Food Security in Asia and the Pacific amid the COVID-19 Pandemic

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Disruptions to the entire food supply chains during the COVID-19 pandemic

Lockdown impact on supply

- Labor shortage due to travel restrictions and fear of infection
- Limited capacity of farmers to store harvested crops
- Factory or facility shutdown
- Port restrictions and congestion, leading to the spoilage of perishables and increasing food waste due to a lack of refrigerated storage
- Delays or retrieval in capital investment

Lockdown impact on demand

- Income loss due to layoffs and furloughs
- Consumer sentiment and behavior (e.g panic buying, hoarding)
- Limited accessibility to food
- Undernutrition for the vulnerable groups

Input Supply

- Fertilizer, pesticide
- Seeds, feeds
- Energy
- Logistics

Farming

- Local, seasonal migrant workers
- Structure, machinery and equipment

Processing

- Workers
- Facilities, storage
- Machinery

Distribution

- Packaging
- Logistics

Wholesale and retail

- Grocery stores, supermarkets
- Food chains
- Online markets

Consumers

- Hotels, restaurants, schools
- Households

Source: Kim, Kim, and Park (2020).

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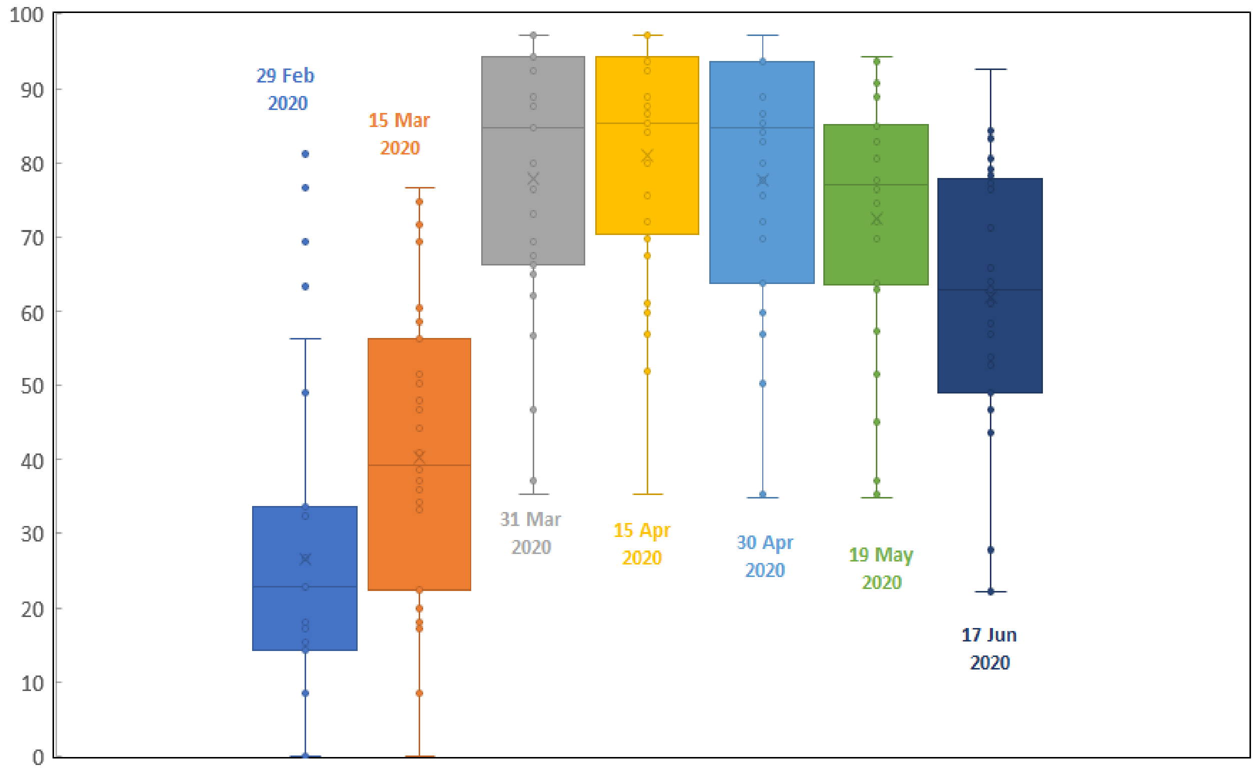
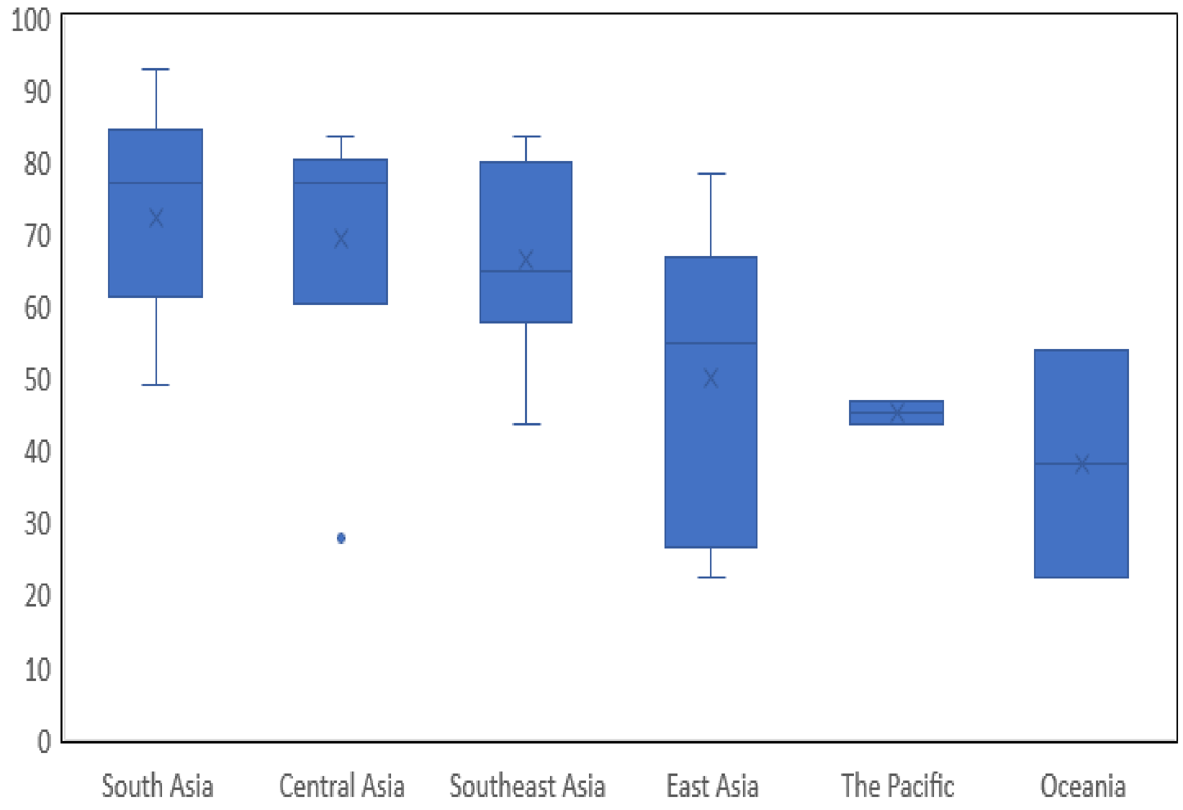
Mobility restrictions in Asia and the Pacific

