COVID-19 PANDEMIC IMPACTS ON FOOD SECURITY IN CENTRAL AND WEST ASIA

KEY ISSUES AND STRATEGIC OPTIONS

Bui Minh Giap

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COVID-19 Pandemic Impacts on Food Security in Central and West Asia: Key Issues and Strategic Options

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EXECUTIVE SUMMARY

The vigorous spread of the coronavirus disease (COVID-19) throughout the world has infected 893,756 people in Central and West Asia as of 5 November 2020. This has prompted governments to quickly implement various forms of disease-containment measures, which adversely affected the region's food security condition. The Asian Development Bank (ADB) projected that the region as a whole would record a negative gross domestic product growth rate of -0.5% in 2020 due to measures undertaken to control the spread of COVID-19.

The implementation of each country's strategies to control the spread of COVID-19 has been affecting domestic food availability and accessibility, and has resulted in transboundary food security problems. The degree of impact on the domestic food security within the region is influenced largely by its heavy reliance on food imports, particularly wheat, from the Russian Federation and Kazakhstan. In March 2020, key exporters of food staples including the Russian Federation, Kazakhstan, and Kyrgyz Republic have imposed trade restrictions and temporary ban on the export of socially significant products to the region. The imposition of export bans and quotas, especially on wheat and wheat products, have resulted in localized surge of prices of these products in countries within the region, most evidently in the Kyrgyz Republic and Tajikistan. Along with the implementation of stricter international trade policies, the inadequacy of market infrastructure and seasonality of production, among others, have led to short-term and localized price hikes for wheat and other staples. Although localized, these price hikes would have repercussions on food accessibility and nourishment, especially of lower income groups.

Prior to the pandemic, significant efforts were pursued by the region in achieving bright prospects for the agriculture sector through various public policy actions such as land reform, agricultural diversification, and harmonization of trade policies. All these had resulted in higher agricultural productivity, particularly in wheat production since 2016. However, improvements gained prior to the COVID-19 period will most likely be eroded in the long-term as the pandemic is likely to persist through 2021—or until a vaccine becomes available. Therefore, a concerted effort by governments, the global development community, and various agriculture stakeholders in crafting strategic policy actions is necessary to achieve food security during and after the COVID-19 pandemic.

Despite changes in the social and economic landscape brought about by the pandemic, the region's agriculture is expected to continue growing, albeit on a narrow resource base. It continues to be characterized by low productivity; labor intensiveness; limited connectivity (both in terms of geography and marketing); and lack of access to affordable commercial finance, technologies, and other support services. With these development constraints, it is important for ADB to focus its assistance on the following: (i) development of mechanisms for identifying viable institutional and business partnership arrangements for agricultural production and marketing (e.g., corporate business models with smallholders being shareholders); (ii) accelerating productivity growth for both staple and non-staple high-value crops (e.g., development of irrigation systems, farm-to-market roads, clean water supply, on-farm/near-farm processing infrastructure, and holistic agrologistic facilities); (iii) enhancing value addition of horticulture and livestock products (e.g., water-saving and/or energy-saving production, processing, food safety, marketing, and agribusiness development); and (iv) strengthening of research and development, extension services (e.g., veterinary services, disease control, flood, and drought- and disease-tolerant breeds and/or varieties), and farmers' knowledge and practices. Tapping on regional trade initiatives, such as the Central Asia Regional Economic Cooperation (CAREC) Program, will enhance the capacity of the region's agriculture sector to move toward its food secure future.

I. INTRODUCTION

- 1. The coronavirus disease (COVID-19) has spread vigorously throughout the world, such that more than 45 million people have been infected as of 5 November 2020.¹ With limited capacity for medical services, individual governments have instituted various forms and degrees of lockdown measures and social and economic stimulus packages to ease the adverse impacts of the COVID-19 pandemic. While these measures were being implemented, the pandemic was also causing serious damage to the world's food security condition.² This is not a distant scenario for Central and West Asia. The region is home to around 351 million people, which account for about 5% of the world population.³ The economic vulnerability of the region to the impacts of COVID-19 is magnified by sociopolitical instability. This has constrained the region's development path since 1991 when the Central and West Asian countries (except Afghanistan and Pakistan) gained independence from the former Union of Soviet Socialist Republics.
- 2. The region is strategically located along the Silk Road. It is a growing economic center with potential for providing the global economy with staple and high-value agricultural commodities. This is especially in view of its key role as an agricultural hub that would link Europe with the rest of Asia. Prior to the COVID-19 pandemic, the major constraints to agricultural growth were rooted in the varying climatic, landscape, economic, and sociopolitical conditions within the region. To overcome these constraints, the region directed its development policy toward stronger interregional trade, improvements in agricultural and tenure systems, and conservation of shared natural resources, such as water. Since the region relies on interregional linkages for production, trade, and employment, it emphasizes its need to increase economic incentives to spur efficient agricultural production. However, these also raise concerns on its vulnerability to global public health threats, such as the COVID-19.
- 3. This paper assesses how the region's collective pathway toward food security has transformed during the COVID-19 pandemic. It provides a brief analysis of the effects of the various COVID-19 containment measures in the macro and agricultural economies of the countries under this study. The paper further narrates possible consequences of the economic slowdown on the region's food security situation. Recommendations for ensuring long-term food security once COVID-19 had been contained are also provided to guide consultations and development assistance.

II. THE COVID-19 PANDEMIC IN THE REGION

4. The first case of COVID-19 in the region was recorded on 24 February 2020 in Afghanistan.⁴ In the succeeding days, other countries in the region posted their index cases: Georgia on 26 February 2020,⁵ Pakistan on 26 February 2020,⁶ and Azerbaijan on 28 February 2020.⁷ These index cases were by

¹ Johns Hopkins University, Center for Systems Science and Engineering. COVID-19 Dashboard (accessed 5 November 2020).

The United Nations' Committee on World Food Security defines food security as the situation where individuals, at all times, have "physical, social, and economic access to sufficient, safe, and nutrition food that meets their food preferences and dietary needs for an active and healthy life."

The region comprises Armenia, Azerbaijan, and Georgia in the South Caucasus; and Afghanistan, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan in Central Asia.

TOLOnews. 2020. 3 Suspected Cases of Coronavirus Reported in Afghanistan. 23 February.

⁵ Georgia Today. 2020. First Case of Coronavirus Reported in Georgia. 26 February.

⁶ A. Shahid. 2020. Two Coronavirus Cases Confirmed in Pakistan. Pakistan Today. 27 February.

⁷ Reuters. 2020. Azerbaijan Reports First Case of Coronavirus—Ifax. 28 February.

persons who traveled from Iran. The spread of infection in other parts of the region was due to citizens who traveled from France, Germany, and Saudi Arabia.⁸

5. As of 5 November 2020, the region has recorded a total of 893,756 COVID-19 cases (Table 1). Of this total number, 725,428 have recovered while 14,790 have died. The region's total number of COVID-19 cases represents around 2.0% of that of the world. To date, the region's death rate of 1.7% is still lower than the world average of 2.7% and its recovery rate of 81.2% is higher than that of the world at 76.4%. Within the region, Pakistan recorded the highest number of cases (388,875), while Afghanistan recorded the lowest (41,935). The highest death rate was recorded in the Afghanistan at 3.7% and the lowest was in Tajikistan at 0.7%. The highest recovery rate was posted by Uzbekistan (95.8%) and the lowest was by Armenia (60.4%).

