, with 35 percent being classified as total failures and 50 percent as partial failures. Nepal's government similarly faces numerous challenges in introducing and implementing e-governance. These include simple issues such as insecure government websites, inadequate human resources, lack of a legal framework, and poor ICT infrastructure across the nation. The major hurdle is to provide a citizen-centric solution by offering hassle-free, easy-to-use, and easily accessible services to the consumers¹²¹.

In the E-Government Development Index (EGDI), a composite measure of three important dimensions of e-government, namely: provision of online services, telecommunication connectivity, and human capacity,¹²² Nepal ranks 132 out of 193 in 2020 down 15 ranks from 2018.¹²³ In another index developed by the UN, E-Participation Index, Nepal ranks 137 in 2020 down 82 ranks from 2018. The E-Participation Index focuses on the use of online services to facilitate the provision of information by governments to citizens ("e-information sharing"), interaction with stakeholders ("e-consultation"), and engagement in decision-making processes ("e-decision making").¹²⁴

The difference in ranks between the two years 2018 and 2020 can be mainly attributed to the COVID-19 pandemic and its subsequent effects on online service delivery of government agencies.

Nepal though had continued to make its move towards e-governance even before the pandemic with some government institutions operating

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applications for administration and public services. Some examples of government agencies with applications were:¹²⁵

1. Online registration of permanent account number by Inland Revenue Department.
2. Personal record system by Election Commission of Nepal
3. Datacentre by Supreme Court of Nepal
4. Online Gate pass System by National Information Technology Center
5. Online tender system by Department of Road
6. Computerize citizenship in some districts like Kavre, Nepal.
7. Website, e-mail, and internal memo management system in Ministry of Local Development

Although, some changes were being made with the increase in available technology, wide adoption of e-governance is still lagging. The Asian Development Bank was among the first to support Nepal in its move towards e-governance through the Governance Reform Programme in 2001. The then joint secretary Deependra Bahadur Thapa, Ministry of General Administration had then prepared a study report on the importance and rationale of paperless governance. Nepal also implemented complementary laws such as the Electronic Transaction Act 2006, which theoretically legalized the digital signatures for “some” contracts and transactions, and the Information Technology Umbrella Act 2014. The IT Policy 2010, ICT Policy 2015, e-Governance Master Plan 2007, and e-Governance Master Plan-II 2015, and 10 Year Master Plan 2011 also supported the move towards e-governance in Nepal.¹²⁶ e-Agriculture, e-Education, e-Health and e-Tourism are four priority streams that have been specified in the eGMP II as areas that have the most volume of demand for e-services from the Government. Agriculture, Health, Education, Local Government, Roads and Tourism among others are some of the priority areas that have been identified in this version of the e-Government Master Plan.¹²⁷

The Covid-19 pandemic offered a forced solution to e-governance in Nepal. With lockdowns and travel restrictions, everything including government services was forced to move online. The general public as well as government officials had to figure out ways to make e-governance viable and things did head in a positive way. The information dissemination during the pandemic was one major achievement by the government towards e-governance. The Ministry of Health and Population used Viber to provide daily updates of the pandemic which helped massively in keeping people informed. It was also used to provide important notices which increased the accessibility of information among the public. One example of provincial governments moving, in the same way, was how the Gandaki province government created a helpline called Hello Doctor in 1092 to give information to the public. The official website of the provincial government, its ministries, and its health directorate all have information about the disease, updates on the current situation in the province, and the decisions made by the government authorities. The provincial government also created a mobile app titled Gandaki Swasthya where people can access press releases, daily COVID 19 briefings, and the weekly newsletter the provincial government has been releasing.

Another achievement of the government was the use of TV, radios, and the internet to provide classes to children when schools were shut down. As the pandemic continued to hamper and affect school openings, the government used other communication methods to try and continue classes. While the levels of success of these measures are debatable, the efforts should be commended as a move towards e-education.

