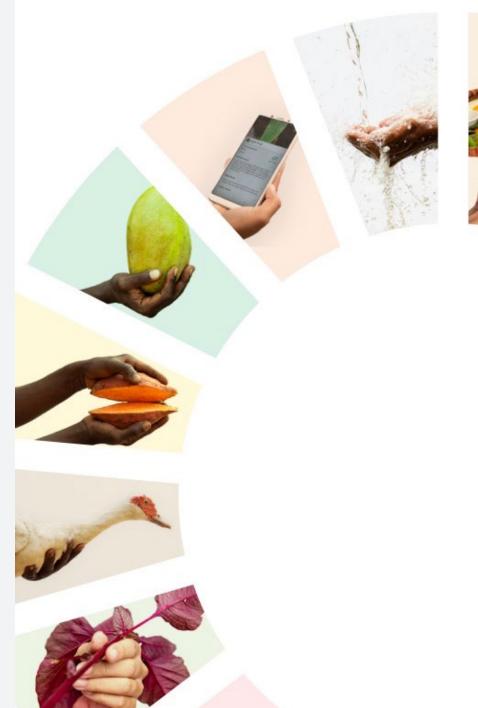


Agenda Item 3

<u>Presentation</u>: SC16-03 <u>Issued</u>: 12 July 2022

CGIAR's response to the global food crisis

16th meeting of the CGIAR System Council 20 July 2022





Purpose of this document

This document summarizes CGIAR's response to the global food crisis for System Council information, discussion, and strategic guidance at its 16th meeting on 20 July 2022.

The response was prepared by a cross-CGIAR working group established in June 2022, stewarded by CGIAR's Executive Management Team and Global Science Group Directors. It draws on inputs from Initiative teams and experts in all three Science Groups, CGIAR's Regional Directors, as well as other members of the Senior Leadership Team; building on their continuous, extensive engagement with partners and stakeholders.

CGIAR

Contents

- CGIAR's response at a glance
- Context: the world is in the midst of a global food crisis
- CGIAR is uniquely placed and equipped to respond
- CGIAR's Strategy and research portfolio are highly relevant
- Maximizing CGIAR's impact as part of the global response: 7 innovation areas
 - 1. Real-time monitoring and early warning
 - 2. Evidence-based policy communication and advocacy
 - 3. Soil fertility solutions for resilience to fertilizer price and supply shocks
 - 4. Research solutions for humanitarian responses
 - 5. Faster dissemination of improved varieties into the seed systems that serve those most at risk
 - 6. Crisis-responsive crop and livestock management
 - 7. Stronger national agricultural research and innovation systems for resilient countries
- Regional impacts and responses
- Delivering the response: key features and operational modalities
- Resourcing the response: a preliminary investment case
- References





The world is in the midst of a global food crisis

- Food, fuel, and fertilizer prices have increased rapidly since 2021, reaching all-time highs in the wake of Russia's invasion of Ukraine in February 2022
- Conflict- and climate-related shocks, coupled with an uneven recovery from COVID-19, have exposed the inherent fragility of our global food systems
- Failure to address the crisis immediately risks reversing significant development gains and risks putting the SDGs further beyond reach

CGIAR is uniquely placed and equipped to respond

- In the days, weeks, and months following Russia's invasion, CGIAR responded swiftly by providing monitoring, analysis, and advice on the impacts of the crisis on food and nutrition security, and ways to mitigate those impacts
- As the crisis continues to expand and evolve, CGIAR can play an essential role in the international community's response, with its breadth and depth of expertise across food, land, and water systems
- In doing so, CGIAR coming together as a more integrated 'One CGIAR' – can leverage its global presence and partnerships with 9,000 staff in 100 countries; and its track record of translating scientific evidence into tangible development impacts

The 2030 Research and Innovation Strategy and 2022—24 portfolio remain highly relevant

- This food crisis is systemic, global, multi-dimensional, and quickly evolving
- Beyond swift action to identify, understand, and address its immediate impacts on food and nutrition security across key regions, it calls for a deep transformation to strengthen the resilience of our food, land, and water systems in the face of future shocks and increasing volatility
- This integrated systems approach is at the heart of CGIAR's 2030 Strategy and 2022—24 portfolio of Initiatives