Table 1: Summary of COVID-19 Cases, Recoveries, and Deaths, Central and West Asia (as of 5 November 2020)

Country	Cases (No. of Persons)	Recovery (No. of Persons)	Deaths (No. of Persons)	Death Rate (%)	Recovery Rate (%)
Afghanistan	41,935	34,440	1,554	3.7	82.1
Armenia	99,563	60,135	1476	1.5	60.4
Azerbaijan	59,509	45,697	780	1.3	76.8
Georgia	49,218	33459	401	0.8	68.0
Kazakhstan	114,235	107,139	1857	1.6	93.8
Kyrgyz Republic	61,309	52,343	1,167	1.9	85.4
Pakistan	388,875	316,665	6,893	1.8	81.4
Tajikistan	11,180	10,438	83	0.7	93.4
Turkmenistan	No data				
Uzbekistan	67,932	65,112	579	0.9	95.8
Region- Total	893,756	725,428	14,790	1.7	81.2
World	45,538,688	34,777,138	1,232,782	2.7	76.4

COVID-19 = coronavirus disease.

Sources: CoronaTracker and IndexMundi (accessed 5 November 2020).

6. Governments in the region implemented varying policy responses to the COVID-19 pandemic. In general, the governments put in place combinations of social stimulus measures, economic stimulus measures, price control and customs measures, and mobility restrictions. Some of these measures undertaken by individual countries in the region are presented in Table 2.

⁸ Index cases of COVID-19 were recorded on 19 February 2020 in Qom, Iran; on 24 January 2020 in Bordeaux, France; on 27 January 2020 in Bavaria, Germany; and on 2 March 2020 in Qatif, Saudi Arabia.

Table 2: Public Sector Responses to the COVID-19 Pandemic, Central and West Asia^a

		COVID-19 Public Sector Responses		
Country	Social Stimulus	Economic Stimulus	Price Controls and Customs Measures	Mobility Restrictions
Afghanistan	 Provision of emergency budget of AF400 million for Herat province. Provision of AF20 million financial support for the provinces of Kabul, Parwan, Kapisa, and Maidan Wardak. 		Prevention of price gouging and price control on essential items, such as foodstuff and consumables, in coordination with the private sector.	Lockdown measures in various parts of the country.
Armenia	One-time financial support for the following individuals: (i) children whose parents lost their jobs during the pandemic, (ii) persons who became unemployed because of the pandemic, (iii) solo pregnant women, and (iv) employees of essential services. One-time financial support on gas and electricity payments.	 Loans granted to agricultural businesses, and to SMEs for the payment of payroll, taxes, duties, and others. One-time grant for microenterprises. 	Temporary restriction on the export of medical products.	 Declaration of state of emergency. Ban on mass gatherings. Closure of land borders with Georgia and Iran.
Azerbaijan	Reduction of the rates of mandatory social insurance contributions for persons deriving income from nonemployment activities. Payment of a part of the salary of employees and financial support to individual (micro) entrepreneurs in activity areas affected by the pandemic.	 Blanket deposit guarantee was extended until 4 December 2020. The Central Bank of Azerbaijan raised the floor of the interest rate corridor. The Central Bank of Azerbaijan conducted extraordinary foreign exchange auctions. State loan and guarantee were provided in support of the economy and businesses. Service fees charged by banks in interbank payment systems were reduced up to 50% until 3 September 2020. Tariffs for payment services provided to customers by banks were decreased. Acquisition fee was reduced up to 50% until 3 September 2020. 		Border closures. Quarantine of returning citizens. Ban on mass gatherings. Restriction on domestic movements. Closure of restaurants and other public facilities, airports, and transport hubs. Social distancing.
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		COVID-19 Public Sector Responses		
Country	Social Stimulus	Economic Stimulus	Price Controls and Customs Measures	Mobility Restrictions
Georgia	 The government covered utility bills for March, April, and May 2020 of household consumers via direct deposits with utility companies for utilizations under certain maximum thresholds. The government fully covered COVID-19-related tests, treatment and hospital bills and is actively working with the private sector to facilitate the production of goods in high demand, such as PPE, hygienic and medical supplies. Provided one-time payment of GEL200 per child under 17, having a budget of GEL170 million. Provided lump sum grant to self-employed individuals. Granted students from families that are registered in the Social Service Agency database full college tuition remission for one semester of the 2020-2021 academic year. 	 Individuals and legal entities that find themselves unable to meet their financial obligations are allowed to postpone the principal and interest payments to banks for March, April, and May 2020 without facing any fines and penalties. The central bank signaled its willingness to release some of the capital conversion, countercyclical and related buffers (GEL 4 billion) to provide additional liquidity to banks to accommodate increased lending to the economy. Committed to extend grants for SMEs in agriculture sector of up to GEL30,000 and subsidizing interest repayments obtained through Agrocredit project. Government will exempt SMEs from amelioration fees in 2020. Committed to facilitate access to finance to SMEs, through credit guarantee scheme. 	Introduced administered prices on nine basic foodstuff to protect the poor and vulnerable as food comprises 31.3% of the consumer basket.	Declaration of state of emergency. Closure of international borders. All in-classroom learning activities were prohibited
Kazakhstan	 Suspension of invoicing rental payments under state property lease agreements until the end of 2020. Development of financial package for physicians and medical staff working in relation to COVID-19. Food packages distributed by the government to around 1.2 million socially vulnerable people. Financial support for individuals who lost their jobs due to the pandemic. Reimbursement of utilities expenses for April and May 2020. Increase in pension and benefit payments by 10%. 	 Expanded existing and introduced new programs of subsidized lending for business and population (the state channeled around KZT 2.83 trillion through programs of subsidized lending, infrastructure development and employment support). Banks arranged credit repayment holidays for SMEs from the most affected sectors of the economy (predominantly service sector, including trade and transport) and for individuals (deferred loan payments of 42% of SMEs and 34% of individual borrowers by November 2020). Temporary value-added tax reduction and application of zero custom duties on essentially important imports. Exemption of SMEs from taxes and other mandatory payments from the wage fund, exemption of agricultural producers from agricultural land tax, exemption of certain service sector entities from property tax. Bankruptcy procedures against SMEs were suspended until October 2020. 	State control on prices of goods. Temporary ban on the export of a number of "socially significant" products, such as wheat and wheat products.	Declaration of the state of emergency. Suspension of domestic and international flights, and railway service. Restriction of people gathering. Switching to remote mode of work and education. Suspension of operations of service facilities.

