

UPDATE ON THE CGIAR RESEARCH RESPONSE TO COVID-19

October 2021

IMPACTS OF COVID-19 AND RESPONSE MEASURES ON POVERTY, FOOD SYSTEMS AND FOOD SECURITY

The emergence of new COVID-19 variants has cast doubt on the rapid recovery that was hoped for in Spring 2021, especially for low- and middle-income countries (LMICs) with low vaccination rates ([Gabriel et al. 2021](#)). Inequalities in vaccine access are driving divergence in economic recoveries: the global economy rate prediction for 2021 is unchanged since April, as prospects for emerging and developing economies were marked down while the forecast for advanced economies was revised upwards ([IMF 2021](#)). As noted in the last brief, while some countries are looking forward to normalization of activities in the near future, this recovery is not assured while the virus continues to circulate in other parts of the world.

It is estimated that, while G7 countries have collectively pre-purchased enough vaccine doses for five per person ([World Bank 2021](#)) – with 62-75 percent of the population in these countries having received at least one dose already ([Our World in Data 2021](#)) – less than three percent of the doses purchased by or for low-income countries have been delivered ([World Bank 2021](#)). Delays in vaccinating the global population could have enormous economic costs, with models indicating that countries vaccinating less than 60 percent of their population by mid-2022 will register GDP losses totaling US\$2.3 trillion in 2022-2025 ([The Economic Intelligence Unit 2021](#)). Emerging economies are likely to shoulder about two-thirds of these losses, further contributing to the divergence in economic recoveries ([The Economic Intelligence Unit 2021](#)).

These trends in economic recoveries are reflected in the latest data on poverty and food security. While in high- and upper middle-income countries, poverty rates are expected to fall compared to pre-pandemic

levels, in low-income countries – especially in sub-Saharan Africa – not only is poverty increasing, it is doing so at a faster pace than predicted pre-pandemic ([Mahler et al. 2021](#)). The pandemic continues to contribute to increased food insecurity via weakened currencies, rapid inflation, high food prices (exacerbated by supply chain bottlenecks), and widening unemployment, combined with increased debt and low purchasing power. Despite a drop in June 2021, global food prices remained more than 30 percent higher year on year ([FAO 2021](#)) and have become a particularly important concern in countries such as Myanmar, Venezuela, and Zimbabwe ([UN News 2021](#); [WFP 2021](#)). Acute food insecurity is predicted to increase – both in scale and severity – toward the end of 2021, primarily driven by conflict and economic impacts (including secondary impacts of the pandemic) ([FAO 2021](#)).

The impacts of COVID-19 are wide-ranging and constantly shifting. Some countries that performed very well in 2020, e.g., Vietnam, have been hit much harder in 2021. Meanwhile, lockdowns have been reintroduced in many countries that have experienced recent outbreaks after months of minimal infections, such as China, Australia, and New Zealand ([IMF 2021](#)). A zero-COVID-19 (or COVID-19 exclusion) approach is no longer feasible and countries that adopted this course are now having to instead focus on vaccinating a large proportion of their population. The global impacts of COVID-19, especially with its multiple waves and variants, will influence progress toward the Sustainable Development Goals. LMICs currently have very limited fiscal capacity, while donors are experiencing funding fatigue with respect to COVID-19. Reigniting health and education systems and programs, and linking COVID-19 responses to other development needs, will be crucial for recovery.

CGIAR COVID-19 HUB PROGRESS OF WORK

The CGIAR COVID-19 Hub provides evidence, innovations, and tools to policymakers and food system actors across a wide range of CGIAR areas of expertise for COVID-19 response and recovery. As envisaged from its inception, the CGIAR COVID-19 Hub is complementing, not replacing, COVID-19 research responses undertaken within existing CGIAR research programs.

The Hub activities focus on delivering a set of prioritized research outputs across three thematic work areas – Value Chain Fractures; One Health; and Food System Resilience – and five countries. The objectives and planned outputs under each area are listed in Annex 1.

