



CLIMATE-RESILIENT FOOD SYSTEMS ALLIANCE

COP-27 SPECIAL BULLETIN



INTRODUCTION

COP27 was naturally positioned as a watershed moment for food systems as an agent of change. The CRFS Alliance notes the historic importance of food and food systems and the high priority given to the topic at the COP, including by the COP27 presidency, as for the first time, a full day was dedicated to agriculture and food systems, and the interlinkages between climate and food were discussed across no least than four food pavilions¹.

The COP27 outcome text has recognizes the fundamental priority of safeguarding food security and ending hunger, and the vulnerabilities of food production systems to the impacts of climate change.

A new mandate for four-year work on the implementation of climate action on agriculture and food security has been agreed, building upon the Koronivia Joint Work for Agriculture (KJWA) Approximately 100 organisations from food, climate and nature sectors, ranging from large multi-nationals to local groups, [signed a joint open letter to negotiators and ministers](#) urging inclusion of food systems in the new Koronivia mandate to enable a shift towards implementation.

Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change,

Also recognizing the critical role of protecting, conserving and restoring water systems and water-related ecosystems in delivering climate adaptation benefits and co-benefits, while ensuring social and environmental safeguards,

1. *Underlines* the urgent need to address, in a comprehensive and synergetic manner, the interlinked global crisis of climate change and biodiversity loss in the broader context of achieving the Sustainable Development Goals, as well as the vital importance of protecting, conserving, restoring and sustainably using nature and ecosystems for effective and sustainable climate action.
2. *Acknowledges* that the impacts of climate change exacerbate the global energy and food crisis, and vice versa, particularly in developing countries,
3. *Stresses* that increasingly complex and challenging global geopolitical situation and its impacts on the energy, food and economic situations, as well as the additional challenges associated with the socioeconomic recovery from the coronavirus pandemic, should not be used as a pretext for backtracking, backsliding or deprioritizing climate action;

Figure 1: Text extracted from 1/CP27

¹ Food Systems Pavilion, Food4Climate Pavilion, Food and Agriculture Pavilion and Sustainable Agriculture of the Americas Pavilion

KEY EVENTS

COP 27 featured a series of high-level events, side events and pavilions hosting various discussions on food security.

The COP27 Presidency hosted a high-level roundtable on food security, attended by Heads of State and Government, heads of UN Secretariat units and bodies, specialized agencies and inter-governmental organizations, and specially invited non-state actors.

The Climate Resilient Food Systems Alliance organized two events and participated in several other events and sessions at COP27, with central messaging calling governments, policymakers and stakeholders to act towards the following:

- **Recognizing that food systems are a central part of the climate solution.** The current global food crisis cannot be stopped unless communities and countries can manage the risks associated with a changing climate.
- **Building and enhancing capacity** with regard to food production, distribution, consumption and management at local levels.
- **Scaling up climate adaptation and solutions** to address climate risks across food systems.
- **Accelerating the scaling-up of climate finance** and building the resilience of communities in fragile environments, small-scale farmers, and rural communities to achieve SDGs 1, 2 and 13.
- **Gearing up global efforts to tackle vulnerability and exposure to climate risks**, with a focus on the most vulnerable countries and communities, for example through the launch of a #zeroclimatedisasters campaign.
- **Enhancing options for climate-smart agriculture and nature-positive food systems** that would enhance agricultural productivity, restore ecosystems, and ensure sustainable livelihoods for hundreds of millions of people in the face of growing climate threats while reducing greenhouse gas emissions.
- **Protecting, managing and restoring the key components of nature** for nature-positive food production and resilient livelihoods and landscapes.
- **Advocating for the need for better-designed food systems** that are gender-sensitive, climate-sensitive, and sustainable.

OVERVIEW OF CRFS SIDE-EVENTS AND PAVILION SESSIONS

To highlight the importance of food system in the fight against climate change, CRFS Alliance conducted two dedicated side events, and participated /co-organized sessions in the Food Systems Pavilion, the FAO Pavilion, the Water Pavilion and the EU Pavilion.

CLIMATE RESILIENCE IN FOOD SYSTEMS: WHY ACT NOW?