		COVID-19 Public Sector Responses		
Country	Social Stimulus	Economic Stimulus	Price Controls and Customs Measures	Mobility Restrictions
Kyrgyz Republic	 Social amelioration. Distribution of food packs. Compensation payments for health workers. Provision of paid medical leave for health workers. Provision of free transport (using 500 units of vehicles) for health workers. 	Provision of loan and a moratorium on debt repayments for businesses affected by the pandemic. Deferment of tax payments. Reduction in tax rates.	 State regulation of prices is enacted on socially significant goods. Temporary ban on exports on a number of "socially significant" products and medicine. 	Declaration of state of emergency.
Pakistan	Cash transfers to 6.2 million daily wage workers (PKR75 billion) Cash transfers to more than 12 million lowincome families (PKR150 billion) Financial support to utility stores, support for health and food supplies, electricity bill payments relief, an emergency contingency fund, and a transfer to the National Disaster Management Authority for the purchase of COVID-19-related equipment.	Financial support to SMEs and the agriculture sector (PKR100 billion) in the form of power bill deferment, bank lending, as well as subsidies and tax incentives. Regulatory limit on the extension of credit to was permanently increased from PKR125 million to PKR180 million. Tax relief provided for the construction industry. Earmarked resources for an accelerated procurement of wheat. Expanded the scope of existing refinancing facilities and introduced three new ones to: (i) support hospitals and medical centers to purchase COVID-19-related equipment; (ii) stimulate investment in new manufacturing plants and machinery, as well as modernization and expansion of existing projects; and (iii) incentivize businesses to avoid laying off their workers during the pandemic.	Reduction in regulated fuel prices (with a benefit for end consumers estimated at PKR70 billion)	Implementation of targeted lockdown policy.
Tajikistan	 Expansion of targeted social assistance program throughout the country One-time cash transfers to vulnerable households Stockpiling of basic food for further intervention at the market 	Provision of concessional loans to businesses affected by the pandemic. The National Bank of Tajikistan depreciated local currency by 16.6%. Income tax rate on deposits reduced. Deferment of rental payments in state premises. Provision of seeds and fertilizers to farmers.		Limited containment measures in April and May. Implementation of social distancing and lockdown measures.

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Table 2 continued

		COVID-19 Public Sector Responses		
Country	Social Stimulus	Economic Stimulus	Price Controls and Customs Measures	Mobility Restrictions
Turkmenistan	Turkmenistan • Increased state budget for health.	 Financial support to businesses affected by the pandemic. 		 Closure of borders. Flight cancellations and rerouting. Ban on mass gatherings and sporting events.
Uzbekistan	 Set up medical facilities; purchase medical supplies, testing kits, and equipment; and provide salary supplements to medical staff. Increase in low-income households receiving social and childcare benefits. Payments for paid leave, quarantine leave, and temporary disability benefits. 	 Tax measures to support businesses. Additional capitalization to the State Fund for Support of Entrepreneurship to expand loan guarantees for businesses and compensate for interest expense. Allocation to the Public Works Fund. Central Bank of Uzbekistan's overall liquidity support. Loan deferments and restructurings for businesses. Revolving credit facilities by state-owned banks for private sector businesses. Debt payment rescheduling for JSC Uzbekistan Airways by the National Bank of Uzbekistan for Foreign Economic Activities. 	Application of zero rate for customs duty and excise tax on "primary goods" (generally food products and hygiene products).	 Ban on mass gatherings. Imposition of work-from-home arrangements. Lockdown of its capital city, Tashkent. Suspension of flights to France, Spain, and the United Kingdom.

COVID-19 = coronavirus disease, PPE = personal protective equipment, SME = small and medium enterprises.

a This is a not an exhaustive list of government measures implemented by different countries in the region.

b Country-specific information can be found here: Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan.

Sources: KPMG International Cooperative; and the Environment, Natural Resources and Agriculture Division of Central and West Asia Department, Asian Development Bank.

III. IMPACTS ON THE ECONOMY AND FOOD SECURITY

- 7. **The macroeconomy**. To date, substantial improvements have been achieved in the region in terms of domestic economic growth prior to the COVID-19 pandemic. The region's overall gross domestic product (GDP) growth rate has increased from 3.50% in 2015 to 4.47% in 2018, bringing the average GDP to around 3.82% during the period (Table 3). Despite the progress made in terms of GDP growth, the region had a relatively slower rate of agricultural growth, which averaged at 2.56% during 2015–2018. Likewise, the average agricultural GDP growth per capita during 2015–2019 (0.60%) is far smaller than the overall GDP (2.17%).
- 8. Countries in the region exhibited varying economic performance. Pakistan made a much larger headway in its agriculture sector. Despite the growing demand for countries to industrialize, Pakistan—which had the highest GDP in the region—was able to maintain a modest average annual growth rate of 5.21% during 2015–2018 while keeping nearly half of its population employed in the agriculture sector and 22% of its total GDP coming from agriculture. On the other hand, Kazakhstan's reliance on oil resulted in a relatively low average agricultural GDP share of 4.84% despite having nearly a third of its population being employed in the agriculture sector. The slow pace of overall economic growth and the even slower agricultural growth in the region may provide indications as to its vulnerability to the adverse impacts of the pandemic on its food security situation.
- 9. These macroeconomic trends reflect the region's poverty situation. Afghanistan had a significant rise in poverty rates—from 36% during 2011–2012 to 55% during 2016–2017. Rural poverty was consistently higher than urban poverty, although the deterioration in welfare has become more widespread across the country. Economic growth lagged behind population growth since 2012. With the additional 2.3 million Afghan returnees since 2015, the country experienced a large increase in the number of poor people, and its GDP per capita has fallen from \$640.6/person in 2014 to \$610.8/person in 2015. Regional disparities in welfare levels have also become more marked over time.
- 10. The economy of Tajikistan is vulnerable to external shocks, which has disproportionately impacted the poor and other vulnerable sectors of society. Tajikistan's vulnerabilities are exacerbated by (i) heavy economic dependence on the People's Republic of China and the Russian Federation, (ii) poor business climate, (iii) low savings, (iv) weak domestic employment prospects, and (v) long-running difficulties in the financial sector. These vulnerabilities have resulted in having 46% of the population fall into poverty.
- 11. Between 2011 and 2016, Uzbekistan's gross national income per capita (based on international dollar purchasing power parity) grew at an annual average rate of 7.4%¹⁰—from \$4,650 to \$6,640—which was largely due to the (i) creation of new small businesses and employment; (ii) large government investments in education, health, and infrastructure; (iii) increases in public sector salaries; and (iv) increased remittances. Despite these improvements, the country still faced low level of agricultural productivity, which largely accounted for its regional differences in growth, and its widening rural—urban income gap. In 2016, 63.5% of its total population of 31.8 million lived in rural areas while approximately 75.0% of those who resided in rural areas lived below the poverty line.
- 12. In the South Caucasus, a robust growth in the construction, service, and agriculture sectors made marked improvements in economic growth. Armenia's GDP growth remained high in 2019 at the rate of

⁹ World Bank. Afghanistan Poverty Status Update-Progress at Risk; and World Bank. The World Bank in Afghanistan (accessed 20 July 2020).

¹⁰ Food and Agriculture Organization (FAO) of the United Nations. FAOSTAT (accessed 9 November 2020).

7.6%, and the country was able to keep its inflation rate at 1.4% in 2019 from 2.5% in 2018. However, unemployment rate remained high at 18%, which resulted in a poverty rate of 25.7% in 2017. However, this poverty rate in 2017 was a large reduction from the 54% in 2004. Georgia also improved its poverty situation when poverty incidence dropped from 37.3% in 2010 to 20.1% in 2018.