Two cross-CGIAR functions of the Hub can be highlighted. The first is synthesizing findings and distilling lessons from multiple CGIAR studies on value chain fractures and food system resilience. The second is coordinating prioritized cross-CGIAR support to COVID-19 response and recovery through five country teams.

Work Area 1: Value Chain Fractures

Within Work Area 1, scientists from the World Agroforestry Center (ICRAF) and the International Maize and Wheat Improvement Center (CIMMYT) produced the discussion paper, *Effects of the COVID-19 pandemic on agrifood value chains: Fractures, responses and opportunities for building back better* (Stoian et al. 2021) in September. The paper reviewed 129 studies to understand where COVID-19 research is currently placed and to identify potential knowledge gaps. It presents a conceptual framework for addressing existing research gaps, and examines the knock-on effects of the pandemic such as yield reductions, demand-supply shifts, business closures, restructuring (reshoring, digitalization), the availability of finance and credit, and the impacts on human nutrition and health. The paper also provides suggestions for how the public and private sectors and civil society can better prepare for future crises by

increasing value chain resilience, in particular those segments that proved vulnerable during the pandemic.

Work Area 2: One Health

The evolving COVID-19 situations in countries such as Vietnam and Kenya have meant that much of the fieldwork planned for recent months as part of Work Area 2 has been delayed. However, as of September 2021, fieldwork is gradually recommencing.

Under Work Area 2, researchers recently published a brief on the economic value of the wildlife trade in Vietnam ([Pham et al. 2021](#)). This brief explains that wildlife farming generates significant earnings for many households across many provinces and creates employment opportunities for the rural workforce. However, dependence on wildlife farming as a primary source of income creates major challenges for wildlife conservation and management. The brief concludes that diversifying and developing sustainable local livelihoods and economic growth are essential for local wellbeing and effective wildlife conservation and management. It argues that a well-functioning, transparent, and accountable monitoring and evaluation system, together with financial support for research on legal and illegal wildlife trading, especially in the context of COVID-19, are essential for effective wildlife conservation in Vietnam.

Work Area 3: Support Country COVID-19 Responses

Country updates were recently published for the Work Area 3 focal countries, [Bangladesh](#), [Ethiopia](#), [Malawi](#), [Myanmar](#) and [Nigeria](#).

On September 7, the Work Area held a fourth cross-country meeting, focused on economic modelling. The discussion aimed to further the understanding of the economic and social impacts of the pandemic in the target countries.

Initial results from a related study from the International Food Policy Research Institute (IFPRI) showed that, despite a GDP loss of approximately 11 percent, agrifood systems in focal countries were not affected as much as feared. While the pandemic affected incomes in urban areas more than rural areas,

most people pushed into poverty in these countries are from rural areas, suggesting a higher vulnerability of rural households.

Discussions during the meeting revealed that, in Africa, the COVID-19 Hub country teams are now focusing on social protection more than before, and are concentrating their efforts on potential government interventions and understanding how countries are reacting to the pandemic in the long term. In Asia, the teams analyzed the effects of consumer prices on consumption patterns, the implications of relying less on food imports, and the impact of accommodating changing marketing and market information patterns.

Country team representatives also shared their experiences related to CGIAR's role in supporting governments with an emergency like COVID-19. While there are challenges in determining how best to engage in each focal country, the unified presence of CGIAR has made it easier to be recognized as a valid actor in country responses to COVID-19. CGIAR Center partners have therefore been able to play a more significant role and, despite the challenges, there is optimism that they will continue to participate in conversations that influence policy and investment.

