

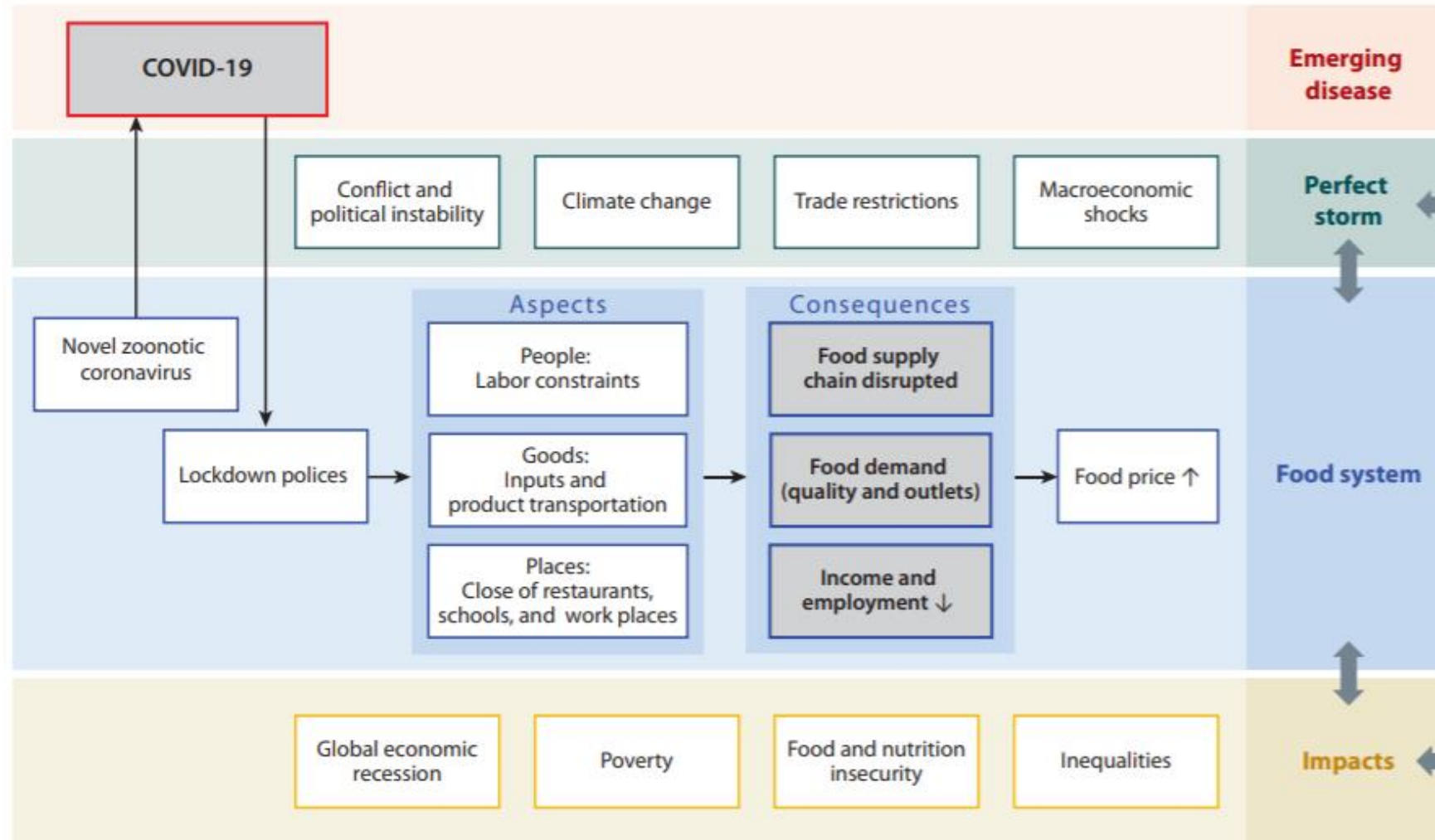
Building Resilient Food System amidst COVID-19: Responses and Lessons from China

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Increasing risks and coincidences of risks to global food system



Perfect storm: when coincidence of risks in the global food system lead to compound effects on environment and natural resources, food supply and demand, whole value chains, welfare of consumers, and producers and other actors in food systems.

The risk of emerging diseases and food safety issues triggered supply chain restrictions, food demand changes, decreased income and employment, and increased food prices. It further causes economic recession, poverty, food/nutrition insecurity, and inequalities.

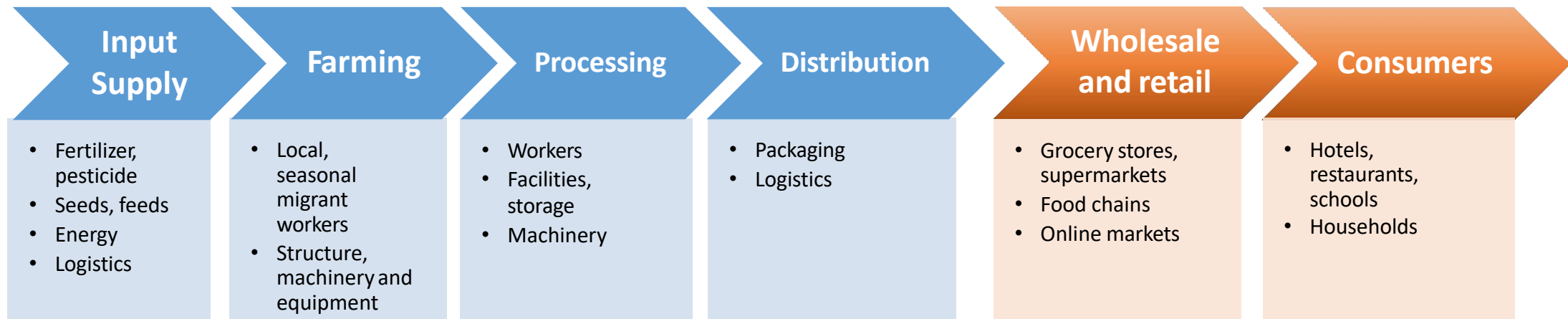
COVID-19 Causes Major Disruptions to Food Supply Chains