13. According to Schmidhuber et al. (2020),¹¹ the impacts of the pandemic on the economy of Central and West Asia come predominantly as a demand shock. From the supply side, the shares of agricultural export and gross output per agricultural labor have intermediate to high exposure, while the share of intermediate inputs and capital per worker have intermediate to low exposure. From the demand side, the share of agricultural import has intermediate to high exposure to the impacts of the pandemic, while the share of food expenditure is seen to have high exposure. Within the region, Afghanistan, Armenia, Azerbaijan, the Kyrgyz Republic, Pakistan, and Tajikistan were seen to have high exposure to the adverse impacts of the pandemic. Furthermore, Armenia, Azerbaijan, Pakistan, and Tajikistan have high exposure in terms of the share of food expenditure. This would suggest that a possible rise in general price levels would adversely affect their citizens' purchasing power, thereby reducing their ability to acquire food and essential goods.

Table 3: Macroeconomic Trends in Central and West Asia, Average from 2015 to 2018

	GDF	•	Agricultur	al GDP	Per Capi	ta GDP	Per Ca Agricultu	•	
Country	Value (\$ million)	Growth Rate (%)	Value (\$ million)	Growth Rate (%)	Value (\$/person)	Growth Rate (%)	Value (\$/person)	Growth Rate (%)	Share of Agricultural GDP
Afghanistan	21,825.04	2.44	5,236.56	(0.39)	622.10	(0.89)	154.64	(3.01)	23.93
Armenia	11,113.74	4.74	1,670.80	(1.71)	3,797.12	3.69	520.79	(1.95)	15.13
Azerbaijan	51,965.08	0.36	3,452.96	4.38	5,318.08	(1.32)	333.55	3.30	6.65
Georgia	15,847.56	4.12	1,136.77	0.50	4,039.43	4.37	277.56	1.04	7.19
Kazakhstan	191,677.86	3.00	9,273.02	3.90	10,594.84	1.28	493.48	2.63	4.84
Kyrgyz Republic	7,123.59	4.24	976.55	3.42	1,186.72	2.51	158.33	1.91	13.72
Pakistan	290,179.46	4.26	64,950.82	2.01	1,486.05	3.23	332.27	0.03	22.44
Tajikistan	8,720.77	6.96	1,873.70	4.69	986.63	4.42	193.93	2.56	21.51
Turkmenistan	39,593.60	6.34	3,527.60	7.93	6,928.47	4.42	537.36	6.23	8.92
Uzbekistan	88,687.02	5.80	26,524.14	3.33	2,798.12	4.13	767.88	1.85	29.96
Region	726,733.72	3.82	118,622.91	2.56	2,290.54	2.17	363.91	0.69	16.34

GDP = gross domestic product.

Note: Figures in parenthesis indicate a negative value.

Source: Food and Agriculture Organization of the United Nations. FAOSTAT. http://www.fao.org/faostat/en/#home (accessed 20 July 2020).

J. Schmidhuber, J. Pound, and B. Qiao. 2020. COVID-19: Channels of Transmission to Food and Agriculture. Rome: Food and Agriculture Organization of the United Nations.

14. The Asian Development Bank (ADB) projected that the region as a whole would record a negative GDP growth rate (2.87%) in 2020 due to measures undertaken to control the spread of COVID-19 (Table 4). This would be a large slump from the 3.82% mean GDP growth in the region. All countries, except Turkmenistan and Uzbekistan, would have negative GDP growth rates. Those severely affected according to ADB's forecast for 2020 are the Kyrgyz Republic (–10.0%), and Afghanistan (–5.0%), Georgia (–5.0%), Azerbaijan (–4.3%), and Armenia (–4.0%). Inflation rates in the region would rise to as high as 13% in Uzbekistan, 10% in Turkmenistan, 10.7% in Pakistan, 9.5% in Tajikistan. These economic slowdowns and rising general price levels would manifest as increases in poverty incidence. Laborde et al. (2020) projected that as a result of various measures to combat the pandemic, poverty incidence would increase by 12.6% in Kazakhstan to as high as 107.8% in the Kyrgyz Republic (Table 4). For the entire region, economy-wide poverty incidence could increase by 43.1%, while poverty incidence among the rural population could increase by 27.7%. The incidence among the rural population could increase by 27.7%.

Table 4: Projected Changes in Gross Domestic Product Growth, Inflation Rate, and Poverty Incidence Due to the COVID-19 Pandemic, Central and West Asia (various years)

	GD	Inflation Rate (%)			% Change in Poverty Incidence (%) ^a			
		Foreca	ıst		Fore	ecast		
Country	Average 2015-2018	2020	2021	Average 2015-2018	2020	2021	Economy- Wide	Rural Population
Afghanistan	2.44	(5.00)	1.50	2.33	5.00	4.50	b	Ь
Armenia	4.74	(4.00)	3.50	1.45	1.40	2.20	23.5	20.2
Azerbaijan	0.36	(4.30)	1.20	7.90	3.80	3.20	Ь	b
Georgia	4.12	(5.00)	4.50	3.68	6.00	4.50	60.6	57.9
Kazakhstan	3.00	(3.20)	2.80	8.68	7.70	6.20	12.6	15.7
Kyrgyz Republic	4.24	(10.00)	4.00	2.90	7.00	5.00	107.8	0.0
Pakistan	4.26	(0.40)	2.00	4.23	10.70	7.50	42.7	41.1
Tajikistan	6.96	(0.50)	6.00	5.83	9.50	8.50	32.6	29.3
Turkmenistan	6.34	3.20	5.80	8.05	10.00	8.00	41.1	36.2
Uzbekistan	5.80	0.50	6.50	12.10	13.00	10.00	24.2	21.4
Region	3.82	(2.87)	3.78	8.58	8.00	6.60	43.1	27.7

COVID-19 = coronavirus disease, GDP = gross domestic product.

Note: Figures in parenthesis indicate a negative value.

Sources: Asian Development Bank estimates, and International Food Policy Research Institute.

15. **Food security.** The implementation of each country's strategies to control the spread of COVID-19 has affected domestic food availability and accessibility, and has resulted in transboundary food security problems. Among the countries in the region, Afghanistan and Pakistan, as reported by the Food and

^a Additional percentage of people in extreme poverty (or people with household income below \$1.9 per day).

^b No reported data.

¹² ADB. 2020. Asian Development Outlook 2020 Update: Wellness in Worrying Times. Manila.

D. Laborde, W. Martin, and R. Vos. 2020. Poverty and Food Insecurity Could Grow Dramatically as COVID-19 Spreads. International Food Policy Research Institute Blogs. 16 April.

Agriculture Organization (FAO) of the United NationsFAO, are under severe localized food insecurity.¹⁴ In Afghanistan, severe localized food insecurity was due to the decline in employment opportunities and remittances. FAO reported that approximately 10.9 million individuals (roughly 35% of the population) are considered under acute food insecurity. In Pakistan, severe localized food insecurity was brought about by the rise in wheat and wheat flour prices and the presence of around 1.4 million Afghan refugees.

