Rethinking of Food Systems for the Post COVID World

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Outline

• Food systems are already under numerous threats
• COVID-19 has made the food systems more vulnerable
• The pandemic is a wake-up call for rethinking future food systems
• Future food systems must place resilience as one of the top priorities
Food Systems Facing Numerous Challenges
Food Systems Are Already Under Threat

- More than 690 million people suffer from hunger (after adjusting the Chinese number)
- More than 2 billion people lack essential micronutrients
- More than 2 billion people are overweight or obese
- More than 144 million children are stunted, 47 million children were wasted
Poverty Will Increase For First Time in Many Years

Instead of 3.3% growth, the global economy is projected to shrink by 4.9%.

140 million additional people could fall into extreme poverty in 2020, including 80 million in Africa and 42 million in South Asia (Laborde, et al., 2020)

With a 5% contraction in per capita income, the world could witness an increase in the number of poor people, relative to the 2018 figures, of more than 80 million for the US$1.9/day poverty line, 130 million for the US$3.2/day standard

There will be 70-100 million more extreme poor in 2020

Source: Chen, Timmer, Dawe, Li GFPR 2020
Acute Hunger Will Double

Global Report on Food Crises (GRFC)
- 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.

United Nations World Food Programme (WFP)
- COVID-19 will add another 130 million acute food insecurity population, almost double of the number in 2019. Majority of these added food insecure population will be in Africa.

IFPRI
- The nutritional status of vulnerable groups will be damaged due to the drastic declines in income primarily through declining demand for vegetables, fruits, and animal-sourced foods, which are the main sources of essential micronutrients in diets.

UNICEF
- An additional 6.7 million children under 5 could suffer from wasting this year due to COVID-19.
Vulnerable population has been hit very hard
Major Disruptions in Food Supply Chains

COVID’s impact unprecedented

• Heterogeneity in impacts—the poor suffer more disproportionately

Supply chains are disrupted

• Impacts are more intrusive in labor-intensive (vs capital-intensive) systems
• Smallholders, rural migrants, youth and women—less capacity to cope and recover
• Trade has been affected by lack of demand and logistics challenges
Smallholders Are Hit Hard by COVID-19

Supply chain disruptions hinder smallholders’ access to inputs, services, labor, markets, finance, etc.

A survey of around 370 farmers across nine Indian states found that among those who had harvested some produce this season, 29% were still holding on to it; 13% had sold the harvests at throwaway prices and about 7% reported that they had to let the produce go to waste (Narayanan, 2020)

Vegetables and livestock sector were severely disrupted in China, Ethiopia, Nigeria, and many other parts of the world (IFPRI, 2020)

Substantial fall in producer prices and rising urban consumer prices in India and some African countries (Narayanan, 2020, and Minten, 2020)

Source: Andy Johnstone

Source: FAO 2020, Tamru, Hirvonen, and Minten 2020
Rural Migrants Most Adversely Affected

China
- 290.8 million rural migrants (Fan, 2020)

India
- 40-50 million seasonal migrants (Dev, 2020)

Africa
- 36 million international migrants (Adhikari, 2020)

- In China, migrants’ employment decreased by 30%, wage rate declined by 6-8%, and 80% of migrants work in the sectors most exposed to the pandemic shock (for example, construction, services and manufacturing)
- Majority of migrants work in micro and small enterprises without formal employment contracts and unemployment benefits
**Poor People are Switching to Lower Quality Diets**

**China**
(Rozelle, et al, 2020)
- 63% reported that the prices of foodstuffs were higher than in 2019
- 55% of villagers in the survey villages reduced their spending on food
- Nearly half said the quality of their diets fell
- People are buying more grains in bulk at low cost in lieu of more expensive goods like meat and produce

**Nigeria**
(Lashitew and Kanos, 2020)
- 70 percent of both urban and rural respondents have experienced a reduction in income since the onset of the pandemic
- 70 percent of respondents in both rural and urban areas of Nigeria are facing food insecurity
COVID is a wake-up call for rethinking of future food systems
### What Future Food Systems Do We Want?

<table>
<thead>
<tr>
<th>Objective</th>
<th>Requirements</th>
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<tr>
<td>Productive and efficient</td>
<td>- High land, labor and natural resource productivity</td>
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<tr>
<td>Low carbon</td>
<td>- Reducing carbon emission from agriculture and food</td>
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<td>Healthy and Nutritious</td>
<td>- Tackling triple burden of malnutrition – hunger, lack of micronutrients, and overweight / obesity</td>
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<td>Resilient</td>
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- Increase ability to cope and recover from shocks and grow better afterwards
- Protection of land, water, biodiversity, etc.
- Smallholders, women, youth and other vulnerable groups must benefit from food systems
Resilience critical to cope with and recover from shocks like COVID-19 and grow even better
The world is facing a barrage of shocks

- Pandemics
- Natural Disasters
- Cyclones
- Floods
- Food Safety
- Drought
- Earthquakes
- Food Price Volatility
- Climate Change
- Conflict

More frequent
More intense
Evolving and unexpected
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.”

