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A Review of the Economic Impacts of the COVID-19 Pandemic and Economic Policies in Nepal

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Abstract

This paper descriptively undertakes a review of the macroeconomic and microeconomic impact of COVID-19 and of the consequent lockdown imposed by the government in Nepal. The review shows that almost all macroeconomic indicators have either slowed down or become negative suggesting adverse effect of COVID-19 on Nepalese economy. Likewise, at micro level, the review shows that it has severely affected the household economy as well as the business firms. The effects are identified on health, education, food security and employment. At the firm level, the cost and unemployment have increased while the productivity, profit and income have decreased. This therefore calls for the concerted efforts on the part of all the stakeholders, more importantly the State to adopt a policy-mix that can adequately manage the health crisis on the one hand and the livelihood on the other, keeping in mind their long term effects on accumulation of financial, physical and human capital.

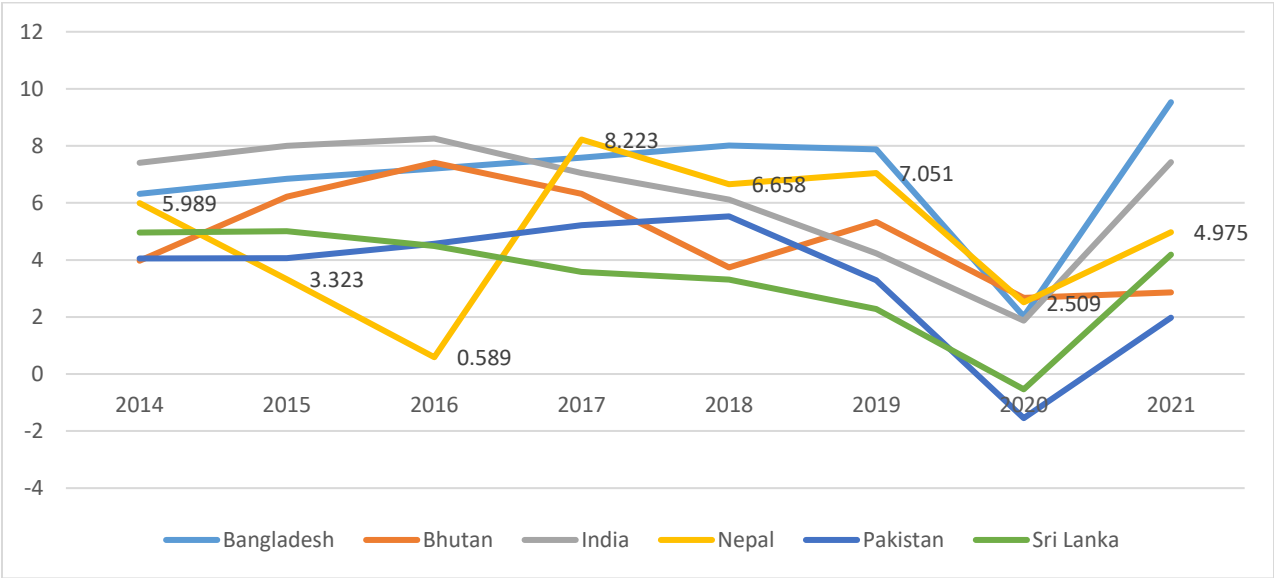
1. Introduction

COVID-19 has affected all the sectors of the economy. A [UN framework for the immediate socio-economic response to COVID-19](#) warns that the impact of COVID-19 far outweighs the health crisis, it affects all societies and economies at their core and therefore will most likely increase poverty and inequalities at global scale (UN, 2020). In terms of economic impact, the effects are both at macro and micro levels. A prior expectation was that Nepal would realize an economic growth of 8.5 percent in the current Fiscal Year 2019/20 ending in July. However the economic growth plummeted to 2.27 percent indicating that COVID-19 has adversely affected the economy (CBS, 2019 & 2020). Figure 1 shows that the economic growth in all the South Asian countries slumped in 2020; while the economic growth remained positive for most of the countries including

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Nepal, Pakistan and Sri Lanka are the two countries that experienced negative economic growth. This erratic fluctuation in economic growth indicates that almost all macroeconomic variables have been affected due to COVID-19 e.g. exports and imports, consumption, saving and investment. On the other hand, at micro levels, the household level impact of COVID-19 is primarily on food security, health, education and employment while the firm level impact is on income, profit, cost and productivity. These microeconomic consequences will therefore affect the realization of the targets set in the Sustainable Development Goals (SDGs).