The government also widely adopted the move towards e-commerce and digital payments by allowing e-commerce deliveries to take place even during the lockdown. The public was able to order items from

home which helped reduce the spread of the virus by restricting people in their homes. Although the legal framework for e-commerce is still on the way (an Electronic Commerce bill was drafted by the Ministry of Commerce, Industry, and Supplies in early 2021 but has not yet been approved by the parliament), wide adoption of e-commerce has continued post-pandemic too. The government does need to quickly set up regulatory frameworks though and enact consumer protection laws so that the e-commerce industry grows further.

There are numerous benefits to e-governance. The public benefits by getting easier access to government services, quicker access to information, and the burden of travel can be reduced. E-governance can also help increase transparency. If all transactions are recorded in the digital ledger, and all forms are filled online, the number of physical touchpoints reduces which can for one reduce the possibility of corruption. Secondly, it also means that the number of employed personnel in government services can be reduced. This allows the government to reduce the number of civil servants and utilize those costs in managing online systems. Retraining current civil servants on digital literacy can help them with the shift towards e-governance. While civil servants gain new skills, the public will benefit from getting easier access to services. Currently, especially in relatively rural parts of the country, people have to travel long distances to get access to basic government services. With increasing mobile and internet penetration in the country, if those services can be provided online, it will reduce travel costs and opportunity costs of time taken to access these services.

Ideas such as e-agriculture that have been an area of focus in e-Governance Master Plan II, can help farmers learn modern agricultural practices. If the marketplace is digitized, farmers can get proper value for their goods, and issues of being cheated by middlemen will be reduced. The goods can also be traced easily through the entire value chain and it will be easier for the government to ensure a fairer marketplace based on competition rather than monopolistic manipulations. The same principles can be applied in other sectors and not be limited to agriculture.

The wide adoption of e-governance does face some challenges, digital literacy among the population being the major one. While people in major cities have begun to adapt to digital methods to access services slowly, wide use is still a problem. Even with the convenience of digital services, the general public is still yet to come to terms with them. This becomes an even more significant challenge in rural parts of the country. People have learned to use mobile phones and the internet to communicate, but they have yet to understand its benefits in getting access to services. This

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fault lies both with the government and the public. As government services have continued to move online, the government themselves have still not been able to trust online methods fully. Moreover, beneficiaries of e-government services are still forced to be present at concerned offices to benefit from these services. For example, applications for driving licenses can be filled online, but the person does need to go physically to the office to fulfil other requirements before their licensing exams.

The government needs to take steps to literate the public in accessing services digitally. Additionally, government applications need to be made user-friendly to make them more accessible for the public to use. The government also needs to understand that many people use their services, so proper investments must be made to maintain their servers, secure their websites, and decrease outages. The previous driving license website case can serve as an example here too. People have faced issues visiting the website and filling the application form due to heavy server-load resulting in visiting the offices physically or using intermediaries to fill out their forms, creating an additional cost. Although Nepal has taken a step towards online government services, there are still ways to go. Furthermore, while the pandemic forced Nepal to take steps towards e-governance, the government and relevant stakeholders must keep moving towards this.

What then does the future look like? First, there is no doubt that e-governance will be adopted. The digitally literate class of the population is increasingly keen to switch to e-governance and other electronically enabled services.¹²⁸ The government, too, has shown willingness to move in this direction, as shown by the various complementary laws and plans it has adopted. Although hesitancy still exists on both the government and the public side due to various concerns, there is still no alternative to redirect investment towards this sector.

On the other hand, if adopted widely, better coordination can occur between the three levels of government with faster information sharing. Good governance has eight major characteristics, participatory, accountable, following the rule of law, transparent, responsive, effective and efficient, consensus-oriented, equitable and inclusive.¹²⁹ The adoption of e-governance can contribute to all eight tenets and thus increase Nepal's overall level of good governance

Public Finance

Public finance refers to the government's creation of finance strategy through components such as expenditure, revenue, and debt. The government's aim is proper allocation of resources so as to achieve economic growth. The government works to create policies including budget, monetary policy, and sectoral-policies that make efficient use of revenues, taxes, debt, and expenditure to achieve the economic growth target. In Nepal, the first annual budget was presented in 1951 by the then Finance Minister Subarna Shumsher Rana¹³⁰. Before this, the Rana regime that ruled over the country did not have a practice of distinguishing between private and public finances and presenting a budget. While the budgets presented in the beginning years were not exhaustive, over the years the government has been presenting a comprehensive budget that encompasses all sectors of the economy. The first monetary policy in Nepal was presented by the Nepal Rastra Bank (NRB) for the Fiscal Year (FY) 2002/03¹³¹.