- 16. Containment measures implemented across the region has impacted the domestic and international movement of food and agricultural products. This has negatively affected farm incomes and the access to and availability of food among households. A study conducted by ADB in Punjab, Pakistan in 2020 reported that lockdown measures implemented by the government has disrupted the production and trade of highly perishable goods, such as fruits, vegetables, and dairy. However, this measure did not have marked impacts on wheat production and marketing. Nevertheless, 33% of farmers surveyed in Punjab reported loss of income due to the pandemic.¹⁵
- 17. The primary impact of the pandemic on the region's food security situation is seen in its importation of agricultural products. The region is heavily dependent on cereal, root, and tuber crops for its dietary energy, placing its food access and availability on volatile positions. Nearly all countries in Central and West Asia derive more than half of their dietary energy from such crops, with an average of 59.26% across all countries from 2000 to 2012 (footnote 10). With Kazakhstan's lower dependency on cereal crops for dietary energy, it is also the country that is least dependent on cereal imports (Table 5). The only other country that is not import dependent on its cereal demand is Pakistan.

Table 5: Volume of Imports and Estimated Domestic Consumption of Wheat, Central and West Asia, 2017

Region/Country	Volume of Imports ('000 tons)	Estimated Domestic Consumption ^a ('000 tons)	Percentage of Imports (%)
Central Asia	3,852.37	50,321.31	7.7
Afghanistan	308.78	7,272.58	4.2
Kazakhstan	35.89	6,066.25	0.6
Kyrgyz Republic	269.64	830.14	32.5
Pakistan	0.00	24,000.87	0.0
Tajikistan	1,051.13	1,838.87	57.2
Turkmenistan	500.00	1,241.04	40.3
Uzbekistan	1,686.93	9,071.56	18.6
West Asia	2,107.91	4,390.11	48.0
Armenia	301.05	526.70	57.2
Azerbaijan	1,292.72	3,180.08	40.7
Georgia	514.14	683.33	75.2
Central and West Asia	5,960.29	54,711.44	10.9

^a Based on the 2020 estimates of per capita consumption by the Food and Agriculture Organization of the United Nations, and IndexMundi.

Sources: Food and Agriculture Organization of the United Nations. FAOSTAT. http://www.fao.org/faostat/en/#home; and IndexMundi (accessed 22 July 2020).

¹⁴ FAO. 2020. Crop Prospects and Food Situation – Quarterly Global Report No. 2, July 2020. Rome. https://doi.org/10.4060/ca9803en.

T. Yamano, N. Sato, and B.W. Arif. 2020. *Impact of COVID-19 on Farm Households in Punjab, Pakistan: Analysis of Data from a Cross-Sectional Survey*. ADB Briefs. No. 149. Manila: ADB.

- 18. One of the biggest trading partners of Central and West Asia is the Russian Federation, which is consistently one of the top exporters to the region—in almost all major agricultural goods. Despite a turbulent history, trade relations with the Russian Federation was productive as the majority of the region's imported wheat came from this country. The region's total wheat imports amounted to \$277 million per year from 2010 to 2017. Of all the countries in the region, Georgia and Azerbaijan are the top importers of Russian wheat, with Georgia's imports amounting to more than \$88 million, and Azerbaijan's imports reaching around \$200 million in 2017.
- 19. Meanwhile, there was an active trade of agricultural commodities within the region especially with the creation of international trade corridors. Kazakhstan was the main source of agricultural goods, supplying roughly 84% of the total intraregional agricultural imports. The majority of these goods included wheat and wheat-based products, which made up almost 47% of the country's total exports to countries within the region in 2017. Around 30% of total agricultural goods imported from Kazakhstan was sent to Uzbekistan. Of Uzbekistan's total imports from Kazakhstan, around 75% was in the form of wheat flour. Azerbaijan and Tajikistan followed Uzbekistan as the next top importing countries from Kazakhstan. Azerbaijan accounted for 19% while Tajikistan had 18% of the total intraregional imports from Kazakhstan. Their bulk of imports were also wheat and wheat-based products. The Kyrgyz Republic imported around \$67 million worth of wheat and \$0.8 million worth of barley from Kazakhstan per year from 2010 to 2017. Afghanistan was also highly dependent on its Central Asian neighbors—importing 63% of its total annual need for agricultural products from the region—with 44% of these being sourced from its border country, Pakistan.
- 20. Central and West Asia is heavily dependent on food imports, and the negative impact of the pandemic on its food security situation is imminent, if not already happening. In 2017, the region's estimated domestic consumption of wheat was 54.71 million tons, and imports accounted for 11% of this total volume (Table 5). However, these regional figures do not accurately describe country-specific conditions. The total domestic demand for Central Asia is 50.3 million tons, 7.7% of which is imported. Meanwhile, South Caucasus consumed 4.4 million tons in 2017 and imported 2.1 million tons, which represented 48% of the total volume of its domestic consumption. Within South Caucasus, Georgia had the highest import dependence (75% of domestic supply is imported) and Azerbaijan had the lowest (41%), but still significantly higher in comparison with other Central Asian countries. Within Central Asia, the countries that are heavily wheat import-dependent are the Kyrgyz Republic (32%), Tajikistan (57%), and Turkmenistan (40%).
- 21. Years before the pandemic, interregional trade linkages grew with the improvement in agricultural production, efforts in political stabilization, and creation of international trade corridors that eased the transfer of goods. Consequently, the region as a whole became a net importer of agricultural commodities, while most of its partner countries were unable to supply their own domestic demand for agricultural goods. In March 2020, key exporters of food staples, to keep their domestic prices low, have imposed trade restrictions and temporary ban on the export of socially significant products to the region (Table 6).

22. In 2018, Kazakhstan exported 3.3 million tons of wheat to countries in the region (i.e. Afghanistan, Azerbaijan, Georgia, Kyrgyz Republic, Tajikistan, and Uzbekistan). On average, monthly wheat export of Kazakhstan totaled 278,141 tons. Therefore, Kazakhstan's imposition of an export quota on wheat of 200,000 tons per month would have had significant effects on the total domestic supply of wheat of importing countries in the region. FAO reported that Kazakhstan's export prices of wheat has increased between March and May 2020 as a result of strong import demand during the period and decrease in its production of high-quality wheat (footnote 10). Although the export quota imposed by Kazakhstan expired on 1 September 2020, trade flow may still be disrupted as the number of COVID cases rise worldwide.

Table 6: Export Restrictions Introduced Since Late March 2020, Selected Countries

Country	Commodity	Restriction
Kazakhstan	Wheat	Export quota, (200,000 tons/month) until 1 September 2020
Kazakhstan	Wheat flour	Export quota (70,000 tons/month) until 1 September 2020
Kyrgyz Republic	Pasta, rice, wheat, wheat flour	Export ban, end date unknown
Russian Federation	Grain	Export quota, ^a 7 million tons/month (April to June 2020)

^a Applied to countries outside the Eurasian Economic Union (a trade block consisting of Armenia, Belarus, Kazakhstan, Kyrgyz Republic, and the Russian Federation).

Source: Bloomberg, International Grains Council, Reuters, World Trade Organization (as cited by Department of Agriculture, Water and the Environment, Australian Government. 2020. Agricultural Trade Implications of COVID-19: Trade Policy Responses, April 2020, Volume 4.)