Figure 1: Economic growth in South Asian Countries (2014-2021)



Source: World Economic Outlook, IMF (2020)

Government of Nepal declared nationwide lockdown from March 2020 with an objective to contain the spread of the virus. The restriction was imposed on movement of people, airlines and vehicles, and opening of businesses. However, the lockdown severely disrupted the supply chain and further restrained the availability of essential goods and services. It disproportionately affected the livelihood of common people with far-reaching socioeconomic implications. Realizing this hardship and the natural choice between life and livelihood it has led, the government partially lifted the lockdown from June with limited mobility and opening of businesses. The government has also been working to bring out various policy reform measures for the recovery in all the spheres.

This paper discusses various macroeconomic and microeconomic consequence of COVID-19 and various economic reforms that the government have undertaken for the economic recovery.

2. Macroeconomic impact

The GDP growth is a major indicator of the macroeconomic impact of any type of shocks either economic or otherwise. In our case, the COVID-19 pandemic can be construed as a major health shock that has an implication on government resource allocation. This is because the government has to prioritize resources in the health sector to respond effectively to contain the spread of COVID-19. On the other hand, the government has to bring about various economic packages to address the need of the sectors affected by the lockdown. Nepal Labour Force survey (2017/18) shows that 85 percent of the labour force are informally employed in the country that includes all working in informal sector as well as those in the formal sector not receiving minimum basic benefits (CBS, 2017). Hence, people working in informal employment and business communities particularly cottage and small scale industries and tourism are largely affected. This implication of resource allocation and the restricted economic activities due to the lockdown will adversely affect the economic growth and other major macroeconomic variables. Table 1 shows the GDP growth and the growth in other major macroeconomic variables before and after the COVID-19 pandemic.

Table 1: Major Macroeconomic indicators before and after/during COVID-19/lockdown

Macroeconomic Indicators	Annual			11 months (Mid-June)	
	2016/17	2017/18	2018/19	2018/19	2019/20
Real GDP at producer's prices	8.2	6.7	7.0		2.3*
Gross Fixed Capital Formation/GDP	31.4	34.6	33.7		28.1*
Gross National Savings/GDP	46.4	45.8	48.9		46.0*
Consumer Price Inflation (y-o-y)	2.7	4.6	6.0	6.16	4.54

Salary and wage Rate Index (y-o-y)	13.4	6.8	9.1	9.54	7.48
Export Growth	4.2	11.4	19.4	19.4	0.2
Import Growth	28.0	25.8	13.9	17.3	-15.3
Remittances (Rs. in billion)	695.5	755.1	879.3	799.0	774.9
Revenue Growth (%)	26.4	19.3	20.0	19.1	-13.1
Expenditure Growth (%)	40.2	30.7	0.1	-4.7	6.5

Source: Nepal Rastra Bank and *CBS, 2020.

Table 1 shows that the preliminary estimates of GDP growth plummeted to 2.3 percent as against the target of 8.5 percent in the current fiscal year (CBS, 2020). This means that growth rate declined by more than 6 percentage points as compared to the target and nearly by 5 percentage point as compared to the average growth rate of past three years.² The effect of the outbreak of the disease and subsequent lockdown have adversely affected the growth in real sectors. The economic growth is further expected to slow down since agricultural and industrial production will suffer due to supply disruptions (from lockdown) and reduction in domestic demand. Likewise, service sector will also be affected due to slowdown in the arrival of tourists (See Table 2).

Table 2: Sector-wise real GDP growth in percent (2017/18-2019/20)

	2017/18	2018/19R	2019/20P
Agriculture, Forestry and Fishing	2.8	5.1	2.6
Industry	9.6	7.7	3.2
Service	7.2	7.3	2.0

P: Preliminary estimate

R: Revised estimate

Source: CBS, 2020

² This was based on the assumption that the lockdown will be until mid may. However, the lockdown has been prolonged and growth may be 0.5% (WB, 2020) and even lower and the target of 7 percent growth for this year is hard to achieve.

The ratio of gross fixed capital formation to GDP and gross national savings to GDP have declined in the year 2019/20. The consumer price inflation (CPI) and the salary and wage rate index have also declined. This may be due to the fact that the overall consumer spending have declined (e.g. restaurants and travels) and this has weakened the price rises. This is despite rising food prices due to disruptions in food supply chains and hoarding behavior of the consumers.³ In the same vein, the decline in economic participation and pay cuts due to lockdown measures and self-isolation may have put downward pressure on salary and wage rate index. This is also substantiated by the growing evidence of the earning losses due to COVID-19 in other economies.^{4,5} These suggest that the COVID-19 pandemic is turning into a global recession.