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

Impact on demand

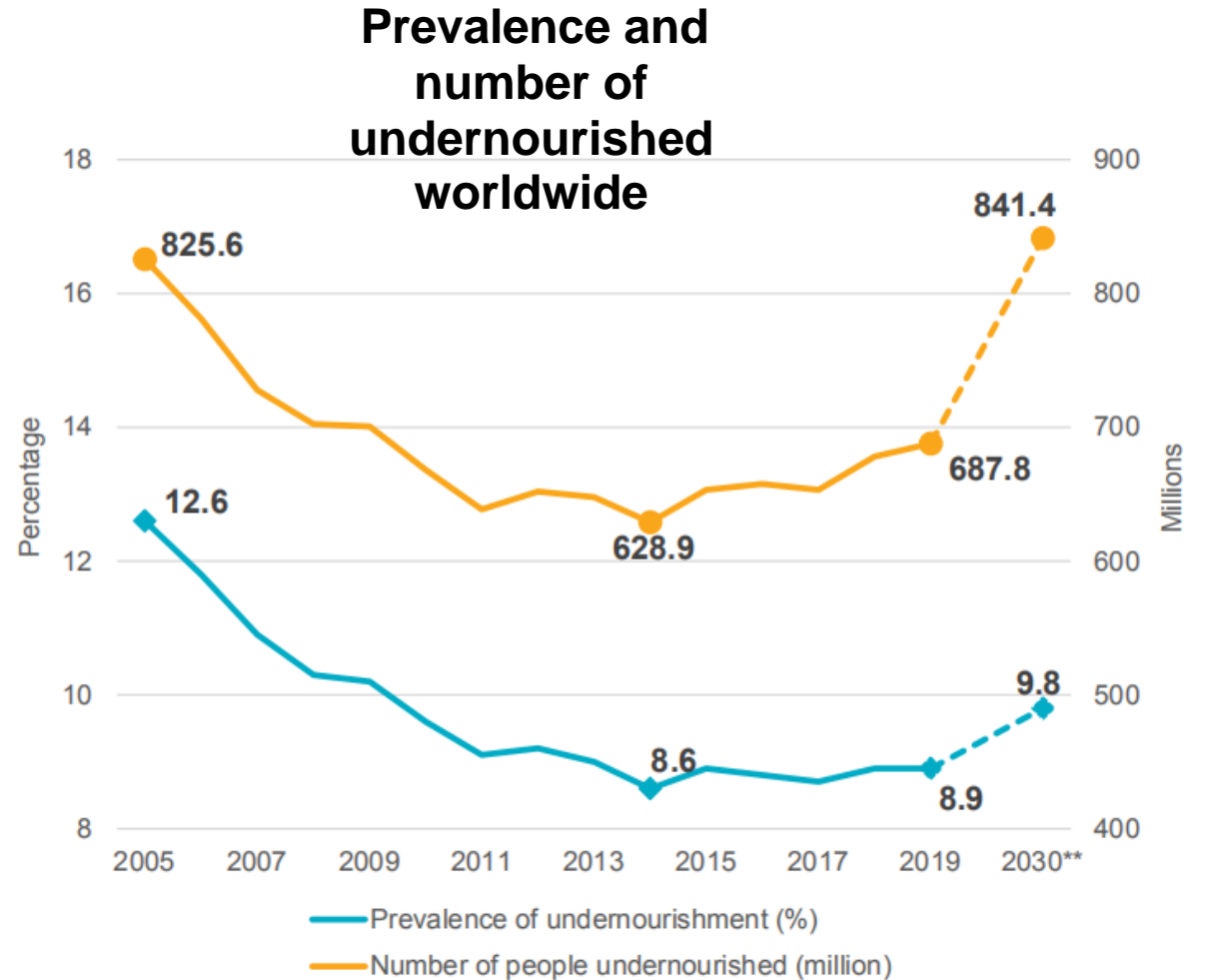
- Income loss due to layoffs and furloughs
- Consumer sentiment and behavior (e.g. panic buying, hoarding)
- Limited accessibility to food
- Undernutrition for the vulnerable groups



The world is not on track to eliminate hunger and malnutrition

Global food and nutrition security is already under threat

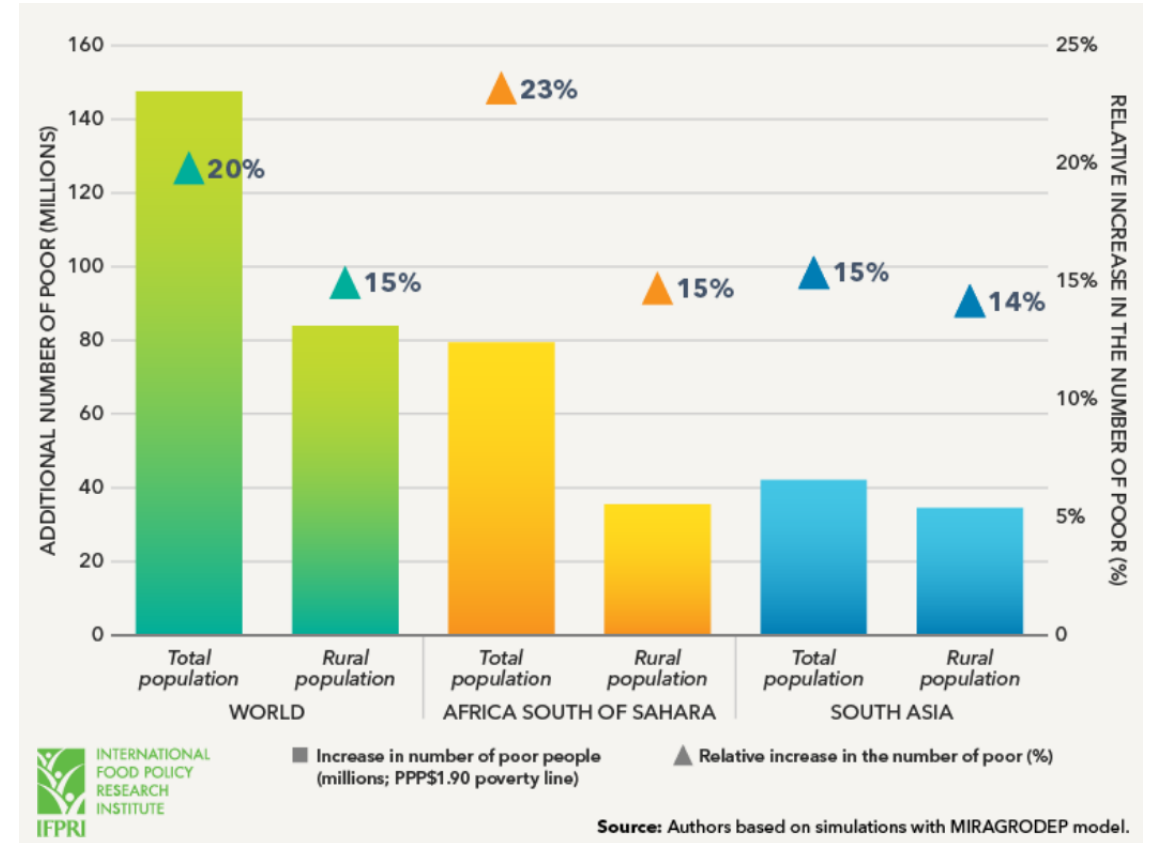
- More than 820 million people suffer from hunger
- More than 2 billion people lack of essential micronutrients
- More than 2 billion people are overweight or obese
- More than 144 million children are stunted