Oxford COVID-19 Government Response Stringency Index over time
(as of June 17 2020)



Oxford COVID-19 Government Response Stringency Index by subregion
(as of 17 June 2020)

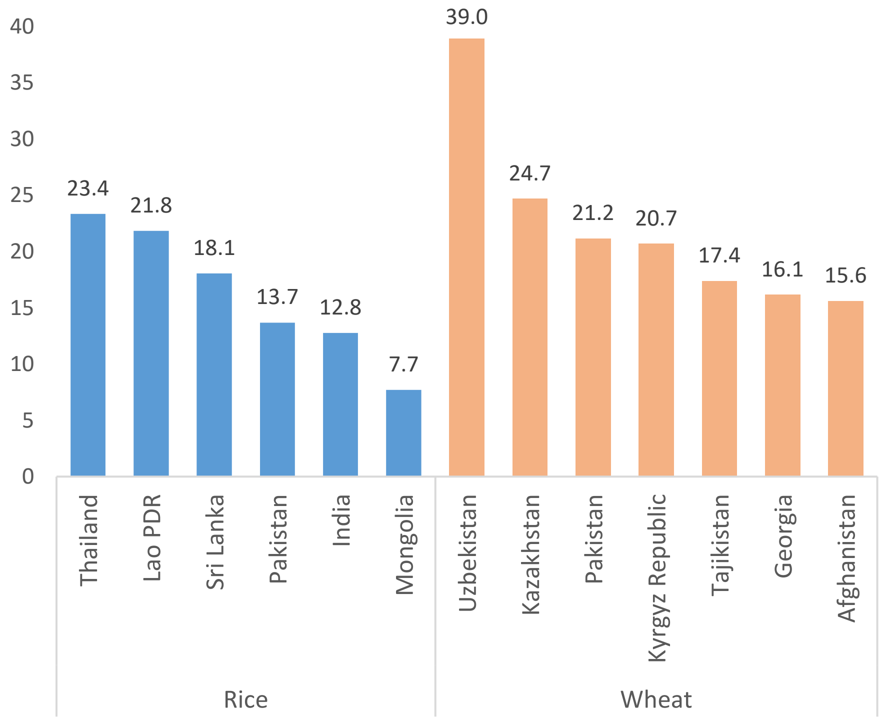


Source: Oxford Government Response Tracker. https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker (accessed June 2020)