On external trade front, the merchandise trade deficit narrowed due to negligible growth in exports and (negative growth) in imports; the preliminary estimates for the growth in exports up to mid-June 2019/20 was only 0.2 percent while for imports it was negative 15.3 percent. The growth in exports and imports in 2018/19 were 19.4 percent and 17.3 percent respectively.

The receipt of remittances was Rs. 799 billion in 2018/19 (mid-June) and Rs. 774.9 billion in 2019/20. This shows that there has only been marginal decline in the receipt of remittances; it declined by about 3 percent. This shows that the receipt of remittances is not a problem yet. This is because the workers in migrant's destination are still sending remittances; it may be the case that only those completing their contract or staying with illegal documents are the ones waiting to come back. However, there are reasons to expect that the global demand for jobs will further fall down due to falling aggregate demand of goods and services. Past experience shows that the migrant workers are the first to bear the brunt of the crisis through increased risk of unemployment. It is expected that the remittances to Nepal will fall by 14 percent in 2020 (World Bank, 2020).⁶

On public finances front, the government has been able to collect less revenue and spend less than the targeted revenues and expenditures. The revenue growth was actually negative in 2019/20

³ The CPI increased y-o-y up to May 2020 but started declining thereafter.

⁴ <https://www.payscale.com/data/recession-wages>

⁵ <https://blogs.lse.ac.uk/politicsandpolicy/covid-19-and-wages/#Author>

⁶ <https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history>

(mid-June) as against the growth of 19.1 percent in 2018/19 (mid-June). The expenditure, on the other hand, grew slowly by 6.5 percent induced particular due to the increase spending on the health system and provisioning for the economic packages to the people and businesses adversely affected.

The above statistics reveal that COVID-19 and the consequent lockdown imposed significant economic cost. Almost all indicators shows that the growth have either slowed down significantly or have become negative.

3. Microeconomic consequences

Currently, it is difficult to properly assess the economic consequences of COVID-19 at household level and firm levels. This is due to the inability of conducting household survey which has restrained the possibility of carrying out research in this particular area of knowledge. In this section, the paper discusses possible microeconomic consequences based on recent literature available at national and international levels.

The microeconomic consequence of COVID-19 can be experienced at household level and at the firm level (See Chart 1). At household level, the major effect will be on food security, health, education and labour market. At firm level, the businesses will suffer from increasing cost, reduced income, profit, and loss of productivity in the workplace. The disproportionate effects, however, are on poor and vulnerable. The World Bank (2020b)⁷ estimates that the pandemic will push 49 million people into extreme poverty in 2020 with about 16 million (32 percent) in South Asia alone, second to Sub-Saharan Africa.⁸ Accordingly, South Asian countries, including Nepal, that have experienced rapid declines in poverty will face a significant decline in food security and rise in malnutrition among children (The World Bank, 2020a)