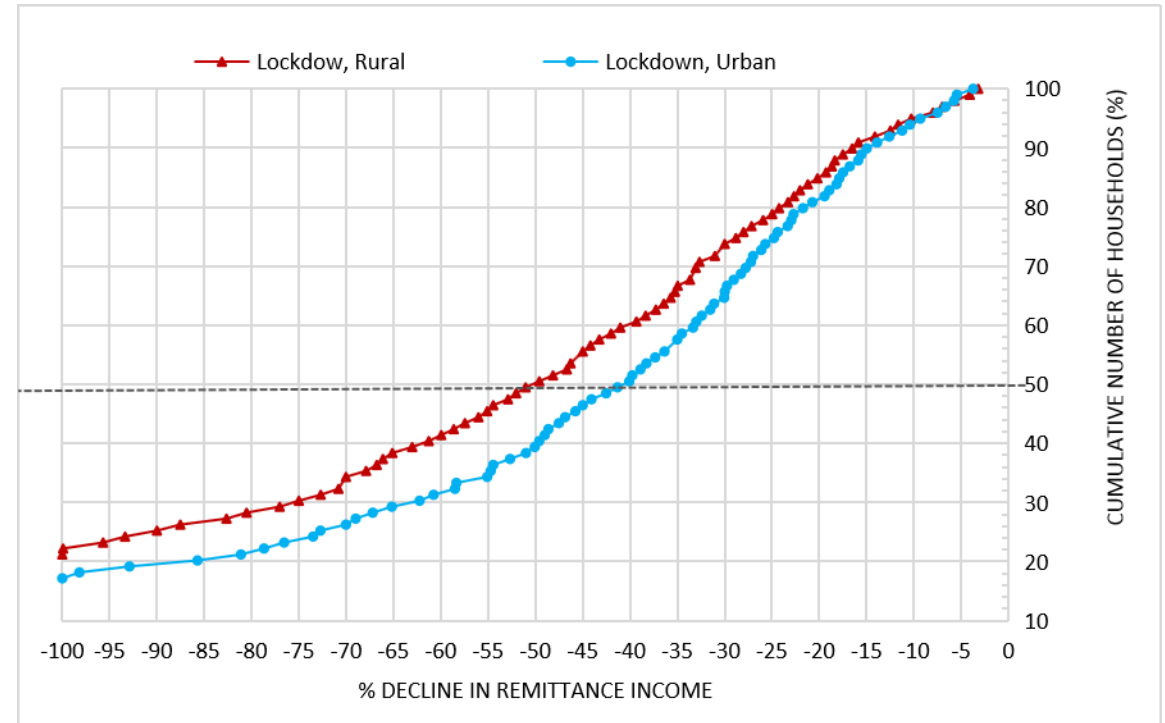
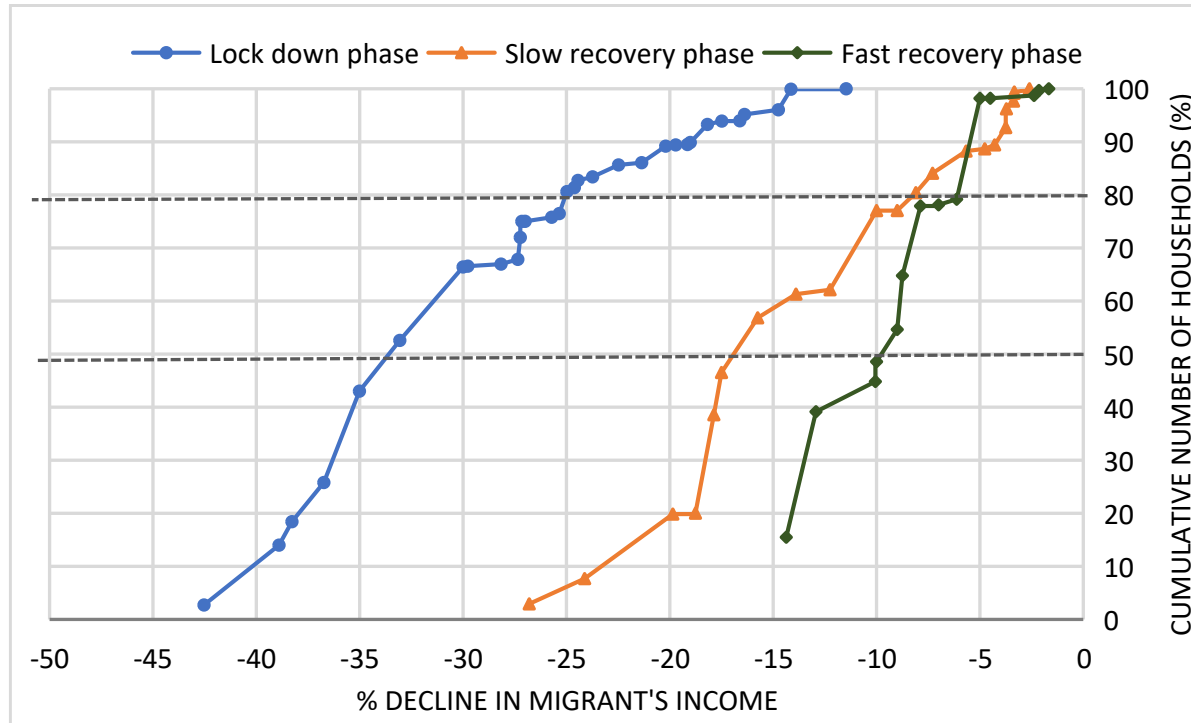
COVID-19 impacts on global poverty and nutrition

- IFPRI estimates that the number of poor people (US\$1.9/day poverty line measured in 2011 PPP) globally is likely to increase by about 150 million, 20 percent above pre-pandemic poverty levels.
- Global Report on Food Crises (GRFC) reports at 135 million, the number of people in crisis or worse (IPC/CH Phase 3 or above, or acute food insecurity) in 2019 was the highest in the four years of the GRFC's existence.
- The COVID-19 will add another 130 million acute food insecurity population, almost double of the number in 2019.

Impact on Global Poverty



COVID-19 induced fall in income and remittances in China



Using household level data in an ex ante microsimulation, we found:

- 70 percent of migrants are affected by the pandemic and those working in SMEs are primarily impacted.
- Nearly 50 percent of households receiving remittances are affected with remittance falling more than 45 percent during the lockdown.
- Rural remittance-receiving households were affected more than urban households.
- Declines in remittances have significant poverty effects.

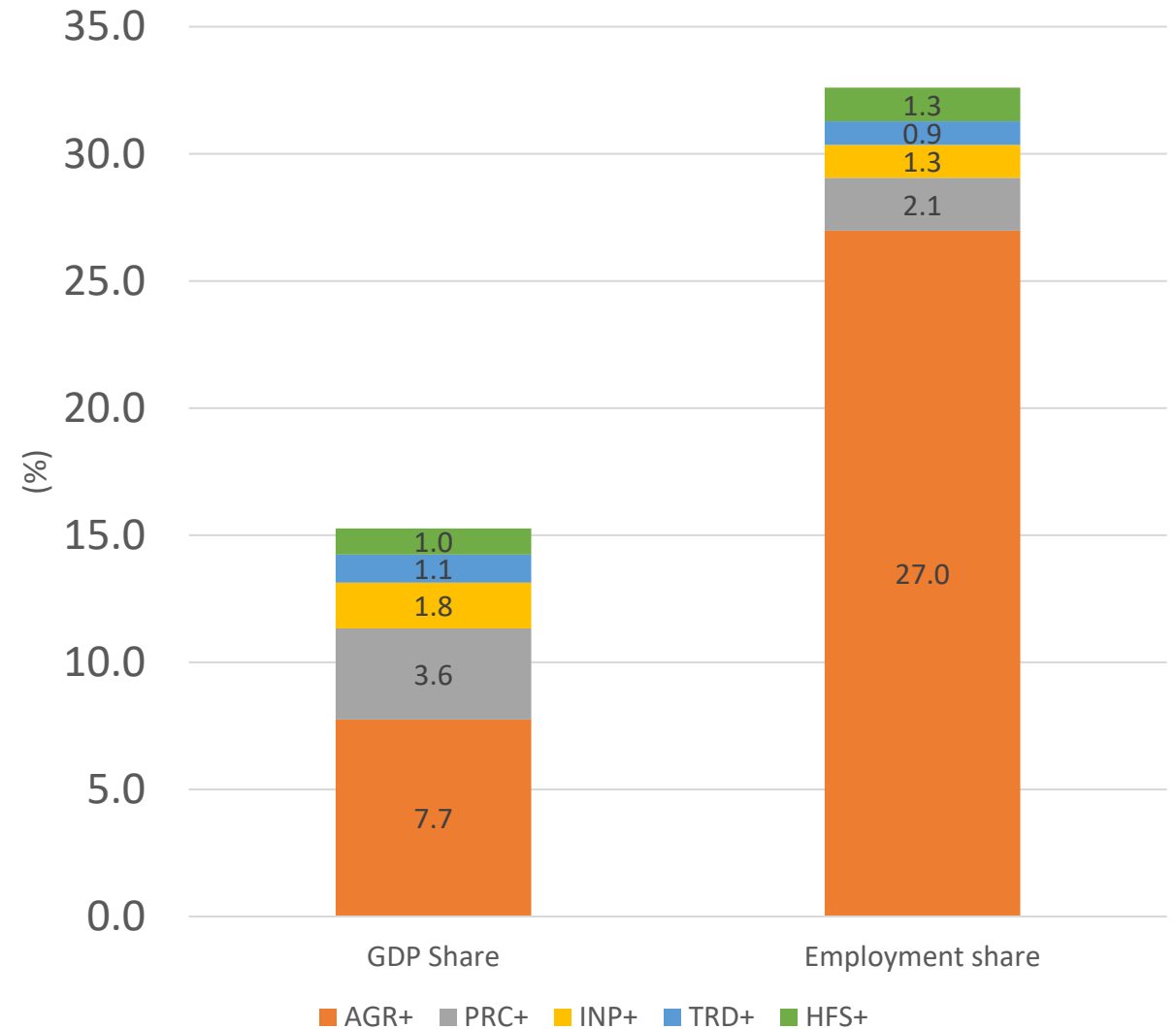
Contribution of Agri-Food System in China