NOVEMBER 11, THUTMOSE ROOM

ORGANIZED BY CRFS ALLIANCE

The official side-event “Climate Resilience in Food Systems – Why act now” held on 11 November 2022 at COP27 constituted a collaborative work between UNFCCC and a number of countries and organizations, aimed at directing attention towards food systems, and finding actionable solutions to the challenges that currently affect food value chains. High-level representatives from countries like the Commonwealth, the Gambia, Panama, British Columbia and Netherlands and organizations like UNFCCC, FAO, UNDRR, UNCDF discussed the strategies, frameworks and action towards building climate resilience in food systems.

The side event was a great opportunity to showcase the work that has been achieved so far by the CRFS Alliance, with regard to the growing number of members and tangible work carried out for country support. Given the strong correlation between food systems and climate change, Youssef Nassef, Director Adaptation Division, UNFCCC opened the event by highlighting the alliance’s ambition to find ways to build resilient food systems through regenerative food practices and reach the temperature goal set by the Paris Agreement. H.E. Rohey John Manjang from the Gambia stressed the importance for the implementation of Nationally Determined Contributions (NDCs) to develop a natural resource-based economy. H.E. George Heyman from the British Columbia provided a number of initiatives prioritizing agriculture, infrastructure, and knowledge-sharing resources. Ms. Ligia Castro De Doens from Panama showcased a success story with the resilience of certain cultures, such as cocoa and coffee beans, now secured through the help of international organizations.



H.E. Patricia Scotland, Secretary General of The Commonwealth Secretary drew on the success of The Living Land Charter and highlighted the importance of using empirical data to best understand future scenarios and take action. UN Organizations, such as UNCDF and UNDRR, respectively mentioned the importance of finding solutions for the longer term, securing healthy and nutritious diets, providing tailored solutions for each territory, and focusing on vulnerability reduction for the countries that are on the front line of extreme weather events.



The presentation of various solutions and the convergence of perspectives provided a strong indication that food systems will gain an even greater focus at future COPs. A bigger focus will also be drawn on the role of regenerative food practices, vertical agriculture, agribusiness, artificial intelligence, and satellite technology in food systems. Finally, the key message of this round-up was that the acceleration of integrated food and climate action will be key to obtaining climate resiliency in food systems.

Watch the recording of the event [here](#).

CLIMATE RESILIENT FOOD SYSTEMS AND PEACE: EXPLORING THE INTERCONNECTIONS

NOVEMBER 11, THEBES ROOM

ORGANIZED BY HDP NEXUS COALITION & CRFS ALLIANCE

“The world is facing a global hunger crisis of an unprecedented nature”



With these words, Mr Habib Ur Rehman Mayar, Deputy General Secretary g7+, opened the “Climate-resilient Food Systems and Peace: Exploring the Interconnections” event, held at COP27 on the 11th on Decarbonization Day. 811 million people are affected by food insecurity and the number is expected to peak in 2022. The action toward building resilience should accelerate on two fronts: saving those whose lives are at risk while providing a foundation for communities to meet their own food needs. The event explored different perspectives on the interlinkages between climate change, food security and conflicts, the solutions to address the current climate and food crisis and prevent it from spreading further.

Ms Brigitte Menzi opened the panel by introducing the current critical scenarios. Our food systems are overwhelmed by the compounding effects of food, climate and conflict linkages are adversely resonating on people’s livelihoods. Conflict and climate change are two of the three main drivers of food insecurity. The most vulnerable communities are the least prepared to address the effects of climate change.

Dr Martin Kropff, Managing Director, Resilient Agri-Food Systems, CGIAR, presented alarming evidence on the interlinkages between climate, conflict and food. Even after the COVID-19 economic effects in 2021, conflict was still the primary driver for the food crisis. Like the rest of the world, Ukraine is facing climate change's effects. H.E. Oleksiy Kuzmenkov, Ukraine Head of the State Water Agency, Ministry of Environmental Protection

and Natural Resources of Ukraine highlighted that the war exacerbated the inability of the country to produce or export staple foods, given Ukraine's role as a global exporter of grain and other basic goods. Ms Susan Gardner, Director of Ecosystems Division, UN Environment Program, brought attention to the growing phenomena of climate refugees and other destructive consequences of climate change, including environmental degradation and conflict intensification in vulnerable communities. To mitigate these destructive consequences, Ms Gardner suggested that government invest in low-carbon and nature-friendly solutions and technologies, while simultaneously implementing early warning systems mechanisms and comprehensive risk management approaches.

