

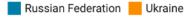
# Update on rising food prices

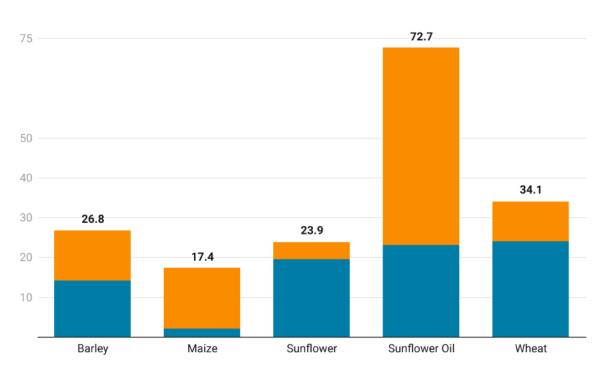
Understanding the crisis
Mitigating its consequences
Preparing for the next crisis

# The Ukraine and Russia crisis will have an immediate and direct impact on many countries



#### Share in global markets, volume

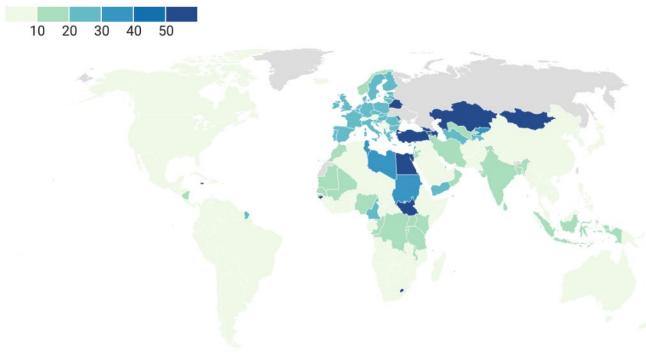




Intra-EU trade excluded from computations.

Chart: David Laborde • Source: COMTRADE • Created with Datawrapper

## Share of the Russian Federation & Ukraine in imported calories

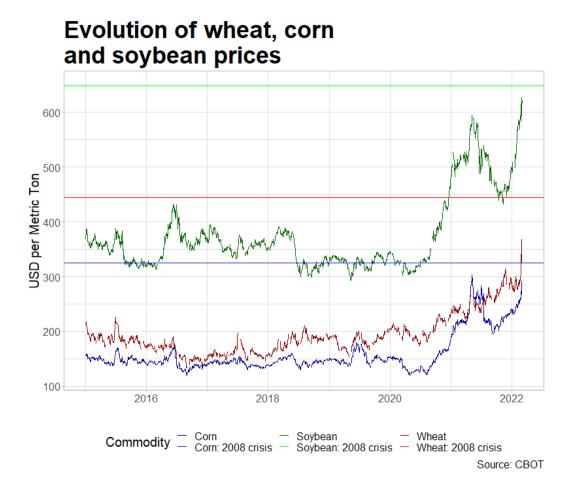


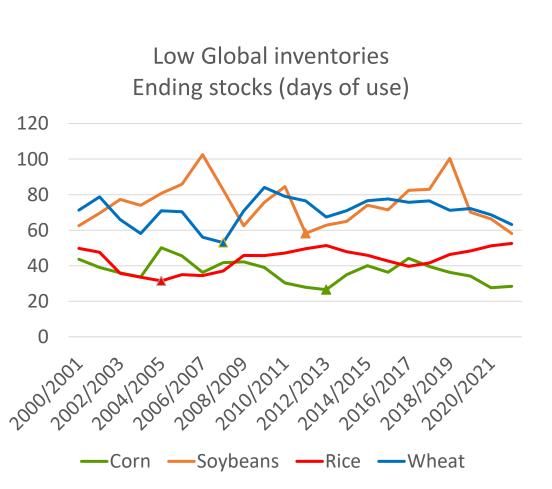
EU countries are considered as one market.

