

# Nepal

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## Macroeconomic Update

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ASIAN DEVELOPMENT BANK





# Nepal

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VOLUME 8, NO. 2 | SEPTEMBER 2020

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## ABBREVIATIONS

COVID-19 = coronavirus disease

GDP = gross domestic product

ICT = information and communication technology

NID = national identification

## NOTE

- i. The fiscal year (FY) of the government ends in mid-July. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ended on 15 July 2020.
- ii. In this report, "\$" refers to US dollars.

## Executive Summary

1. **Preliminary data from the Central Bureau of Statistics indicate that gross domestic product (GDP) is estimated to grow by 2.3% in fiscal year 2020 (FY2020 ended 15 July 2020) from 7.0% a year earlier.** Prolonged containment measures to combat the spread of coronavirus disease (COVID-19), disruption in supply channel and lower agriculture yield exacerbated headwinds to growth. On the demand side, private consumption expenditure dominated spending. In real terms, private consumption spending rose, facilitated by still sizeable remittance. Fixed investment tumbled by 15.1% as private investment slumped by about 17.0% after rising by 10.6% a year earlier.
2. **Average inflation edged up to 6.2% in FY2020, up from 4.6% a year earlier.** Both food and non-food inflation nudged up with continued disruption of supply chain, weak agriculture yield, and higher prices for Indian imports.
3. **The fiscal deficit marginally increased to 5.8% of GDP in FY2020 from 5.6% of GDP a year earlier as total revenue (including grants) slumped by 0.3%.** Capital expenditure fell by 20.6% in FY2020 as long standing challenges to project readiness, procurement delays, and project management hampered its execution in the pre-pandemic period. The COVID-19 crisis further affected project implementation as workers were unable to return to project sites and import of construction materials got delayed.
4. **Export earnings fell by about 8.0% in FY2020 with a contraction in exports of major commodities except palm oil, herbs and ayurvedic medicine.** Imports of major commodities, namely, petroleum products, transport equipment, vehicle, and machineries shrank, narrowing the merchandise trade deficit to 28.2% of GDP in FY2020 from 37.1% of GDP in FY2019.
5. **GDP growth is anticipated to fall to 1.5% in FY2021 primarily owing to continued stringent measures to contain the spread of COVID-19 with the spike in infections and increased fatalities.** Expected sharp economic downturn in neighboring India, Nepal's predominant trade partner will also dent Nepal's growth prospects.
6. **Inflation in FY2021 is forecast to moderate to an average of 5.5%, down from 6.2% a year earlier, assuming a good harvest, modest oil prices and subdued non-food prices on weak domestic demand.** The current account deficit is expected to widen from -0.9% of GDP in FY2020 to -1.9% a year later as import growth marginally picks up and remittance inflows decline owing to a slowdown in global demand from this crisis.
7. **Downside risks to the outlook center on longer-than-anticipated stringent containment measures that may be necessary to contain the COVID-19 spread.** A delayed economic recovery in advanced economies in 2021 may further dent prospects for employment of Nepali migrant workers, undermining Nepal's external position.
8. **This edition of Macroeconomic Update's Theme Chapter sheds light on Nepal's journey of digital development with specific recommendations for e-commerce promotion.** Various online payment platforms, namely, *eSewa*, *Khalti* have emerged over the years. Customers can pay utility bills, purchase gifts and airline tickets, and transfer funds using such platforms. Despite some notable progress, limited internet connectivity, lack of advanced IT devices, and technical knowhow have held back Nepal's aspiration toward greater digitalization.

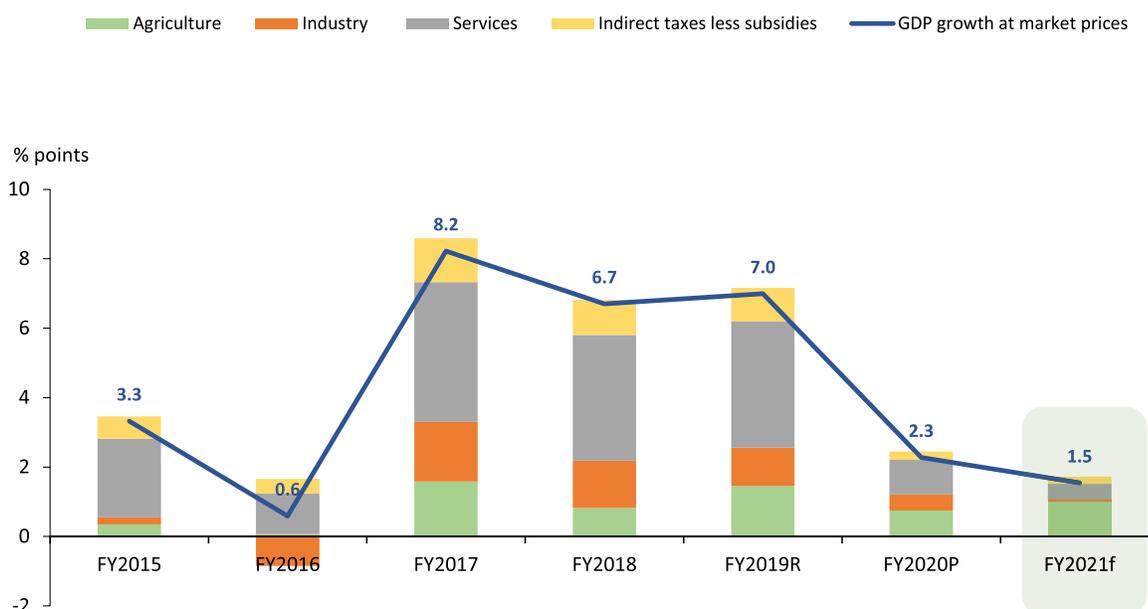


# MACROECONOMIC UPDATE

## A. Economic Performance

1. Preliminary data from the Central Bureau of Statistics indicate that gross domestic product (GDP) is estimated to grow by 2.3% in fiscal year 2020 (FY2020 ended 15 July 2020) from 7.0% a year earlier (Figure 1). Prolonged containment measures to combat the spread of coronavirus disease (COVID-19), disruption in supply channel and lower agriculture yield exacerbated headwinds to growth. Agriculture, which accounts for about a fourth of GDP, will likely expand by 2.6% in FY2020, down from 5.1% a year earlier owing to pest infestation and floods in early July 2019. Industry, after growing by 7.7% in FY2019, will only moderately increase by 3.2% a year later, mostly on the back of buoyant electricity output, as nationwide lockdown imposed from end-March of FY2020 crippled manufacturing and construction. Services, contributing about half of GDP, will probably accelerate by 2.0%, down from 7.3% in FY2019 on a significant slowdown of wholesale and retail trade and contraction of the hotels and restaurants subsector, and transport.