Prices of staple foods have increased in several economies in the region

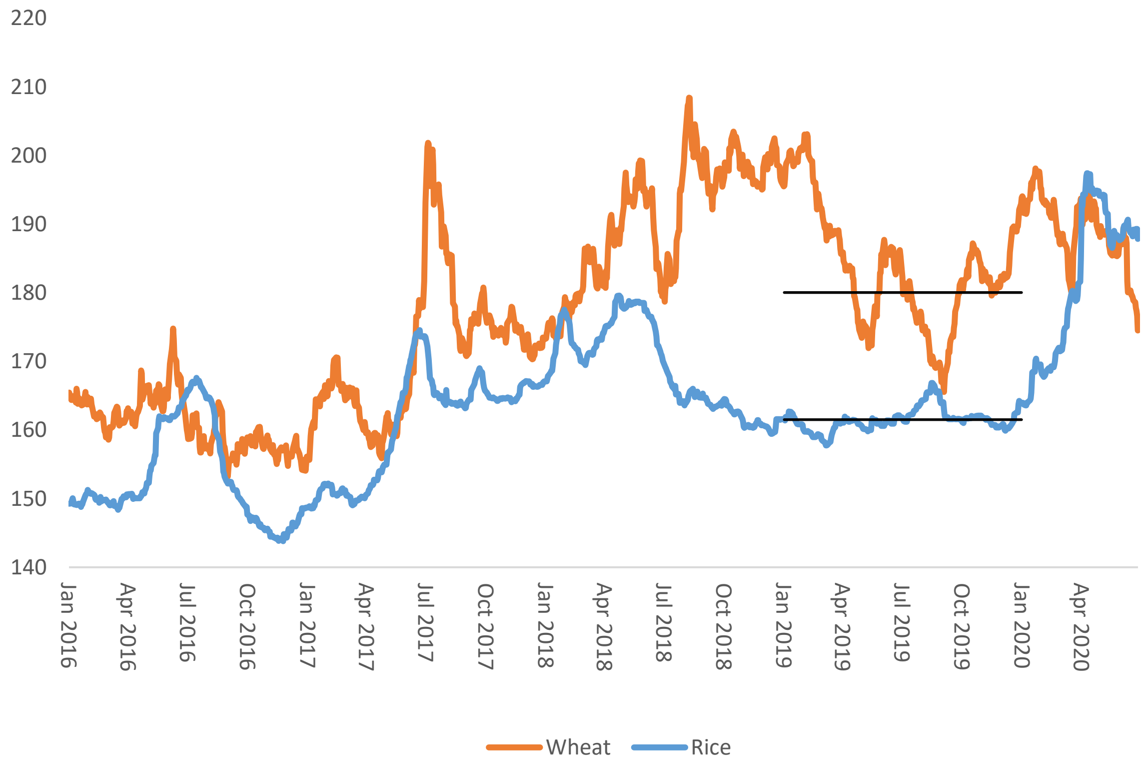
Domestic retail prices

(year-on-year % change, average Jan-May 2020)



International price index

(Jan 2000 = 100, as of 29 June 2020)



Note: International prices are based on "free on board" export quotations in major shipment locations; black horizontal lines in panel b represent average prices in 2019.
Sources: International Grains Council. Grains and Oilseeds Index. https://www.igc.int/en/markets/marketinfo-goi.aspx ; Food and Agriculture Organization. Food Price and Monitoring Analysis Tool. https://fpma.apps.fao.org/giews/food-prices/tool/public (all accessed 30 June 2020).