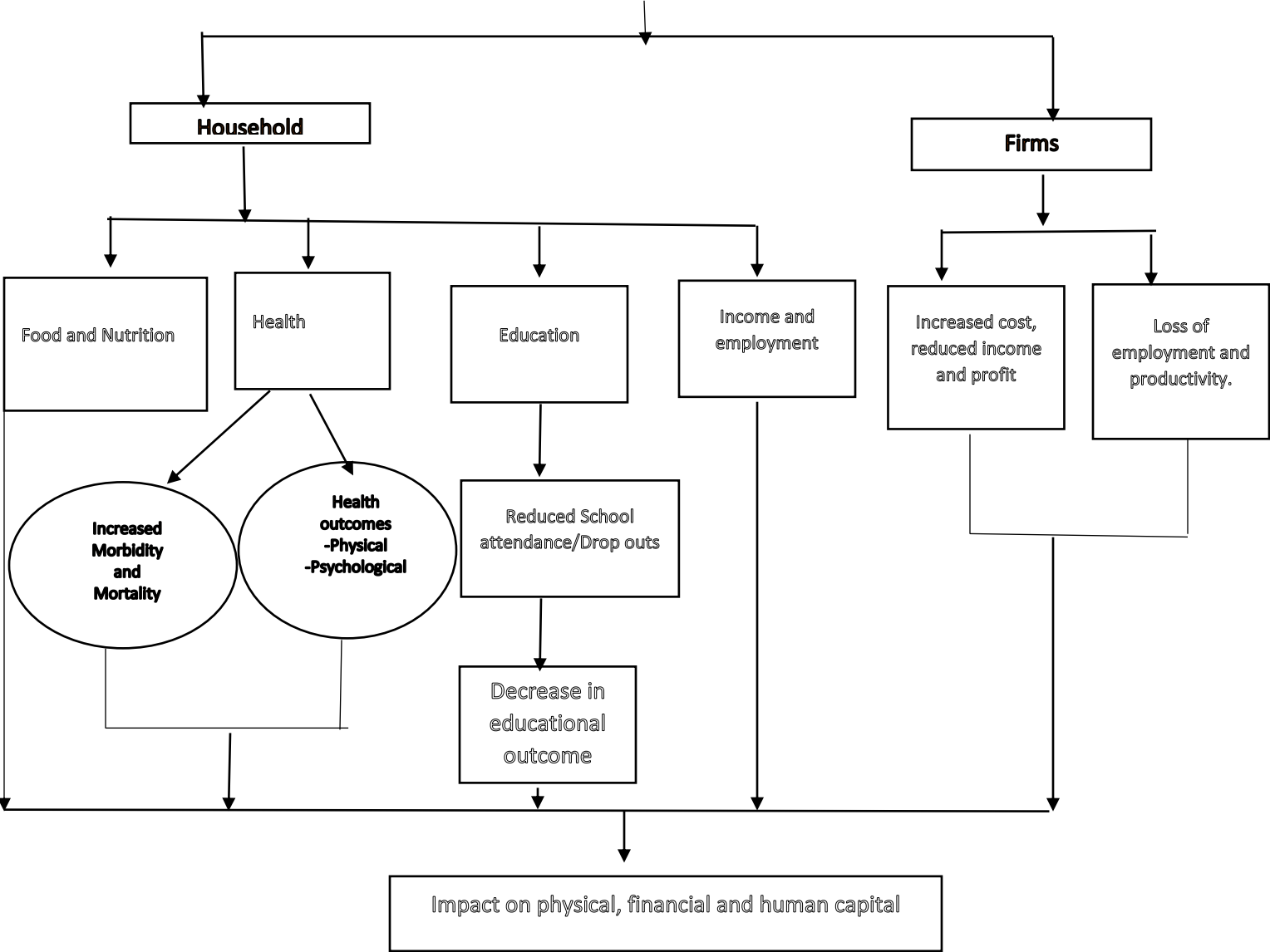
The health implications of pandemic are both physical and mental. Although statistics show that elderly population are disproportionately affected from COVID-19 in terms of infections, hospitalizations and deaths, the resultant physical and mental health problems can be a concern for

⁷[World Bank \(2020b\)](#). PovcalNet.

⁸ Sub-Saharan is 23 million.

all age groups. Specifically, under-5 children are particularly affected due to poor nutritional intake (originating, for example, in food supply disruptions) and irregularity in their immunization schedule (originating in reduced mobility). Studies have shown that the nutritional status and immunization has an effect on physical and cognitive development in the short run, and consequent effect on labor market outcomes in the long run (Alex-petersen, 2017; Bloom, Canning, & Shenoy, 2011; Bütikofer, Mølland, & Salvanes, 2018; McGovern, Krishna, Aguayo, & Subramanian, 2017).

Chart 1: A framework for the microeconomic consequences of COVID-19



Another important implication of COVID-19 is on maternal health. Few studies, to date, show that pregnant women are more susceptible to the infection than general population since they are, in general, vulnerable to respiratory infection. The pandemic may alter immune responses at the maternal-fetal interface and, hence affect the well-being of mothers and infants (Chen et al., 2020; Liu et al., 2020; Zhu et al., 2020). It is therefore important to ensure that the women have an uninterrupted antenatal and post-natal visits and that they deliver at health facilities under proper maternal care. Unsurprisingly, there has been an increase in the number of reported cases of maternal deaths due to restricted pregnancy-related check-ups due to the fear of the contagion and lockdown in Nepal. WHO (2020a) reported 246 maternal deaths after the lockdown in Nepal indicating that pandemic and lockdown have added⁹ to the barriers to accessing maternal health care.