To maximize CGIAR's contributions to the global response, additional actions are proposed, spanning seven innovation areas:

- 1. Real-time monitoring and early warning
- 2. Evidence-based policy communication and advocacy
- 3. Soil fertility solutions for resilience to fertilizer price and supply shocks
- 4. Research solutions for humanitarian responses
- 5. Faster dissemination of improved varieties into the seed systems that serve those most at risk
- Crisis-responsive crop, livestock, and aquatic food systems management
- 7. Stronger national agricultural research and innovation systems

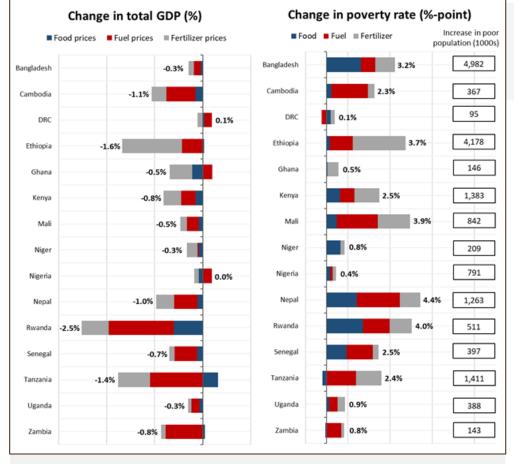
CGIAR's response will be carefully calibrated to stakeholder demand, delivered in partnership, and draw on the full range of our global capabilities



Context: the world is in the midst of a global food crisis

- Food, fuel, and fertilizer prices have increased rapidly since 2021, reaching all-time highs in the wake of Russia's invasion of Ukraine in February 2022
- Conflict- and climate-related shocks, coupled with an uneven recovery from COVID-19, have exposed the inherent fragility of our global food systems
- Failure to address the crisis immediately risks reversing significant development gains and risks putting the SDGs further beyond reach
- Millions of people have already become food and nutrition insecure and some countries have begun seeing political unrest reminiscent of the 2010 Arab Spring

Large net importers of food, fuel, and fertilizers are estimated to suffer larger GDP impacts with associated hikes in poverty



Source: Diao et al. 2022







In the days, weeks, and months following Russia's invasion of Ukraine, CGIAR responded swiftly by providing monitoring, analysis, and advice on the impacts of the crisis on food security, and ways to mitigate those impacts, including:

- ✓ Monitoring and modeling food& input prices, vulnerability
- ✓ Country-level analyses
- ✓ Policy analysis and support



As the crisis continues to expand and evolve, CGIAR can play an essential role in the international community's response, including through:

- ✓ Real-time monitoring, analysis, and insights to help avert worst-case scenarios for food & nutrition security
- ✓ Strengthening near-term access to improved varieties while breeding more resilient ones for future shocks
- Improved yields, diversification, and resilience in production systems
- ✓ Plant and animal health and management
- Developing multiple-win solutions that span food, land, and water systems, including aquatic food systems and water management
- ✓ Convening partners and strengthening capacities at the national and local levels



In doing so, CGIAR can leverage its core strengths and proven track record:

- Experience and knowledge spanning 50 years built on a track-record of continuous innovation and world class research
- ✓ Breadth of capabilities: crop breeding, agronomic practices, plant and animal health, policy change, improving nutrition, natural resource management, climate change mitigation and adaptation, and more
- ✓ Global presence 9,000 staff in 100 countries
- ✓ Broad and deep network of partnerships



CGIAR's Strategy and research portfolio are highly relevant

- The current food crisis is systemic, global, multi-dimensional, and quickly evolving
- Beyond swift action to identify, understand, and address its immediate impacts on food and nutrition security across key regions, this crisis calls for fundamentally transforming our food, land, and water systems so that they are resilient to future shocks and increasing volatility
- <u>CGIAR's 2030 Research and Innovation Strategy</u>, approved in December 2020, responds to precisely
 this need for a systems transformation approach. It recognizes the deep and complex
 interdependencies within and across systems, and embraces interdisciplinary approaches, foresight,
 and tradeoff assessment as integral features of how we work
- **CGIAR's new** 2022—24 portfolio of Initiatives is designed based on the 2030 Strategy; shaped by a careful process of triangulation of global significance, regional relevance, and investor preferences; and developed in close collaboration with partners. Alongside bilaterally funded projects and programs, the Initiatives represent a strong contribution to what is required in the near-, medium-, and long-term, and a solid foundation for accelerated and enhanced action
- As recognized in the 2030 Strategy, successful implementation will be underpinned by the transition to a more unified and integrated 'One CGIAR', enabling CGIAR to seamlessly leverage all of its global capabilities and assets to deliver greater benefits faster where they are needed the most