After the implementation of federalism in 2015, as per the requirements of the constitution all three levels of the government- federal, provincial, and local are required to present an annual budget. The local and provincial governments were formed through the local and provincial level elections in 2017 after which the first provincial and local level budgets were presented in the FY 2018/19. The local governments are required to present their budget by Asar 10 (last week of June), provincial governments are required to present their budget by mid-June (two weeks after the federal budget is presented) and the federal government is required to present its budget by Jestha 15 (Last week of May).

Several acts have been formulated to create smooth operations for provincial and local levels of the government. The Intergovernmental Fiscal Arrangement Act, 2074 was created to ensure that necessary provisions regarding revenue rights, revenue sharing, grants, loans, budget arrangements, public expenditures and fiscal discipline of the federal, provincial, and local level of the government were followed¹³². The act also requires the government to equitably distribute revenue generated between federal, provincial, and local level. The federal government also makes budgetary allocations to provincial and local levels under equalization grants and conditional grants. The establishment of the Federal Consolidated Fund and the Province Consolidated Fund has also been written in the constitution¹³³. The Federal Consolidated Fund requires the government to credit all the funds received by the government to be credited to the fund. Similarly, the Provincial Consolidated Fund requires the provincial government to deposit all the revenues, loans, and amounts received from the federal government into the fund. Furthermore, the Local Government Operations Act 2074 was created to define operational mechanisms including the establishment of local consolidated funds and the process of preparing budget for the local levels.

Budget, Expenditure, Revenue, and Domestic Debt (Federal Government) in NPR¹³⁴

	2017/18	2018/19	2019/20	2020/21
Total Budget (in trillions)	1.27	1.31	1.53	1.47
Revised Budget (in trillion)*			1.38	1.34
Total Expenditure (in billions)	1087.2	1208.37	1094.34	1180.95
Total Revenue Mobilization (in billions)	726.7	859.6	841.36	938.32
Domestic Debt Mobilization	144.75	96.38	194.64	224.01
Domestic Debt Repayment	37.52	34.31	34.39	36.9
Net Domestic Debt Mobilization	107.23	62.07	160.25	187.11

*The budget for FY 2019/20 and 2020/21 was revised down during mid-year budget review, the budget for FY 2017/18 was not revised. For FY 2018/19, only the Capital Expenditure budget was revised down.

From the above table 1, it can be seen that the budget size has been increasing every fiscal year from 2017/18 to 2019/20. However, in comparison to the fiscal year 2019/20 the budget size decreased by four percent during the FY 2020/21 which was a direct result of the economic contraction due to the pandemic. The economic growth rate of the country had been showing a steady increase however the pandemic and the subsequent lockdown caused the country's growth rate to contract by 2.12 percent in FY 2019/20¹³⁵. Initially, the government had presented an NPR 1.647 trillion budget for FY 2021/22. However, with a change in the ruling government, a new budget for the fiscal year amounting to NPR 1.63 billion was presented. During the mid-year budget review, this amount was later revised to NPR 1.54 trillion owing to the inability of the government to spend the allocated budget properly¹³⁶. Experts have pointed out the tendency of the government to create a bloated budget at the beginning of the fiscal year to create a more optimistic economic outlook as the reason for this continued mid-year budget revisions.

