

# European Commission's Knowledge Centre for Global Food and Nutrition Security



Newsletter

## Advancing Knowledge towards Zero Hunger and Sustainable Food Systems



Editorial

### Newsletter September 2022 - Knowledge Centre for Global Food and Nutrition Security

According to the Global Report on Food Crises 2022 mid-year update, the number of acutely food-insecure people reached a new peak (more than 200 million people). The situation has worsened particularly in Africa due to the compounding impact of high food prices, weather extremes and conflicts/insecurity.

Notwithstanding a fifth consecutive monthly decline in world food commodity prices, influenced by increased availability from ongoing harvests and the resumption of exports from Ukraine's Black Sea ports (FAO), prices of wheat and corn remain 50% higher than 30 months ago (World Bank) and the FAO Food Price Index stands at 7.9% above its value a year before (FAO).

On a longer-term perspective, the OECD-FAO Agricultural Outlook report foresees that food consumption will not increase sufficiently to meet SDG 2 on Zero Hunger by 2030. The Outlook projections also suggest that greenhouse gas emissions (GHGEs) from agriculture will continue to increase, influenced by a growing share of animal products in the diet of people in middle-income countries.

Climate change-induced weather extremes are already increasingly putting human and food security at risk: in 2022 one third of Pakistan has been flooded, and the worst drought in Somalia in 40 years has been recorded. OXFAM analyses that extreme weather events have increased five-fold over the past 50 years and that the correlation with food insecurity is undeniable. FAO predicts that in the Near East and in North Africa droughts are expected to increase in frequency by 150% between 2020 and 2070. The Bill & Melinda Gates Foundation Goalkeepers report warns about the decrease in yields of the most important crops in Sub-Saharan Africa's due to heat stress. GHGEs from food systems have doubled between 1990 and 2019 and represent one third of total emissions. Ahead of the expected discussions on food systems and climate change at the COP 27 in November in Sharm El-Sheikh, several reports propose remedy actions.

For IFAD, the focus should be on a dietary change towards healthy and environmentally sustainable diets. Whereas changes in food-production practices could reduce agricultural GHGEs in 2050 by about 10%, increased consumption of plant-based diets could reduce them by up to 80%. Two scientific publications (one modelling the larger-scale adoption of agroecology in Europe, one exploring scenarios to achieve net-zero emission in global food systems) come to similar conclusions about the strong mitigation potential of healthy diet (for the people and the planet) to limit global warming to a less than 2°C increase.

While recognizing the importance of limiting excess calories and protein intake, particularly from animal origin, the OECD-FAO Agricultural Outlook report stresses on the necessity to reduce food loss and waste. WEF investigates some of the solutions to achieve this objective: changing food labelling practices, switching from “use by” to “best before” dates, encouraging the marketing of oddly shaped fruits and vegetables due to heatwaves and droughts, and shifting to cold chain facilities that use renewable energy sources.

A shift towards less resource-intensive and more circular agricultural models is a complementary transformational pathway discussed by several organisations. CIRAD highlights the benefits of introducing legumes into cropping systems, which could improve yields in Africa by more than 40%. TMG and WEF suggest the production of bio-fertiliser by converting food waste into compost manure. Currently less than 2% of food loss and waste are recycled, and most of them end up in landfills where they produce methane. The Bill & Melinda Gates Foundation insists on boosting agricultural research and innovation, highlighting that USD 57 billion have been invested in food aid in the period 2005-2020 compared to 9 billion in agricultural research for the same period.

Poor people remain the most exposed to climate extremes and food price inflation (World Bank), and the humanitarian aid system is not designed nor resourced to respond to cyclical shocks of such scale and frequency warns OXFAM. OECD-FAO sees agricultural trade as essential to ensure food security, as some regions (e.g. Sub-Saharan Africa) are foreseen to import a growing share of their total consumption. However, increased dependency on food imports combined with a reduced number of trading partners increase vulnerability of food systems to shocks according to a research article published in ScienceDirect.

From these analyses, we see that the current food (systems) crisis highlights two somehow polarised and complex issues:

The price of food: On one side, high food prices are pointed out as a driver of food insecurity and on the other side, true-cost accounting and paying the right price for sustainably produced food appears as a credible pathway for the transformation of food systems.

Global agricultural trade. On one side, agricultural trade may be essential to ensure food security in some regions, and on the other side, it may increase vulnerability to shocks in some others.

## Latest Resources

**19/09/2022**

### **FAO - Food Price Monitoring and Analysis (FPMA) Bulletin #7, 14 September 2022**

International wheat prices continued to ease in August, influenced by increased availability from ongoing harvests and the resumption of exports from Ukraine's Black Sea ports. By contrast, maize prices firmed mostly on strong demand for supplies from Argentina and Brazil amidst a tighter global supply outlook and pressure from energy markets. World rice prices held steady in August, as slight declines in quotations of the most widely traded "Indica" varieties compensated for the mild price gains in other rice market segments.