The third health implication of COVID-19 is on mental health. In particular, older population, care providers and people with underlying health conditions are experiencing elevated rates of stress and anxiety. Additionally, containment measures such as social distancing and quarantine is expected to add to the mental health problems due to loneliness, depression, harmful alcohol and drug use, and self-harm or suicidal behavior (Armitage & Nellums, 2020; Holmes et al., 2020; Rajkumar, 2020). A preliminary online survey also showed that nearly three-quarters of respondents reported self-perceived stress as moderate to high in Nepal (Chandra, Samadarshi, Sharma, & Bhatta, 2020).

Education is another sector that will experience the effect of COVID-19. The immediate effects are interrupted classes due to school closures. More than 1.5 billion children and youth in more than 160 countries today are facing some form of school closures (World Bank, 2020c). In Nepal, about 9 million children and youths are affected due to school and university closures. In higher education, nearly 0.4 million are affected (UNESCO, 2020). Such an extended closure not only cause loss of learning in the short term, but also further loss in human capital and diminished economic opportunities over the long term. As an alternative to the prolonged crisis, the world has moved on to online teaching. Government of Nepal has also introduced a digital education system

⁹ Before pandemic, only 58 percent of the births were attended by skilled birth attendant (Department of health services Nepal, 2017). This indicates pre-existing barrier to maternal health care.

for educational institutions including universities. However, there are number of issues both on the demand and the supply side of education system concerning both the quantity and quality of ICT infrastructure that have raised questions about the effectiveness of the online teaching practices. Notwithstanding that the internet penetration is less than 50 percent in Nepal (NTA, 2019)¹⁰, there are also issues about managing classes, method of teaching (pedagogy) and initiating meaningful learning programs for the effective deliverance of the online classes.

The labour market impact of the pandemic is also of significant concern. In the face of crisis where the world economy is plunging into recession and supply chains disintegrating, businesses are either closing or are completely shutting down. This has serious implications on the employment prospects of the workers directly affecting their incomes and livelihood. The lack of income support, social protection and poor infrastructure in many developing economies have added to the concern that the increase in poverty and vulnerability is inevitable. ILO (2020) estimates show that 1.6 million to 2.0 million jobs will be disrupted due to the current crisis in Nepal, either with complete job loss or reduced working hours and wages. This job loss will be more crucial for the workers working in the sectors with large informality such as manufacturing, construction, transport and storage, and tourism. This is because the decline in earnings of informal workers is a significant contributor to increase in global poverty. A notable pressure on job market and livelihood support will be further fueled by the mass inflow of returnee migrants.

On the positive side, studies show that the contingency measures undertaken for the containment of COVID-19 have a favorable effects on the improvement in air quality, clean beaches and environmental noise reduction. However studies also show negative effects on environment by way of reduction in recycling and increase in waste that has a further effect on endangering the contamination of physical spaces such as water and land, in addition to air (Zambrano-monserrate, Alejandra, & Sanchez-alcalde, 2020). A study also show that the lockdown has reduced air pollution in all major cities in the world including Kathmandu; the average concentration of PM 2.5 decreased by 34.9 micrograms per cubic meter in Kathmandu (Shrestha et al.,2020).

¹⁰ NTA (2020). Management Information System Report. Nepal Telecom Authority.

At the firm level, as suggested in the conceptual framework, the effect of COVID-19 will be on cost, income, profit, employment and productivity. Although there are no comprehensive studies conducted in Nepal focusing on the impact on business firms, one rapid assessment of the small and informal business conducted by UNDP (2020) suggests that the number of paid workers decreased by an average of 50 to 60 percent and that the days of operation reduced by almost 50 percent. The businesses further reported that they suffered significant decline in their revenue. The most important impacts were on the availability of raw materials, sales and transportation. These suggests that the cost of production and unemployment have increased while income, profit and productivity have declined. The study found that the most affected sectors were in food and accommodation; and repair and maintenance sectors.

In sum, the negative effects of COVID-19 on the economy are larger than the positive effects. Although there have been a noticeable positive effect on the environmental quality, the negative effects are diverse and systemic. Hence, there are not only short term effects of COVID-19 but a long term impact on accumulation of human, physical and financial capital.

4. COVID-19 induced economic policies

Government of Nepal has been responding to mitigate the adverse effects of COVID-19 through various monetary and fiscal measures. The objective of such measures is to contain the further spread of the virus on the one hand while cushioning the effect of lockdown on people and businesses on the other.

