Impacts of COVID-19 on World Economy and Sustainable Development Goal in Nepal

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Abstract

COVID-19 has multifaceted impacts in economic and development sectors. Major economic impacts have raised the problem to meet the sustainable development goals in Nepal. In boarder scales, pandemic has affected to the national and international target of Sustainable Development Goals (SDGs). In this context, we have investigated the impacts of COVID-19 on different economic sectors and sustainable development goals in Nepal. The investigation was conducted using journal articles, government documents, policy reports, and conference papers, national and WHO situation reports, World Bank analysis data, COVID-19 web portals and UN sites of SDGs were reviewed. The study found that pandemic has triggered the most severe economic crisis in the world. The global output was declined, global trade are shrink, labour markets (working hours, job losses and prosecuted shutdown of business) were seriously affected. The global GDP has declined and global economic recession has found extreme. This shrink in economics is expected to reverse global years of progress toward development goals and could force people back into extreme poverty. In Nepal, economic impacts of COVID-19 have made unable to meet the SDGs target to 2030. The economic road map of SDGs such as no poverty, zero hunger, economic growth are negatively affected. However, vaccination campaigns with international collaboration can lead positive economic influences in Nepal.

Keywords: COVID-19, economy, SDGs, Impacts, Nepal

1. Introduction

Novel coronavirus (COVID-19) has lost the lives of millions globally and significantly interrupted global economies on an unprecedented scale (Gibson 2020). In the era of globalization, the COVID-19 pandemic has traveled across every corner of cities and rural areas of the world (https://www.worldometers.info/coronavirus/). The major economic impact have been seen by reducing productivity, loss of life, business closures, trade disruption, and decimation of the tourism industry (Gössling, et al., 2020; Allen et al., 2020). In addition, families reduced their demand and supply for food, clothes, travel, and entertainment, and the number of guests in hotels declined sharply (Liu et al., 2020; del Rio-Chanona et al., 2020). In boarder scales, pandemic has affected to the national and international target of Sustainable Development Goals (SDGs). The economic related goals 1 (no poverty), 2 (zero hunger), and 8 (economic growth) are severely affected. It became very hard to meet the economic target by 2030 throughout the world. The SDGs were conceived as an inclusive intergovernmental process to date. Through a carefully designed set of
deliberations and meetings following Río+20 in 2012, a United Nations (UN) Open Working Group recommended 17 SDGs universal and globally applicable to all countries. The 2030 Agenda for Sustainable Development was adopted at the UN Sustainable Development Summit in September 2015 with these SDGs as its centerpiece. Beyond their inclusivity and universality, one of the more notable features of the SDGs is that they place an equal emphasis on the economic, social, and environmental dimensions of sustainable development. To ensure equal weighting of priorities, countries are encouraged to treat the SDGs as an integrated framework for action, recognizing the role that the environment plays in socioeconomic development and vice versa. Nonetheless, there is a risk countries will struggle to integrate the SDGs’ environmental dimensions into their development plans. While many countries have made commitments to the environment, it is a challenge to translate these into meaningful action. In 2015, more than 700 million people, or 10 per cent of the world population, lived in extreme poverty, struggling to fulfill the most basic needs like health, education, and access to water and sanitation. However, the COVID-19 pandemic is reversing the trend of poverty reduction, The COVID-19 pandemic pushed approximately 71 million more people into extreme poverty. The developing worlds are more in risk. The pandemic has not only dealt with a health crisis but has also had devastating social, economic, and environmental impacts during and in the aftermath. Thus, our study has reviewed and analyzed COVID-19 impacts on all 17 SDGs (Figure 1) in the developing world mainly in the Nepal.