**Figure 1: Supply-side contributions to growth**

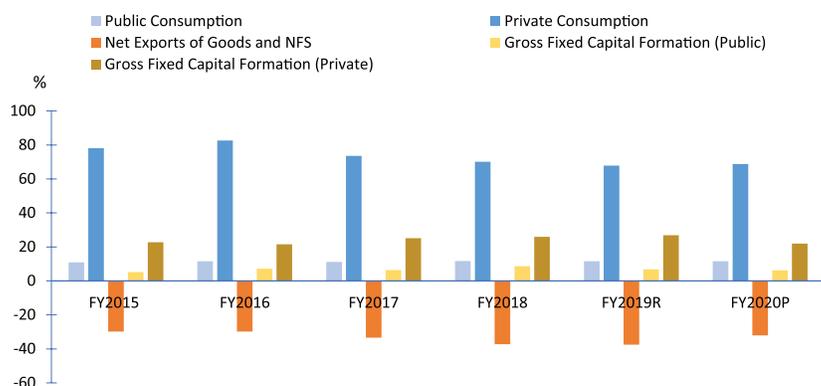


R = revised; P = provisional; f = forecast

Note: Years are fiscal years ending in mid-July of that year

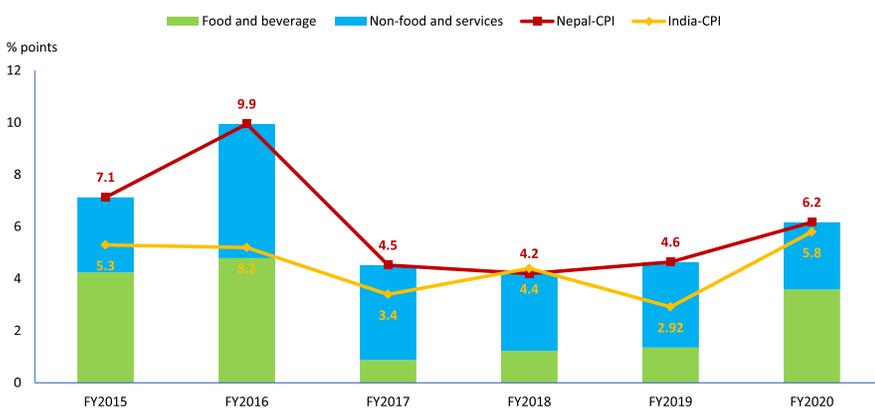
Source: Central Bureau of Statistics, 2020. National Accounts of Nepal 2019/20 (<http://cbs.gov.np/>); and staff estimates

**Figure 2: Share of GDP by expenditure (in nominal terms)**



R = revised; P = provisional  
Source: Central Bureau of Statistics

**Figure 3: Contribution to headline inflation**



CPI = consumer price index  
Source: Nepal Rastra Bank

2. On the demand side, private consumption expenditure dominated spending (Figure 2). In real terms, private consumption spending rose, likely in the period before mid-March facilitated by still sizeable remittance (23.3% of GDP). Fixed investment tumbled by 15.1% as private investment, mostly in energy and services slumped by about 17.0% after rising by 10.6% a year earlier. Public investment decreased by about 4.0% owing to construction delays, further worsened by the COVID-19 pandemic.

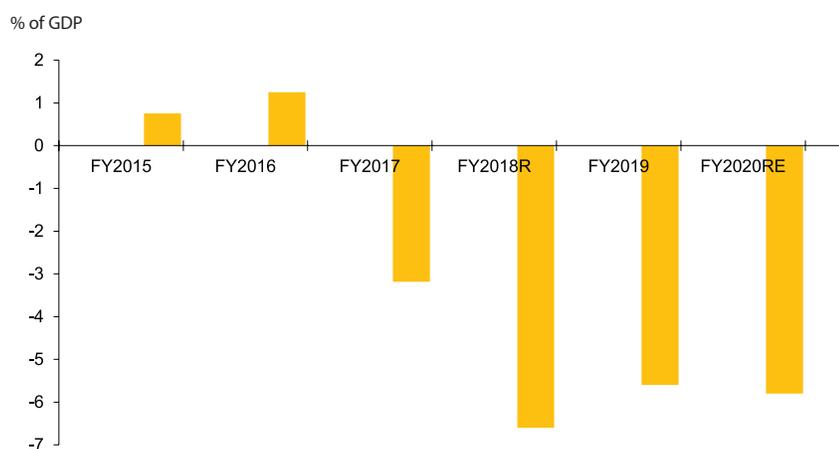
3. Average inflation edged up to 6.2% in FY2020, up from 4.6% a year earlier (Figure 3). Both food and non-food inflation nudged up with continued disruption of supply chain,<sup>1</sup> weak agriculture yield, and higher prices for Indian imports. Average food inflation accelerated to

1. In addition to COVID-19 pandemic, supply chain disruption was further aggravated by monsoon-triggered floods and landslides.

8.1%; non-food inflation however eased from 5.9% in FY2019 to 4.6% on the back of weak domestic demand.