In the current budget for the Fiscal Year 2020/21, the Government of Nepal has allocated 32 percent additional budget for the health sector. Of these, 6 billion Nepalese Rupees (NPR) has been allocated to address the health sector needs due to COVID-19. The budget also provides for free insurance of NPR 0.5 million to all the health care workers.

The Government has also allocated budget with an objective to create about 6,00,000 additional employments through the Prime Minister Employment Program, skill based training, small farmers credit, and Youth and Small Entrepreneur Self Employment. The budget has also made provisions for the industries affected by COVID-19 such as tourism, agriculture and, cottage and

small scale enterprises. In this context, a tax exemption from 25 to 74 percent have been provided for. This includes exemption in income tax, VAT and custom duties.

Tables 3 provides a brief snapshot of the various fiscal measures taken by the government in chronological order.

Table 3: Fiscal Policy/Measures to address the COVID-19 crisis

Date	Major Activities	Description
March 2020	Increased health expenditure Strengthening social assistance	Expanded insurance coverage to medical personnel; additional medical supplies; setting up quarantines and temporary hospitals Social assistance to the vulnerable; subsidizing utility bills; extend tax-filing deadlines; partial compensation to low-wage workers
April 2020	Wage employment	Wage employment to informal sector workers in public-works; or receive 25% of local daily wage
May 2020 (Budget FY 2020/21)	Healthcare Business support Job creation	Additional health care facilities Loan for cottage and small scale industries, and tourism sector Labor intensive jobs in construction sector, training for work in manufacturing and services sectors
Recue of Nepali working abroad		

Source: [IMF, 2020](#)

On the monetary front, the central bank came up with policies to inject more liquidity into the financial system by using various monetary instruments. For example, lowering cash reserve ratio, and reducing interest on standard liquidity facility rate, relaxing the requirement of building countercyclical capital buffer, increased size of refinance fund etc. Likewise, the central have also

instructed the banks and financial institutions to accept deferments of the loan repayment by the borrowers and extend need-based working capital loan to the affected business sectors on easy terms. Tables 4 provides a brief snapshot of the various monetary measures taken by the Central Bank in chronological order.

Table 4: Monetary Policy/Measures to address the COVID-19 crisis

Date	Major Activities	Description
March 2020	Inject liquidity to the financial system Relax other requirements from Bank and Financial institutions	Lower Cash reserve Ratio and interest rate on the standard liquidity facility rate. Not required to build up countercyclical capital buffer. Relax reporting norms; No penalty to for non-compliance with regulatory and supervisory requirements; Increased size of refinance fund
April 2020	Defer loan repayments Additional working capital loan Lower interest rates on loan to affected sectors	Defer loan and working capital loans Need-based additional working capital loan to affected sectors with relaxed repayment schedule
July 2020 (Monetary Policy 2020/21)	Reiteration of previous reforms and policies	Defer loans, provide need-based working capital loans, lower cash reserve ratio and interest rate on the standard liquidity facility rate etc.

Source: [IMF, 2020](#)

The provincial governments have also been working towards fighting against the COVID 19. Most of the provinces have focused on health and employment in the budget for the next fiscal year

2020/21. There have been large amounts allocated for infrastructure development with an objective to create more employments. This is also important since we expect large number of returnee migrants due to COVID-19 from foreign employment. Most of the provincial governments have also adopted austerity measures for government employee through cuts in allowances and other unnecessary expenses. In addition to the funds allocated for the improvement of health infrastructure and combating COVID-19, some provinces such as Gandaki and Karnali province have also focused on economic recovery and job creation. Gandaki province, for example, have created Rs. 1 billion fund for enterprise survival.

There are also several other programs initiated by provincial and local governments. For example, Province 2 developed “Relief Distribution (Standards and Monitoring) Guidelines for COVID-19 Affected Daily Wage Labourers, Poor and Deprived Sections, 2076 BS”. This guideline provisions for identifying the actual beneficiaries, providing relief packages to affected families and strictly monitoring the relief distribution process by provincial assembly. Majority of the provinces have allocated some resources for COVID-19 fund in order to compensate the families of frontline workers who die on duty and some have even agreed to provide “encouragement allowance” to boost up the morale of the front line workers such as health workers, ambulance drivers, security personnel’s and others (Gautam, 2020). Other provinces have set up COVID -19 control fund to control the impact of the pandemic and some have initiated life insurance program for the frontline workers.