[more](#)

**16/09/2022**

### **Nature: Roadmap for achieving net-zero emissions in global food systems by 2050**

Food systems (FSs) emit ~20 GtCO<sub>2</sub>e/y (~35% of global greenhouse gas emissions). This level tends to raise given the expected increases in food demands, which may threaten global climate targets. Through a rapid assessment, evaluating 60+ scenarios based on existing low-emission and carbon sequestration practices, we estimate that intensifying FSs could reduce its emissions from 21.4 to - 2.0 GtCO<sub>2</sub>e/y and address increasing food demands without relying on carbon offsets (e.g., related to afforestation and reforestation programs).

[more](#)

**16/09/2022**

### **Bill & Melinda Gates Foundation - 2022 Goalkeepers Re-**

## port

In 2015, leaders from 193 countries agreed to the Sustainable Development Goals—the SDGs. These were big, bold objectives we wanted to achieve by 2030, everything from ending poverty to achieving gender equality. And each year, this report attempts to answer the question, “How is the world doing?” We want people to grasp what the numbers say about the trajectory of human progress.

[more](#)

**16/09/2022**

### **OXFAM: Hunger in a Heating World: How the climate crisis is fuelling hunger in an already hungry world**

One third of Pakistan has been flooded. Crops and topsoil washed away; farming infrastructure destroyed. On the other side of the Arabian Sea, Somalia is experiencing its worst drought for 40 years with crops failing and livestock dying. Our climate isn't just changing, it has changed. Climate change is fuelling hunger for millions of people around the world. Extreme weather events have increased five-fold over the past 50 years, destroying homes, decimating livelihoods, fuelling conflict and displacement, and deepening inequality.

[more](#)

**13/09/2022**

### **GNAFC - Global Report on Food Crises 2022 Mid-Year Update**

By mid-2022, the population facing the three highest phases of acute food insecurity was greater than at any point in the six-year history of the Global Report on Food Crises (GRFC). According to the GRFC 2022 Mid-Year Update, the number of people in Crisis or worse (IPC/CH Phase 3 or above) or equivalent – that is the number of people requiring urgent humanitarian assistance – is forecast to reach up to 205.1 million in 45 of the 53 countries/ territories included in the GRFC 2022, published in May 2022.

[more](#)

**08/09/2022**

### **Science of the Total Environment - Agroecological prac-**

## **tices in combination with healthy diets can help meet EU food system policy targets**

Agroecology has been proposed as a strategy to improve food system sustainability, but has also been criticised for using land inefficiently. We compared five explorative storylines, developed in a stakeholder process, for future food systems in the EU to 2050. We modelled a range of biophysical (e.g., land use and food production), environmental (e.g., greenhouse gas emissions) and social indicators, and potential for regional food self-sufficiency, and investigated the economic policy needed to reach these futures by 2050.

[more](#)

**05/09/2022**

## **ScienceDirect - Interplay of trade and food system resilience: Gains on supply diversity over time at the cost of trade independency**

Rapidly increasing international food trade has drastically altered the global food system over the past decades. Using national scale indicators, we assess two of the resilience principles that directly reflect the effects of global trade on food systems – namely, maintaining diversity and redundancy, and managing connectivity. We perform our analysis for four nutritional components: dietary energy, proteins, fat, and quantity of vegetables & fruits – the key pillars of the WHO dietary recommendations.

[more](#)

**05/09/2022**

## **World Bank - Should the Food Insecurity Experience Scale Crowd Out Other Food Access Measures? Evidence from Nigeria**

Measurement of food access typically relies on a consensus of different indicators. However, there is a growing list of surveys in which the Food Insecurity Experience Scale is one of the few food access indicators captured, likely because it is an official measure for tracking progress toward the Sustainable Development Goal of zero hunger. This paper uses a nationally representative, multipurpose household survey conducted in Nigeria to investigate the validity of the Food Insecurity Experience Scale.

[more](#)

**31/08/2022**

## **CIRAD – FAO - Enabling institutional environments conducive to livelihood improvement and adapted investments in sustainable land and water uses**

This report reviews the main global trends in land and water uses, policies and investments that have taken place over the last decade and identifies the institutional arrangements that have been the most conducive to sustainable and equitable use of these resources.

[more](#)

**17/08/2022**

## **ECDPM - The effects of major economies' policies on climate action, food security and water in developing countries**

The growing demand for food, water and energy, in conjunction with climate change, puts pressure on land and freshwater resources. This problem can be acute in developing countries, where many households and producers have inadequate access to these commodities. While development is primarily driven by national policies, outcomes are often also influenced by external factors, especially the policies of developed countries and emerging economies. This paper explores the possible effects of these factors on climate action and food and water security in developing countries.

[more](#)

**11/08/2022**

## **OECD-FAO - Agricultural Outlook 2022-2031**

The OECD-FAO Agricultural Outlook 2022-2031 provides a consensus-based assessment of the ten-year prospects for agricultural commodity and fish markets at national, regional, and global levels, and serves as a reference for forward-looking policy analysis and planning.

