



Climate change, agriculture and food security in CAREC member countries

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Asian Development Bank
February 29 – March 1, 2024
Uzbekistan

ADB emphasizes Climate-Adaptive Agriculture



2019-2030

Climate financing to its developing member countries (DMCs) to \$100 billion

CLIMATE CHANGE
(OCT 2021)



From the People of Japan



2022-2025

\$14 billion to improve food security

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FOOD SECURITY
(SEP 2022)



From Mid-2023.

All ADB

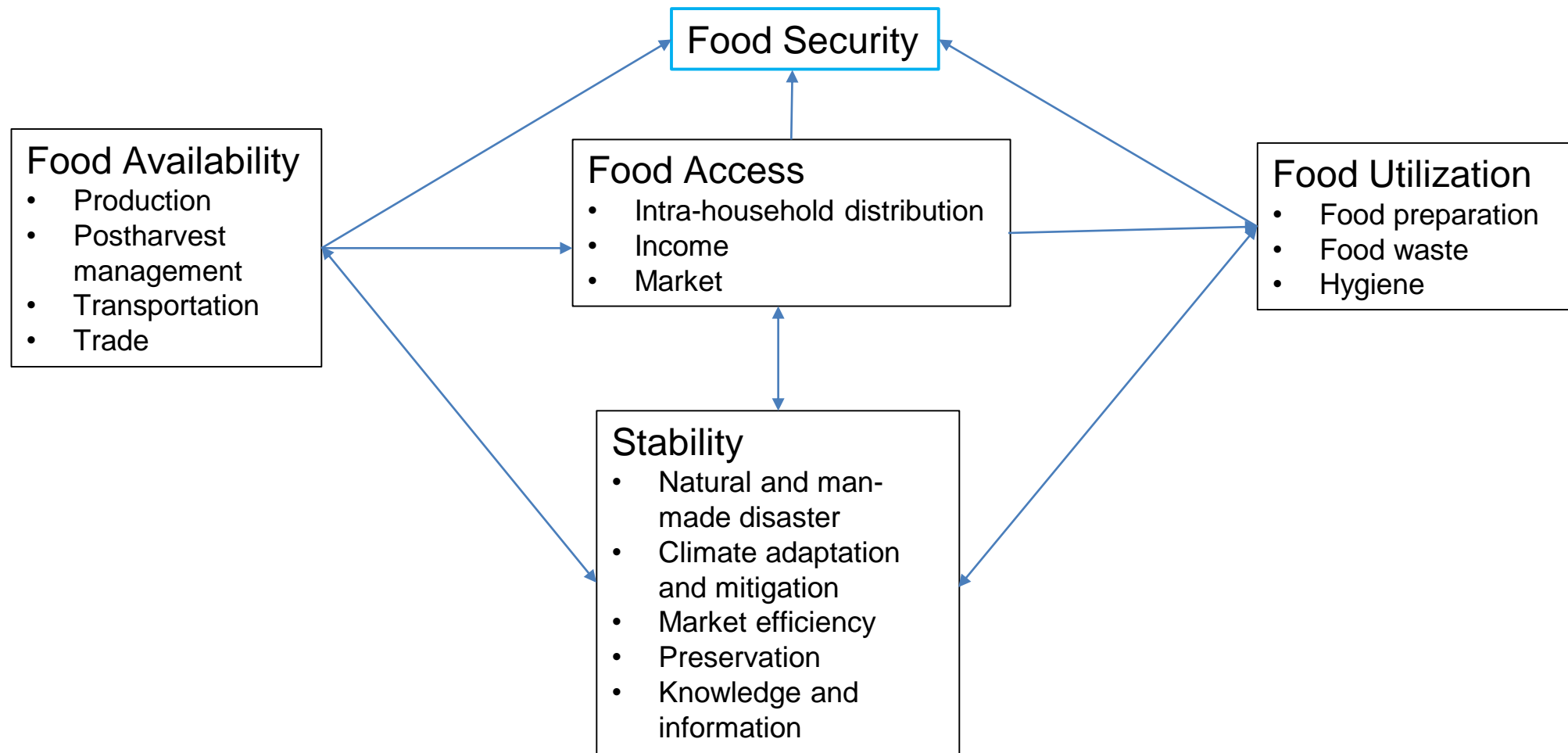
projects will be aligned with the Paris Agreement

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PARIS ALIGNMENT
(FROM JULY 2023)