Maximizing CGIAR's impact as part of the global response: 7 innovation areas



In addition to the full and accelerated implementation of CGIAR's 2030 Strategy and portfolio of Initiatives, underpinned by the One CGIAR transition, CGIAR stands ready to step up its contributions over the 2022—24 period, working closely with partners in 7 innovation areas:



- 1. Real-time monitoring and early warning
- 2. Evidence-based **policy** communication and advocacy
- **3. Soil fertility** solutions for resilience to fertilizer price and supply shocks
- 4. Research solutions for **humanitarian** challenges
- 5. Faster dissemination of improved varieties into the **seed systems** that serve those most at risk
- 6. Crisis-responsive **crop**, **livestock**, **and aquatic food systems** management
- 7. Stronger national agricultural research and innovation systems



CGIAR's Regional Integrated Initiatives will play a key role in ensuring that CGIAR's research and innovation packages are relevant and responsive to rapidly evolving regional, national, and local priorities, and scaled in collaboration with local partners



The innovation areas are intended to capture targeted ways to quickly deploy additional, complementary CGIAR support to address key aspects of the global food crisis, with impacts over the near, medium, and long term. (See also <u>operational modalities</u> below.)



Innovation area 1: Real-time monitoring and early-warning

Challenges we need to address

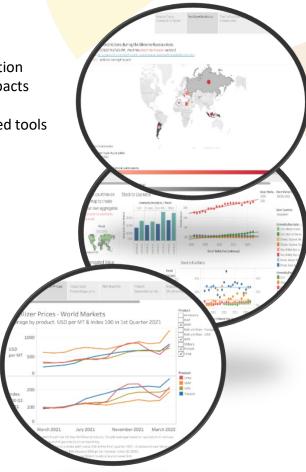
• Existing monitoring tools and early-warning systems cannot precisely assess impacts of global shocks on domestic food & nutrition security, or impacts of domestic shocks on households – better forecasts for key commodities help understand longer-term impacts

• There is substantial risk now of compound crises that exacerbate vulnerabilities at local and country level – particularly climate impacts that hit on top of the food price crisis. As flood, drought and climate extremes impact production, remote sensing-based tools to forecast and monitor these events can be used to help governments plan and respond.

Actions we are taking/ planning

- Developing and using innovative tools such as the Excessive Food Price Volatility Early Warning System and Food and Fertilizer Exports Restrictions Tracker
- CGIAR also plays an active part in the <u>Agricultural Market Information System</u> (AMIS), <u>AgIncentives</u>
 <u>Consortium</u>, the <u>Food Security Information Network</u>, and other partnerships to address food security

- Acceleration and scaling up of tools to track **market shocks**, including food prices, food exports, input prices, and input production levels
- Tools to **estimate and forecast food production at granular geographic precision** using remote sensing technology (such as satellite imagery, AI, drones, and solar-powered sensors)
- Tracking of stocks held by governments and private sector of commodities and inputs
- Expansion of global and country modeling to assess impacts of shocks and policies on food security
- **Early-warning systems** that analyze data using a predictive model, communicate the results through a user-friendly dashboard, and build capacity to collect and analyze data



<u>Innovation area 2:</u> Evidence-based policy communication and advocacy



Challenges we need to address

- Dissemination, communication, advocacy, and demand-driven policy support are critical to ensure that decision-makers at all levels receive reliable policy guidance and integrate it into meaningful actions
- National governments and decision-makers need access to timely, reliable data and policy options as well as capacity building in data collection and policy analysis
- Governments face **tradeoffs across food, land and systems,** e.g. decisions to shift away from food imports can put pressure on water and land, with knock-on effects in other sectors, including energy and higher-value industrial sectors