Dr Wadid Erian stressed that 8 from 22 countries of the League of Arab States are currently plagued by conflicts. Despite the ongoing civil war, the League managed to successfully implement two programmes in Yemen, securing 70% of the energy produced in Yemen from renewable resources. Besides the issue of climate refugees, internal displacement due to climate and man-induced shocks is also problematic. As pointed out by Pauline Madiro, Kenya Charter4Change Secretariat Coordinator, climate migration aggravates the situation in vulnerable and resource-deprived areas, like Kenya, where water quantity and quality are extremely challenging. Ms Madiro stressed the importance of women and youth inclusion in the decision-making process as well as the need for investment in local capacities and country ownership. From FAO, Mr Yon Fernandez-de-Larrinoa, Team Leader of the FAO's Indigenous Peoples Team, presented evidence of good practices in nutrition and dietary planning, taking as an example indigenous people's diet, which is plant-based rich and constantly expand through domesticating wild species. The panel ended with remarks from Ms. Champa Patel, Chief of Innovation & Deputy Director for Future of Conflict, ICG. Without peace there are no sustainable solutions, our global food systems are far too reliant on too few countries for the bulk of its food stock leaving the world vulnerable to climate and commodity shocks. In this view, political will, adequate financing and international cooperation are key factors to implement locally rooted solutions.

The discussion closed with some final remarks from Mr. Martin Frick, Director of the WFP Berlin Global Office. Three years ago, the number of acutely hungry people was 135 million, COVID added that this number exploded, last December we were at 276 million people being food insecure, and that was before a single shot was fired in Ukraine. Today, this number is 345 million, if we ask ourselves why this number keeps growing despite the world's commitment to abolishing hunger by 2030, the answer lies in the "3 Cs": conflicts, COVID and climate change. We will not fix the global food crisis until we manage to get under control the 3 Cs, primarily the climate crisis.

Watch the recording [here](#).

OPTIMIZING FOOD AND CLIMATE ACTION

NOVEMBER 14, EU PAVILLION

ORGANIZED BY CRFS ALLIANCE AND EU DG CLIMA

WFP opened the first panel discussion introducing the CRFS Alliance as one of the 12 coalitions endorsed during the Food System Summit in 2021, underlining also the CRFSA as part of inner core of coalitions as they came out of the Summit. COVID brought to the extremes the vulnerabilities in our food systems, and now 67 countries worldwide dwell in situations with over 15% of food inflation. Achieving resiliency in food systems is the desired outcome we are globally aiming at, for this it's important to highlight the need for better and integrated food and climate action.

FAO highlighted the need of having agrifood systems at the centre of the main solutions to address climate change. Agrifood systems are failing to deliver to those people who are in the front line of climate change. Via its Climate Change Strategy, FAO, together with the other RBAs and the CRFS Alliance, is trying to unpack climate change because cooperation in this front is essential to prevent, anticipate and better adapt to extreme climate events and its risks. FAO and the CRFS Alliance aligns in delivering a suite of actions on mitigation, adaptation and resilience, advocating for a shared narrative on climate action. It's necessary to implement nature-based, low carbon solutions, early warning systems, social protection, climate proofing of infrastructures, food waste reduction and climate-friendly diets.

IFAD focused on the challenges that small-scale producers need to face as they produce food to feed a growing population while adapting to the escalating impacts of climate change. It's crucial to build resilience and adapt to climate induced shocks. Climate finance should include the most vulnerable and marginalized communities. Improved access to financial resources and technical assistance, and the combined effects of the two are essential for beneficiaries to adapt and become more resilient.

Fiji is one of the countries involved in the work of the CRFS Alliance. The country food system is adversely affected by different climate events from tropical cyclones to hailstorm. To make Fijian food systems more resilient to these stressors, several gaps must be narrowed down with regards to inadequate food storage practices, fragmented food supply chains and lack of local involvement. Fiji is a good example of the needs and challenges that small island developing States face while transforming their food systems. The findings and the outcomes of the CRFS Alliance country case study can help SIDS all over the globe by setting practical models to duplicate.