The trend of revising the budget size and decreasing it during the mid-year review had occurred for the previous three consecutive fiscal years (2018/19, 2019/20, and 2020/21). For FY 2018/19, the capital expenditure budget was revised downwards because of the underspending of the budget. By mid-year 2019/20, only 32.4 percent of the allocated recurrent expenditure budget, 15.4 percent of the allocated capital expenditure budget, and 29.9 percent of the allocated financing budget had been spent which led to the government decreasing the overall budget¹³⁷. Lack of proper mobilization of the budget allocated for capital expenditure has been mentioned as a significant constraint for the infrastructure development of the country. For FY 2020/21 too, the problem of the government's underspending of the allocated budget continued and the problem was exacerbated by the pandemic.

Government Expenditure Breakdown (Federal Breakdown) in NPR¹³⁸

Year	Financing (Allocated Budget) (in billions)	Financing (Spent) (in billions)	Capital Expenditure (Allocated Budget) (in billions)	Capital Expenditure (Spent) (in billions)	Recurrent Expenditure (Allocated Budget) (in billions)	Recurrent Expenditure (Spent) (in billions)
2017/18	140.28	152.4	335	241.5	803	716.4
2018/19	155.72	141.24	265.2	238.36	845	714.98
2019/20	154	116.04	326	191.77	904	786.53
2020/21	146.86	100.97	283.04	228.3	914.78	851.68

The above table 2 shows a comparison between the budget allocation vs. the budget spent for government expenditure for the last four fiscal years. While the Nepal government has struggled to spend the allocated budget in different sectors, the pandemic added new challenges for the government. For FY 2019/20, capital expenditure and revenue collection were two sectors that were impacted due to the pandemic. During this year, the government expenditure was 70 percent of the total target, and the revenue collection was 74.4 percent of the targeted amount. Capital expenditure in particular was 58.6 percent of the total target. The pandemic delayed multiple infrastructure projects causing time and cost overrun. Megaprojects including Gautam Buddha airport, Pokhara airport, and Upper Tamakoshi hydropower project suffered delays because of the labor and material shortage caused by the lockdown announced on March 2020¹³⁹. Although the government made provisions to allow workers on construction sites, provided they could be in isolation and follow social distancing rules while working, the pandemic still made it difficult for works to be done at the required pace.

Revenue Collection Target and Mobilization (Federal Breakdown) in NPR

Year	Revenue Collection Target (in billions)	Revenue Mobilization (in billions)
2017/18	730.1	726.7
2018/19	730.05	859.6
2019/20	981.14	841.36
2020/21	889.62	938.32

For the FY 2019/20, the revenue mobilization was primarily impacted because of the lockdown. Due to the closure of custom checkpoints such as Birgunj and Rasuwagadhi, the trade and revenue collection at these points were affected. In addition, lockdown caused the closure of a lot of businesses and industries. Sectors including tourism, manufacturing, construction, and handicraft were among the most impacted due to the pandemic. As businesses could not operate under normal circumstances, the revenue they earned was impacted which affected their ability to pay taxes. The relief packages introduced by the government and the NRB also allowed tax exemption and lower tax payments for businesses affected by the pandemic. The government also gave extensions on tax payment deadlines for organizations and businesses impacted by the pandemic¹⁴⁰. According to the Annual Report by the Inland Revenue Department, during the FY 2019/20 the department saw a decrease of 11.1 percent in the amount of revenue collected in comparison to the previous year¹⁴¹. The department's revenue collection was 61.8 percent of the total revenue collection by the government. Furthermore, the data of FY 2020/21 from the department's annual report shows that 80 percent of taxes were collected from Large Taxpayers (businesses having annual transactions over Rs. 1 billion) and 120 percent of taxes were collected from other tax offices¹⁴².