Actions we are taking/ planning

- CGIAR has released policy recommendations, blogs, news articles, and hosted a range of policy seminars
- Researchers have directly supported policy-makers, Funders, international financial institutions, UN
 agencies, development NGOs, media, and other partners on actions to take to address and mitigate
 impacts to food and nutrition security
- CGIAR analysis is already being used by the UN Global Crisis Response Group and the High-Level Panel of Experts of the UN Committee on World Food Security

- Host global policy dialogue event in September 2022 to take stock of current efforts and identify and build momentum around ways to
 mitigate the current food crisis and build resilience against future shocks
- A food **crisis unit** that can directly meet government and Funder demands for research and policy analysis
- Acceleration of regional initiatives to build in-country capacity for data collection and policy analysis
- Build coalitions of governments and other stakeholders to generate support for priority actions for building resilience to shocks
- Assist in assessing and advising on policy decisions that involve tradeoffs across food, land, and water systems



<u>Innovation area 3:</u> Soil fertility solutions for resilience to fertilizer price and supply shocks



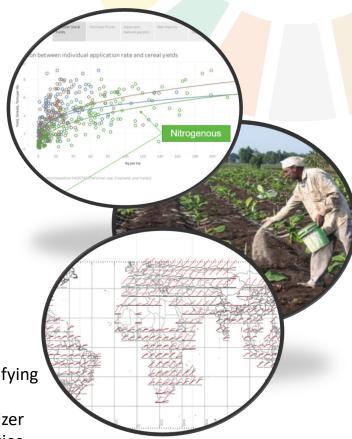
Challenges we need to address

- Fertilizer prices have been surging since 2021, driven by rising input costs, supply disruptions due to sanctions, and export restrictions, reaching levels not seen since 2008
- Beyond other immediate drivers of rising food prices, fertilizer price and supply shocks put future harvests at risk and could translate into high prices over extended periods of time

Actions we are taking/ planning

- CGIAR's Excellence in Agronomy Initiative (EiA) is working to assist farming communities in targeted countries by enhancing the productivity, production efficiency, and self-sufficiency of crop production
- With regard to fertilizers, it is: (i) Improving efficiency of fertilizer use, and (ii) Valorizing alternative sources of nutrients
- In addition, IFPRI's fertilizer dashboard tracks availability and affordability, trade restrictions, etc.

- Accelerated deployment of available tools and analytics to deliver locally-relevant fertilizer
 recommendations at scale, following the 4R principles (right type, amount, time, and place), and identifying
 the right enabling environments
- Dissemination of Integrated Soil Fertility Management (ISFM) options at larger scale, focusing on fertilizer use with measures to partly substitute for fertilizer nutrients, and improve water /nutrient use efficiencies
- Working with the Nature+ Initiative on rapid identification of locally available sources of organic inputs
- Expanding work on **repurposing agricultural subsidies**, which drive 50% of global fertilizer demand -- supporting policymakers in exploring best practices for fertilizer subsidies





Innovation area 4: Research solutions for humanitarian challenges

Challenges we need to address

- 1.5 billion people are living in fragile and conflict-affected settings, which are among those most adversely affected by the global food crisis
- Climate-related shocks are compounding the impacts and severity of conflict.
- Decision-makers need information that is immediately available and tailored to their policy needs.

Actions we are taking/planning

- CGIAR has conducted frontline research in fragile and conflict-affected states and regions
- It has undertaken critical work on migration and refugee populations, including the factors leading to voluntary migration, migrant remittances, gendered drivers, and livelihood options.
- It is a global leader in impact evaluation of social protection initiatives

- The **Conflict, Fragility, and Migration Initiative**, intended for ISDC submission in September, will enable CGIAR to provide demand-driven research solutions to our partners working within the humanitarian sector, exploring how fragility and conflict affect food, land, and water systems, and vice versa; bridging emergency operations with longer term sustainability; mitigating fragility risks; augmenting warning systems; and guiding operational policies
- A permanent unit to assess, interpret, and present information that allows clients to use it immediately in the design of policies, interventions, and investments to address crises and mitigate their harmful impacts