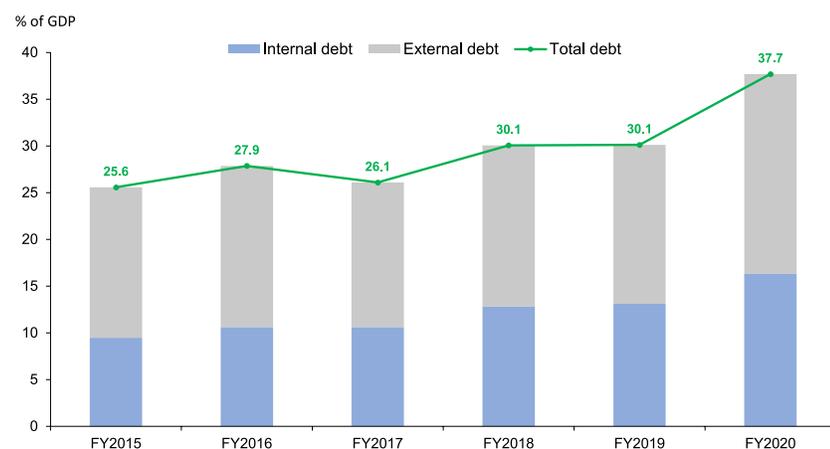
4. The fiscal deficit marginally increased to 5.8% of GDP in FY2020 from 5.6% of GDP a year earlier as total revenue (including grants) slumped by 0.3% (Figure 4). Capital expenditure fell by 20.6% in FY2020 as long standing challenges to project readiness, procurement delays, and project management hampered its execution in the pre-pandemic period. The COVID-19 crisis further affected project implementation as workers were unable to return to project sites and import of construction materials got delayed. Recurrent expenditure, however, increased by 9.8% in FY2020 as social protection measures ramped up and mobilization of health and security personnel increased.

**Figure 4: Fiscal balance**



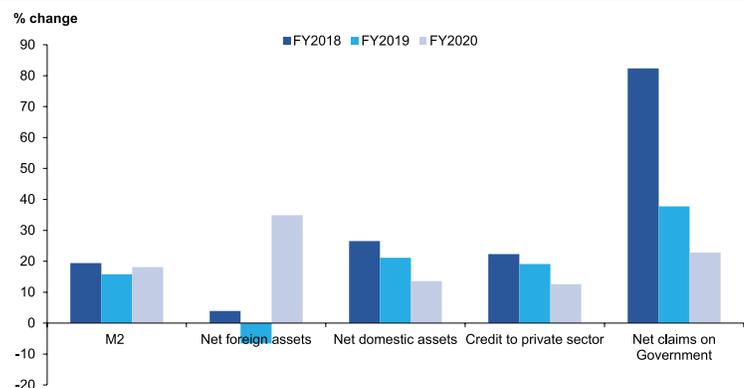
Source: Financial Comptroller General Office; Ministry of Finance

**Figure 5: Public debt**



Source: Financial Comptroller General Office; Nepal Rastra Bank

**Figure 6: Monetary sector**



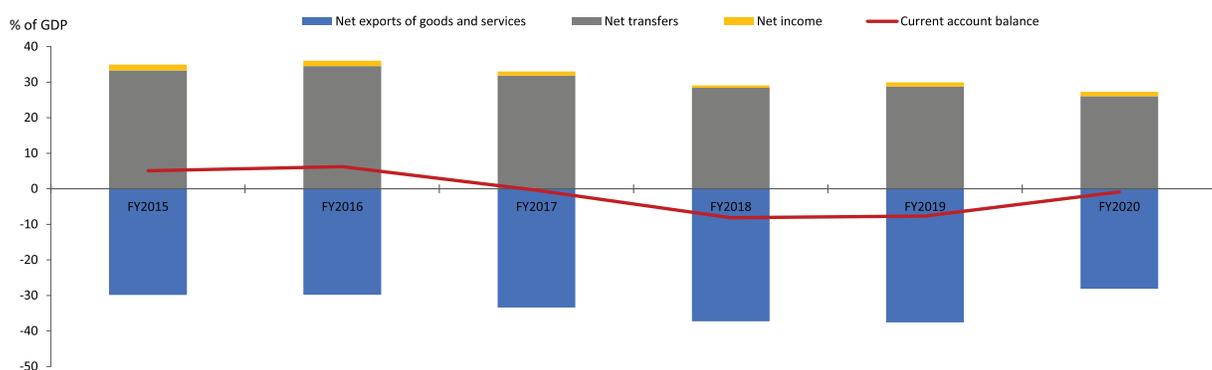
Source: Nepal Rastra Bank

Tax revenue decreased by 5.0% as customs duties plunged by 11.2% on lower imports.

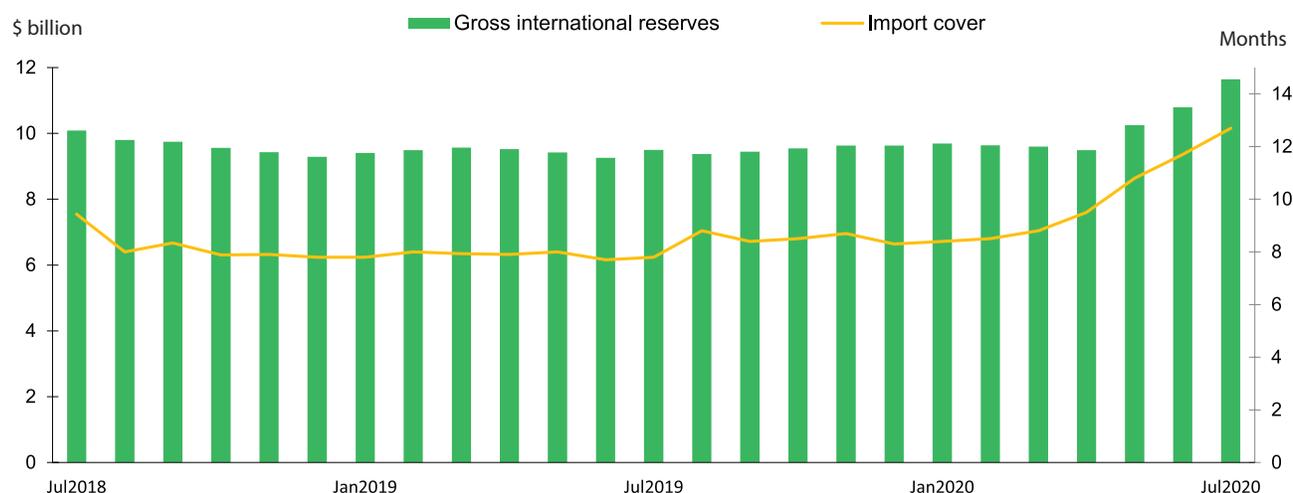
5. The debt to GDP ratio markedly increased to 37.7% in FY2020 from an average debt to GDP ratio of 30.4% during FY2016-FY2020 (Figure 5). Financial uncertainty prompted Nepal to borrow more from the International Monetary Fund and the multilateral development banks. In spite of the rise, Nepal’s risk of debt distress is low given the high level of official concessional borrowing at long maturity.