- **Agriculture**

- ✓ 7.7% of total GDP in 2017 (7.1% in 2019)
- ✓ 27% of total employment in 2017 (25.1% in 2019)

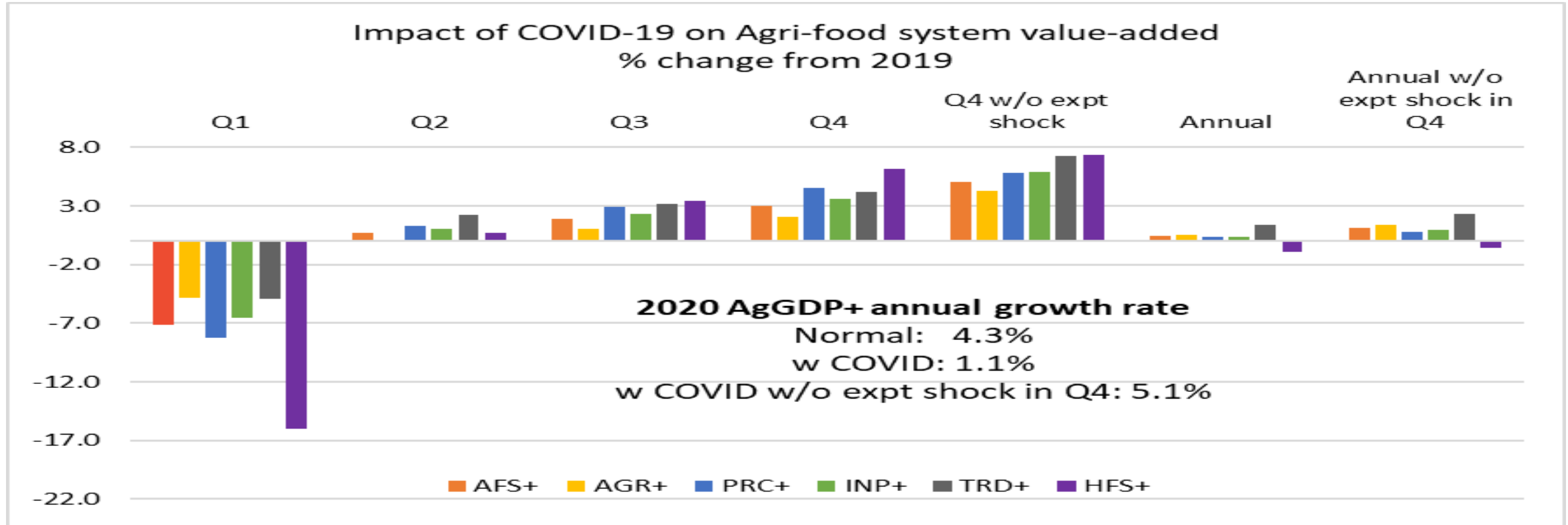
- **Agri-Food system (AFS)**

- ✓ AFS = Agriculture + Food Processing + Input + Trade + Food Services
- ✓ 15.3% of total GDP in 2017
- ✓ 32.6% of total employment in 2017



Source: China I-O Tables 2017 and China Statistical Yearbook 2018.

COVID-19 Disruptions on China's Food System



- COVID-19 cost about 7 percent of the system's value added and more than 9 percent of its employment in the first quarter of 2020 compared with 2019.
- China's food system was hit hard in the lockdown phase (Q1), but started to recover from Q2.
- Food services were shocked most, recover slowly, and likely to have a negative annual growth.

Signs of resilience to recover from COVID-19 in 2020 Q2

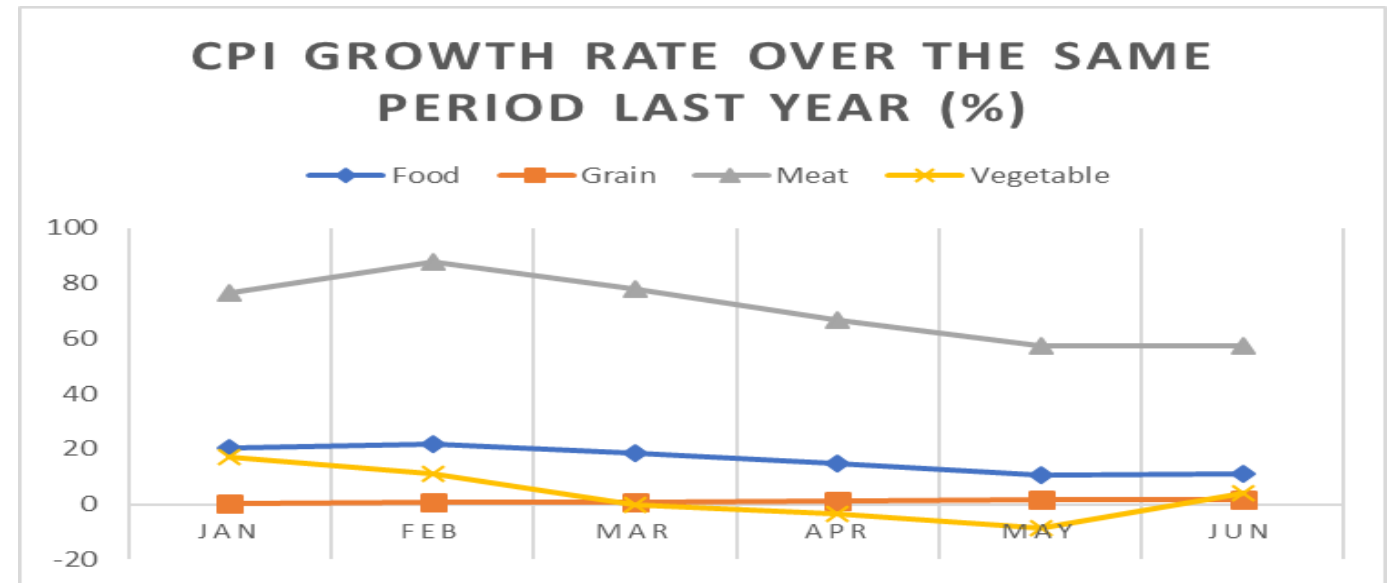
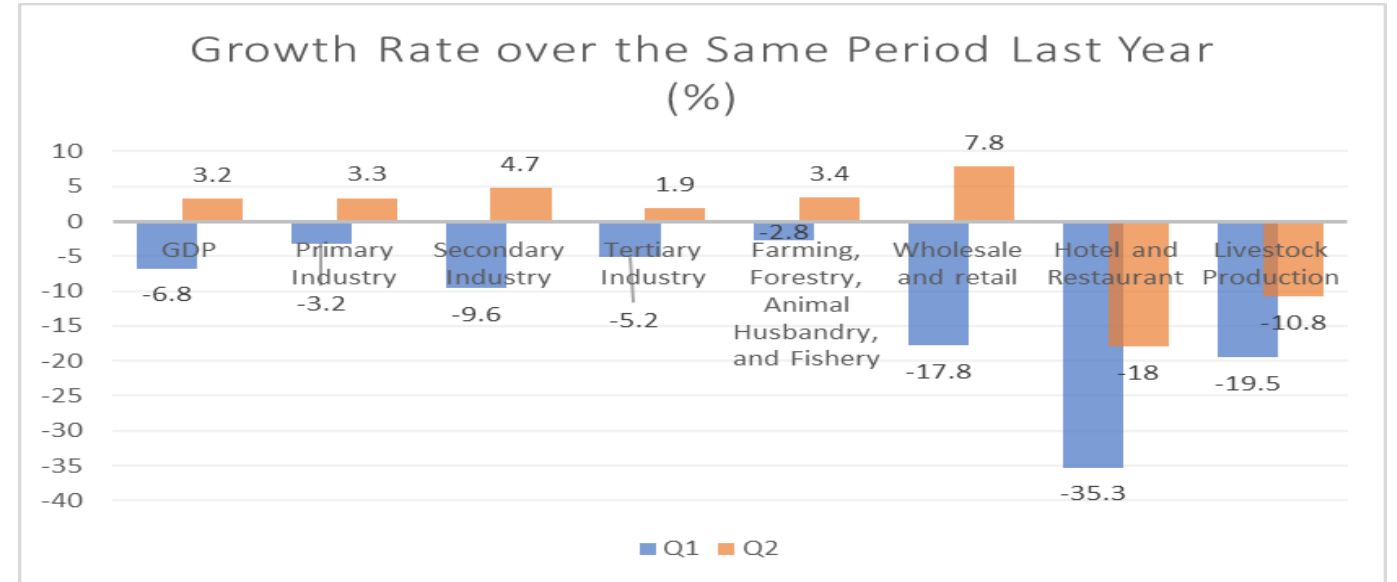
- **Chinese economy started to recover in Q2**