4 Pillars of Food Security



Food Security Scores in Selected CAREC Countries

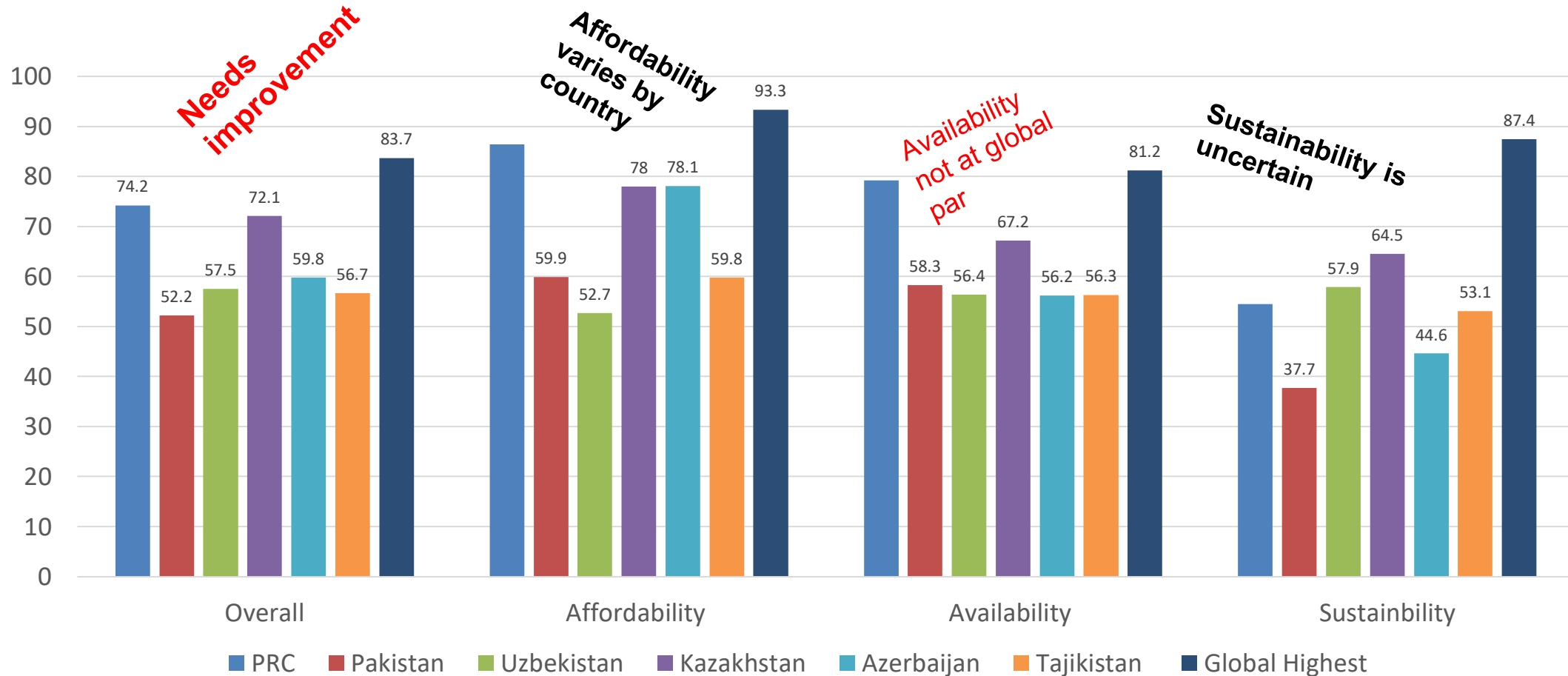
	Number of severely food-insecure people (millions)						Number of moderately or severely food-insecure people (millions)					
	2015	2017	2019	2020	2021	2022	2015	2017	2019	2020	2021	2022
ASIA	293.7	295.0	377.3	449.5	486.1	456.9	791.0	857.4	981.8	1196.8	1151.5	1144.9
Central Asia (5/5)	1.0	2.0	1.7	3.6	3.8	3.5	6.3	9.9	9.9	13.3	15.3	13.4
Eastern Asia (2/5)	12.4	27.9	21.4	33.4	17.0	16.0	95.7	164.3	123.0	129.0	102.3	103.4
South-eastern Asia	11.9	13.3	12.2	13.9	17.7	17.8	92.5	101.9	96.0	104.0	114.2	114.4
Southern Asia (2/9)	244.7	225.4	316.9	371.3	417.9	389.2	514.7	496.6	668.1	849.8	807.6	809.2
Western Asia (2/18)	23.8	26.4	25.1	27.4	29.7	30.3	81.8	84.6	84.8	100.7	112.1	104.4
Western Asia and Northern Africa	44.3	51.4	46.6	51.2	58.4	61.4	141.7	163.4	156.0	176.6	199.0	188.7