6. Growth in broad money (M2) supply expanded from 15.8% in FY2019 to 18.1% in FY2020 on rising net foreign assets and a modest increase in net domestic assets (Figure 6). Credit to the private sector decelerated from 19.1% growth in FY2019 to 12.6% a

**Figure 7: Current account indicators**



Source: Nepal Rastra Bank

**Figure 8: Gross international reserves and foreign exchange adequacy**

Source: Nepal Rastra Bank

year later, largely owing to contraction of economic activities in the last quarter of FY2020.

7. Export earnings fell by about 8.0% in FY2020 with a contraction in exports of major commodities except palm oil, herbs and ayurvedic medicine. Imports of major commodities, namely, petroleum products, transport equipment, vehicle, and machineries shrank, narrowing the merchandise trade deficit to 28.2% of GDP in FY2020 from 37.1% of GDP in FY2019. Interestingly, workers' remittances fell by a mere 3.4% in FY2020 despite overseas migrant workers losing jobs and being laid off in this crisis.<sup>2</sup> With a substantial decline in the trade deficit amid a sizable remittance inflow, the current account deficit significantly narrowed to -0.9% of GDP in FY2020, down from 7.7% in FY2019 (Figure 7). As such, foreign exchange reserves in the fiscal year improved by 22.6% to \$11.6 billion, providing an import cover for 12.7 months of imports of goods and services (Figure 8).

## B. Economic Prospects

8. GDP growth is anticipated to fall to 1.5% in FY2021 primarily owing to continued stringent measures to contain the spread of COVID-19 with the spike in infections and increased fatalities (Table 1). Expected sharp economic downturn in neighboring India, Nepal's

<sup>2</sup> Workers' remittances fell much less than anticipated in the last quarter of FY2020 because not a whole lot of Nepali migrant workers lost jobs at least initially. Moreover, strict lockdowns and mobility restrictions limited the use of unofficial channels of remitting funds, such as hundi and hawala, but facilitated formal means of remittance. There may also have been an altruistic motive with migrants abroad sending more money to support their family members in Nepal.

predominant trade partner will also dent Nepal's growth prospects.<sup>3</sup> With continued rise of COVID-19 cases, periodic lockdowns in major hotspots and the consequent restrictions in economic activities may be the norm at least through the first half of this fiscal year.

9. Industrial output will diminish owing to a contraction in manufacturing and slowdown in construction. Electricity output is however projected to increase as major stalled hydropower projects, namely Upper Tamakoshi of 456 Megawatt will likely be completed in FY2021. Service growth will be significantly lower as international tourism remains largely closed for the time being despite reopening of regular international flights on 1 September. Even after a sustained containment of COVID-19 disease, hotels and restaurants, travel and tourism will take a sometime for recovery. Agriculture growth may rise as paddy yield is expected to increase on the back of normal monsoon. Nonetheless, delay in timely procurement of fertilizers may dampen potential agriculture growth.

10. Inflation in FY2021 is forecast to moderate to an average of 5.5%, down from 6.2% a year earlier, assuming a good harvest, modest oil prices and subdued non-food prices on weak domestic demand (Table 1). The current account deficit is expected to widen from -0.9% of GDP in FY2020 to -1.9% a year later as import growth marginally picks up and remittance inflows decline owing to a slowdown in global demand from this crisis (Table 1).

11. Downside risks to the outlook center on longer-than-anticipated stringent containment measures that may be necessary to contain the COVID-19 spread. A delayed economic recovery in advanced economies in 2021 may further dent prospects for employment of Nepali migrant workers, undermining Nepal's external position. With uncertainty of businesses resuming to pre-COVID normalcy anytime soon, non-performing loans in the banking system may pose some risk to financial stability under a prolonged containment period. The non-performing loan ratio rose from 2.3% in mid-March 2020 to 3.6% in mid-July 2020.<sup>4</sup>

**Table 1: Selected economic indicators (%)**

	FY2020P	FY2021f
GDP growth	2.3	1.5
Inflation	6.2	5.5
Current account balance (% of GDP)	-0.9	-1.9

P=preliminary; f=forecast

Source: Central Bureau of Statistics; Nepal Rastra Bank; ADB estimates

<sup>3</sup> The Indian economy is forecast to contract sharply by 9.0% in FY2021 that coincides with 3 quarters of Nepal's FY2021.

<sup>4</sup> Monthly Statistics, Nepal Rastra Bank.

## THEME CHAPTER

# Digital Transformation in Nepal: Developments and Challenges

### A. Background

1. Digitalization or digital transformation refers to using digital technology in all spheres of human society (Stolterman and Fores, 2004). Digital transformation is about changing existing products and or services into digital variants (Gassman et al., 2014; Henriette et al., 2015). It refers to ‘adoption or increased use of digital or computer technology’ within an organization or an economy (Brennen and Kreiss, 2014). The level of digitalization varies across economies. While advanced economies are ahead in terms of using information and communication technologies, developing economies lag owing to low level of digital penetration.