<u>Innovation area 5:</u> Faster dissemination of improved varieties into the seed systems that serve those most at risk



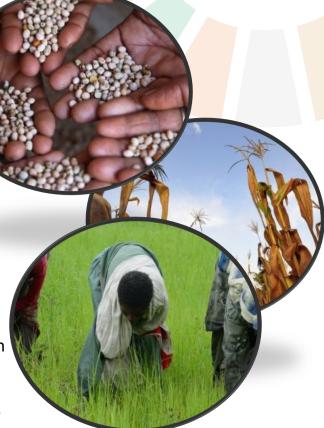
Challenges we need to address

- Many seed varieties exist that can improve yields with fewer inputs and greater resilience to climate shocks, but remain out of reach for many producers who could benefit from them
- These gaps are becoming more acute with the food crisis and its impacts on the most vulnerable food producers and consumers

Actions we are taking/planning

- CGIAR has implemented several initiatives for accelerating development of varieties delivering them for adoption by smallholder farmers (e.g. <u>Seeds for Needs program</u> in Ethiopia)
- The <u>Cereal Systems Initiative for South Asia</u> (CSISA), works to increase adoption of resource-conserving and climate-resilient technologies and improve access to market information and enterprise development

- Rapid multiplication and dissemination of seed varieties that are prioritized by national agricultural research systems (NARS), and which have already been registered and released by partners in target countries.
- Accelerated development and delivery of market-demanded varieties: breeders' seed production will be
 integrated in the breeding programs to ensure that adequate quantity and genetically pure seed is available
 for product advancement from breeding plots to smallholder farmers' fields using the best-in-class stagegate process. Many CGIAR-bred varieties also have built-in climate resilience which helps ensure food
 security under crisis conditions



<u>Innovation area 6:</u> Crisis-responsive crop, livestock, and aquatic food systems management



Challenges we need to address

- The global food crisis has exposed the inherent fragility of our food systems, including a strong reliance on production in a small number of key regions
- The crisis has also led to high prices of nutrient-dense foods, such as animal source and aquatic foods, putting them beyond the reach of poor consumers and thus threatening food and nutrition security

Actions we are taking/ planning

Within the Resilient Agri-Food Systems action area, CGIAR works to create more resilient farming systems, by focusing
on farm management practices that increase productivity, improve livelihoods, adapt to climate change, and reduce
the environmental footprint of farming

• Work underway ranges from exploring ways to reduce the concentration of wheat supplies and imported foods, enhance resource-use efficiency and diversification, and promote climate-smart agronomy and livestock management

What more is needed

• Enhance and accelerate planned work on (i) the development of suitability maps for alternative crops; (ii) the diversification of cereal-based systems with legumes, climate-resilient crops, and aquatic foods; and the integration of livestock to reduce the requirements for fertilizer N, improve water (and nutrient) use efficiencies, and increase drought resilience; (iii) Improve local livestock systems through better feeding, breeding, health and market systems; and strengthened resilience against shocks such as droughts, feed supply shortages and animal disease; (iv) expand work on lower trophic species for aquaculture which use fewer feed resources and fully utilize byproducts; and (v) index-based insurance







Challenges we need to address

• National Agricultural Research and Innovation Systems (NARIS) have a critical role to play in identifying, developing, and scaling solutions in response to short-, medium-, and long-term country-specific needs – in response to the current global food crisis as well as future crises and shocks

Actions we are taking/planning

- CGIAR is committed to joining forces with NARIS in the Global South to bolster in-country capacity for research and development, innovation (RDI) and scaling
- The 2022—24 portfolio of CGIAR Initiatives relies heavily on close collaborations between CGIAR researchers and NARIS stakeholders, who can co-develop, transfer, adopt and scale innovations and technologies that respond directly to country needs

What more is needed

• To further enhance the joint development and scaling of research solutions through Initiatives in response to the global food crisis and to build resilience to future crises, CGIAR is creating a direct pathway for investment in NARIS-led research and scaling in the Global South. This includes: (i) funding for NARIS research and scaling activities that are aligned with CGIAR Initiatives, sharing responsibilities, risk, benefits and rewards around agreed upon outcomes; (ii) facilitating South-to-South and Triangular research and scaling collaboration with and among Global South partners, including the sharing of top talent between NARIS stakeholders and CGIAR using a variety of modalities such as secondments, fellowships, sabbaticals, internships, and exchange programs, among others; and (iii) ensuring that CGIAR and NARIS partners in the Global South harness the full potential of their collaboration, prototyping novel research and scaling partnership models, garnering best practices and lessons learned, tracking outputs, and capturing the impacts from this deeper engagement, all in line with CGIAR's Engagement Framework.