![Figure 1: 17 agendas of United Nations Sustainable Development Goals, Source: UN 2015, https://www.un.org/sustainabledevelopment/sustainable-development-goals/](image-url)

The SDGs have been well-integrated into Nepal’s national development framework. Nepal has developed the SDGs status and roadmap 2016-2030, SDGs needs assessment, costing and financing strategy, and SDGs localization guidelines that spell out baselines, targets and implementation and financing strategies for each SDG. Nepal has made commendable efforts for the implementation of the SDGs since its adoption. However, different calamities, disasters and the circumstances that
were beyond its control have undermined its efforts. The 2015 earthquake led to huge losses of lives and property, and also had extensive adverse impacts on Nepal’s development efforts. Similarly, the COVID-19 pandemic has caused abrupt halt in economic activities. With a rapid surge of COVID-19 cases and increasing fatalities globally, the government of Nepal announced a series of measures to restrict the spread of virus in the country. On 20 March 2020, the government announced suspension of all international flights from March 22 to 31, 2020, closure of all public and private offices from March 22 to April 3 except those providing emergency services, halting the operation of long-route public buses from March 23 until further notice, sealing all land border crossings from March 23 to 29; and contribution of NRs 100 million or about $ 1.0 million to the recently established SAARC fund to combat COVID-19 pandemic. On 23 March 2020, the government further announced a nationwide lockdown for a week from 24–30 March 2020. The government also established a Central Relief Fund of about $5.0 million to combat the COVID-19 pandemic. On 29 March 2020, the government announced relief package to combat the effects of COVID-19 pandemic (ADB, 2020). Government of Nepal has received 1 million dose of AstraZeneca-Oxford University vaccine from India under license by the Serum Institute of India. At the first phase, health workers and old age people are vaccinating by making the two-dose vaccine free to citizens. At the same time, Nepal government approved the China’s Sinopharm vaccine donation from government of China (GoN/MoHP, 2021). Now, the vaccination campaign has been started throughout the country. Consequently, the economic activities have been activated and operating. The main objective of this study was reviewed impacts of COVID-19 on global economy and sustainable development goals in Nepal using published articles, reports, announcement and various web portals.

2. Methods

This article has covered COVID-19 impacts on economic (global and national) and Sustainable Development Goals in Nepal. Wide range of data sources, journal articles, government documents, policy reports, and conference papers, information from books, national and WHO situation reports, World Bank data, COVID-19 information web portals, published articles, government documents, UN sites of SDGs were reviewed. Journal article searches were made in the library catalog and reference lists of retrieved articles and textbooks, and electronic literature databases, such as Science Direct, Pub Med, Medline, Health and Medical Complete (Pro-Quest), and Web of Science.

3. Results and Discussion

3.1. Impact of COVID-19 on the global economy

Beyond the adverse impact on the health and human tragedy, the pandemic has triggered the most severe economic crisis in a century. For instance, global economic activities predict to fall between 6% and 7.6% in 2020 (OECD, 2020). The global output was declined by over 10% lower than the end of 2019. Global trade shrunk by over 15% in the first half of 2020. Labour markets were seriously affected by the reduction in the working hours, job losses, and the prosecuted shutdown of business (IMF, 2020). According to the International Labour Organization, the global decline in work hours in the first quarter of 2020 compared to the fourth quarter of 2019 was equivalent to the loss of 130 million full-time jobs. The full-time job decline in the second quarter of 2020 is likely to be more than 300 million (ILO, 2020). The unknown lasting effects of the COVID-19 pandemic hit hard a variety of industries from tourism industries to manufacturing industries (Lena, 2020).
Until 1st September of 2020, 115 destinations worldwide have imposed COVID-19 related travel restrictions and 91 destinations worldwide completely closed their border for international tourism (UNWTO, 2020a). In the first half of 2020, international tourists declined by 65% that lead to a loss of about USD 460 billion (UNWTO, 2020b). Organization of the Petroleum Exporting Countries (OPEC) and its partners reduce 9.7mb/d oil production in May and June, and gradually tapering thereafter (World Bank, 2020). The global production of the chemical industry is predicted to reduce by 1.2% (Industry Week, 2020). The stock market has declined (Bachman, 2020). The prohibition of mass gathering is affecting entertainment and the sports industries globally (Horowit, 2020). The postponed of the Tokyo Olympic 2020 has estimated an economic loss of about 6 billion USD (Imahashi et al., 2020). These effects of the pandemic are expected to force most countries into the deepest recession, with a 5.2% decline in global GDP and 6.2% decline in global per capita GDP since world war II, making it twice more than recession occurred during the global financial crisis (World Bank, 2020a) (Figure 2)