2. Digitalization has gained more prominence particularly during this COVID-19 pandemic that demands physical distancing and working remotely to contain the spread of pathogen. With wholesale and retail outlets shut in Nepal for a considerable time during this crisis, online purchase, and sale of commodities via e-commerce platforms have risen. The importance of implementing virtual clearance of trade consignments in Nepal has become a necessity. Demand for telemedicine and e-learning has surged.

3. Various online payment platforms, namely, *eSewa*, *Khalti* have emerged in recent years with increased, yet limited, internet penetration. Customers can pay utility bills, purchase gifts and airline tickets, and transfer funds using such platforms. The government has also initiated e-citizen services since 2015 by availing e-governance application for land records management and service delivery, vehicle registration and license issuance, among others (ADB, 2019). Despite some notable progress, limited internet connectivity, lack of advanced IT devices, and technical knowhow have held back Nepal’s aspiration toward greater digitalization. Against this backdrop, the paper discusses Nepal’s journey of digital development with specific recommendations for e-commerce promotion.

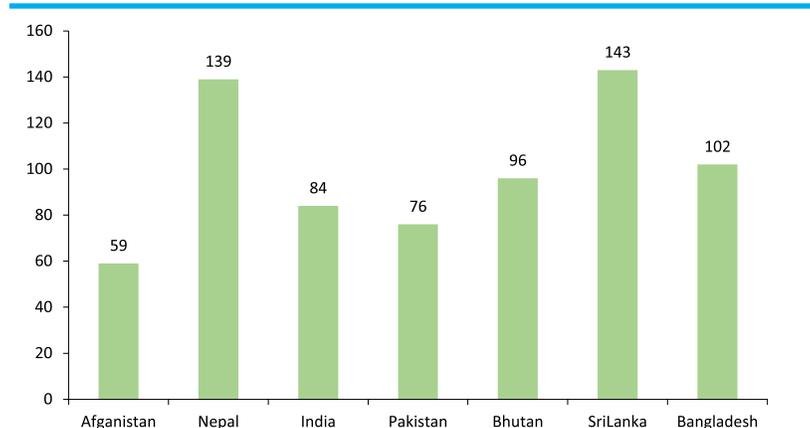
## B. Digital Development in Nepal

4. Nepal has made remarkable progress in digital adoption. As per the latest report from Nepal Telecommunications Authority, mobile penetration has exceeded 100% and internet penetration over 60% (NTA, 2019). According to International Telecommunication Union, Nepal will be among the frontrunners in internet penetration at 79% by 2025 (Frost & Sullivan, 2018). The Government of Nepal's 15<sup>th</sup> five-year Plan (FY2020-FY2024) envisions increasing internet penetration to 80% by FY2024 (NPC, 2020). Nepal is indeed ahead of its South Asian neighbors, except Sri Lanka, in mobile penetration (Figure 1).<sup>1</sup>

5. With an objective to accelerate economic growth by leveraging disruptive technologies and availing opportunities to participate in the global economy, the Ministry of Communication, and Information Technology (MoCIT) has formulated 'Digital Nepal Framework'- a blueprint providing a roadmap to digitalization. The framework delves into eight sectors and eighty digital initiatives. It is estimated that the program, if implemented effectively, will have an economic impact of about NPR 800 billion by 2022 (MoCIT, 2019). The framework finds its basis on policy and regulatory frameworks, namely, National Information and Communication Technology Policy (ICT), 2015 and Broadband Policy, 2016.

6. The ICT policy, 2015 aims at mainstreaming the use of ICTs across all sectors of the economy with an overarching objective of reducing poverty and inequality. The policy envisages the roles of private sector in driving the use of ICT across the country. While the private sector is expected to develop specific ICT-related projects, the government will be the key facilitator in terms of developing national

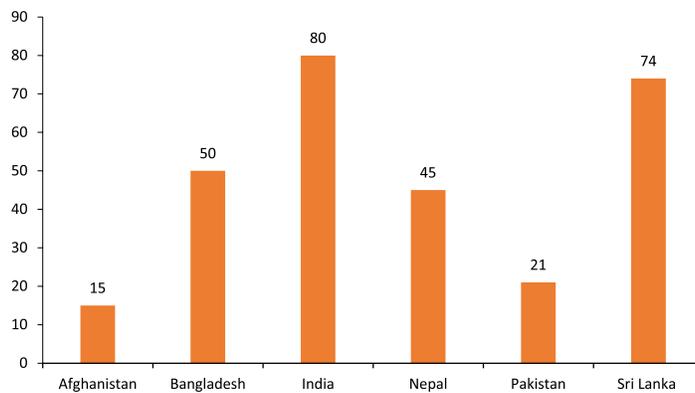
**Figure 1: Mobile penetration of South Asian Countries (%), 2019**



Source: The World Bank, World Development Indicators.

Note: Nepal and Sri Lanka data is for 2018.

<sup>1</sup> Mobile penetration measures mobile cellular subscriptions per 100 people. World Bank. World Development Indicators (data accessed on 12 September 2020). <https://data.worldbank.org>

**Figure 2: Adults with an account (%), 2017**

Source: The World Bank, The Global Findex Database, 2017 Data accessed on 14 September 2020.  
 Online: [https://globalfindex.worldbank.org/#data\\_sec\\_focus](https://globalfindex.worldbank.org/#data_sec_focus)

telecommunication infrastructure and expanding accessibility to broadband, among others. The policy is also aimed at developing business incubators and promoting start-ups via creating a favorable ecosystem<sup>2</sup> (MoCIT, 2015).

7. The Broadband Policy formulated in 2016 focuses on expansion of broadband services in trade and commerce, health and education and a wide range of government services. The policy envisions expanding broadband internet services, connecting all district headquarters by optical fiber backbone links, and providing basic citizen services via online, among others (MoCIT, 2016). Electronic transactions in Nepal are currently guided by the Electronic Transactions Act, 2008. Besides the National ICT Policy, National Broadband Policy and Electronic Transactions Act, two additional initiatives - Government Enterprise Architecture and Nepal e-Governance Interoperability Framework - form the basis for continued implementation of citizen-centered digital services (MoCIT, 2019).