The current food crisis is truly global in reach, but with considerable variation across regions as a function of their connections to global food systems. CGIAR, through its Regional Integrated Initiatives (RII) and emerging country and regional engagement structure, is well placed to step up work to identify and analyze region-specific impacts and vulnerabilities, and deploy appropriate research and innovation packages in response.

Central and West Asia and North Africa (CWANA)

Key challenges: • hottest, most water-stressed region; • extremely vulnerable to climate change • limited and degrading productive land; • dependent on grain imports; • non-specialized smallholdings; • fragility and conflict; • internal displacement; • youth unemployment; • gender inequality;

CGIAR's response: ● seeds of latest CGIAR technology to meet farmers' needs and close yield gaps; ● climate-smart wheat, barley, legumes, rice, potatoes, sweet potatoes, fruits and vegetables for scaling; ● wheat substitutes – barley/wheat flower mix; ● crop diversification; ● maintain & evolve current and future populations of crops and wild relatives; ● scale conservation agriculture; ● waterenergy-food governance; ● wastewater treatment & reuse, water harvesting and storage; ● water efficiency and management tools; ● digital tools for climate-resilient food value chains

East and Southern Africa (ESA)

Key challenges: ● availability of real-time information on crisis; ● over-reliance and serious shortage of cereals, esp. wheat & maize; ● sharp rise in costs of fuel, cooking oil, and other food items for domestic needs; ● post-harvest losses; ● under-developed platforms and linkages

<u>CGIAR's response:</u> • early-warning systems; • Crop diversification and sustainable intensification; • fertilizer-use efficiency and exploring locally available use of organic inputs; • access to markets, market linkages, post-harvest loss reduction, and agro-processing for smallholder farmers; • access to financial services for producers and value chain actors; • platforms to promote evidence-based policy, beyond briefs to awareness for action

Latin America and the Caribbean (LAC)

<u>Key challenges:</u> ● 13% agricultural and fish production, 17% of net export value; ● low intraregional trade and several net food importers facing severe food inflation threats; ● high transport, energy and fertilizer costs: intensive user of fertilizer, and imports 78% of its consumption; ● poverty and extreme poverty increasing: additional 13 million extreme poor and 8 million expected to suffer food insecurity by end-2022;

CGIAR's response: ● platform to expand sustainable production in areas with comparative advantage; ● nutrition-sensitive innovations to bridge silos between the technical, social, nutrition, and environmental; ● regional network of InnovaHubs at sub-national levels deploy collaborative learning processes for real impact at scale; ● multi-level capability to scale interventions; ● addressing gender, youth and social disparities; ● sustaining projected increase of net exports through improved productivity and production of major crops, including maize and soybeans as well as beef and poultry; ● small and family agriculture engagement in the agri-food systems and markets; ● mitigating impact on increased poverty and food security;





South Asia (SA)

Key challenges: ● shrinking foreign currency reserves, high import dependency, resulting in social unrest; ● imbalance in regional food supplies; ● weak value chains, dwindling resources to access intl. markets; ● rising malnutrition; ● climate change impacts, including floods and droughts; ● transboundary insects, pests, and diseases; ● limited access to advanced technologies and knowledge

CGIAR's response: ● improving value-chain efficiency, transform agri-food systems to increase availability of diversified food at affordable prices; ● anticipate consumption as well as production patterns – embedding shorter, more resilient, and sustainable value chains; ● changing consumption patterns: diet diversity, including promoting nutridense native varieties and crop, introducing millets and fruits; ● reduced food waste; ● climate response mechanisms (e.g. early warning, forecasting, and flood/drought resilient, high-yielding seeds); ● NARES collaboration to promote resource conservation technologies, make policy recommendations to strengthen national and regional seed systems

Southeast Asia and the Pacific (SEAP)