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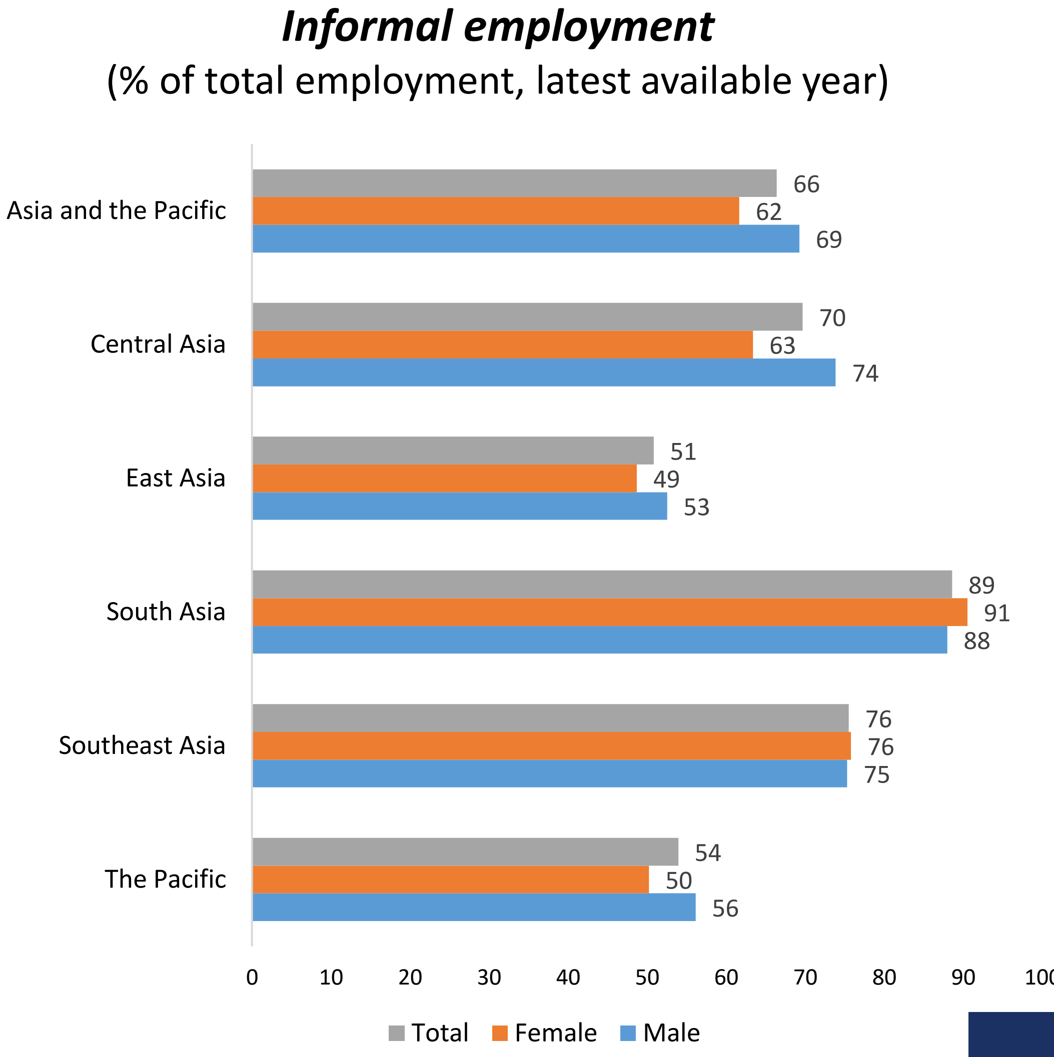
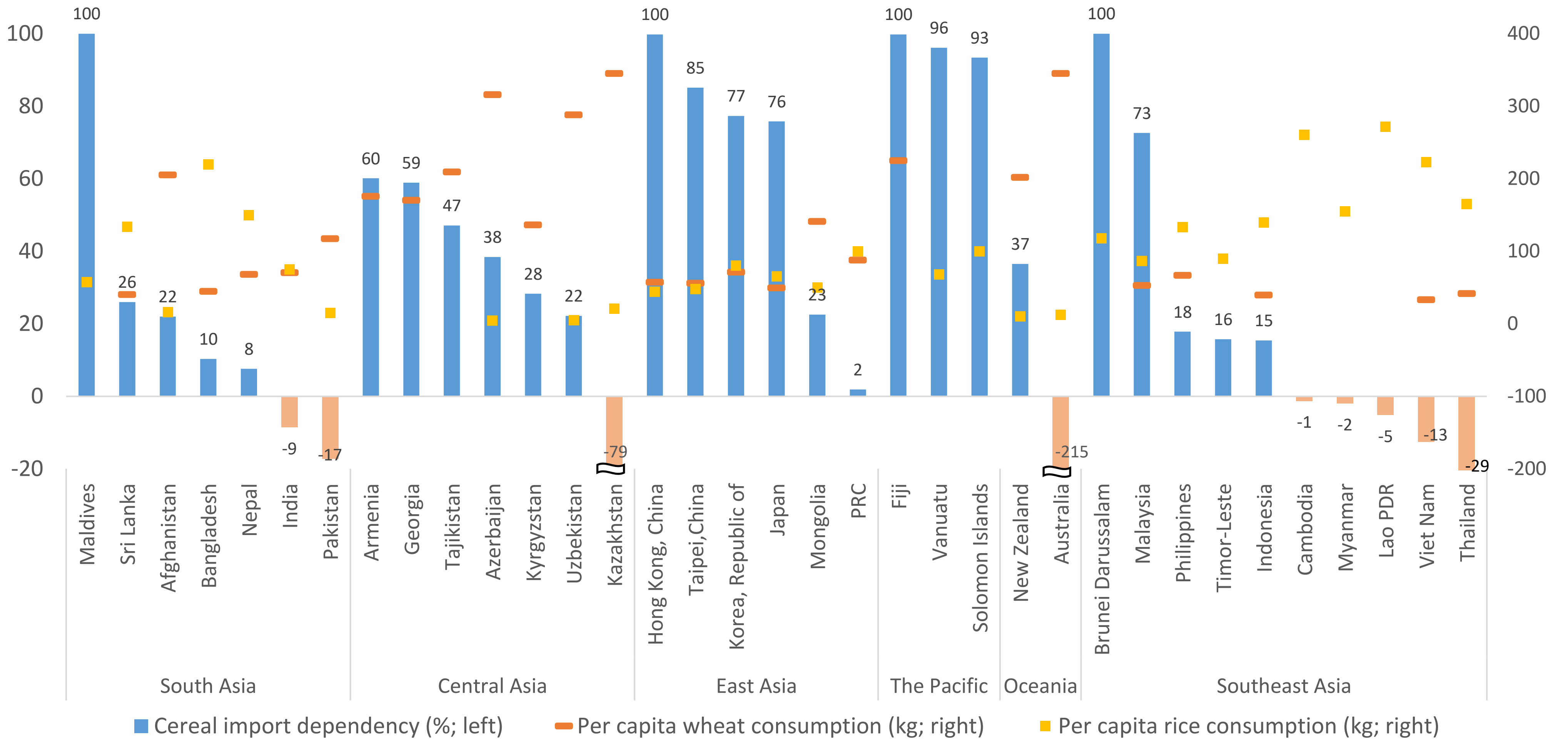
Impacts on vulnerable countries and communities