### C. Digital Nepal Framework<sup>3</sup>

8. Digital Nepal framework endorsed in 2019 provides a roadmap to accelerate Nepal's economic growth through enhanced use of information and communication technologies. The framework delves into eight aspects, namely, digital foundation, agriculture, health, education, energy, tourism, finance, and urban infrastructure and underscores a need for a coherent and coordinated approach to advance digitalization process.

<sup>2</sup> This entails designing and supporting relevant incubator projects with the provision of seed capital in the ICT sector.

<sup>3</sup> This section delves into key aspects, namely, digital foundation, agriculture, health, education, energy, tourism, and urban infrastructure discussed in the Digital Nepal Framework, 2019.

9. Digital foundation is about expanding digital coverage, enhancing skills, and promoting e-governance. While 4G networks have been recently expanded, efficiency and quality issues have emerged in several parts of the country. Moreover, fixed broadband networks, that are relatively expensive, are limited to mega cities. Digital literacy is low, particularly among rural communities, highlighting the digital divide during this COVID-19 pandemic.

10. Digitalization in agriculture entails leveraging digital technologies to help provide or rent agriculture machinery and tools; offering e-learning packages on agriculture extension services; and using smart irrigation systems to maximize efficiency gains (MoCIT, 2019). Credit e-platforms to provide loan facilities to farmers are some of the innovative ideas floated in this framework.

11. Digitalization in healthcare involves extension of mobile health, telemedicine in rural areas; boosting community awareness on proper hygiene and sanitation practices through digital technologies; and improving health information management and procurement solutions via better auditing and compliance processes (MoCIT, 2019). Digitalization in education requires developing video conferencing facilities to enable remote trainings; promoting massive open online courses in a cost-effective manner; and using cloud-based communication tools for remote interactions among students, teachers, and administrators (MoCIT, 2019).

12. Digital transformation in energy entails promotion of smart power, i.e. cloud-based operating systems, extending electricity and energy outreach to rural areas. It involves using smart grids and smart meters to minimize losses and improve efficiency gain. Under ADB supported Power Transmission and Distribution Efficiency Enhancement Project, Nepal Electricity Authority will implement smart metering that will replace traditional analog meters (ADB, 2018). The project supports system efficiency upgrading and smart metering, whereby NEA will implement pilot projects in six distribution centers by September 2020 and install 450,000 smart meters by May 2021, 3 million smart meters by May 2023, and 5 million smart meters by May 2025 (ADB, 2018). This change will help curtail electricity leakage, eliminate the need of in-person meter reading, and enhance authority's revenue generation (MoCIT, 2019).

13. Digital transformation in tourism necessitates using digital signatures and touchscreen kiosks to provide tourism information; equipping self-service kiosks in tourist centers; and using augmented reality apps to provide tourism information, among others (MoCIT, 2019). And digitalization in urban infrastructure entails using mobile apps to assist citizens report service issues; using sensors and radio frequency identification tags to monitoring and acquire real-time information on public transport; and micro-simulation modeling

to predict vehicle and pedestrian traffic (MoCIT, 2019). Under ADB supported Nepal's Small Towns Water Supply and Sanitation Project, supervisory control and data acquisition systems for remote controlling and monitoring of facilities from a central location have been implemented in two towns. This centralized system of monitoring will be expanded to additional four towns (Pokhrel & Adhikary, 2017).

## D. Digitalization in Finance

14. Nepal has made some substantial progress in terms of enhancing financial accessibility. Commercial banks have extended their branches to 747 out of 753 local levels by mid-July 2020, up from 735 in mid-July 2019 (NRB, 2020). This is noteworthy given limited rural infrastructure development, low level of internet connectivity and security concerns in many remotest parts of the country. There are 27 commercial banks, 20 development banks, 22 finance companies, 85 microfinance institutions and 1 infrastructure development bank operating in Nepal (NRB, 2020). The total number of banks and financial institution branches has increased from 5,068 in mid-July 2017 to 9,765 in mid-July 2020 (NRB, 2020).

15. Despite the development of financial sector over the years, a significant population is yet to benefit from financial services (NRB, 2020). A mere 45.4% of adults have accounts with a formal financial institution, and 61% adults have access to formal financial services (NRB, 2020); (Figure 2). Underdeveloped digital financial services, low use of debit and credit cards, limited digital payment, online and mobile banking, and lack of financial and digital literacy, primarily in rural areas of the country have hindered financial inclusivity (MoCIT, 2019). A sizeable population is without financial services because of remoteness, high cost of financial services, financial illiteracy and lack of proof-of-identity documents depriving them of formal financial services.

16. Through ADB supported ICT Development Project, a central database has been created for developing National Identification System (ADB, 2019). The National ID Card Management Centre established in 2011 under the Ministry of Home Affairs is responsible for data collection. With the approval of NID Card Distribution Procedures, 2018, about 80,000 NID cards have been distributed during the initial phase of project implementation.<sup>4</sup> The card features a unique number with fingerprints, including core personal details, for identifying an individual. The government further plans to include iris recognition in this card. This card will replace the existing paper-based citizenship

<sup>4</sup> The information is as of 28 February 2019.

card. Several agencies working on immigration, customs, national security, inland revenue, health, labor, banking and finance, law, and justice will be able to access the core NID card information from the national ID card database. The NID Act endorsed by the House of Representatives provides a legal framework for its implementation.<sup>5</sup> The government plans to distribute about 3.5 million NID cards across 15 districts.<sup>6</sup> When the card is rolled out across the country, and once the government makes it a mandatory proof-of-identity when applying for jobs and seeking any public or private services, the potential benefits are large.