Figure 2: GDP forecasted at the global economy; a. Real GDP growth at market price (2020f, 2021f=percentage point difference from January 2020 projections); b. GDP recession and projection in the world
The global GDP in 2020 has forecasted to decline by -7.7% based on the January projection. At the same time forecasting, the GDP of Nepal has been estimated to decline at -4.6% in 2020. Advanced economies are projected to contract 7%. Sub-Saharan South Asia will downgrade by 2.8%, South Asia by 2.8%, Latin America by 7.2%, Middle East and North Africa by 4.2%, Europe and Central Asia by 4.7%. Moreover, Government loans are exceeding 130% of GDP where the public loan is exceeding 48% during 2020-21 which raised sustainability concerns in many countries (IMF, 2020). This shrink in economics is expected to reverse global years of progress toward development goals and could force additional 100 million people back into extreme poverty (World Bank, 2020b). In history, the global economic recession was extreme which is recorded mainly in 1930-32 and 1945-46, after that the higher economic recession is forecasted in 2020 due to the COVID-19 pandemic (figure 2b).

In Nepal, as the month-long national lockdown and prohibition of other different sectors like international airport, sporting activities, educational institutional, tourism, and other sectors, the real GDP growth of Nepal is contracted to 2.8% in 2020 compared to 7% in 2019 (World Bank, 2020a). Moreover, the public loan increased from 30.1% to 38.3% from 2019 to 2020 (World Bank, 2020b). As travel has restricted, tourist arrival has stopped. In 2019, more than 1.9 million tourists arrived in Nepal from which the revenue equivalent to 724 million USD was generated but the figure has sharply declined in 2020 (MoCTCA, 2020). The service sector growth shrinks to an 18-year low of 0.7%. Also, industrial growth shrinks from 80% to 46%. Additionally, remittance inflow in 2020 is declined by 3.4% in the developing world (World Bank, 2020c).

In response to SDGs, the Nepal government has proposed to reduce extreme poverty to less than 5% and raise per capita income to US$ 2,500 in 2030 from US$ 766 in 2015. At the same time, the tourism direct GDP of Nepal is 2.7% and targeted to reach 8% by 2030 (NPC, 2017). Approximately, 17% of poverty has been reduced in the year 2019 (NPC, 2020). Due to COVID 19, approximately 31.2% of the total population has expected to push into the poverty line (CBS, 2020). At the same time, the Nepal government has targeted to reduce undernourishment to 3% by 2030 and increase in per capita food grain production by 66%. In the agriculture sector, it is expected to decline from 5.05 to 2.48 percent in 2019/20 (UNDP, 2020). The same study showed that the decline in tourist arrival has projected 60% in 2020. Millions of people (1.5 million) directly associated with trekking and mountaineering companies in Nepal have expected to lose their job. It is estimated that economic growth will fall with losing the remittance by Rs. 163 billion and agriculture sector loss in percentage of GDP ranged from 0.4-1.0% in FY2019/20 (ADB, 2020). Approximately, 1.6 to 2.0 million jobs will be disrupted (ILO, 2020).

3.2. Impacts on SDGs in Nepal

The pandemic is not only affecting our health sector, it also has a widespread impact on agriculture, manufacturing, construction, wholesale and retail trade, transport, tourism and education, as well as general economic activities, remittances and employment. The pandemic may not only undermine the present achievements; lockdowns and disruptions in economic activities, social distancing and other restrictions imposed can have long-term impacts on the lives and livelihoods of the people and the socioeconomic situation of the country. Here the paper would like to discuss on SDGs target to 2030 along with national status progress in 2019, impact of COVID 19 on goals. According to SDGs status and roadmap: 2016-2030 and SDGs progress report (2016-2019), the national status, national target and possible impacts are presented accordingly.

SDG 1 (No poverty) goals to end poverty in all its forms everywhere. Nepal proposes to reduce extreme poverty to less than five percent and raise per capita income to US$ 2,500 in 2030 from US$

**SDG 2** (Zero hunger) goals to end hunger, achieve food security and improved nutrition and promote sustainable agriculture. The prevalence of undernourishment has improved to a large extent from 36.1 per cent of population in 2015 to 8.7 per cent of population in 2019, the prevalence of underweight and stunting in children has significantly reduced. It has targeted to reduce undernourishment to 3% by 2030 and increase in per capita food grain production by 66%. Due to COVID-19, agriculture sector is expected to decline from 5.05 to 2.48 percent in 2019/2020 (UNDP, 2020). It has reported that agriculture sector loss in percentage of GDP range from 0.4-1 % (ADB, 2020).