- 23. The imposition of export bans and quotas especially on wheat and wheat products have resulted in the surge of prices of these products in countries in the region, most evidently in the Kyrgyz Republic and Tajikistan. According to FAO, the increase in domestic price of wheat in the Kyrgyz Republic was due to the increase in retail demand and export quota imposed by Kazakhstan (footnote 10). For Tajikistan, FAO reported that aside from Kazakhstan's export quota on wheat, the localized surge in domestic prices of wheat was also attributed to logistical disruptions that resulted from policies that permitted only the operation of central markets but at below maximum capacity. The localized price hikes in Tajikistan were also due to decrease in production, unavoidable speculation, and crop seasonality causing lagged supply responses.
- 24. Stricter border restrictions may also significantly increase trade cost over and above the costs imposed by poor trade facilitation and inadequate market infrastructure.¹⁶ ADB forecasted that the impact of short COVID-19 containment measures in the region in terms of reduced trade volumes would amount to \$3.8 billion.¹⁷ Meanwhile, long containment measures would reduce total trade volume by roughly \$5 billion.¹⁸

¹⁶ Organisation for Economic Co-operation and Development. 2020. OECD Policy Response to Coronavirus (COVID-19): COVID-19 Crisis Response in Central Asia.

ADB defines a containment period scenario as the time it takes for an economy to get its domestic outbreaks under control and normalize its economic activity. A short containment period refers to 3 months, while a long containment period refers to 6 months.

¹⁸ C.Y. Park et al. 2020. An Updated Assessment of the Economic Impact of COVID-19. ADB Briefs. No. 133. Manila: ADB.

- 25. Trade could be crippled and remittances substantially reduced if stricter international and domestic border control measures are implemented, selected industries are shut down, and mobility is restricted within the region and in neighboring countries—which would then affect domestic consumption. Remittances, which accounted for an average of 11% of the region's GDP in 2019,¹⁹ is predicted to fall by 28% during the first quarter of 2020.²⁰ Lower wage incomes, along with increasing inadequacy of local food supplies and local mobility restrictions, has reduced households' food access and would lead to widespread food insecurity. A poor state of food security results in poor nutrition, which would eventually lead to low productivity and worsening poverty.
- 26. From 2016 to 2018, an average of 5.45% of the region's population was exposed to severe levels of food insecurity (Table 7). This proportion increased to 5.53% during 2017–2019. This is in consonance with the slight decrease in per capita food availability—from 2,751.0 kilocalorie/person/day in 2016 to 2,749.1 kilocalorie/person/day in 2018 (footnote 13). Among the countries in the region, Afghanistan recorded the highest prevalence of severe food insecurity. Of its population, 17.3% during 2016–2018 and 22.7% during 2017–2019 were exposed to such conditions. These figures translate to some 7.37 million to 9.27 million individuals all over the region who lack financial resource to purchase food (Table 8). In Afghanistan, 7.76 million individuals during 2017–2019 were considered under severe food insecurity.

Table 7: Prevalence of Severe Food Insecurity and Undernourishment, Central and West Asia, 2016–2019

		Food Insecurity ^a in the ulation (%)	Prevalence of Undernourishment (%)	
Country	2016-2018	2017-2019	2016-2018	2017-2019
Afghanistan	17.30	22.70	28.90	29.90
Armenia	4.40	4.10	2.70	2.60
Azerbaijan	0.50	0.50	2.50	2.50
Georgia	7.50	7.30	7.10	8.20
Kazakhstan	b	0.50	2.50	2.50
Kyrgyz Republic	0.80	0.80	6.40	6.40
Pakistan	b	b	12.00	12.30
Tajikistan	b	b	Ь	b
Turkmenistan	b	b	3.80	4.00
Uzbekistan	2.20	2.80	2.80	2.60
Average	5.45	5.53	7.63	7.89

^a The Food and Agriculture Organization of the United Nations defines severe food insecurity as a situation that is "characterized by feeling hungry but not eating, or not eating for an entire day, due to lack of money or other resources."

Source: Food and Agriculture Organization of the United Nations. FAOSTAT. http://www.fao.org/faostat/en/#home (accessed 20 July 2020).

^b No reported data

¹⁹ World Bank. 2020. Personal Remittances, Received (% of GDP) (accessed 22 July 2020).

World Bank. 2020. World Bank Predicts Sharpest Decline of Remittances in Recent History. Washington, DC.

Table 8: Percentage of Persons under Severe Food Insecurity and Undernourished Individuals, Central and West Asia, 2016–2019

_	Persons under Severe Food Insecurity (% to total population)		Undernourished Individuals (% to total population)	
Country	2016-2018	2017-2019	2016-2018	2017-2019
Afghanistan	6.14	7.76	10.27	10.23
Armenia	0.13	0.12	0.08	0.08
Azerbaijan	0.05	0.05	0.25	0.25
Georgia	0.29	0.28	0.28	0.32
Kazakhstan	a	0.09	0.45	0.46
Kyrgyz Republic	0.05	0.05	0.39	0.40
Pakistan	a	a	23.64	25.25
Tajikistan	a	a	a	a
Turkmenistan	a	a	0.22	0.23
Uzbekistan	0.70	0.91	0.89	0.85
Total	7.37	9.27	36.46	38.05

^a No reported data.

Source: Food and Agriculture Organization of the United Nations. FAOSTAT. http://www.fao.org/faostat/en/#home (accessed 20 July 2020).

- 27. Undernourishment—resulting from food insecurity—is still highly prevalent in the region and although it has been declining over the past decade, the decline has been very slow. The situation became severe between 2016 and 2019. During 2016–2018, 7.63% of the population is considered undernourished, which increased to 7.89% during 2017–2019 (footnote 13). Afghanistan recorded the highest incidence of undernourishment during both periods. For the whole region, 36.46 million individuals were undernourished during 2016–2018, which increased to 38.05 million during 2017–2019 (footnote 13). As the COVID-19 pandemic progresses, several million individuals would eventually become exposed to severe food insecurity and undernourishment.
- 28. Prior to the pandemic, significant efforts were pursued by the region to achieve brighter prospects for the agriculture sector. These were done through various public policy actions, such as land reform, agricultural diversification, and harmonization of trade policies that resulted in higher agricultural productivity, particularly in wheat production since 2016.²¹ However, improvements gained prior to the COVID-19 period will most likely be offset in the long term as the pandemic is likely to persist through 2021—or until a vaccine becomes available.²² Therefore, concerted effort by the governments, the global development community, and various agriculture stakeholders in crafting strategic policy actions is necessary to achieve food security during and after the COVID-19 pandemic.

ADB, International Food Policy Research Institute, and Central Asia Regional Economic Cooperation Institute. 2019. Agriculture Development in the Central Asia Regional Economic Cooperation Program Member Countries: Review of Trends, Challenges, and Opportunities. Manila.

Bloomberg reported that most experts believe that the COVID-19 pandemic will persist into 2021. M. Cortez. 2020. We Will Be Living With the Coronavirus Pandemic Well Into 2021. Bloomberg. 19 June.

IV. ADB ASSISTANCE IN THE AGRICULTURE, NATURAL RESOURCES, AND RURAL DEVELOPMENT SECTOR AND RESPONSES TO COVID-19

- 29. ADB has been active in the economic development of the region through investments in agriculture, natural resources, and rural development (ANR) projects. In total, ADB has invested more than \$68 billion in the region with over \$7 billion (approximately 10%) allotted to the ANR sector (Table 9). Pakistan received the largest total financial assistance of \$34.4 billion while ANR was allotted \$4.5 billion. ANR assistance were in the form of irrigation improvements, agricultural market developments, and land area developments. The other major recipients of ADB's technical and financial assistance for ANR are Afghanistan (\$1.09 billion) and Uzbekistan (\$0.78 billion).
- 30. In response to the COVID-19 pandemic, ADB allotted over \$2.8 billion of assistance package to the Central and West Asia (Table 10). This assistance is funded through the COVID-19 Pandemic Response Option under ADB's Countercyclical Support Facility and is in support of ADB's COVID-19 Active Response and Expenditure Support (CARES) program. The CARES program is providing essential support to governments in the region to mitigate severe health, social, and economic impacts caused by the pandemic—by allowing them to undertake public expenditures to support vulnerable populations and to help control the spread of COVID-19.