17. Nepal has shown promising development in terms of greater internet penetration and hence financial products can be expanded with increased internet connectivity. Digital payment services were first initiated in Nepal in 2002 and since then several digital payment platforms such as *e-Sewa*, *IMEPay*, and *Khalti* have come into operation. To gradually decrease cash transactions, the Monetary Policy for FY2020 has prioritized electronic payment system. The policy has emphasized financial accessibility by expanding e-payment services via mobile and internet in remote areas of the country. The 15<sup>th</sup> five-year Plan (FY2020-FY2024) has also emphasized increasing internet penetration to 80%, and availing access to mobile broadband services to entire population by FY2024 (NPC 2020). The Monetary Policy for FY2021 has emphasized digital economy given its significance in this COVID-19 crisis. Pursuant to the Digital Nepal Framework, Nepal Rastra Bank (Central Bank) has encouraged banks and financial institutions to facilitate financial transactions electronically. To further enable the payment system and keep records of all financial transactions across the country, a National Payment Switch will be established. The central bank will unveil directives for e-payment using quick response code and publish payment system development indicators.

## E. Way Forward

18. Various e-commerce companies have emerged lately. But they have been facing hurdles particularly owing to lack of resources, technical labor force and requisite legal framework. E-commerce businesses can flourish with the availability of funding. For instance, *Foodmandu*, an online food delivery company, was able to upscale from 100 deliveries a day to 1,000 with the availability of additional funding.<sup>7</sup> Such start-up companies need support via provision of subsidized credit, tax holiday, tax concessions at least during initial years of operation. The government is formulating 'Nepal Logistics Policy' in 2021 that will entail e-commerce promotion and development of postal services for effective logistics system in the country.

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<sup>5</sup> <https://thehimalayantimes.com/kathmandu/bill-related-to-national-id-card-endorsed/>

<sup>6</sup> ICT Development Project Completion Report by the Government of Nepal.

<sup>7</sup> <https://www.newbusinessage.com/MagazineArticles/view/2618>

19. The need for virtual clearance of trade consignments has been necessary in this time of crisis. The development of a single window system allowing agents/traders to submit all documents such as customs declarations, import/export permits, invoices, certificates of origin and other relevant documents electronically has become very pertinent. This reduces transaction costs, enhances transparency, facilitates international trade, enables cross-border data harmonization and exchange, national data harmonization, controls revenue leakage and greatly limits physical interactions- a precursor to contain the spread of COVID-19 disease.

20. For promotion of e-commerce, regulatory framework should be introduced, and digital payment regimes should be strengthened while simultaneously improving last mile delivery and logistics infrastructure. E-commerce companies such as *Daraz Nepal*, *Sastodeal*, *Gyapu*, and *Foodmario* have gained some traction since inception. Conventional businesses have gone online during this pandemic, and consumers preferences toward e-commerce has increased substantially. But, in the absence of e-commerce Act, such businesses have faced hurdles. E-commerce activities need to be further complemented with development of IT enabled services, enhancement of technical skills, and development of government e-procurement and e-trade networks. The Act should also stress legal consequences that e-commerce businesses face in the event of data leakage and damaged deliveries.

21. For growth of e-commerce across the country, banks and financial institutions should expand e-banking services, such as, mobile banking, debit and credit cards, and electronic transfer of funds, among others. More ATM booths need to be established along countryside to enhance access to formal financial services. Digital payment platform should be made user-friendly with security enabled features, and digital literacy should be promoted for advancing digitalization.

22. Low level of internet penetration among consumers, shortage of payments and skilled technicians are some of the prime reasons hindering Nepal's aspiration toward modernizing the payment system (Plaitakis et al., 2016). The financial technology needs to be developed to upscale the payment system in Nepal. The National Payment Gateway system will help integrate different payment channels, simplifying electronic payment processes and reducing interbank transactions' costs. Foreign payment systems shall be facilitated with the national payment gateway. This initiative will accelerate adoption of digital financial transactions, creating a safe, reliable, and efficient national payment system.

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## Appendix 1: Country Economic Indicators

Item	Fiscal Year				
	2016	2017	2018	2019R	2020 <sup>p</sup>
<b>A. Income and Growth</b>					
1. GDP per Capita (\$, current)	745.2	873.5	998.4	1034.8	1079.7
2. GDP Growth (% in basic prices)	0.6	8.2	6.7	7.0	2.3 <sup>a</sup>
a. Agriculture	0.2	5.2	2.8	5.1	2.6 <sup>a</sup>
b. Industry	(6.4)	12.4	9.6	7.7	3.2 <sup>a</sup>
c. Services	2.4	8.1	7.2	7.3	2.0 <sup>a</sup>
<b>B. Saving and Investment (current and market prices, % of GDP)</b>					
1. Gross Domestic Investment <sup>b</sup>	28.7	31.4	34.5	33.7	28.1
2. Gross National Saving	40.1	46.4	45.8	48.9	46.0
<b>C. Money and Inflation</b>					
1. Consumer Price Index (average annual % change)	9.9	4.5	4.2	4.6	6.2 <sup>c</sup>
2. Total Liquidity (M2) (annual % change)	19.5	15.5	19.4	15.8	18.1 <sup>c</sup>
<b>D. Government Finance (% of GDP)</b>					
1. Revenue and Grants	23.1	24.0	25.2	24.9	22.8 <sup>d</sup>
2. Expenditure and Onlending	21.9	27.2	31.8	30.5	28.6 <sup>d</sup>
3. Overall Fiscal Surplus (Deficit) <sup>e</sup>	1.3	(3.2)	(6.6)	(5.6)	(5.8) <sup>d</sup>
<b>E. Balance of Payments</b>					
1. Merchandise Trade Balance (% of GDP)	(30.3)	(33.5)	(37.3)	(37.1)	(28.2) <sup>c</sup>
2. Current Account Balance (% of GDP)	6.2	(0.4)	(8.1)	(7.7)	(0.9) <sup>c</sup>
3. Merchandise Export (\$) Growth (annual % change)	(28.7)	9.8	15.8	12.6	(7.9) <sup>c</sup>
4. Merchandise Import (\$) Growth (annual % change)	(7.1)	29.4	27.9	5.2	(18.8) <sup>c</sup>
5. Remittances (% of GDP)	29.5	26.0	24.8	25.4	23.2 <sup>c</sup>
<b>F. External Payments Indicators</b>					
1. Gross Official Reserves (\$ million)	9,736.4	10,494.2	10,084.0	9,500.0	11,646.1 <sup>c</sup>
Months of current year's imports of goods)	14.1	11.4	9.4	7.8	12.7 <sup>c</sup>
2. External Debt Service (% of exports of goods and services)	9.9	10.8	8.3	8.2	10.9 <sup>f</sup>
3. Total External Debt (% of GDP)	17.3	15.5	17.2	17.0	21.4 <sup>f</sup>
<b>G. Memorandum Items</b>					
1. GDP (current prices, NPR billion)	2,253.2	2,674.5	3,044.9	3,458.8	3,767.0 <sup>a</sup>
2. Exchange Rate (NPR/\$, average)	106.4	106.2	104.4	112.9	116.3 <sup>c</sup>
3. Population (million)	28.4	28.8	29.2	29.6	30.0