Key challenges: • inflation and food inflation: 28% in 2021, 20% in 2022; • rising fertilizer and fuel prices; • so far moderate for rice, but risk of a sharp increase if harvest does not meet expectations; • risk of broader trade restrictions and costly self-sufficiency policies; • geopolitical tensions and resulting impacts on trade; • climate risks; • deeper crisis can precipitate massive outmigration; ...and opportunities: • stocks high compared with 2008—2010; • lessons from previous crises; • strong existing CGIAR contacts with governments

CGIAR's response: ● catalyzing stronger ASEAN cooperation; ● improving productivity, profitability, input savings and food loss; ● planning scenarios for food crisis and climate change impacts; ● accelerating food systems transformations, especially resilience to market and weather shocks; ● promoting more local/landscape (watershed) based models and circular solutions; ● accelerating availability of new stress-tolerant and nutritionally enhanced varieties; ● promoting coordinated strategies to increase on-farm yields of staples through technology & policy, including diversification, infrastructure, storage and processing

West and Central Africa (WCA)

Key challenges: ● high increase and volatility of food & fertilizer prices; ● scarcity of agricultural inputs; ● limited labor supply and employment opportunity; ● high risk of productivity loss; ● risk of reduced production; ● increasing poverty, reduced purchase power, and food insecurity in both coastal and Sahelian regions

CGIAR's response: ● improve the use efficiency of chemical fertilizers; ● develop and promote value addition activities along the food system; ● promote digital delivery of agriculture extension and climate information services; ● increase the production of staple foods; ● facilitate access to financial services, markets, and market linkages; ● reduce post-harvest losses



Delivering the response: key features and operational modalities

CGIAR's global food crisis response will be:



Built on and delivered through the 2022—24 portfolio of CGIAR Initiatives, with existing work plans and budgets amended where required to accommodate additional demands, and with the addition of the Initiative on Conflict, Fragility, and Migration



Carefully calibrated to stakeholder demand, leveraging ongoing engagement processes under the leadership of CGIAR's Partnerships & Advocacy and Regional Groups



Delivered in close collaboration with partners



Deployed quickly in response to rapidly evolving impacts and needs



Draw on the full range of CGIAR's global capabilities and geographic reach across Centers, enabled by an integrated structure



Overseen by the three Science Group Directors, with dedicated capacity identified to coordinate CGIAR's global responses to stakeholder demands



Resourcing the response: a preliminary investment case

Today, more than ever, the world needs decision-making grounded in scientific evidence, as well as technologies and innovations that help transform food, land, and water systems for future sustainability and resilience.

- Through the 2022—24 portfolio of Initiatives grounded in our 2030 Research and Innovation Strategy CGIAR will play an essential role in helping partners and stakeholders understand the current global food crisis, identify its impacts on food and nutrition security, guide an effective near-term response, and build resilience in the face of future shocks. Investing in CGIAR research and innovations, and specifically the current portfolio of Initiatives, must remain a priority.
- Over the current business plan period (2022—24), CGIAR can absorb additional investments of an estimated
 US\$200—300m to accelerate, expand, and enhance work underway and planned under the Initiatives to maximize
 its contributions towards the global food crisis response, as set out across the seven innovation areas and Regional
 Integrated Initiatives above.
- For additional contributions, these can be made through the CGIAR Trust Fund, using the existing funding modality for Initiatives, towards the full portfolio or designated to Funders' preferred Initiatives. **CGIAR will explore the feasibility of establishing a dedicated crisis response facility** to enable Funders to designate contributions towards its food crisis response, using the existing designation mechanism and with funds allocated by Science Group leadership based on greatest need.



References

Bentley, A.R. et al (2022). <u>Another food crisis? The Ukraine conflict, global wheat supply and food security</u>.

CGIAR (2022). Seven Actions to Limit the Impact of War in Ukraine on Food Security.

Ferroni, M. (2022). How to prevent food from becoming a weapon of war. Op-ed in The Hill.

IFPRI (2022). Food Crisis Blog Series.

IFPRI (2022). <u>IFPRI Analyses: Country-Level Impacts of High Food, Fuel and Fertilizer Prices</u>. USAID Agrilinks Page.