Food insecure people rising since 2015 with sign of decline in 2022

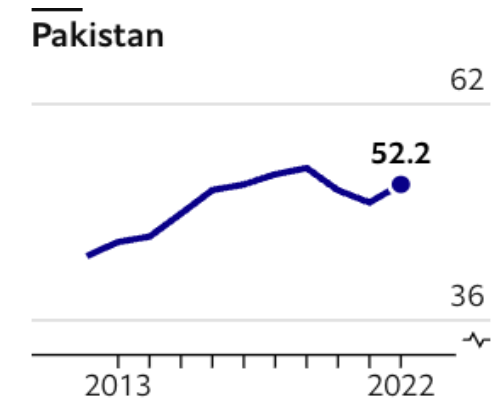
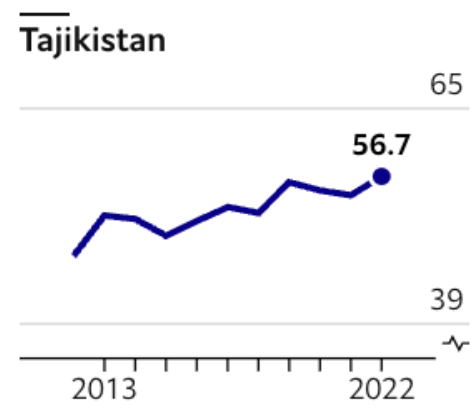
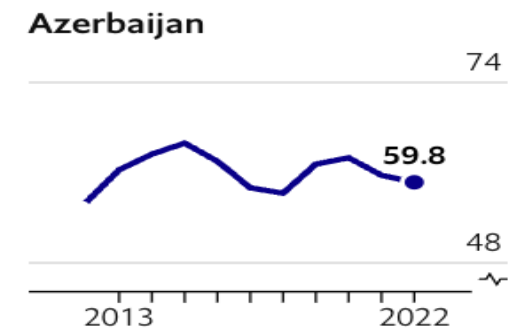
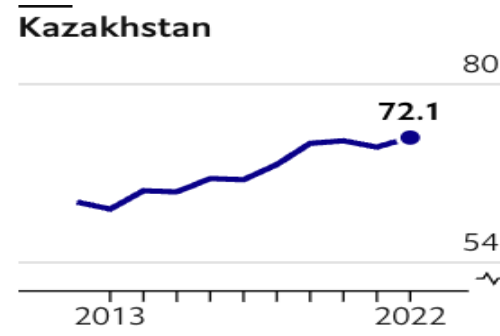
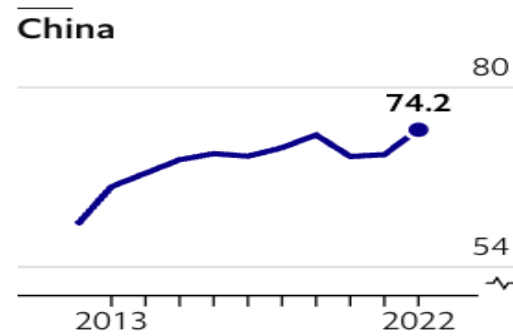
	Cost of a healthy diet (PPP dollars per person per day)					Proportion of the population unable to afford a healthy diet (%)		
	2019	2020	2021	2019–2020 change (%)	2020–2021 change (%)	2019	2020	2021
ASIA	3.57	3.70	3.90	3.7	5.2	43.2	46.4	44.2
Central Asia	2.91	3.10	3.32	6.7	7.2	21.3	24.6	24.4
Eastern Asia	4.45	4.67	4.87	5.1	4.1	11.2	14.5	10.0
South-eastern Asia	3.86	3.99	4.19	3.6	4.8	52.3	54.0	54.9
Southern Asia	3.66	3.82	4.08	4.2	6.9	70.2	73.8	72.2
Western Asia	3.15	3.22	3.36	2.2	4.5	9.7	9.7	9.0

Cost of healthy diet and % of ppl unable to afford it rising

Food Security Scores in Selected CAREC Countries



Food Security Trends in Selected CAREC Countries



Recovery happening, but needs acceleration



Source: Global Food Security Index 2022, The Economist.