GDP = gross domestic product; R = revised; P = preliminary  
 Note: FY2020 covers 17 July 2019 to 15 July 2020.

a Based on FY2020 National Accounts Statistics. Central Bureau of Statistics

b Refers to gross fixed investment and does not include change in stocks

c Based on FY2020 annual data. Nepal Rastra Bank

d Based on FY2021 Budget Speech. Ministry of Finance; and Financial Comptroller General Office

e Revenue and Grants minus Expenditure

f Based on FY2019 annual data. Financial Comptroller General Office

Sources: Ministry of Finance. *FY2020 Budget Speech*. Kathmandu; Nepal Rastra Bank. 2020. *Current Macroeconomic and Financial Situation*. Kathmandu; Central Bureau of Statistics. April 2020. *FY2020 National Accounts Statistics*. Kathmandu; Financial Comptroller General Office. 2020. *Daily Receipts & Payments Status (as of 15 July 2020)*. Kathmandu; Central Bureau of Statistics. 2014. *National Population and Housing Census 2011 (Population Projection 2011 – 2031)*. Kathmandu.

## Appendix 2: Country Poverty and Social Indicators

Item	Period					
	1990s		2000s		Latest Year	
<b>A. POPULATION INDICATORS</b>						
1. Population (million)	18.5	(1991)	24.8	(2006)	30.0	(2020)
2. Population growth (annual % change)	2.1		1.2		1.3	(2020)
<b>B. Social Indicators</b>						
1. Fertility rate (births/woman)	5.1	(1996)	3.6	(2004)	2.3	(2016)
2. Maternal mortality ratio (per 100,000 live births)	539.0	(1996)	281	(2006)	239.0	(2018)
3. Infant mortality rate (below 1 year/1,000 live births)	82.0	(1991)	48.0	(2006)	28.4	(2016)
4. Life expectancy at birth (years)	55.0	(1991)	62.0	(2001)	70.5	(2018)
a. Female	54.0	(1991)	63.0	(2001)	71.9	(2018)
b. Male	55.0	(1991)	62.0	(2001)	69.0	(2018)
5. Adult literacy (%)	35.6	(1996)	48.0	(2004)	66.8	(2017)
a. Female	19.4	(1996)	33.8	(2004)	57.2	(2017)
b. Male	53.5	(1996)	64.5	(2004)	77.8	(2017)
6. Primary school gross enrollment (%)	57.0	(1996)	122.0	(2004)	118.5	(2017)
7. Secondary school gross enrollment (%)	43.8	(2001)	54.4	(2004)	79.0	(2016)
8. Child malnutrition (% below 5 years old)	57.0		49.0	(2006)	36.0	(2016)
9. Population below poverty line (international, %)	68.0	(1996)	30.9	(2004)	18.7	(2018)
10. Population with access to safe water (%)	45.9		82.5	(2006)	92.7	(2017)
11. Population with access to sanitation (%)	22.0	(1995)	24.5	(2006)	87.6	(2017)
12. Public education expenditure (% of GDP)	2.0		2.9	(2005)	4.4	(2016)
13. Human development index	0.341		0.429	(2005)	0.579	(2018)
14. Rank/total number of countries	152/173		136/177	(2003)	147/189	(2018)
15. Gender-related development index	0.33	(1995)	0.511	(2003)	0.897	(2018)
16. Rank/total number of countries	148/163	(1995)	106/140	(2003)	147/189	(2018)
<b>C. Poverty Indicators</b>						
1. Poverty incidence	42	(1996)	31	(2004)	25.16	(2011)
2. Proportion of poor to total population						
a. Urban	23.0	(1996)	9.55	(2004)	15.46	(2011)
b. Rural	44.0	(1996)	34.62	(2004)	27.43	(2011)
c. Mountain	57.0	(1996)	32.6	(2004)	42.77	(2011)
d. Hills	40.7	(1996)	34.5	(2004)	24.32	(2011)
e. Terai	40.3	(1996)	27.6	(2004)	23.44	(2011)
3. Poverty gap	11.75	(1996)	7.55	(2004)	5.43	(2011)
4. Poverty severity index	4.67	(1996)	2.7	(2004)	1.81	(2011)
5. Inequality (Theil Index)	...		...		...	
6. Multidimensional poverty index <sup>1</sup>	...		...		0.148	(2018)

... = not available, GDP = gross domestic product,

Sources: Central Bureau of Statistics. 2012. *National Population and Housing Census 2011*. Kathmandu; Central Bureau of Statistics. 2014. *National Population and Housing Census 2011 (Population Projection 2011-2031)*. Kathmandu; Central Bureau of Statistics. 2017. *Annual Household Survey 2016/17*. Kathmandu; Ministry of Health. 2017. *Nepal Demographic and Health Survey 2016*. Kathmandu; United Nations Development Programme. 2019. *Human Development Report 2019*. New York; Central Bureau of Statistics. 2011. *Poverty in Nepal (2010/11)*. Kathmandu.

1 UNDP replaced Human Poverty Index with Multidimensional Poverty Index from Human Development Report 2011.



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