The Gambia is a least developed country, that despite the abundance of resources, is facing severe challenges in transforming and strengthening its food systems due to knowledge and technical constraints. Some of the issues the country is coping with include poor infrastructure, lack of maintenance, inadequate management skills, high costs of water extraction and inadequate government financing. The Gambia is also one of the countries considered in the CRFS Alliance country case study, and has the potential to transform sustainably and coherently its food systems to meet people's needs, but several predicaments in food production, processing, marketing, and even consumption are negatively impacting this process. The desired outcome of the country case study for The Gambia would be to find solutions to address these problems.

Pakistan is a developing country with multiple ecological systems with unique challenges and opportunities. Pakistan faced an increased number of environmental and climate induced disasters, which had a direct bearing on food systems in a country that relies on agricultural economy. In this context the work carried out by FAO and the CRFS Alliance is extremely important to optimize and maximize the support given by the different agencies and to deliver better results involving national and sub-national levels. The CRFS Alliance, with the strong support of the three RBAs, and other UN and non-UN organizations, has the potential to connect actors to maximize synergies and to facilitate and support progress towards resiliency in the countries. **Watch the recording of the session [here](#).**

CARBON-NEUTRAL AND RESILIENT AGRIFOOD SYSTEMS

FRIDAY, NOVEMBER 11, 2022 18:00-19:00 (CAIRO TIME)

ORGANIZED BY CGIAR, FAO, UNFCCC, WFP & THE ROCKEFELLER FOUNDATION

BMZ opened the event talking about the current crises relating to conflict and energy and how they affect our food systems. The world is facing a climate crisis and a biodiversity crisis, where agriculture is both a source of emissions and biodiversity loss, but also at risk of climate change. We need to come together to achieve the Net Zero target, halt biodiversity loss, stop deforestation and repurpose agriculture subsidies. African countries are key partners in Germany's climate adaptation and cooperation, indeed Germany is supporting both the Africa Adaptation Initiative (AAI) initiative and the Adaptation for Smallholder Agriculture Programme (ASAP) multi-donor programme.

BRAC was representing the CRFS Alliance and stressed how food needs to be part of the climate solution. BRAC is a great example of how the CRFS Alliance members have diversified mandates and expertise to advance climate resiliency in food systems. Indeed, the joint efforts of BRAC and the government of Bangladesh made it possible to achieve the country's food self-sufficiency, ensuring at the same time sustainability in the food system. BRAC is now working in 8 countries in Africa and 3 more in Asia. The main focus of BRAC is intensification of agricultural production, especially for small scale farmers so as to reach food security and sustainable patterns of production and marketing, through climate smart agriculture approaches. BRAC is also focusing on financial services building economic capacities for farmers including microfinance components too.

The **Resilient Local Food Supply Chain Alliance**, which is a sister coalition to the CRFS Alliance, together with the HDP Nexus Coalition, provides a platform for sharing technical and scientific knowledge which is key element to ensure alignment while responding to challenges posed by climate change. Tanzania is one of the Member States engaged in this Alliance, which has implemented rainwater harvesting mechanisms and locally based small irrigation infrastructures. Due to erratic rain patterns in Tanzania, harvesting rainwater is essential to ensure supplementary sources for irrigating crops and water for households. Tanzania is trying to cope with soil degradation by including farmers in the process of testing the soil and then provide them with proper advice. Tanzania's government is also investing in strengthening early warning systems and the delivery of information and knowledge to farmers to best help them plan according to weather variations. While responding to climate change, science has to pave the way and we have to focus on small-scale farmers and the households through tailored approaches for the different agroecological contexts.

FAO brought in the spotlight the role of food companies that are struggling to define how to tackle their emissions in the supply chain. The emissions of suppliers in low- and middle-income countries are difficult to track due to lack of reliable information and governance issues. We should enhance the effectiveness of companies' plans to reduce GHG emissions in the supply chain. Companies should adopt clear and effective plans to measure emissions in the agricultural sector and avoid greenwashing. Global supply chain has impacts on small farmers and SMEs, especially in developing countries. Companies and countries need information and guidance on methods, approaches, sources of assistance and finance. Also, there is a need for global cooperation and coordination between initiatives and more harmonization along the agrifood supply chain, vertically from input suppliers down to retailers but at a horizontal level too. Building on these issues FAO is preparing the "Global Agrifood Climate Initiative" which will be an international collaboration platform to help reduce GHG emissions in global agrifood supply chains, helping companies, organizations and business associations to measure, reduce and offset emissions. The initiative will create synergies and maximize efficiency of the private sector initiatives, thereby contributing to better governance of GHG quantification and reduction processes.