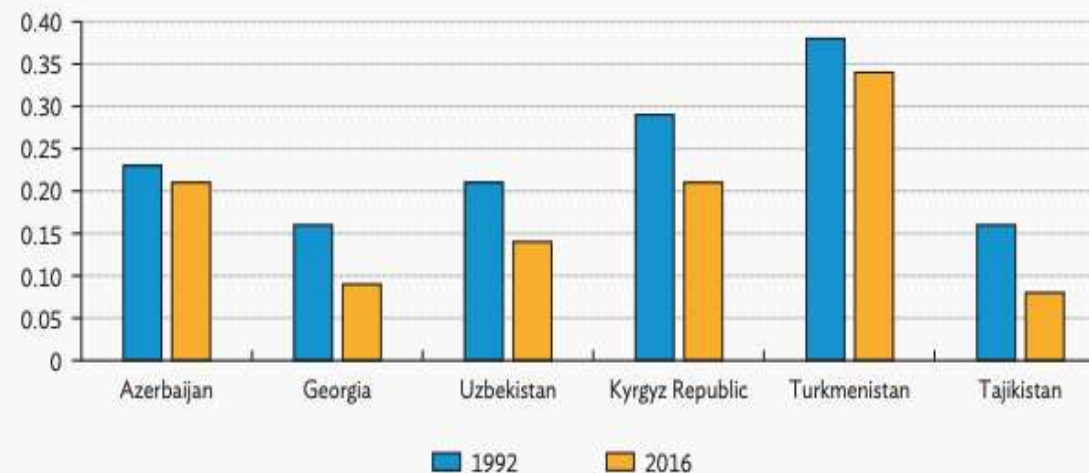


Challenges to Food Security in CAREC Countries

- Low productivity (land, labor, and capital)
- Lack of investment in human capital and limited entrepreneurship
- Inadequate requisite infrastructure and market systems
- Traditional markets and marketing (producer-pushed)
- Lack of conducive institutional and regulatory harmonization, especially for food trade

- Declining Agricultural Resources
- Weak resilience to climate change

Figure 12: Average Arable Land per Person, 1992-2016
(hectare)



Source: Food and Agriculture Organization of the United Nations. FAOSTAT. <http://www.fao.org/faostat/en/#home> (accessed 31 October 2019).

Climate Change in CAREC Countries

- Higher than average increase and variability of temperature
- Extreme weather events
- Growing water scarcity
- Low/declining agricultural productivity

2022-23

- Devastating flood in Pakistan
- Severe drought in Afghanistan
- Drought and floods in PRC

Imperatives for climate-smart (precision) agriculture

- **Develop a climate-smart agriculture system.** using digital technology, development of agriculture and agri-food value chains, improved use of water resources (increase productivity per drop of water).
- **Promote green trade.** increasing access and incentivizing trade of environmental goods, mainstreaming multilateral climate agreements in regional arrangements, and the development of an efficient trading system for agricultural inputs and outputs in the region.



Need to acquire and share knowledge

ADB's Engagement in climate-smart agriculture

Regional Action on Climate Change: A Vision for CAREC

- Mitigate climate change
- Adapt to climate change
- Cooperate across borders



COOPERATION FRAMEWORK FOR AGRICULTURAL
DEVELOPMENT AND FOOD SECURITY IN
THE CAREC REGION



24 November 2022



From
the People of Japan

JFPR
Japan Fund for Prosperous and
Resilient Asia and the Pacific

- Climate-smart agricultural policies
- Reduce GHG from farming and livestock
- Drought-resistant crop
- Better forestry management



ADB's Engagement in climate-smart agriculture

- **Enhancing Climate Resilience:** implementing measures to reduce vulnerability to climate-related hazards such as floods, droughts, and extreme weather events.
- **Regional Cooperation:** promoting dialogue, sharing best practices, and supporting joint initiatives to tackle climate change at the regional level.
- **Capacity Building:** strengthening institutional capacity to address climate change. This includes training programs, knowledge sharing initiatives, and support for policy development.

However, countries must identify the knowledge gap to promote climate-smart agriculture.