Policies for economic recovery

The government has created various fiscal and monetary policies to help the economy recover. The budget for the fiscal year 2020/21 was prepared to tackle the challenges created by the Covid-19 pandemic¹⁴³. The budget focus was on economic recovery, increased investment for health services and infrastructure, revitalization of industries including tourism, construction, agriculture, and manufacturing that were affected by the pandemic, and increased collaboration among the three levels of the government. The health sector was allocated a total budget of NPR 90 billion of which 4.6 billion was for provincial level and 25.4 billion was for local-level health sector¹⁴⁴. The aim of this increase in the budget for the health sector was to increase the quality of health services for prevention and control of diseases, development of health infrastructures, and getting medical supplies. There was also an allocation of budget for increasing testing facilities, establishing quarantine facilities, and buying supplies including personal protective gear, masks, gloves, sanitizers, and vaccines. The budget was also allocated for establishing new hospitals to combat epidemiological diseases in Kathmandu and provincial capitals, enhancing the capacities of existing hospitals, and upgrading the standards of the existing laboratories. Making health insurance coverage accessible has also been prioritized by the government. The budget for the fiscal year 2021/22 has continued with the efforts to promote economic recovery caused by the pandemic¹⁴⁵.

Monetary policy for FY 2020/21¹⁴⁶ was created with a goal to reinforce economic recovery while maintaining macroeconomic stability. The policy is directed towards the management of credit and enhancing further credit to Covid-hit areas by introducing measures including easing liquidity, reducing interest rates, and extending the moratorium period. The refinancing facility introduced to ease economic recovery include extending refinance facilities up to 5 times the available fund, providing concessional credit, enhancing access to credit for COVID-19 affected professions, enterprises, and businesses, and special refinance for the specified sectors. Other major policy responses include decreasing Cash Reserve Ratio from four percent to three percent, bank rate from six percent to five percent, and repo rate from 4.5 percent to 3.5 percent. Banks and financial institutions were required to lower interest rates by two percentage points, retail by three percentage points, and wholesale MFIs by two percentage points. Private health institutions could also get extended credit under Priority Sector Lending for expanding or upgrading their services to treat Covid-19 patients.

Similarly, monetary policy 2021/22¹⁴⁷ was also created with accelerating the economic recovery post-pandemic as the main focus. The policy gave continuity to the refinancing policy created during the previous fiscal year's monetary policy in hopes of supporting the speedy recovery of Covid-19 affected industries. The refinance scheme will give priority to the cottage, micro, small, and medium-sized industries, and businesses. Furthermore, a business continuity loan program repayment will be implemented to help businesses affected by the pandemic. Banks and financial institutions can decrease the size of installment and extend the maturity and loan repayment period after assessing the needs and financial status of the businesses. Further allocations include sectoral based provisions including maintaining a separate account for the interest accrued up to mid-July 2022 on business

Governmental response to Covid-19 involves clear roles and duties, coordination structures, information channels, and budgetary relations that allow for a contextualized response and actions that successfully respond to the immediate health and economic issues.

loans to borrowers based on their need and financial status in the hard-hit sectors by the pandemic including hotel, travel, trekking, and airlines, an additional one year to repay the principal and interest of loans which were going to be matured by mid-Jan 2022 in four installments, restructuring and rescheduling their loans by mid-Jan 2022 for the hard-hit sectors including tourism, cinema, party palace, public transportation, and education sectors and extending an additional loan of NPR 0.2 million per vehicle for the operation and maintenance of public vehicles. An arrangement will be also made for an independent audit to ensure the effectiveness and proper utilization of refinancing, business continuity loans, and concessional loans provided for the recovery of professions and businesses affected by the pandemic.

NRB has also pointed out the increase in the use of digital payments over the course of the pandemic and created policies that put emphasis on the development of necessary infrastructure for making online transactions easier and more accessible. The decision has also been made to celebrate FY 2021/22 as 'E-Payment Transactions Promotion Year' for increasing awareness about the digital transaction system. Digital Nepal Framework 2019 is another initiative by the government that provides an emphasis on increasing the digital payment transactions, creation of National Payment Gateway, and Information Management System for migrant workers.

Way Forward

The government and the central bank have been creating policies to tackle the economic slowdown caused by the pandemic. In addition, to the policies that have been created, the government should focus on the implementation aspect of these policies. It is important for the government to establish mechanisms that allow for allocated budgets to be used smoothly. Improving the procurement process, creating coordination between government agencies, removing bureaucratic red tapes, and creating proper monitoring mechanisms are a few ways through which the capital expenditure budget could be spent in a timely manner.