- ✓ Many sectors showed restorative growth
- ✓ The decline of livestock production and restaurant sector was narrowed

- **Food prices remain stable overall but with some concerns about pork prices**

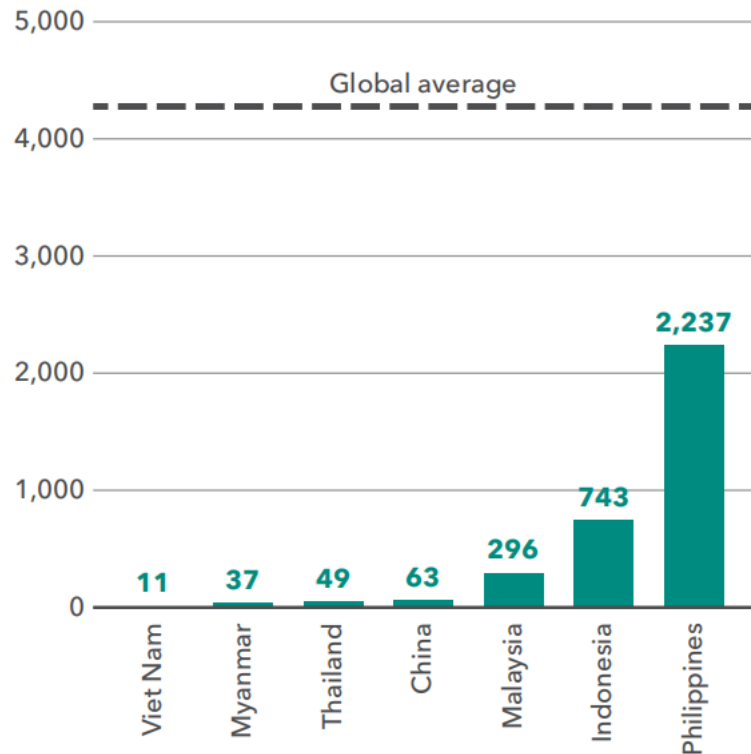
- ✓ In the first half of 2020, the consumer price went up by 3.8 percent year on year
- ✓ Food price went up by 16.2 percent year on year, mainly driven up by prices for pork triggered by lasting impacts of the African Swine Fever on hog production.
- ✓ Food prices trended downwards in the first half of 2020
- ✓ Grain prices were stable, while vegetable prices showed downwards trend

Source: National Bureau of Statistics.

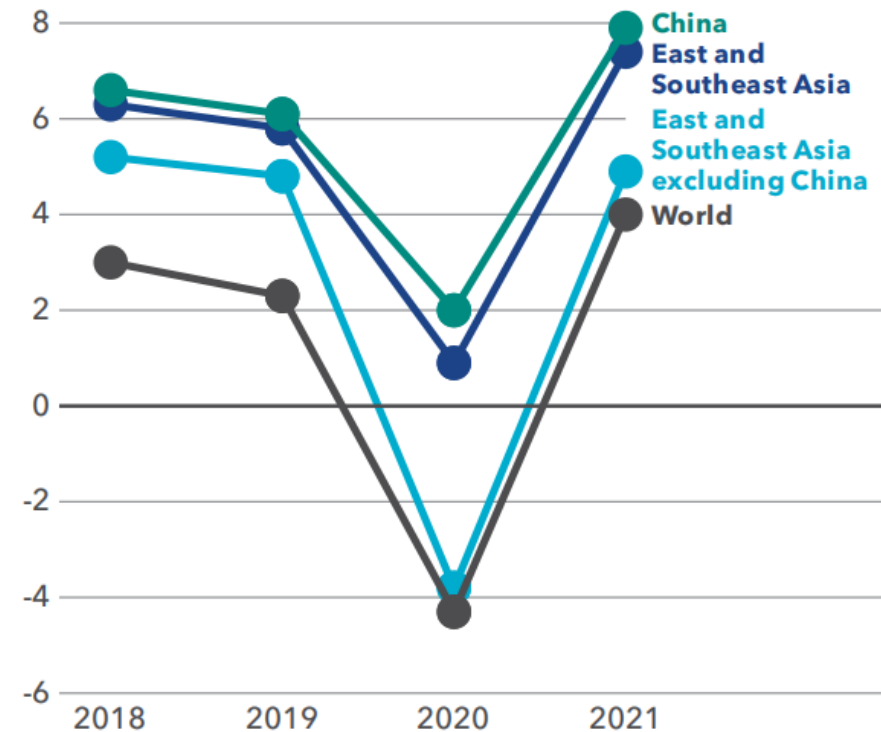


Asia's recovery, especially China's, is critical for the post-COVID global rebound