Work Area 4: Food System Resilience

There are currently six studies ongoing within this Work Area, led by Wageningen University & Research (WUR), CIMMYT, the Alliance of Bioversity International, the

International Center for Tropical Agriculture (CIAT), and the International Livestock Research Institute (ILRI). These studies cover the following key action domains to build food system resilience:

1. Food environments
2. Diversification of production and consumption and markets
3. Urban-rural relations and buffers for employment
4. Integrated surveillance systems for food/heath/land (with links to work within Work Area 2)
5. Guidelines for countries and actors to analyze and manage food chains shocks and crises (with links to work within Work Areas 1 and 3)
6. Foresight analysis of the new trends, drivers and levers related to building resilience

Several internal expert meetings on these studies have been held since June 2021.

In addition, the CGIAR Research Program on Forests, Trees and Agroforestry (FTA) held a webinar on September 6 on [FTA's rapid research response to COVID-19](#). As part of this event, FTA contributions to the COVID-19 Hub were presented and discussed.

Looking ahead, a special event on COVID-19 has been planned as part of the World Forestry Congress 2022, organized by the Collaborative Partnership on Forests.

To learn more about the CGIAR COVID-19 Hub, visit www.a4nh.cgiar.org/covidhub/ or email COVID-19-Hub@cgiar.org.

ANNEX 1: CGIAR COVID-19 Hub objectives and planned outputs

Work Area	Objectives	Planned Outputs in 2021
1. Address value chain fractures	Develop syntheses of country-, value chain-, and commodity-specific case studies and new collaborative research to inform policy and investment decisions and actions to restore food/agriculture value chains.	<ol style="list-style-type: none"> 1. Framework for assessing value chain fractures 2. Inventory of CGIAR value chain studies on COVID-19 to date 3. Synthesis of lessons learned from existing studies of value chains during COVID-19 4. Collaborative study of how well innovations in value chains mitigated impacts of COVID-19
2. Integrate a One Health approach to COVID-19 responses	Link health, economic, and environment models and provide targeted reports and joint modelling for three to four priority countries, plus a series of high-profile evidence papers. This will build understanding of human, animal, and environmental health, de-risk agricultural hotspots, and avoid future zoonosis cross-over events.	<p><i>Pathogen crossovers</i></p> <ol style="list-style-type: none"> 1. Review of key risk factors associated with cross-over of pandemic-potential pathogens from animals to humans 2. Vietnam case study with analysis of risks from wild bushmeat, wildlife farming and livestock. <p><i>Epidemiology</i></p> <ol style="list-style-type: none"> 3. Framework to map COVID-19 and other zoonotic diseases on agricultural productivity. 4. Transmission at the interface of humans, domestic animals, and wildlife in different host ecosystems in Vietnam. 5. Slaughterhouses as “hot-spots” for SARS-CoV-2 transmission in Kenya 6. Framework for One Health assessment of aquatic food systems in Bangladesh <p><i>Epidemiological and economic modeling</i></p> <ol style="list-style-type: none"> 7. Framework and analysis of joint models in two to three countries
3. Support country COVID-19 responses	Establish a response network across CGIAR partner countries and provide national partners with analyses, evidence-based recommendations, and scalable solutions on policies, strategies, and investment options for integrated COVID-19 crisis and recovery responses.	<ol style="list-style-type: none"> 1. Implementation of co-designed action plans with partners in Bangladesh, Ethiopia, Malawi, Myanmar, and Nigeria 2. Synthesis of lessons learned from country engagement and providing agile cross-CGIAR COVID-19 research response
4. Address food systems’ fragilities and build back better	Identify the impacts of COVID-19 on food systems’ fragilities and integrate foresight modelling results and prioritized solutions to improve resilience and build back better, with particular emphasis on vulnerable groups and country priorities.	<ol style="list-style-type: none"> 1. Literature review of relevant studies on food system fragilities and how to address vulnerabilities. 2. Working paper and policy brief on mitigating vulnerabilities and reinforcing resilience with particular emphasis on vulnerable groups, country and regional priorities, through integration of sustainable production, trade and consumption strategies and governance for risk prevention to improve food system adaptation processes. 3. Foresight analysis incorporating this new knowledge to assist the re-design and scaling of improved food systems in building back better.