IFPRI 2020 Consultation definition

Resilience is also

- Bridging the gap between short-term relief and long-term development goals
- Systems way of thinking—healthy, sustainable global food system that can provide nutritious foods for all at all times without damaging the planet
- Integration of multi-disciplinary studies to reach high equilibrium AND benefit vulnerable communities
Transforming Smallholders for Resilience

- **Strengthen land tenure security**, reduce land fragmentation, improve access to finance, inputs, and ICT

- **Promote inclusive agribusiness models** and help smallholders adapt to changing food demand and higher quality standards of modern supply chains

- **Facilitate better risk management for smallholders** (social protection, insurance, income diversification)
Reprioritize R&D to Improve Stability and Deliver Multiple Wins

Expand agric. R&D to promote a food system that is

- Nutritious and healthy
- Climate-smart and resource efficient
- Inclusive, esp. of women
- Sustainable and resilient

Advance frontiers for sustainable intensification and better nutrition

- E.g. Breeding high yielding, climate-ready, high-nutrient crop varieties (biofortification)

Picture sources: IRRI, New Agriculturist, IRRI
Establish and Expand Social Protection

- 190 countries and 900 measures; an expansion of beneficiaries by roughly 15% in South Asia and East Asia and the Pacific, but by only 2% in the Africa region (Gilligan, 2020).

**Build long term resilience**

**Expand social protection for urban poor & hungry**
By 2020, 85% of poor in Latin America, 40-45% in Africa and Asia will live in cities or towns

**Promote better-targeted, productive, cross-sectoral safety nets**
e.g.
- Ethiopia’s Productive Safety Net Program: Access to safety nets and ag. support improves food security
- Bangladesh’s Vulnerable Group Development Program: Food security, nutrition interventions + income-generating activities

**Invest more in mobile payments**
- Contactless mobile payments have a clear advantage during the pandemic. Consider subsidizing mobile phone ownership for the poor

**Promote better-targeted, productive, cross-sectoral safety nets**
- Access to safety nets and ag. support improves food security
- Food security, nutrition interventions + income-generating activities
Managing Nature for Resilience

- Expansion of agricultural, food and urban use of land has destroyed habitats of wildlife
- Interactions of humans and wildlife have intensified dramatically for the past several decades

Manage nature better for resilience

- Promote sustainable intensification and halt the expansion of agriculture and other activities to forest areas and other natural habitats of wildlife
- Track, monitor and rapidly respond to zoonotic diseases
- Many countries introduced various laws, regulations and policies on wildlife. It is equally important that these laws, regulations and policies are implemented, monitored and evaluated.
• **Short run**: Humanitarian aid BUT must pave way for development efforts

• **Long run**: Investments that transition toward development, e.g. improve infrastructure; foster trade with refugees’ countries of origin

Source: Breisinger et al. 2014

Source: Mabaso et al. 2014
Reducing Food Loss and Waste

Food loss and waste increases substantially due to shocks like COVID-19, floods, droughts and food safety concerns. In China, the supply of live chicken and ducklings decreased by about 50 per cent in February (CAU, 2020). Many of chicken and ducklings were buried.

In Spain, during the lockdown the amount of FLW in households has increased by 12%, the economic cost and CO2 emissions by up to 10% and 11%, respectively. The nutritional content was reduced by 8% due to relaxation in healthy eating habits (Aldaco et al, 2020).

Innovations in policy (e.g., green channels),
Innovations in technology (e.g., e-commerce),
Innovations in institutions (e.g., community sharing),
Setting up a mechanism to share foods with those in need during future shocks/crises

A win-win solution for both reducing FLW and improving nutrition and health of vulnerable population
Trade Remains Important

Trade restrictions lead to tighter markets and exacerbate crisis—Open, transparent, and fair trade can build resilience

- Eliminate distortionary trade policies
  - Harmful trade policies e.g. import tariffs and export bans, hurt the poor and hinder efficiency of agricultural markets
- Improve targeting of subsidies
  - Resources can fund public goods and support nutritious food production
- Create global and regional grain reserves
  - Located in poor, food importing countries, e.g. Horn of Africa
Engaging the Private Sector for Resilience

- Including all private actors in the whole food supply chains must mainstream resilience into their business practices.

- Managerial skills, risk management strategies and HR capacity must also be strengthened.

- Access to credit, finance, insurance is critical for these enterprises to build resilience against shocks.

- They must also be treated equally in receiving any support of the government stimulus package.

- SMEs play a pivotal role in ensuring food supplies.

- They employ a large share of rural migrants.

- They also link to millions of smallholder farmers and urban consumers.

Private sector

Small and medium enterprises (SMEs)

Credit, finance, insurance
Women Matter in Building a Resilient Food System

Agriculture labor force made up by women

- **Global**: 43%
- **SSA**: 49%
- **Asia (excl. Japan)**: 43%
- **LAC**: 21%

If women had
- same amount of land as men
  → 10% increase in crop yields
- same access to tools and credit
  → 150 million fewer hungry people

Source: FAO 2011

Empowering women in agriculture is critical to ensure global food security and nutrition
Women Mediate Pathways from Agriculture to Nutrition

Increased food for own consumption  
Increased income  
Reductions in market prices  
Shifts in preferences  
Shifts in control of resources within households

Gender equality

Health and nutrition

Examples of interventions

- **Ghana**: Women’s empowerment in credit decisions improved dietary diversity for women and girls  
  (Malapit and Quisumbing 2015)

- **Bangladesh**: Cash AND nutrition education program for women reduced child stunting  
  (Hoddinott et al. 2015)

Source: Arimond et al. 2010
Food Banks: Part of the Resilience Solution

Demand for food banks services skyrocketed during the crisis

They play a critical role to get foods to people in need very quickly

1,000 food banks that have been established in Addis Ababa to curb the likely deterioration in food security (Hirvonen, et al., 2020)

They must be supported by business communities and government; Financial and regulatory support

Knowledge sharing among food banks critical for improvement