- Decline in working hours of 6.5% in first quarter and 10% in second quarter in the region (ILO 2020).
- Informal sector workers at risk due to limited social protection.
- Migrant workers face higher unemployment risk.



Note: Employment figures include both agriculture and non-agriculture activities.
Source: International Labour Organization. ILOSTAT. https://www.ilo.org/ ilostat/ (accessed May 2020).

Asia highly dependent on imports for cereal consumption



Sources: Food and Agriculture Organization. Food Price and Monitoring Analysis Tool. https://fpma.apps.fao.org/giews/food-prices/tool/public (accessed 19 May 2020); United States Department of Agriculture. Production, Supply, and Distribution Database. https://apps.fas.usda.gov/psdonline/app/index.html#/ app/downloads (accessed 29 April 2020).

Export bans on cereals: 2007-2008 vs COVID-19

Country	Products	2007-2008 Food crisis	Duration (months)	COVID-19 pandemic	Duration (months)
Bangladesh	Non-aromatic rice	Nov. 2008-Sept. 2009	10		
Brazil	Rice	Apr. 2008-Apr. 2009	12		
Cambodia	Rice	Mar.-May 2008	2	Apr.-May 2020	1.5
India	Basmati+ non-basmati rice, wheat, edible oil, pulses	Mar. 2008-Sept. 2011	41		
Indonesia	Rice	Apr. 2008-May 2009	13		
Myanmar	Rice	July-Nov. 2008	4	Mar.-June 2020	3.5
Nepal	Rice, maize, wheat	Apr.-Nov. 2008	6		
Sri Lanka	Rice	June 2008-June 2009	12		
Thailand	Rice	May 2008-Oct. 2009	17		
Viet Nam	Rice	July 2007-Apr. 2009	20	Mar.-Apr. 2020	1
Kazakhstan	Cereals	Feb. 2008-Jan. 2009	12		
Kazakhstan	Wheat	Apr.-Sept. 2008	5	Mar.-Apr. 2020	0.3
Kyrgyzstan	Wheat and meslin	July 2008-Jan. 2009	6	Mar.-Sept. 2020	6
Malaysia	Flour	Mar. 2009-Mar. 2010	12		
Nepal	Wheat products	May 2008-May 2009	12		
Pakistan	Wheat, wheat products	Apr. 2008-Dec. 2010	32	Apr.-May 2020 (food)	0.5
Russia	Wheat, barley	Feb. 2008-Sept. 2011	43	Mar.-June 2020 (processed grains)	3.5
Ukraine	Wheat, maize, barley	June 2007-Apr. 2008	10	Apr.-June 2020 (buckwheat)	2
PRC	Grain, grain flour products	Mar. 2008-Mar. 2009	12		
India	Maize	July-Oct. 2008	3		

Source: Public Tableau Export Restrictions Tracker (accessed June 2020) https://public.tableau.com/profile/laborde6680#!/vizhome/ExportRestrictionsTracker/FoodExportRestrictionsTracker

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2007–2008 Food Crisis vs. the COVID-19 Pandemic