Total COVID-19 cases per million people



GDP growth projections

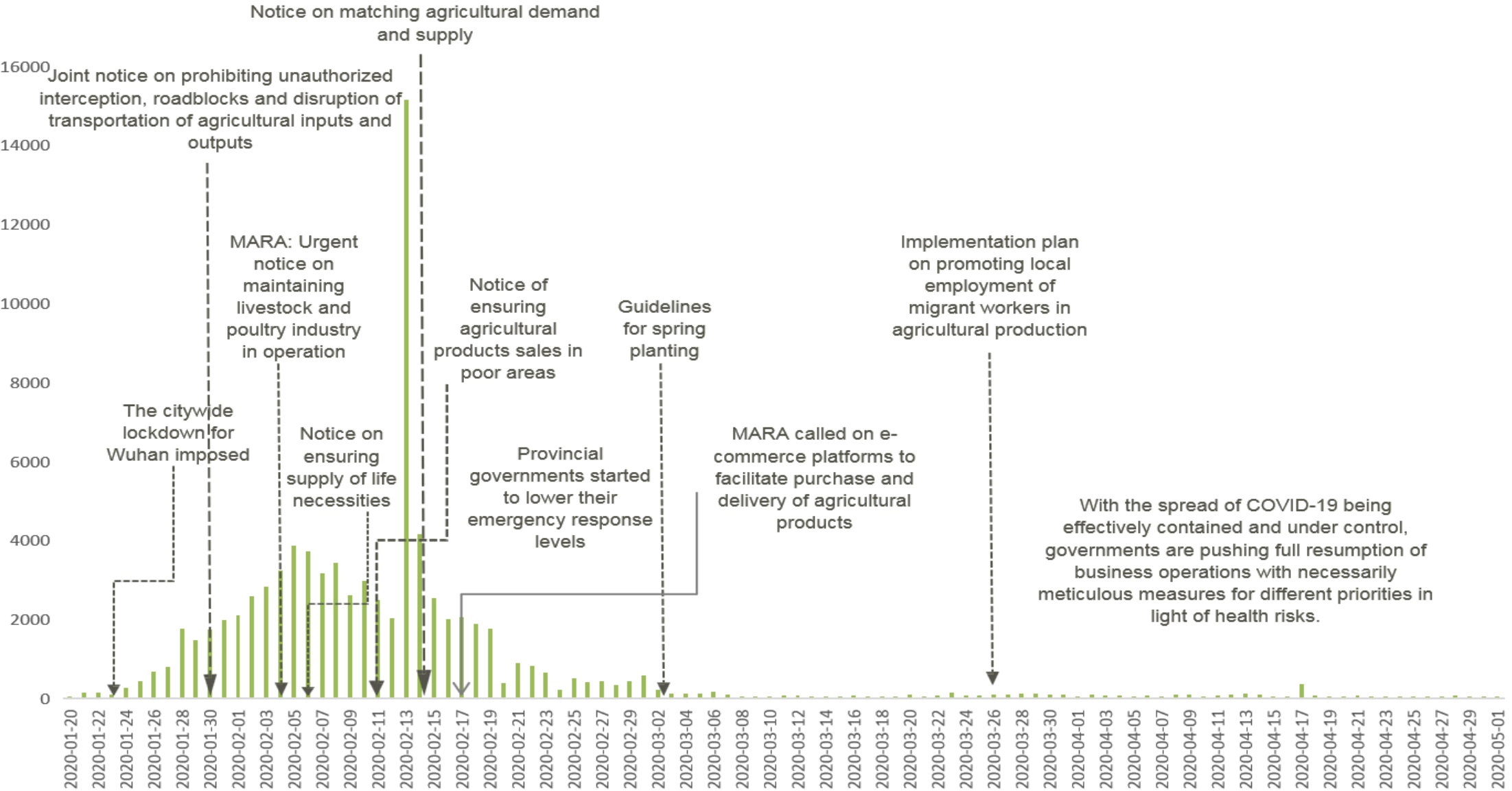


Successful containment is allowing for relatively rapid economic reopening and recovery in China and most East Asia countries.

Note: COVID-19 cases are cumulative through early September

Source: Johns Hopkins University, Center for Systems Science and Engineering COVID-19 Dashboard; World Bank, World Bank Global Economic Prospects, January 2021 (Washington, DC).

From the early stage of the outbreak, Chinese government issued multiple notices to mitigate disruptions in the food system



How has China responded?

1) Give top priority to build resilient AFS over years

- Construction of high yield cultivated land
- Agricultural research and development system
- Agri-food value chain development
- Extensive food storage plan
- The drive to end the absolute poverty by 2020 (from 2012)
- Rural revitalization strategy

3) Link farmers with markets

- Establish a public service alliance on production and sales, to achieve direct matching and transactions
- Ministry of Finance and State Council Poverty Alleviation Office: Online Sales Platform for Agricultural Products in Poor Areas to assist sales of production poverty counties
- Use of online platforms (livestreaming and short videos) to promote sales

5) Promote e-commerce, consumption & livelihoods

- Online purchasing channels
- Contactless delivery
- E-vouchers to promote consumption
- To promote restaurant consumption
- Promote local employment of migrant workers, help migrant workers return to work while ensuring safe movement

2) Ensure logistics

- MARA, Ministry of Transport, and Ministry of Public Security: joint notice on ensuring effective logistics for agricultural products and inputs on January 30
- Introduce “Green channel” for agricultural products and production inputs, and prohibit unauthorized roadblocks on early February

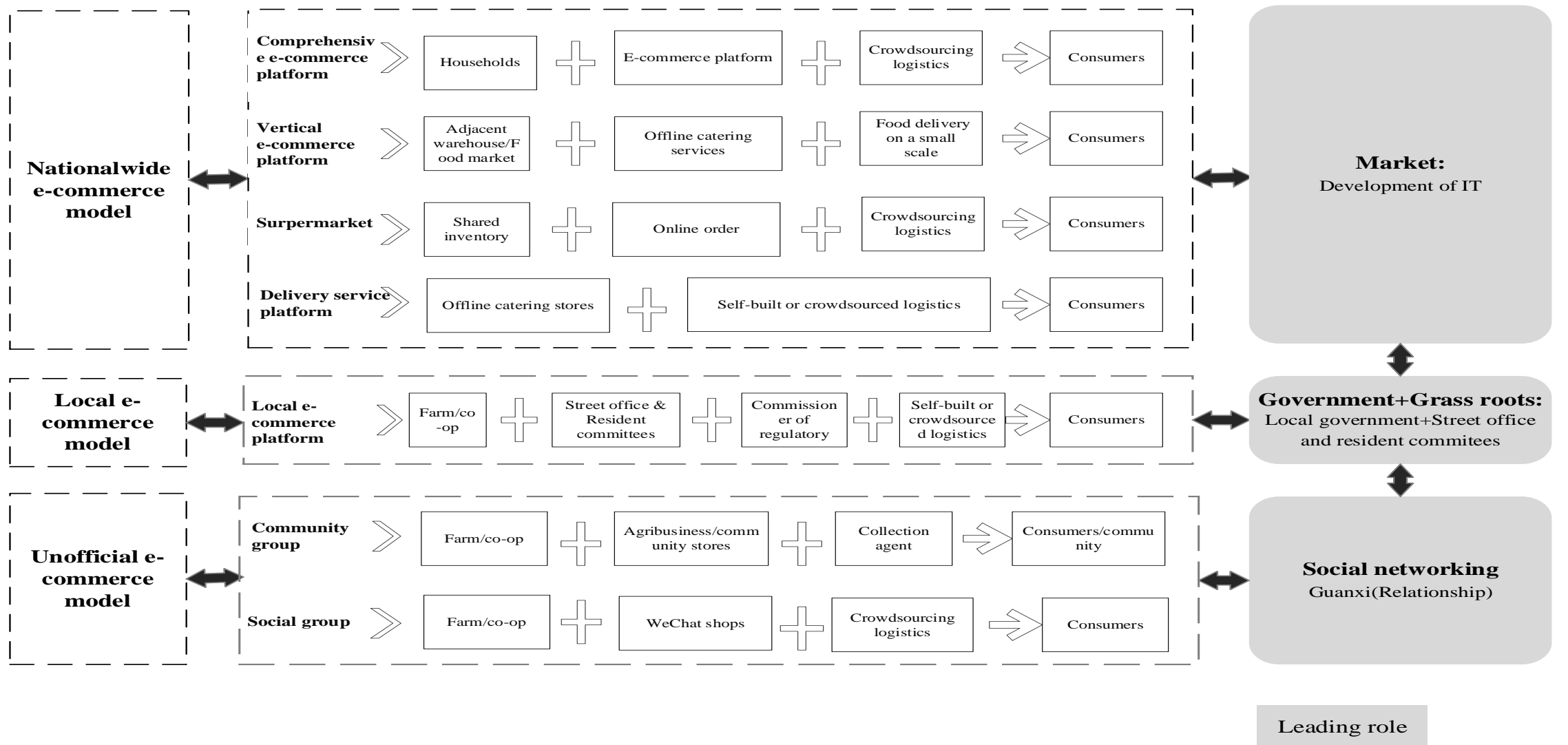
4) Support production and enterprises

- Essential agricultural-related enterprises are given priority to resume
- Technical services to guide and support agricultural production to ensure spring planting
- Financial supports for agriculture-related enterprises
- Tax deferring, rent reduction for farming enterprises

6) Monitor the market to avoid panic

- All governments are required to closely monitor the market to maintain supply and demand balances
- MARA develops a big-data platform covers a wealth of information: market information, spring production, and public opinions
- Regular provision of information to prevent consumer panic