**SDG 3** (Good health and wellbeing) is directly affected by COVID-19 especially maternal health is critical issue at present. In 2019, national progress status of maternal mortality rate (MMR) was 239 per 100000 live birth (NPC, 2020) and it is targeted to reduce MMR to 70 per 100000 live birth (NPC, 2017). Research shows 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 (Liu et al., 2020). It is reported that 246 maternal deaths after lockdown (Raut, 2020). Furthermore, 648 women committed suicide during 83 days of lockdown (Dahal et al., 2020). For the response of impact upon health Government allocated 32% additional budget for the health sector in fiscal year 2020/2021 (Raut, 2020).

**SDG 4** (quality education) include ensuring, by 2030, that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes. National progress status in 2019 shows 97.2% net enrollment in primary education and 71.4 % gross enrollment in secondary education (NPC, 2020). It is targeted to reach 99.5% net enrollment in primary education and 99 % gross enrollment in secondary education by 2030 (MoE, 2016; NPC, 2017). COVID-19 has impacted 9 million children and youths from school and university closure and 0.4 million affected in higher education (UNESCO, 2020). Online teaching is mostly used method to teach students at present.

**SDG 5** (Gender equity) is set to achieve gender equality and empower all women and girls. In 2019, National progress status shows gender inequality index and gender empowerment measurement index are 0.476 and 0.62 respectively (NPC, 2020). It is targeted to reach gender inequality index and gender empowerment measurement index by 0.05 and 0.69 respectively (NPC, 2017). Lacking employment opportunities and loss of job may creates gender imbalance in societies.

**SDG 6** (clean water and sanitation) the national status shows 25% population using safe drinking water and 85% population use latrine (NPC, 2020). The proposed specific targets for the year 2030 is 90% population using safe drinking water and 98 % population use latrine (NPC, 2017). Reducing economic growth cannot fulfill the target of clean water delivery and sanitation.

**SDG 7** (affordable and clean energy) goal is to ensure access to affordable, reliable, sustainable and modern energy for all. In 2019, 88% of the household have access to electricity, 68.6 % household were using fuel wood for cooking and per capita electricity consumption is 260KWh (NPC, 2020). By 2030, it has targeted to include accessibility to 99% of household to electricity, reduction to 30% of household using fuel wood for cooking and per capita energy consumption increased to 15000KWh (NPC, 2017). Reduction of large economic growth lacks the project investment in the hydropower sectors.

**SDG 8** (Decent work and economic growth) goals to promote sustained, inclusive and sustainable
economic growth, full and productive employment and decent work for all. National per capita GDP growth reached 5.6% in 2019 and tourism direct GDP is 2.7% (NPC, 2020). It is targeted to reach 7% per capita GDP growth and tourism direct GDP 8% (NPC, 2017). It is estimated that economic growth will fall to 2.28% in FY 2019/20, fall in GDP by 6.8%, fall in remittance by 163 billion Nrs in FY2019/20 due to pandemic (ADB, 2020). Projected decline in tourist arrival by 60% in 2020 (UNDP, 2020), 1.6 million to 2.0 million jobs will be disrupted (ILO, 2020). Approximately, 1.5 million people directly associated with trekking and mountaineering companies lost job. 3 in 5 employees lost job in micro and small business (UNDP, 2020).

SDG 9 (Industry, innovation and infrastructure) goals to build resilient infrastructure, promote sustainable industrialization and foster innovation. In 2019, National progress status shows reached in road density of 0.63 km/sq.km and 25% share in industrial GDP (NPC, 2020). The target for 2030 is to increase the share of industry to 25 percent and increase road density to 1.3 km/sq. km (NPC, 2017). Due to COVID 19, Construction is expected to shrink by a marginal rate of 0.32% in the FY2019/2020 from 8.05% growth in the previous year (UNDP, 2020). Manufacturing declined by 2.27% in 2019/2020. The Hotel Association Nepal (HAN) estimates a loss of at least NPR 3 billion, while the Restaurant and Bar Association Nepal (REBAN) estimates revenue loss of at least NPR 2.6 billion during the lockdown in the industries (UNDP, 2020). Economic loss in industry ranges from NPR 1.7 billion to NPR 4.2 billion, while for the service sector it ranges from NPR 5.7 billion to NPR 9.98 billion (ADB, 2020). Loss of GDP range in an industrial sector expected from 1.3-3.1% (ADB, 2020).