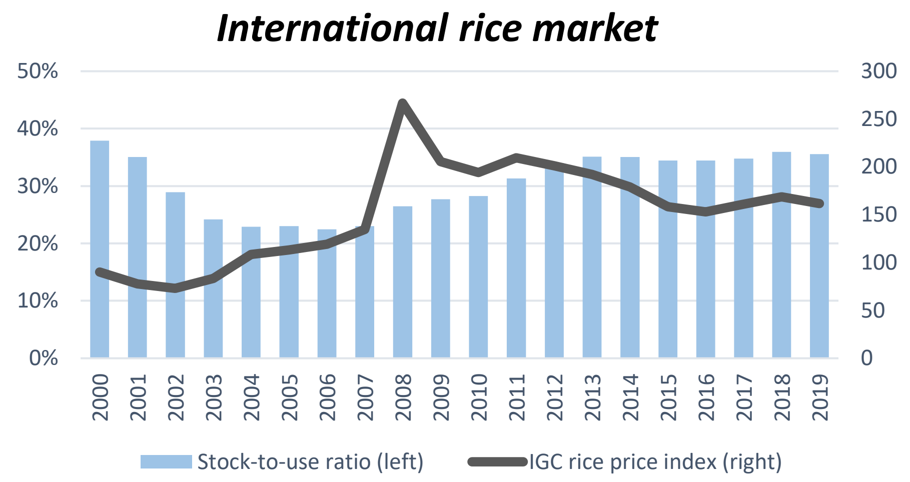
	Food price crisis, 2007–2008	COVID-19 Pandemic (2020, as of 22 May)
Main factors	• **Supply**: Poor harvests, lower grain stocks, higher oil prices ($86/barrel on average; 2007-2008) • **Demand**: Rapid growth of global economy, inflation, crop (maize) demand for biofuels • **Policies**: Export bans and restrictions, lowering import tariffs, restocking • **Other**: Weak USD	• **Supply**: Lockdowns and movement restrictions create logistics problems, low energy prices ($39 on average, Jan-Apr 2020), adverse weather conditions • **Demand**: Panic buying, hoarding for staple foods
Trade restrictions	• Adopted by 33 countries • Share in world market of calories: 19% • On rice: 17 countries including CAM, PRC, IND, INO, PAK, THA, and VIE. • On wheat: 13 countries including RUS, KAZ, PRC, UKR, and ARG • On maize: 6 countries including IND, PRC, and UKR	• Adopted by 22 countries (13 are active) • Share in world market of calories: 5% • On rice: 3 countries (CAM, MYA, VIE) • On wheat: 6 countries including KAZ, RUS, and UKR
Food policies in Asian developing countries	• Total number of policies: 132 (35 in 2007 → 97 in 2008) • Consumer-oriented: 20% (22% → 19%) • Producer-oriented: 43% (53% → 39%) • Trade-related: 34% (17% → 40%) • Macroeconomic: 4% (18% → 2%)	• Total number of policies: 53 • Consumer-oriented: 42% • Producer-oriented: 45% • Trade-related: 8% • Macroeconomic: 5%

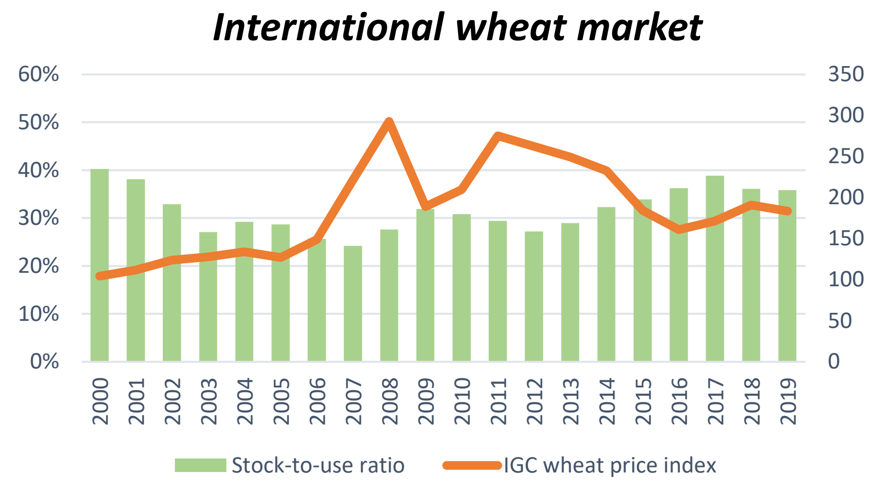
ARG = Argentina, CAM = Cambodia, IND = India, INO = Indonesia, KAZ = Kazakhstan, MYA = Myanmar, PAK = Pakistan, PRC = People's Republic of China, RUS = Russian Federation, THA = Thailand, VIE = Viet Nam, UKR = Ukraine