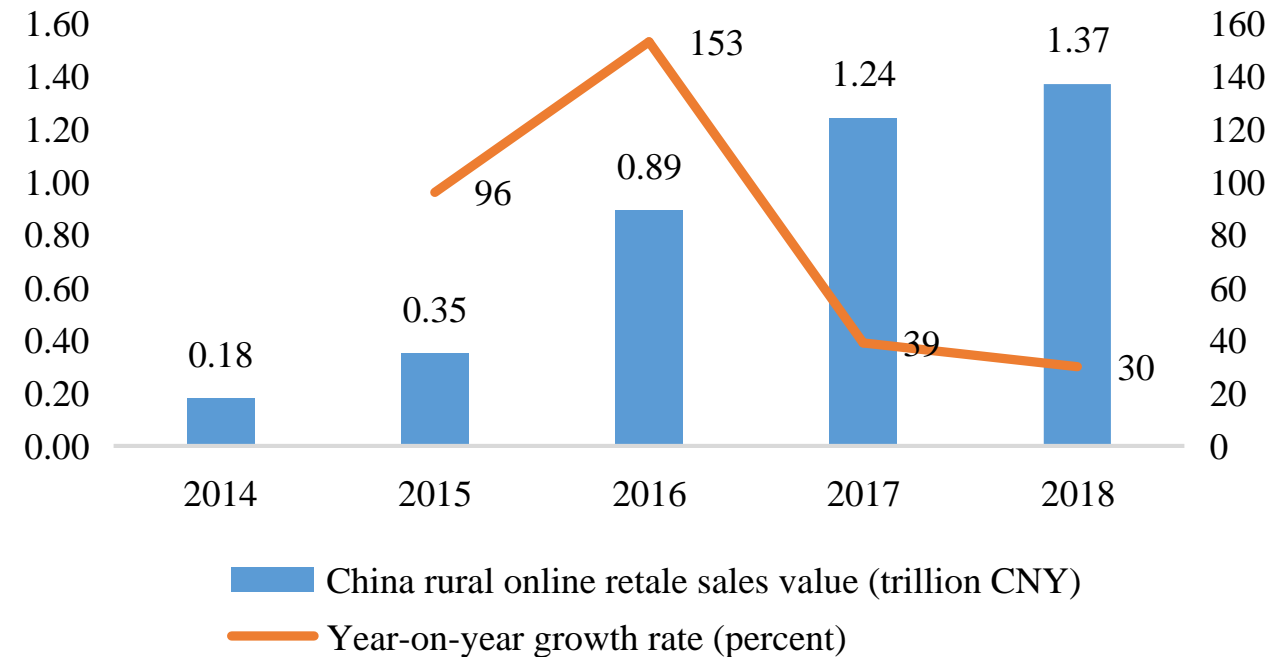
Three Agricultural E-Commerce Models in China under Covid-19



Again, the role of e-commerce under COVID-19 cannot be separated from long-term policy supports

- *Opinions on accelerating the development of e-commerce (2005):* legitimized e-commerce as a national strategy to promote China's economic growth
- Support policies issued nearly annually:
 - stimulating the rapid growth of e-commerce
 - using e-commerce to serve agriculture, rural areas and farmers
 - encouraging innovation in the distribution of agricultural products
 - strengthening facilities for processing and packaging
 - improving the cold chain and storage of agricultural products
 - cultivating brands of rural e-commerce products

2014-2018 Chinese Rural Online Retail Sales

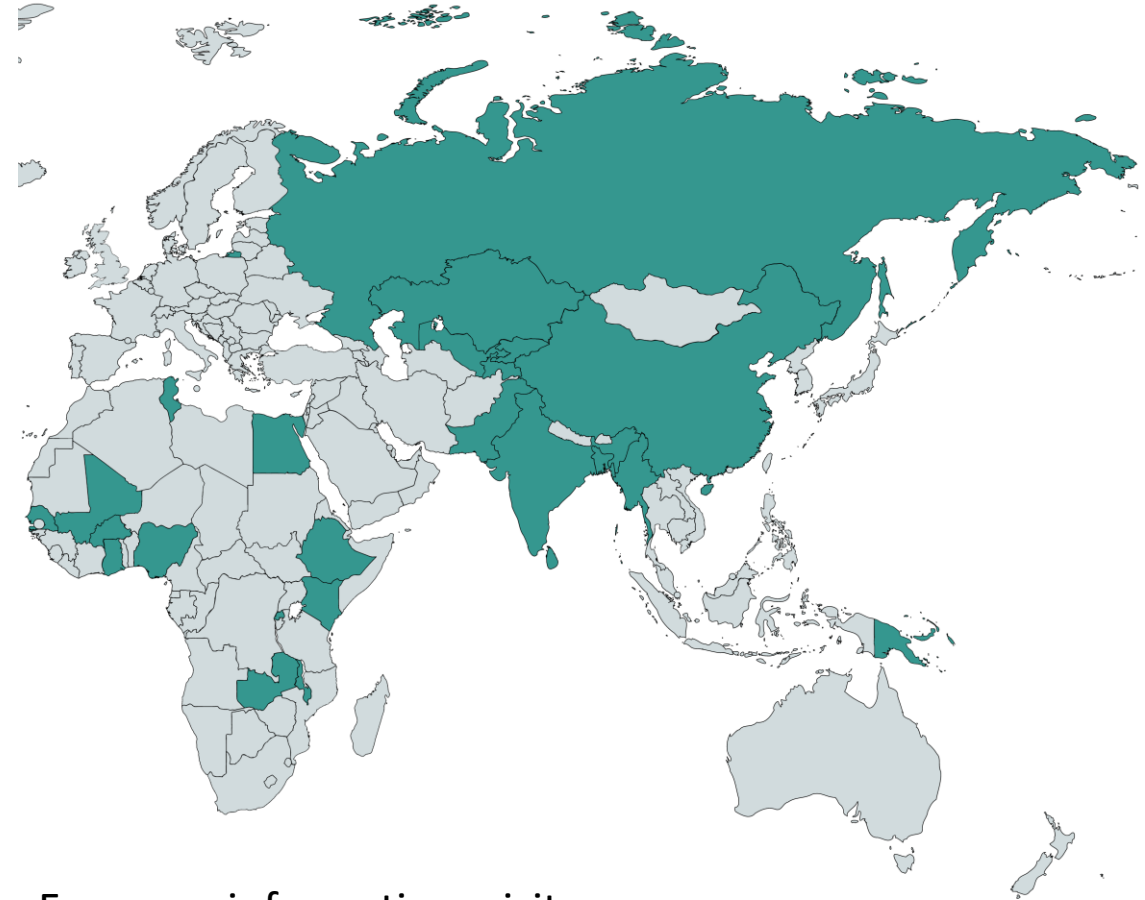


- China's express delivery network covers 92.4 percent of the country's total annual delivery volume of 12 billion items, providing a solid foundation.

How have other countries responded

IFPRI monitors policy responses in developing countries and found

- Major restrictions on urban food traders
- Widespread support for contactless payments
- Targeted support on consumer livelihoods
- Less support for agriculture than for other forms of economic assistance
- Exclusion of agriculture ministries in many COVID-19 national response units



For more information, visit:

<https://www.ifpri.org/project/covid-19-policy-response-cpr-portal>

Building resilience post COVID-19

- Similar pressures on the food system are expected to become more common in the future, calling for a need for **greater investments to build more resilient food systems** to avoid future events like COVID-19 turning into food and nutrition crisis, along with **immediate responses to mitigate short term disruptions**.

- **Resilience is more than just a buzzword**

“Helping people, communities, countries, and global institutions prevent, anticipate, prepare for, cope with, and recover from shocks and not only bounce back to where they were before the shocks occurred, but become even better-off.”

Resilience needs to be integrated into food system

- **More attention and research are needed to provide frameworks, evidence, and recommendations to de-risk food systems**
- **Technological innovations are key to achieve multiple wins**
 - e.g. Breeding high yielding, climate-ready, high-nutrient crop varieties (biofortification)
- **Policy innovations are also critical**
 - e.g. Eliminate subsidies for nutrient-poor foods
 - Taxing emissions-intensive foods
- **Support risk-informed and shock-responsive social protection and early warning, early action (EWEA) systems**
- **Bring different fields and perspectives together** to find solutions to de-risk food systems, and more cross-discipline interaction is needed
 - A challenge in researching COVID-19 and its impacts has been the integration of epidemiological models with economic models, fields which have previously had little interaction.