Map: David Laborde • Created with Datawrapper











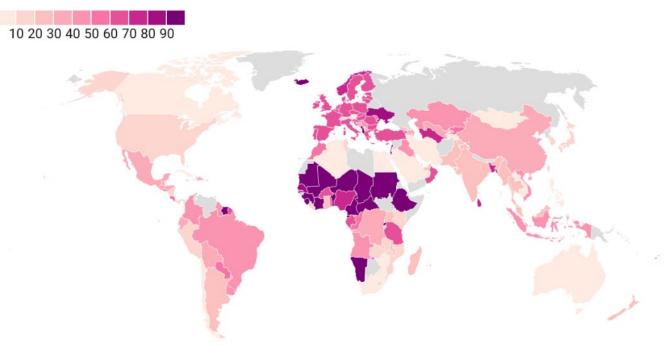
## A dire situation beyond the food markets: input prices and the next harvest

Based on IMF data

#### **Fertilizer and Fuel Prices**



## Percentage of the Russian Federation and Belarus in potassium fertilizer imports by country



Map: David Laborde • Source: COMTRADE • Created with Datawrapper



## Policy responses matter during crisis (and after)!

Trade sanctions should avoid food and fertilizer businesses. Humanitarian operations should not be disrupted

Avoiding a spiraling crisis on global and regional markets through additional trade restrictions by exporters

Addressing global demand of crops for biofuels

Supporting an open and inclusive global trading system by favorizing the emergence of new actors

Protecting consumers during the storm: the role of social safety net

Making sure that farmers have access to inputs for the next planting season

Long term repurposing of food policy spending's: realigning incentives for products and consumers

### Ukraine crisis raising global food security concerns



BY JOSEPH GLAUBER AND DAVID LABORDE

IFPRI Blog: Issue Post compared to 600 in average

How will Russia's invasion of Ukraine affect global food security?

NEWSLETTERS MED

Blog: More than 6000 views in a few days

In the U.S., the war in Ukraine may have a modest impact on food costs, though grocery inflation is likely to ease this year regardless of the conflict, said Joseph Glauber Department of Agriculture. The impact on food prices in the Mic spring planting is disrupted in U

Bloomberg the Company & Its Products 🔻 | Bloomberg Terminal Demo Request | 😎 Bloom **Bloomberg**  WORLD



#### Markets

Q Search

War in World's Breadbasket Leaves Big Buyers **Hunting for Grain** 

■ Russian grain exporters see Black Sea market 'on pause'

U.S. INTERNATIONAL CANADA ESPAÑOL

BBC **NEWS** WORLD **SERVICE** 

Agriculture, prix du gaz et du blé, trafic aérien... Les conséq la guerre en Ukraine

Ukraine 🦪 Sulvre ce sujet 📮 Sauveger



## The New York Times

Ukraine Invasion Threatens Global Wheat Supply



more than 25 news stories in major

Press Briefing: Conflict in Ukraine and Global Food Security

MEDIA BRIEFING

Press Conference: **news outlets** 

19 news outlets

**Devex Dish** 

to Russia, while Moscow recently sent troops to shor Kazakhstan, another large wheat producer. "We can start to see food becoming a weapon again in some strategic game," says David Laborde, senior research fellow at International Food Policy Research Institute, the agricultural policy think-tank.

**CIMMYT** 

Blogs > What price wheat?

What price wheat?

Crisis in Ukraine underscores the need for long-term solutions for global food

w. How Russia's invasion of Ukraine will worsen global hunger

'All these shocks can bring people closer to





Russia's Invasion Is Wrecking the Wheat Market

David Laborde, a senior research fellow at the International Food Policy





Providing accurate and relevant information in a middle crisis is not about improvisation

We are researchers, not pundits

Rapid response is built in capacity, expertise, models, data, that took years to build and constant efforts to maintain

Being ready and up-to-date has a cost

Investment in the capacity & infrastructure for policy analysis and rapid response

1CG pooled funding is fit for purpose

After COVID-19, this new crisis demonstrates our capacity to response



## Addressing the regional concerns: Immediate actions for the production system in MENA

 Sufficient rainfall in the Middle East and West Asian countries would encourage rainfed spring planting of spring wheat and barley in

countries such as Turkey, Syria, Lebanon, etc.