Future of Work (Office Culture or Mode of work (virtual, physical or hybrid)

The pandemic has had a severe effect on the lives and livelihoods of people around the world. While the impact of the pervasive Covid-19 was primarily negative, among the few positives is the fact that the pandemic has served as a catalyst to challenge the traditional workplace model and recalibrate office structures and strategies. After the surge of the pandemic, governments globally started imposing strict stay-at-home orders or lockdown measures to curb the spread of the virus. The inability to congregate in large numbers outside private spaces brought nearly the entire world to a grinding halt. Schools, businesses, offices, and factories closed down and the economy greatly suffered. This compelled the public and private sector to transition to remote work in order to continue their activities and readjust their working model to what many companies and sectors are now accepting as the new normal.

Home isolation and the widespread transition to remote work brought a boom to the digital platform sector. Video conferencing tools in particular such as Zoom, Google Meet, and Webex experienced an uptick in usage as more offices, businesses, and schools used online meetings to communicate and coordinate remotely. Zoom, for instance, was downloaded more than 485 million times in 2020, around 30 times more than in 2019 (Backlinko). Meetings can be joined by all team members from the comfort of their own homes given a stable internet connection. Over time, these applications began introducing and increasing integrations with other organizational tools as well such as scheduling apps, transcription services, and educational tools among others that helped improve workflows and increase productivity.

The pandemic-fuelled transition to remote work has not only challenged the traditional model of working out of a fixed location but also established that working from home can be equally productive as working from the office. Working from home reduces the cost and time of commuting to and from the office. The extra time in their day allows employees to be well-rested, take care of non-work duties, and spend more time more productively on their work. In addition, workers for the most part have the flexibility at home to choose their most productive hours of the day and personalize their workspace to make it conducive to their productivity. Research has shown that remote workers spent more minutes working per shift and completed more metrics of work per minute¹⁴⁸. According to a survey of 2,800 workers by Los Angeles-based staffing firm Robert Half¹⁴⁹, 45 percent of the respondents mentioned that they work more during the week while working from home.

The new normal of working from home has also created greater flexibility among employees to manage their work-life balance. According to research conducted by McKinsey in 2020, 80 percent of the respondents reported enjoying working from home, 41 percent stated that they are more productive than they had been before, and 28 percent that they are as productive as at the office. Working from home has allowed family members to spend more time with each other and their pets. It becomes easier for parents to take care of their children. This leads to greater job satisfaction and employee

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morale which have been linked to higher productivity.

Yet, remote work is not without its downfalls. Working from home removes a fundamental part of the human experience from work, i.e. social interaction. While digital platforms help provide some form of connection, in-person interaction could never be sufficiently replaced by online interaction. Isolation is widely known to be detrimental to an individual's wellbeing and increased reliance on digital interaction and media has been linked to a deteriorating social fabric¹⁵⁰.

Digital transformation, especially when driven by companies that prioritize profit over people, is designed to improve economic productivity rather than the quality of life. People have reported poorer work-life balance with remote work due to the inability to separate work from home life and the increasing socio-cultural expectation to be available always and instantly, even outside of working hours. At the same time, the need for digital connectivity for remote work also increases the likelihood of social media distraction which reduces the time spent on focused work. The results of a small study conducted in the United Kingdom¹⁵¹ on the impact of lockdown on remote workers not directly affected by Covid-19 showed that 70 percent of respondents had increased sedentary behavior, over 40 percent increased their alcohol consumption, and 38 percent increased their food intake. The results revealed associations between increased sedentary lifestyle, poorer mental health, and lower work productivity. Respondents also pointed to a number of structural obstacles such as home and childcare duties as well as high expectations and lack of support from employers. Many positive adaptations to lockdowns were also observed however with 45-50 percent of respondents reporting more time spent walking and engaging in moderate to vigorous exercise. Decreased commuting expenses, saved time, and flexibility also led to a self-reported increase in well-being which was associated with better mental health and productivity.