Open trade remains important

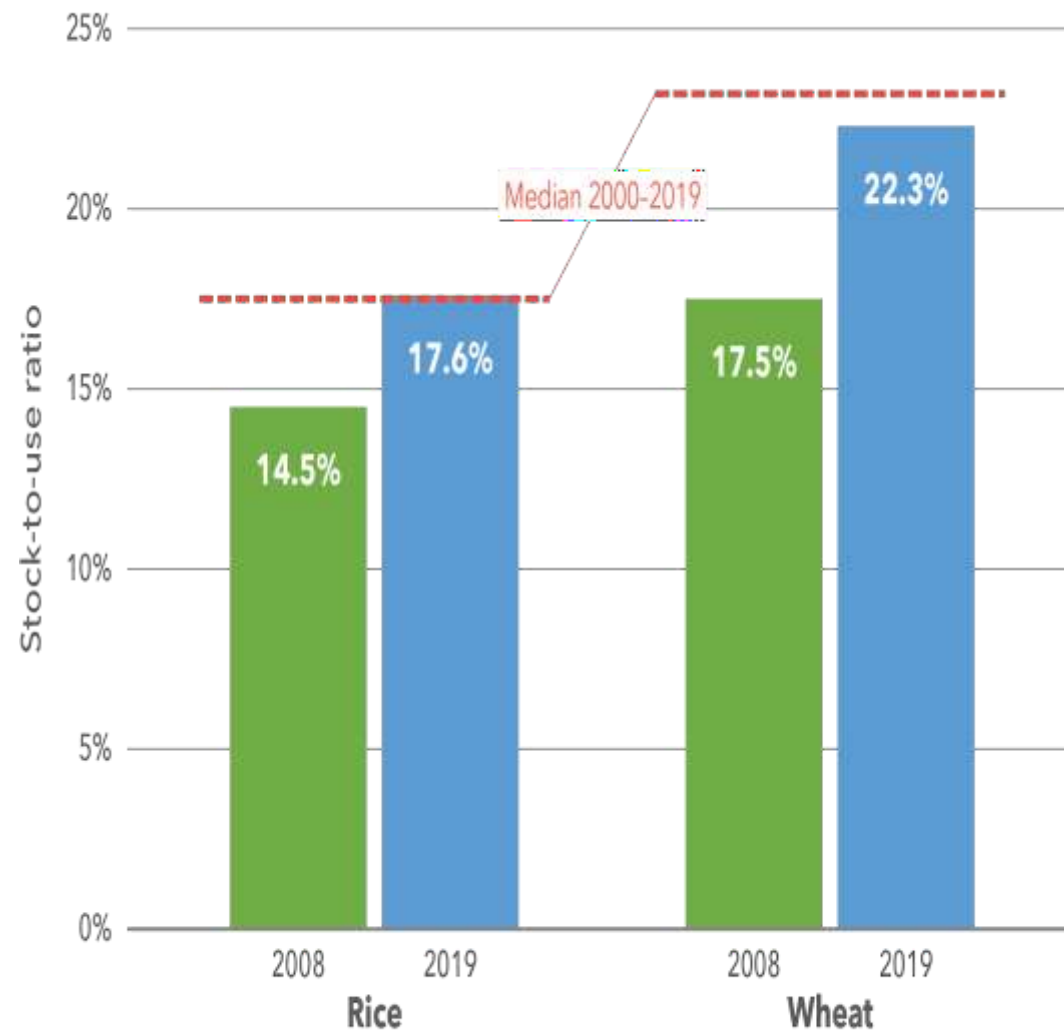
IFPRI trade policy tracker:

Despite good harvests and stocks for staple crops, food exporting countries introduced export restrictions in their initial responses

- Vietnam banned rice exports in March and limited shipments for April to 500,000 tonnes, but resumed full export in May 2020.
- Cambodia imposed rice export ban from April 5 to May 20, 2020.
- Myanmar temporarily suspended the issuance of new export licenses from March 18 to April 30, 2020.

IFPRI response: “Trade restrictions are worst possible response to safeguard food security”

FIGURE 1 Staple crop stock-to-use ratios, 2008 and 2019



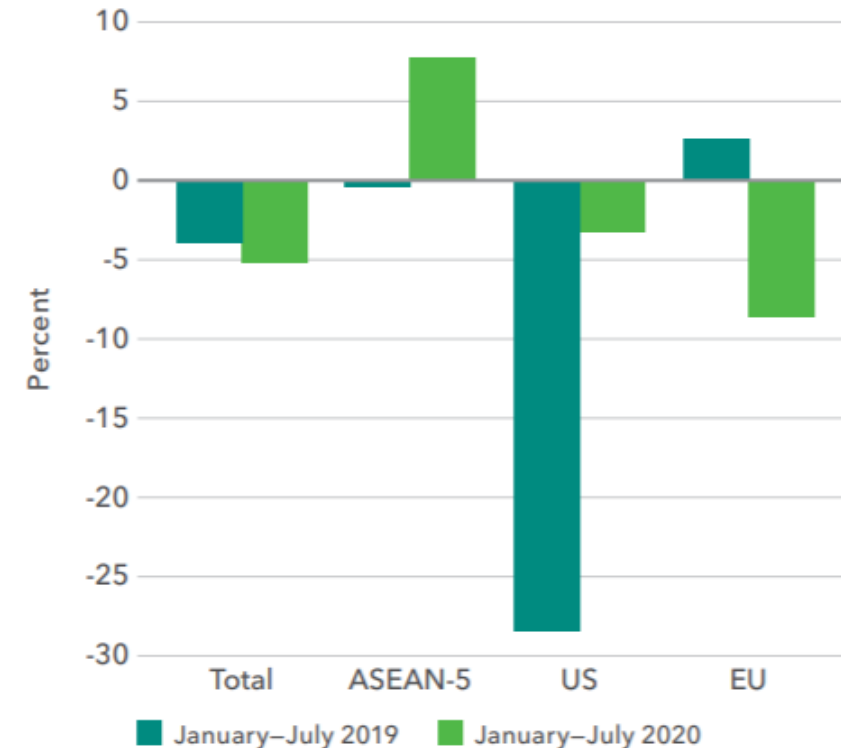
Source: Authors' computation using USDA-PSD data.

Source: Glauber, Laborde, Martin, and Vos, 2020.

Intraregional trade and cooperation as additional safety nets

- Loss of income combined with uncertainty in 2020 have drastically reduced global demand for goods and services.
- As East Asian economies begin to recover, intraregional trade — particularly exports to China — has increased to replace trade lost with other regions.
- ASEAN became China's largest trading partner for the first time in early 2020. Recovery of food demand from China has been a boon for farmers in ASEAN countries.

Change in China's imports from the ASEAN-5, US, and EU, 2019 and 2020



Close financing gap: leverage and scale up private investment

Transitional finance

- Use of loans wherein repayment terms are pushed back to accommodate multi-year return gaps.
 - Three-year operating loans to farmers transitioning to organic production, with market off-take support and repayment over 8 to 10 years through a 10-50% revenue share.

Channeling green finance

- Financial flow from the public, private and not-for-profit sectors to sustainable development priorities
 - social impact bonds (SIBs) and other sustainability-linked debt products

Blended finance

- Public capital can take more risk to catalyze investments faster.
 - Global Agriculture and Food Security Program (GAFSP): International Finance Corporation uses concessional funds from the GAFSP alongside its own commercial funding – to support projects that are not commercially attractive due to the high risk.

Structuring financial instruments to connect different pools of capital

- Use of financing tools & special public funds to support SMEs that suffer from lack of access to long term financing