 Morocco: planting barley in the highlands, encourage wheat barley mixtures up to 50%

• Egypt is piloting wheat barley mixtures up to 30%





• In irrigated areas (Egypt, Sudan etc.) planting of staple crops wheat, maize rice, sorghum, millets;



## Preventing Crisis at the heart of our strategy

CGIAR has been working silently for years to keep stability

70% Wheat in the world comes from varieties developed by CGIAR (CIMMYT/ICARDA)

Research that is multi-disciplinary, transparent, and directed toward improving the resiliency of the food system and societies in case of unavoidable shocks triggering multiple breadbasket failures

- A focus on globally important risks to the cereals (wheat maize) systems
- A focus on biophysical shocks that may be able to be forecast through continuous monitoring and early warning systems

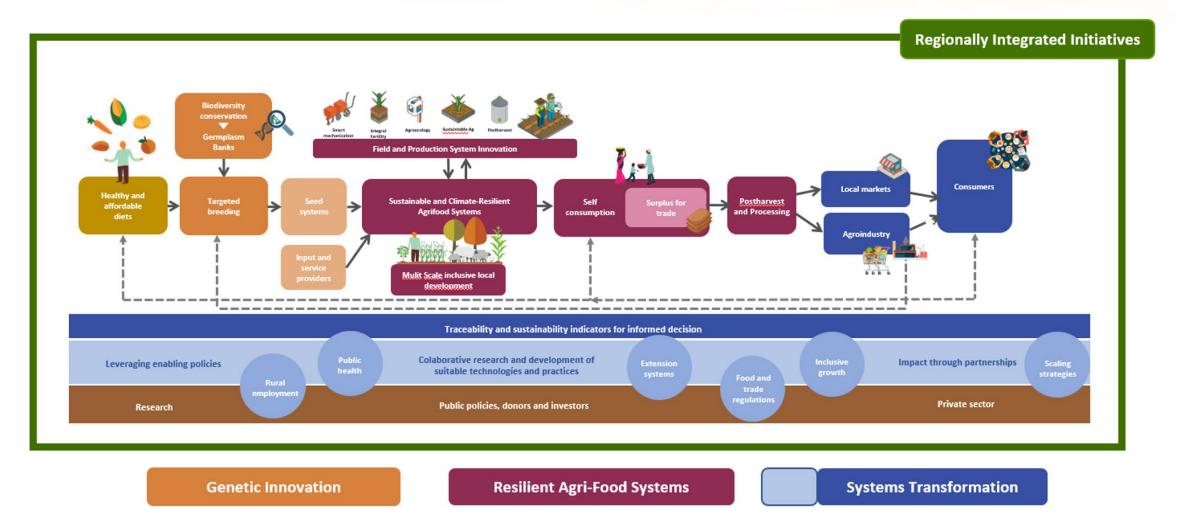
Innovation, knowledge, soil science and enhanced practices for sustainable and strategic use of soil nutrients