[more](#)

11/08/2022

## **FAO - The State of Land and Water Resources for Food and Agriculture in the Near East and North Africa region**

The NENA region is dominated by deserts and a harsh environment. The main characteristics are a high level of aridity and water stress, poor soils and limited arable land. Climate change projections predict higher temperatures and rainfall decrease, with more drought and extreme events. The region will experience an average mean temperature increase of 1.7 °C to 2.6 °C, droughts are expected to increase in frequency by 150 percent between 2020 and 2070, and flash floods will threaten coastal and low-lying agricultural areas such as the Nile Delta.

[more](#)

16/08/2022

## **World Bank - Food Security Update - 11/08/2002**

The agricultural, cereal, and export price indices were stable over the past 2 weeks, with the agricultural and cereal price indices 1 percent higher than 2 weeks ago. Although wheat and corn prices returned to pre-war levels by July 1 and July 17, respectively, prices for both cereals remain 50 percent higher than 30 months ago.

[more](#)

18/06/2021

## **IFAD – Food system interventions with climate change and nutrition co-benefits: a literature review**

This review observed a lack of literature on projects that focus on both climate change and nutrition, and it highlights the glaring gaps in evidence that exist related to current project, programmes and policies that directly and indirectly seek to strengthen nutrition security, climate mitigation and adaptation. Literature on adaptation and mitigation predominantly focuses on the food-production adaptation strategies with minimal focus on mitigation strategies.

[more](#)

**13/09/2022**

### **Somalia IPC Alert: 6.7 million people across Somalia will likely face high levels of acute food insecurity, Famine projected in two districts**

Approximately 6.7 million people across Somalia are expected to face high levels of acute food insecurity (IPC Phase 3 or above) between October and December 2022. This includes 2.2 million people who are expected to be in Emergency (IPC Phase 4) and at least 300,000 people in Catastrophe (IPC Phase 5). Furthermore, Famine (IPC Phase 5) is projected among rural residents in Baidoa and Burhakaba districts and displaced people in Baidoa town of Bay region in southern Somalia, where malnutrition and mortality levels are already at alarming levels. These projections reflect the population still in need of urgent assistance after accounting for already planned assistance for October to December 2022.

[more](#)

**08/09/2022**

### **Seasonal deprivation in the Sahel is large, widespread, but it can be anticipated and addressed**

In April 20202, Action Against Hunger published a report presenting a set of measures designed to mitigate the impacts of the upcoming food crisis. The report started with a statement that is likely to evoke a strong sense of déjà-vu for any development practitioner familiar with the Sahel : “The 2022 lean season is likely to be particularly difficult for food and nutrition security in the Sahel”.

[more](#)

**06/09/2022**

### **Opinion: Our food system needs crisis proofing. Start with windfall tax**

An untold story of a fragile and unsustainable global food system has been unfolding since long before the tanks rolled into Ukraine, governed by the interests of high-income nations and their corporations.



[more](#)

**05/09/2022**

## **Vegetables are changing shape because of the climate crisis**

This year's record-breaking heatwaves and droughts have had many consequences. Making fruit and vegetables smaller and wonkier is one that many would not have expected, but farmers say that is what is happening – and they are urging shoppers not to turn their backs on the oddly shaped produce.

[more](#)

**01/09/2022**

## **Legumes increase crop yields by more than 20%**

Introducing legumes into cropping systems improves yields of the main crops by around 20%, according to a new study published in Nature Communications. The scientists synthesised 462 field experiments, totalling almost 12 000 yield observations across 53 different countries. The greatest benefits of legumes were observed in Africa, as well as in organic farming.

[more](#)

**31/08/2022**

## **Three things we learned about poverty and flood risk from urban household data**

How do floods affect people, especially the poorer population, living in flood-prone areas? What attracts them to settle in these areas and how do they cope with the impacts of floods?

[more](#)

**30/08/2022**

## **WFP steps up humanitarian support to government relief efforts as Pakistan reels from devastating floods**

With a record 33 million people affected by this year's heavy monsoon rains and flooding in Pakistan, the United Nations World Food Programme (WFP) is stepping up its support to the Government's relief efforts. The floods are the deadliest in over a decade and more heavy rains are forecast.

[more](#)

**26/08/2022**

## **Three ways agri-businesses can feed the world sustainably through circular food systems**

The world is reeling from three crises: nature; biodiversity loss; and poverty. Food systems contribute greatly to all.

[more](#)

**17/08/2022**

## **Here's why food stores are ditching 'best before' labels**

Tomatoes, apples, potatoes and pears are among 500 food and plant products to have "best before" dates removed from their packaging by a supermarket in the United Kingdom.

[more](#)

**17/08/2022**

## **Nutrition and climate advocates seek fruitful alliance ahead of COP 27**

Nutrition advocates are looking to the upcoming 27th United Nations Climate Change Conference, or COP 27, as an opportunity to team up with climate advocates behind the common goal of increasing access to sustainable diets that are healthy for people and the planet.

[more](#)

**05/08/2022**

## Global food commodity prices decline in July

The benchmark for world food commodity prices declined significantly in July, with major cereal and vegetable oil prices recording double-digit percentage declines, the Food and Agriculture Organization of the United Nations (FAO) reported today.

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