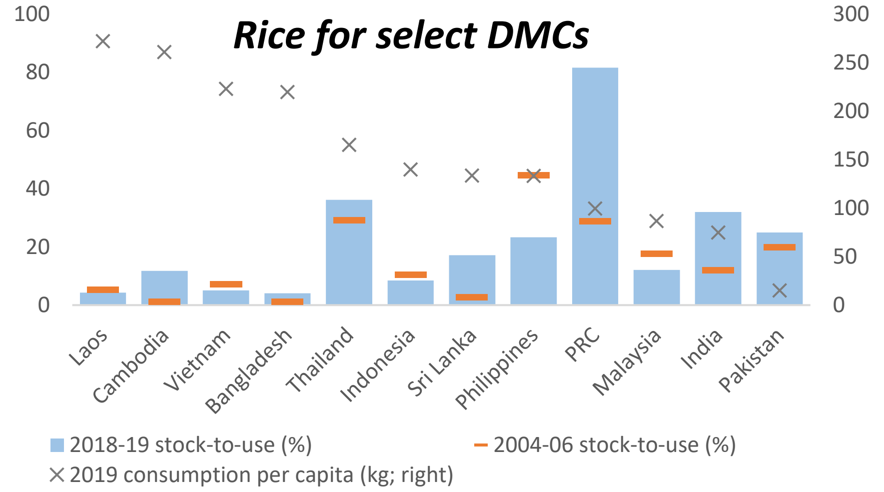
Note: Average oil prices are calculated using West Texas Intermediate spot prices; Consumer-oriented policies mainly include social protection, market management, and nutrition and health assistance; Producer-oriented policies mainly include production support and market management.

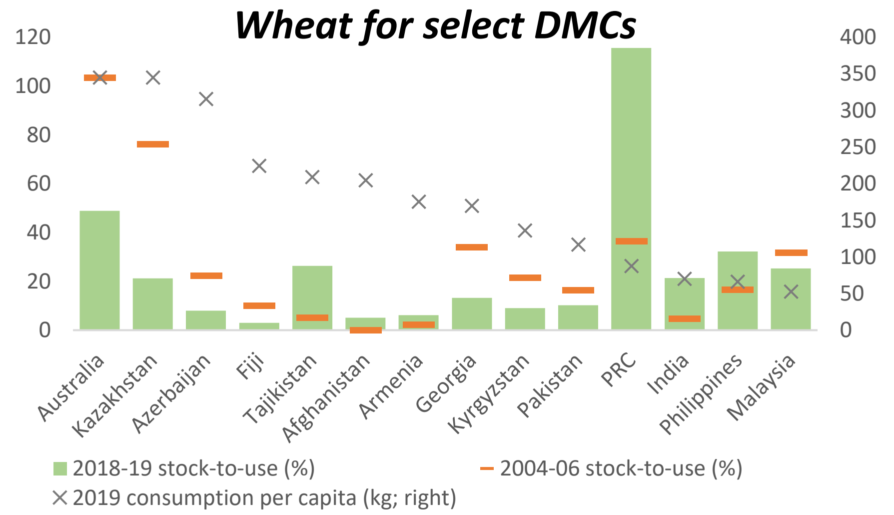
Source: Food and Agriculture Organization. Food and Agriculture Policy Decision Analysis Database. http://www.fao.org/in-action/fapda/tool/index.html#main. html (accessed 23 May 2020); Laborde and Parent (2020); Wiggins, Keats, and Compton (2010).

Stock-to-use ratio remains above 2007-08 food crisis level









DMC = developing member country, IGC = International Grains Council, kg = kilogram, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.
Sources: Food and Agriculture Organization. Food Price and Monitoring Analysis Tool. https://fpma.apps.fao.org/giews/food-prices/tool/public; International Grains Council. Grains and Oilseeds Index. https://www.igc.int/en/markets/marketinfo-goi.aspx; United States Department of Agriculture. Production, Supply, and Distribution Database. https://apps.fas.usda.gov/psdonline/app/index.html#/app/downloads (all accessed April 2020).