# Appendix – Additional information

# Rapid implementation of RII in the mayor cereal importing countries

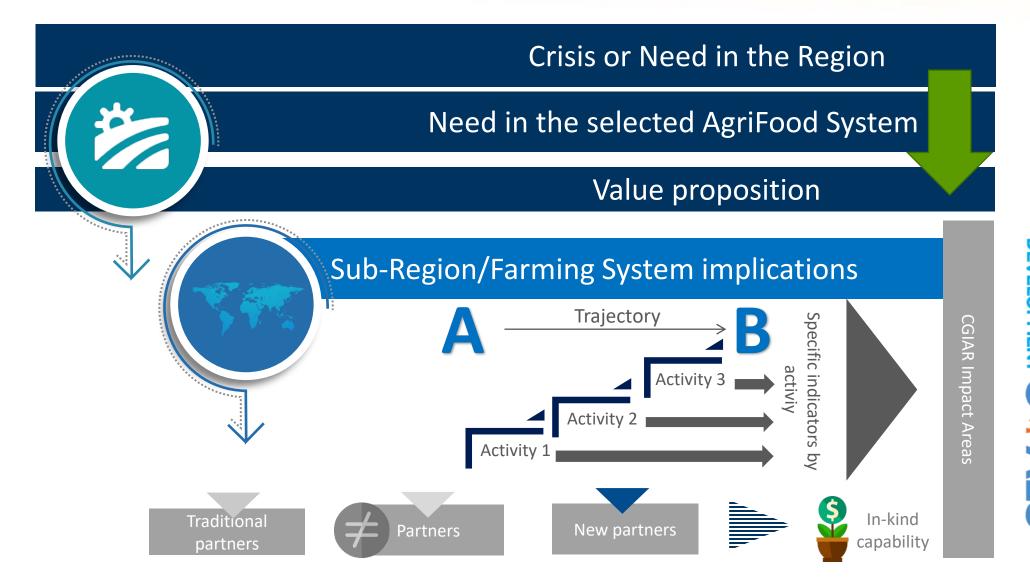




Global thematic initiatives respond to demand from Regionally Integrated Initiatives (RIIs); at the same time, RIIs adapt, apply, and amplify the outcomes of CGIAR research with regions and countries.



#### Conceptual









Citation: Govaerts B, Negra C, Camacho Villa TC, Chavez Suarez X, Espinosa AD, Fonteyne S, et al. (2021) One CGIAR and the Integrated Agri-food Systems Initiative: From short-termism to transformation of the world's food systems. PLoS ONE 16(6): e0252832. https://doi.org/10.1371/journal.pone.0252832

Editor: Abid Hussain, International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, Nepal, NEPAL

Received: February 19, 2021

Accepted: May 23, 2021

Published: June 4, 2021

Peer Review History: PLOS recognizes the benefits of transparency in the peer review process; therefore, we enable the publication of all of the content of peer review and author responses alongside final, published articles. The editorial history of this article is available here: https://doi.org/10.1371/journal.pone.0252832

Copyright: This is an open access article, free of all copyright, and may be freely reproduced, distributed, transmitted, modified, built upon, or otherwise used by anyone for any lawful purpose. The work is made available under the <u>Creative</u> Commons CCO public domain dedication.

**Data Availability Statement:** The manuscript does not contain datasets per se. Analysis of the

RESEARCH ARTICLE

#### One CGIAR and the Integrated Agri-food Systems Initiative: From short-termism to transformation of the world's food systems

Bram Govaerts. 1.26 \*\*, Christine Negra. 36 \*\*, Tania Carolina Camacho Villa 14, Xiomara Chavez Suarez 14, Anabell Diaz Espinosa 14, Simon Fonteyne. 15, Andrea Gardeazabal 14, Gabriela Gonzalez 14, Ravi Gopal Singh 14, Victor Kommerell 14, Wietske Kropff 14, Victor Lopez Saavedra 14, Georgina Mena Lopez 14, Sylvanus Odjo 14, Natalia Palacios Rojas 14, Julian Ramirez-Villegas 14, Jelle Van Loon. 15, Daniela Vega 14, Nele Verhulst 14, Lennart Woltering 14, Molly Jahn 15 \*\*, Martin Kropff 14