Some local governments have also set up a COVID-19 funds at the local level and also developed relief standards and protocols. One significant example is the allocation of Nepalese Rupees 100 million for the prevention and control of COVID-19 by Kathmandu Metropolitan City. They even form an inter-municipal forum in Kathmandu valley for effective response to their fight against COVID 19 through better support of local government and resource mobilization.

5. Conclusion and Recommendations

This paper descriptively make a review of the macroeconomic and microeconomic impact of COVID-19 and the consequent lockdown imposed by the government in Nepal. The review shows

that almost all macroeconomic indicators have either slowed down or become negative suggesting adverse effect of COVID-19 on Nepalese economy. Likewise, at micro level, the review of past literature shows that it has severely affected the household economy as well as the firms. The most important effect is on health, education, food security and employment. At firm level, the cost has increased while the productivity, profit and income have decreased.

The Government of Nepal, consequently, adopted various fiscal and monetary measures to contain the spread of virus and keep the livelihood of the people intact. For example, the government has allocated large amount of funds to strengthen the health system and have also bring about various relief and aid packages to support the people and businesses hard hit by the pandemic and the lockdown. Given that the fiscal space of the government has been constrained by poor growth in revenues and constraints in domestic borrowing, it is important that the government properly manage its expenditure. This can also be done by reallocating the resources to the prioritized sectors and dismantling unnecessary institutions created at all three levels of government. Hence, it is important for Nepal to adopt a policy-mix that is able to manage both the health crisis and the livelihood. In addition to strengthening the health system, the government should be well-equipped/prepared to manage the food and energy crisis.

Following recommendations, if followed, may help government effectively manage the crisis:

First, development of Information Communication and Technology (ICT) infrastructure in the schools, colleges and universities is a must so that online teaching-learning activities may be carried out during the periods of epidemics/pandemics. Since there are many students who do not have ICT facilities at homes, the local and provincial governments with the support of federal government should provide either a free or a subsidized ICT facilities to the children in poor and marginalized households. The local government can also develop a community ICT center in each local units where the deprived children can take online lessons practicing proper safety and social distancing measures.

Second, there should be a policy to properly integrate the returnee migrants into the labor force, for example, by providing them subsidized loans for carrying out entrepreneurial activities such as

commercial farming and small and medium enterprises. The adoption of commercial farming can also be crucial to address the problem of food insecurity and stimulate further employment. In this regard, it may be rationale to adopt sustainable agricultural system that can reduce the use of pesticides/fertilizers and also help reduce food waste and save water.

Third, this pandemic has again shown the need of data and evidence to effectively handle the crisis. The government should invest heavily on developing a database that can be used, for example, to identify the poor and marginalized people and communities so that the reliefs and aids reaches to them in a timely and economic manner. The database should also be developed to identify the workforce working in informal employments/sectors.

Fourth, there is also a need to bring about a policy coherence across various sectors. For example, an integrated approach to manage health and education crisis is important. Since they are both critical for the overall development of human capital, resilience in one sector without the resilience in the other sector would be incomplete and meaningless. In this context, it is also important to ensure that there is no coordination failure. In other words, for the effective handling of the crisis, it is important that there is both a vertical and horizontal coordination of government both across and within different tiers of government.

Fifth, the current budget has not been able to respond to the long-term effects of COVID-19. Hence, there should be a separate and comprehensive multi-year planning and financing framework which should target short term, medium term and long term economic recovery. The sector-wise recovery plan would be helpful in this regard.

Sixth, there is also a need for formulating policies relating to urbanization, mobility and social/distance and ensure their strict enforcement. Planning for urbanization is important due to the structural shifts in COVID-19 induced migration patterns which may put pressure on provincial and local governments to expand infrastructural and other public services/utilities requirements. Similarly policies on mobility and social distancing will help ensure that economic activities are carried out following safety requirements strictly.

Lastly, it is also important to learn from the international experiences particularly the countries like Singapore, Hong Kong and South Korea. These countries had an impressive results to contain the spread of virus; their healthcare experts working in infectious disease were able to provide strong evidence to support well informed policy decisions very quickly. The large part of their impressive results also come from social distancing measures that was enforced through a strong enforcement mechanisms. In addition, behavioral change towards the high degree of discipline, and the adoption of safe and healthy practices at home and work is also a key. Hence, any critical gaps in the policy making in our context needs serious attention and should be plugged through strict enforcement of law and behavioral change.

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