Table 9: Cumulative ADB Investments in Agriculture, Natural Resources and Rural Development in Central and West Asia (as of 2019)

	Year of ADB Membership	Investment in ANR		Cumulative Financial Assistance for All Sectors		Proportion of Financial Assistance
Country		Value (\$ million)	Percentage (%)	Value (\$ million)	Percentage (%)	on ANR to Total Financial Assistance (%)
Afghanistan	1966	1,088.86	15.54	5,986.46	8.78	18.19
Armenia	2005	32.00	0.46	1,502.99	2.20	2.13
Azerbaijan	2001	23.93	0.34	4,443.84	6.51	0.54
Georgia	2007	0.00	0.00	3,385.38	4.96	0.00
Kazakhstan	1994	189.16	2.70	5,202.45	7.63	3.64
Kyrgyz Republic	1994	174.30	2.49	2,134.61	3.13	8.17
Pakistan	1966	4,524.80	64.56	34,393.90	50.42	13.16
Tajikistan	1998	190.51	2.72	1,867.84	2.74	10.20
Turkmenistan	2000	0.23	0.00	629.39	0.92	0.04
Uzbekistan	1995	784.68	11.20	8,671.36	12.71	9.05
Total		7,008.47	100.00	68,218.22	100.00	10.27

ADB = Asian Development Bank, ANR = agriculture, natural resources, and rural development.

Sources: ADB country fact sheets.

Tajikistan

Turkmenistan

Uzbekistan

Total

Country Amount (\$ million) Percentage (%) Afghanistan 43.07 1.51 49.21 1.73 Armenia 0.50 0.02 Azerbaijan 111.75 3.93 Georgia Kazakhstan 1,001.07 35.17 Kyrgyz Republic 71.19 2.50 Pakistan 932.98 32.78

2.86

0.02

19.48

100.00

Table 10: Summary of ADB's COVID-19 Response Assistance to Countries in Central and West Asia

2,846.27 ADB = Asian Development Bank, COVID-19 = coronavirus disease.

81.44

0.57

554.49

Source: Asian Development Bank. ADB COVID-19 Policy Database (accessed 24 July 2020).

31. ADB has also been actively promoting regional agricultural and rural development and food security through the Central Asia Regional Economic Cooperation (CAREC) Program. Among the initiatives of ADB to support the goals of the CAREC Program are the following: (i) support in crafting the CAREC strategy 2030, which considered agriculture and water as an operational cluster; (ii) promoting the Common Agenda for Modernization of Sanitary and Phyto-Sanitary Measures for Trade, which aimed to implement food safety management systems, sanitary and phytosanitary measures (SPS) for trade and risk assessment, and research project on the exchange of e-SPS certificates; (iii) support in establishing a CAREC Food Safety Network to assist food safety regulatory and standard agencies; (iv) developing agrologistic centers in Uzbekistan, and modern agriculture wholesale markets in the Kyrgyz Republic under the Almaty-Bishkek Economic Corridor; and other related projects.

V. BINDING CONSTRAINTS IN MITIGATING THE ADVERSE IMPACTS ON FOOD SECURITY

- 32. The region's agriculture is expected to continue to grow, albeit on a narrow resource base. It continues to be characterized by low productivity, limited connectivity (both in terms of geography and marketing), and remains labor intensive. The development of the sector to ensure food security is also constrained by the lack of appropriate market infrastructure and finance, among others.
- 33. Household plots and private farms—with an average land area of 1.6 hectares in 2016— are still commonplace in the region, especially in Kazakhstan, Georgia, and Uzbekistan (footnote 21). In this type of collective farming system, the state controls much of the production and directs farmers to grow particular crops—such as wheat and cotton. Input subsidies are provided by most of the

respective governments to help ease the burden on farmers. Aside from the limited agricultural research and extension in the region, farmers under the collective farming system lose the incentive to acquire new knowledge that can improve their production and discover other viable income opportunities from production. Also due to these small landholdings, farmers cannot access formal financing as banks that are predominantly financed by foreign capital do not accept farmlands as loan collateral.

- 34. Market infrastructure for harvesting, storage, processing, and distribution are still underdeveloped, and these limit commercial linkages between agribusinesses and smallholder farmers. Across the region, agricultural value chains are characterized by rudimentary marketing and transport infrastructure, weak linkages between value chain actors, and limited and technologically poor storage and processing capacity. There is also no coordination of wholesale market activity at the national levels. Markets for staple foods and other agricultural commodities are managed at the local level, which has given rise to a range of wholesale and retail market outlets of varying capacities and levels of professionalism. These weaknesses are reflected in high levels of postharvest losses, which are estimated to go up to 30% in many countries. These problems limit opportunities for accessibility, price smoothing, value addition, and realization of the significant export potential.
- 35. Limited access to either equity or long-term debt financing for producers and enterprises throughout the value chain constrains development. The sector does not receive preferential financing under government programs or gets even sporadic support. Financial institutions have a largely negative perception of the profitability and creditworthiness of the agriculture sector, exacerbated by (i) an undeveloped regulatory framework for the use of movable assets as loan collateral, (ii) a lack of acceptable collateral among many small-scale producers, or (iii) having collaterals with low realizable values among agribusiness enterprises. Access to information on potential borrowers is also limited as the credit information system is not efficient. Financial institutions have yet to develop credit policies and loan products appropriate to the needs of agriculture producers and enterprises, including cash flow-based loan appraisal suitable for agriculture investment and seasonal production.
- 36. The high cost of funds, actual and perceived risks, and administrative costs associated with lending to individuals and small businesses require banks to charge high interest rates for both local and foreign currency loans. Bank loans are mainly short term, with an average maturity of 18 months. While there is a high demand for medium- and long-term loans, banks are not able to finance due to their lack of equivalent medium- and long-term funding sources. Moreover, access to finance for private individuals and enterprises is constrained by weak rural branch networks and limited mobile banking services.
- 37. The fragmented nature of food safety systems in the region do not facilitate efficient flow of goods throughout the international and local agricultural value chains. Food safety systems adopted by countries in the region vary in terms of structure (either single agency or multiple agency), maturity levels, and supporting national infrastructure. The multiplicity of food safety stakeholders in many countries in the region also impede achieving an efficient food safety system as this would encroach on sectoral, governance, and administrative functions. All these resulted in varied capacity development and reform assistance demands.
- 38. Against this backdrop, it is important that ADB promotes the following in its investment projects and/or programs: (i) investing in modern production and postharvest systems through commercial/bank finance; (ii) establishing integrated infrastructure including on-farm facilities, postharvest handling, storage, processing, certification, market information, and logistics capacity to promote sustainable exports; (iii) engaging all key agricultural value chain actors in clusters to promote horizontal and vertical integration; and (iv) operating infrastructure according to the user-pays principle.