A survey conducted by the World Economic Forum¹⁵² among 12,500 people employed in 29 different countries suggested that they prefer flexibility in their working style to become the new normal. Almost 30 percent of the respondents stated that they would leave their jobs if forced to return to the office on a full-time basis. Hybrid models of work can become the new way of conducting work wherein the workforce employs a mix of remote and in-person work models. Workplaces will need to consider several factors in determining the best arrangement for their type of work and gather inputs from the different stakeholders such as employees, operations, human resources, real estate, and IT.

The post-pandemic workplace will also need to be better than the one that functioned during the pandemic. Transitioning to a hybrid work arrangement will require that equity and diversity are key considerations in order to ensure that all employees are given an equal footing in the workplace. In the context of Nepal where 80 percent of the population lives in rural areas, particular consideration will need to be given to equitable access to technology and

digital resources so that women and vulnerable groups such as marginalized communities and urban and rural working classes are not left behind in the digital race. Workplaces will also need to strategize engagement and collaboration in hybrid environments. A pre-pandemic experiment conducted by the Stanford Graduate School of Business¹⁵³ in 2015 explored the effectiveness of work-from-home arrangements in a 16,000-employee call center in China. The study reported that despite showing a 13% increase in productivity and better attrition rate, remote workers were less likely to be promoted than their office-based counterparts due to weaker professional connections, less real-time interaction, and fewer opportunities that arise from impromptu office conversations or meetings (Bloom et al.).

While it has been easy for private sectors to transition to remote working, government institutions and government departments providing services through online and IT-based methods (e-governance) have been sluggish in Nepal.

Hybrid or complete work-from-home arrangements have raised questions around the globe about whether office spaces need to be as large or even exist at all. Many smaller businesses, startups, and tech companies in Nepal's urban areas might consider this a respite to the soaring real estate and rent prices driving up operational costs. While it has been easy for private sectors to transition to remote working, government institutions and government departments providing services through online and IT-based methods (e-governance) have been sluggish in Nepal¹⁵⁴. In order to cultivate sustainable remote work moving forward, both the private sector and the government will need to improve structural capacities such as expanding the optical fiber network, improving

cybersecurity, and providing ICT training and services to the workforce.

As the virus continues to mutate, so do the chances of another strict lockdown measure. Recently, China witnessed¹⁵⁵ the resurgence of the virus which can have cascading effects in neighboring countries. A recent World Health Organization (WHO) press release¹⁵⁶ stated that after weeks of decline, the second week of March 2022 has seen the reported cases of Covid-19 once again on the rise. While increasing immunization is making hospitalization rates lower, there are still several risk factors to the health and economy of the world should there be another wave of the pandemic. Therefore, the Government of Nepal and the private sector should develop proper structures and protocols for ICT and e-governance to prepare for any unforeseen circumstances like pandemics, disasters, or other significant socio-political events that can have an imposition on work. In an increasingly digitized world, Nepal has to capacitate its populace to become adaptable to work from both the home and the office environment. The disruption to workplace structure by Covid-19 related restrictions should be taken as a much-needed window of opportunity to build a better culture of work.

Conclusion

The pandemic has no doubt disrupted key sectors of the Nepali economy over the period of Jan 2020 and Jan 2022. Given the current Covid-19 scenario, we expect the pandemic to continue for the time being thus further affecting the economy, but to lesser extent due to people's higher immunity against the virus from vaccination. We have seen key changes across the six sectors that we have included in our analysis namely health, education, service, e-governance, public finance, and the future of work. GoN, along with the support and facilitation from the private sector and the development partner, have worked on some key aspects of these six sectors to make them more resilient as Nepal works to recover from the pandemic. However, learning from the past mistakes, Nepal needs to work on more realistic implementation strategies of the plans and policies developed and drafted so far to realize most of the post pandemic recovery targets across our analyzed six areas of the Nepali economy.

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