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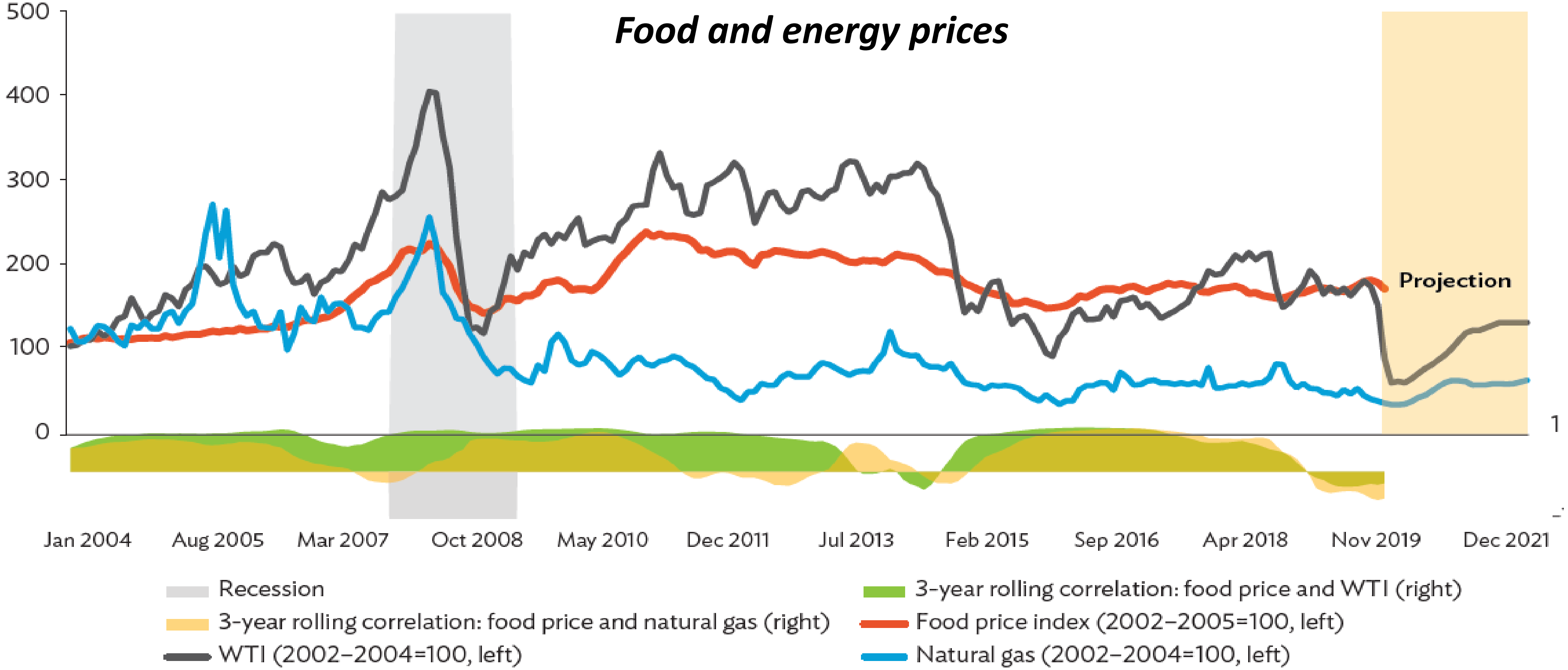
Other key factors for food security

- Shortage of labor and input supplies, if continued, could reduce scale of food production.
- Low energy prices will temper food price inflation.



WTI = West Texas Instrument

Sources: Food and Agriculture Organization; Federal Reserve Bank of St. Louis; US Energy Information Agency (accessed April 2020).

Immediate and short-term measures

- Social protection incl. food provision/ food packages
- Enhanced farmer groups' activities to identify buyers and arrange transportation
- Financial relief and liquidity support incl. debt rescheduling and short-term working capital provision
- Budget support (e.g. Trade Finance Program, Microfinance Risk Participation and Guarantee Program, Supply Chain Finance Program)
- Regional mechanism for food security

Medium- and long-term measures for efficient and competitive food supply chains

- Direct marketing through online platforms
- Enhanced price risk management system
- Movement toward agricultural technology
- Institutional and legislative reforms
- Targeted support to poor and smallholder farmers through agricultural reforms

(1) Enhanced direct marketing by farmers

- **Farmer group development** gained a momentum as multiple layers of intermediaries are reduced.
- More farmers experienced **processing at farm level**
- More informed about **market-favoured quality standards** through direct marketing
- **Quality control** to earn trust from online customers incl. pre and post-harvest handling, quality input supply mechanism
- **Consumption of the local and indigenous products** has increased resulting in the self-sufficiency of an individual

(2) Enhance price risk management system

An opportunity to stabilize supply chains, less government intervention and reduce price risks for farmers and consumers

- Collaborative **planning among value chain actors**
- Demand forecast and price prediction models **links to farmers' planning**
- Better data collection, validation, and management **platforms** and enhanced logistic **infrastructure**
- Warehousing capacities and negotiable **warehouse** receipts

(3) Integration of agricultural technologies in farming and marketing

- GIS-based land, water and soil management
- Wider option of agricultural technology applications
- ICT addresses constraints on scaling up, including lack of financing or public– private cooperation, cumbersome regulatory environments, growing costs and limited availability of agricultural labor in some developing countries, and policy inconsistencies in various economic sectors
- Renewed interest in mechanization
- Start-up companies' financial risks

(4) Institutional and legislative reforms

- Initiate or start implementing long-sought agricultural reforms
- Reforms should also realign public and private sector roles in agricultural input supply, food safety, value chain infrastructure, quality assurance, and extension.
- Fair labor, market transparency, digitized land use planning and management, and food quality control
- Rural financing, marketing opportunities through economies of scale and entrepreneurial skills, value chain infrastructure, and engagement of small and medium-sized agriculture enterprises and other off-farm income generation activities.

Case of India

Essential Commodities Act *to deregulate key food commodities to help provide price assurance for farmers*

agriculture marketing reforms *to choose the market by removing interstate trade barriers and providing e-trading of agricultural produce.*

(5) Targeted support to poor and smallholder farmers

- Targeted support for smallholder farmers and low-income agricultural communities
  - Access to available and affordable digital infrastructure and training
  - Rural financing
  - Off-farm income opportunities
  - Extension and training to smallholder farmers including youth and women
  - Access to quality input

Thank you