SDG 10 (Reduce inequalities) goals to reduce inequality within and among countries. In 2019, National consumption inequality (index) and income inequality were 0.30 and 0.32 respectively (NPC, 2020). The proposed specific targets were set to reduce consumption inequality (index) from 0.33 in 2015 to 0.16 in 2030 and reducing income inequality from 0.46 to 0.23 (NPC, 2017). It is reported that due to COVID 19, 21% of men and 41% of women lost job (UNDP, 2020), 77% increase in domestic violence in 2 months lockdown (National Women Commission, 2020) and violence against women and girls registered doubled in April-June, 2020 comparing Dec, 2019-Feb, 2020 (Dahal et al., 2020)

SDG 11 (Sustainable cities and communities) goals to make cities inclusive, safe, resilient and sustainable. National progress status in 2019 shows 40% households live in safe house and it is targeted to reach 60% households living in safe house. COVID-19 made communities more vulnerable and decrease their ability to cope of epidemics and normal disease.

SDG 12 (Responsive consumption and production) goals to ensure sustainable consumption and production patterns (NPC, 2017). In 2019, National progress status shows use of fossil fuel is 15.5%. It is targeted to limit fossil fuel consumption to 15 percent of energy consumption (NPC, 2017).

SDG 13 (Climate action) goals to take urgent action to combat climate change and its impacts. 68 number of local adaptation plan of action and 342 number of community level action plan prepared in 2019 (NPC, 2020). By 2030, it is targeted to prepare 120 numbers of Local adaptation plan of Action and 750 number of community level action plan (NPC, 2017). Due to pandemic PM$_{2.5}$ decreased by 34.9 micrograms per cubic meter in Kathmandu ((Shrestha et al., 2020).

SDG 14 (Life below water) is not applicable in case of Nepal.

SDG 15 (Life on Land) goals to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. In 2019 National progress shows 42.7 % of forest is under community management
and 1000 number of lakes, wetlands and ponds conservation. It is targeted to reach 42% of forest is under community management and 5000 number of lakes, wetlands and ponds conservation. Community disputes on development and conservation may rise from the COVID-19 crisis.

**SDG 16** (Peace, justice and strong institution) goals to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels. In 2019, National progress status shows proportion of population subjected to physical, psychological or sexual violence in the previous 12 months is 13.5% (NPC, 2020). The proposed specific targets include ending death from violent conflict, violence against women, and violence against children, and to improve transparency and accountability scores on globally benchmarked indices. The targets also include eliminating marriage before the age of 18 years, and to have universal birth registration (NPC, 2017). Novel corona virus increased physical, psychological and sexual violence in the societies and challenging to meet the SDGs.

**SDG 17** (Partnership for the goals) goal is to strengthen the means of implementation and revitalize the global partnership for Sustainable Development. Total government revenue as a proportion of the GDP is 24.8 per cent in 2019 (NPC, 2020). It is targeted to reach total government revenue as a proportion of the GDP is 30 percent (NPC, 2017). But, it has declined and not able to meet the expected result.

4. **Conclusion**

This study is reviewed impacts on COVID-19 on world economy and SDGs practices in Nepal. The estimated and forecasted data showed that global GDP has declined and the global economic recession has found extreme in 2020. The long-time lockdown, travel restriction, and restriction on airport movability, educational institution, industry, export/import, tourism, and other sectors declined the economy and pushed the people under extreme poverty. With the economic recession in global and national scales, community instability and violence are increased. The pandemic has challenged the developing world to meet sustainable development goals. It can be concluded that the key five pillars of SDGs: people (goals 1-6), prosperity (goal 7-11), planet (goals 12-15), peace (goal 16) and partnerships (goal 17) are directly or indirectly affected by COVID 19. Mainly, SDGs 1, 2, 8, 9, and 17 are severely affected negatively with positive influence in climate change (SDG13). However, lacking second wave of Novel Corona Virus, vaccination accessibility and practices showed positive sing of economic mobility and rise up again.

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