- 1 International Maize and Wheat Improvement Center (CIMMYT), Texcoco, Mexico, 2 Cornell University, Ithaca, New York, United States of America, 3 Versant Vision LLC, New York, NY, United States of America, 4 Alliance CIAT-Bioversity, Cali, Colombia, 5 Jahn Research Group, University of Wisconsin-Madison, Misconsin, United States of America
- These authors contributed equally to this work.
- ‡ These authors also contributed equally to this work.
- \* b.govaerts@CGIAR.ORG (BG); Christine@VersantVision.com (CN); molly.jahn@jahnresearchgroup.net (MJ)

#### Abstract

Agri-food systems are besieged by malnutrition, yield gaps, and climate vulnerability, but integrated, research-based responses in public policy, agricultural, value chains, and finance are constrained by short-termism and zero sum thinking. As they respond to current and emerging agri-food system challenges, decision makers need new tools that steer toward multi-sector, evidence-based collaboration. To support national agri-food system policy processes, the Integrated Agri-food System Initiative (IASI) methodology was developed and validated through case studies in Mexico and Colombia. This holistic, multi-sector methodology builds on diverse existing data resources and leverages situation analysis, modeled predictions, and scenarios to synchronize public and private action at the national level toward sustainable, equitable, and inclusive agri-food systems. Culminating in collectively agreed strategies and multi-partner tactical plans, the IASI methodology enabled a multi-level systems approach by mobilizing design thinking to foster mindset shifts and stakeholder consensus on sustainable and scalable innovations that respond to real-time dynamics in complex agri-food systems. To build capacity for these types of integrated, context-specific approaches, greater investment is needed in supportive international institutions that function as trusted in-region 'innovation brokers.' This paper calls for a structured global network to advance adaptation and evolution of essential tools like the IASI methodology in support of the One CGIAR mandate and in service of positive agri-food systems transformation.

1 / 15



One CGIAR and the Integrated
Agri-food Systems Initiative: From
short-termism to transformation
of the world's food systems
(plos.org)



**Extension** 

areas

**Network of stakeholders** 

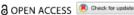
## Knowledge hubs model

Input suppliers

KNOWLEDGE MANAGEMENT RESEARCH & PRACTICE https://doi.org/10.1080/14778238.2021.1884010







**Farmers** 

Extension services

Government

**Modules** 

Knowledge management for innovation in agri-food systems: a conceptual framework

Andrea Gardeazabala, Tobias Lunt 60, Molly M. Jahn 60, Nele Verhulst 60, Jon Hellin 60 and Bram Govaerts @a.c

International Maize and Wheat Improvement Center (CIMMYT), Texcoco, Mexico; bJahn Research Group, University of Wisconsin-Madison, Madison, Wisconsin, USA; Cornell University, Ithaca, New York, USA

Knowledge is a critical enabling factor for healthy agri-food innovation systems (AIS). AIS and related knowledge management (KM) frameworks face significant implementation challenges. We review applications of KM to AIS, the current state of the art and shortcomings and present a new KM framework, Agricultural Knowledge Management for Innovation (AKM4I). Previous agricultural KM frameworks do not integrate innovation pragmatically, use linear, reductionist, top-down pathways to innovation, and do not explicitly incorporate issues of power, politics, ownership, and trust when combining scientific and local knowledge across multiple stakeholders. The AKM4I framework addresses systemic interactions favouring innovation outcomes by formalising flows and management of information and knowledge between diverse sets of stakeholders; and explicitly considering previously unresolved practical and relational barriers aiming to facilitate more equitable, rapidly evolving, and actionable knowledge generation and management for innovation and transformational change. An agricultural case study serves as an example of the implementation of AKM4I.

#### ARTICLE HISTORY

Received 7 September 2019 Accepted 26 January 2021

Agri-food systems: knowledge management; agricultural innovation; conceptual framework: agricultural development: decision-support systems

**Feedback** 

Research platforms

**Impact** areas

Infrastructure

Basic research

Agro-ecological region

- Action Research
- Research in context
- Research at scale in living labs

Gardeazabal et al., 2020

https://www.tandfonline.com/doi/full/10.1080/14778238.2021.1884010