VI. RECOMMENDATIONS FOR ENHANCING POST-COVID-19 FOOD SECURITY

- 39. **Regional initiatives**. In the context of the COVID-19 pandemic, regional initiatives should focus on trade facilitation advisories and veer away from the use of nontariff barriers. A potent way for enhancing post-COVID-19 food security in the region is through a regional platform for international economic cooperation, i.e., the CAREC Program. Through the program, regional food security could be pursued by enhancing and/or repurposing existing trade facilitation schemes. By capitalizing on prior CAREC Program initiatives, regional food security may be achieved through, among others, the following: (i) cooperation in agriculture and food value chain development in the region, (ii) harmonization of agricultural products standards, (iii) improvement in cross-border customs clearance procedures for perishable agriculture and food products (including harmonization of sanitary and phytosanitary measures), and (iv) development of agrologistic centers in the region to expand the storage of agriculture products and improve the quality of exports.
- 40. Key advisories that are relevant and useful to CAREC member countries may include the following: (i) price discovery mechanisms to facilitate government-to-government (G2G) and business-to-business (B2B) dealings; (ii) future and/or forward contracts, including multiyear and multicountry arrangements, and structured trade finance for key staple foods; (iii) creating a prioritized green channel for food movements between countries; and (iv) using the CAREC water pillar for developing an integrated approach to the water, energy, and food problem complex that exist among numerous states.
- 41. **Country-level assistance**. Food security is country-specific and more critically household-specific in nature, rather than regional. In its country operations, ADB's ANR operations have so far focused on (i) making food available by increasing productivity (on-farm and postharvest) and expanding productivity potentials, and (ii) strengthening market linkages (both for domestic and export markets). Significant results have been achieved through (i) irrigation development programs, which contributed to improved agriculture productivity; and (ii) agribusiness development projects, which facilitated affordable access to food and increased value addition.
- 42. To assist member-countries ensure food security beyond the COVID-19 pandemic, ADB's ANR operations should focus on promoting public policies that aim for sustainable agricultural and rural development. This will necessitate creating and adopting development models that will transform the region's agriculture and rural development sectors into highly productive and leading agricultural hubs. Thus, ADB's assistance should focus on the following: (i) identifying viable institutional and business partnership arrangements for production and marketing (e.g., corporate business models with smallholders as shareholders); (ii) accelerating productivity growth for both staple and non-staple high-value crops (e.g., by developing irrigation systems, farm-to-market roads, clean water supply, onfarm/near-farm processing infrastructure, and holistic agrologistic facilities); (iii) enhancing the value addition of horticulture and livestock products (e.g., water-saving and/or energy-saving production, processing, food safety, marketing, and agribusiness development); and (iv) strengthening of research and development, extension services (e.g., veterinary services, disease control, flood, and drought- and disease-tolerant breeds and/or varieties), and farmers' knowledge and practices. It is important that ADB designs—where possible—projects using digital agricultural solutions to improve the effectiveness of interventions for beneficiaries. Women's empowerment and participation is central to equitable and sustainable development, and ADB's operations need to ensure women are considered in the design of

projects and programs. In case emergency handout of food is required, ADB should propose emergency assistance projects in response to specific situations.²³

43. The areas of proposed interventions are outlined in Table 11. Proposed projects and/or programs should aim at "enhancing agricultural productivity and competitiveness" as the medium- and long-term sector outcomes.

Table 11: Proposed Interventions and Indicative Outcomes

Sector Interventions	Proposed Subareas/Projects	Indicative Outcomes		
Implement emergency food assistance measures	 Employment of food handouts, together with food-for-work and/or cash-for-work programs, in poverty-stricken provinces or districts. Replenishment of national food reserves. Livelihood support through conditional cash transfer. 	Immediate and short-term relief assistance to highly vulnerable groups.		
Promote viable institutional production and marketing arrangements	 Improvement in land tenure systems. Strategic consolidation of production activities. Application of smallholder-owned corporate models in the clustering of production and marketing activities. Creation of trade and/or marketing hubs. Development of harmonized institutional and regulatory frameworks. 	 Improved farm productivity. Improved farm incomes. Improved household and/or rural incomes. 		
Accelerate productivity growth	 Utilization of land zoning and soil conservation measures by agrosystem. Establishment of intensive orchards and greenhouses using modern technologies (e.g., drip irrigation and other energy- and water-saving facilities). Employment of harvest/postharvest handling in horticulture crops (precooling, cold storage, processing, sorting and/or grading, and packaging). Rehabilitation of irrigation systems for command areas' development. Increased use of quality input for livestock (fodder and feed). Expansion of adaptive research to develop new, drought-tolerant varieties. Application of remote sensing (for monitoring of agroecological conditions and productivity projections and/or interventions). 	 Improved land management and soil fertility. Improved crop productivity, quality-at source, and value addition. Increased import substitution and exports. Improved domestic supply of livestock products and reduced imports. 		

continued on next page

²³ Country-specific briefs are available upon request.

Table 11 continued

Sector Interventions	Proposed Subareas/Projects	Indicative Outcomes
Enhance marketing and logistical systems	 Development of agricultural marketing information systems. Expansion of agrologistic infrastructure. Commercialization of livestock feed and fodder. Enhancement of business development services for agribusiness. Export promotion, branding strategy formulation, and greater publicity in domestic market and key high-priced markets. Formulation of medium- and long-term staple food reserve strategy (including increased efficiency and effectiveness of the existing buffer system for food security). 	 Improved food availability. Improved food quality. Improved access to technical and marketing services across the agricultural value chain. Increased exports.
Enhance food quality and safety	 Improvement of product standards systems, packaging, certification, and product labeling. Implementation of sanitary and phytosanitary regulations and measures and application along the supply chain, for both horticulture and livestock. Establishment of laboratories and food safety monitoring stations in key production zones 	Enhanced traceability and quality of products in both domestic and international markets.
Enhance the capacities of small farmers so they could access modern technologies and capital, and learn improved practices.	 Establishment of producer's associations and arrangements for smallholders to aggregate their produce. Expansion and provision of support to private sector extension for horticulture and livestock. Development of a collaborative publicprivate sector national agricultural extension system. Enhancement in the financing capacities of agricultural finance and credit providers. Formulation of tax incentive schemes for micro, small, and medium enterprises. Initiation of support to private sector information and communication technology platforms for technical needs, market information, and marketing. 	 Increased bargaining power of small farmers (maximized returns to scale). Enhanced productivity potential. Improved crop productivity, quality-atsource, and value addition. Improved access to technology, financing, and markets and marketing information. Increased private sector investment in agribusinesses.

Source: Author.

COVID-19 Pandemic Impacts on Food Security in Central and West Asia

Key Issues and Strategic Options

The rapid spread of the coronavirus disease (COVID-19) in Central and West Asia has prompted individual governments to quickly implement disease containment and other COVID-19 response measures. Unfortunately, these courses of action have resulted in reduced foreign remittances, declining household incomes, rising rates of unemployment, and disruptions in agricultural supply chains, which created severe impacts on the region's food security situation. The Asian Development Bank offers a list of strategic options to enhance the region's agricultural productivity and competitiveness as it moves toward its food secure future, post-COVID-19.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members —49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.