Tetra Pak is a Swedish packaging and processing company that was founded 70 years ago. Tetra Pak is one of the forerunners in terms of science-based targets for reducing GHG emissions and is now one of the sixty companies that have long-term and short-term targets in this area. Tetra Pak has identified four different pathways where technologies, solutions and companies can drive changes in the food system transition with regards to healthy food, food waste, responsibly dairy and food packaging. The first transition is about looking at alternative proteins and developing technologies to meet people's nutritional needs. The second area would focus on lost and wasted food, which could drive huge reductions of emissions in the food processing side. The dairy industry should adopt the existing technologies of food processing. Tetra Pak utilizes the aseptic technology with regards to food packaging, which allows for food to preserve in a package for a longer period without having an impact on the nutritional values of the food.

Watch the recording [here](#).

LEVERAGING ARTIFICIAL INTELLIGENCE, MACHINE LEARNING, AND ADVANCED ANALYTICS TO ACCELERATE SMALLHOLDER ADAPTATION

NOVEMBER 16, RESILIENCE FRONTIERS PAVILION

This side event aimed at helping stakeholders like governments and gain awareness of the potential for advanced analytics to support agricultural adaptation, transformation, and resilience, focusing on enabling smallholders to thrive.

Climate change impacts are already reducing crop and livestock productivity and decreasing food security for millions of people worldwide—and these impacts will intensify over the coming decades. A typical farmer makes 1200 decisions each year. Longer-term, systemic, transformative approaches to adaptation are needed to protect rural lives and livelihoods. To achieve this transformation, farmers, governments, and businesses will need better data, analysis, insight, and decision support to make short and long-term decisions that enable them to manage risk, maximize production sustainability, and thrive in a changing climate.

Rabobank presented *Acorn*, an advanced analytics platform for agroforestry carbon removal credits. Acorn deals with supply and demand for carbon markets, is smallholder farmers focused and is geared towards tree plantation projects. They use satellite data and LIDAR for remote sensing to model the baseline and the progress. With an app to map out plots with values for different kinds of soils, ACORN measures the biomass for plots. As a result, the sequestered amount of carbon credits are sold at 31 euro/ ton at current prices. Microsoft is a buyer. Payments are sent to farmers at key times of the year.

6th grain made a presentation on empowering small farmers through data and information. The presentation highlighted how field specific data, information on inputs and varieties used in the field and impact of temperature, precipitation and extreme events on yields are important to accelerate



farmers' livelihood transformation. 6th grain presented their innovation related to fungal risk management, field boundaries and whatsapp messaging to farmers on weather information.

Other innovative technologies relating to weather intelligence without smart phones, weather information tailored to local languages, maintenance of weather stations and weather information that comes directly from NASA on temperature, humidity, precipitation were also presented.

Globally, the use of advanced analytics in agriculture is booming, with the increasing use of precision agriculture and automation in many countries. Artificial intelligence (AI), machine learning, predictive modeling, and other forms of advanced analytics in agriculture can help in reaching more efficient outcomes with regard to task automation, enhanced food safety, and profitability. In recent years, these tools have begun to be used to support smallholder farmers and help developing countries better address food security challenges.

The session concluded by highlighting how AI can enable farming businesses to predict the environmental impact of agriculture systems, to evaluate soil quality, detect plant diseases, soil fertility, etc. The findings of several academics in recent years state that machine learning and other AI techniques can help in the prediction and optimization of plant growth and can support crop management; for example, data from drones and field sensors can help to predict pest infestation even before they occur.

WATER ENERGY AND CLIMATE NEXUS

NOVEMBER 14, WATER PAVILION

The CRFS Alliance presented its work at the Water Pavilion in the session entitled “Water, Energy and Climate Nexus”. The importance of integrated food and climate action was highlighted and holistic approaches towards food, agriculture, water, energy, and the environment were brought at the forefront of the discussion. The CRFS Alliance presented its solution portfolio and discussed examples of nexus approaches within the Alliance, such as Nexus Gains, from CGIAR, which bring together a systemic approach towards energy, water, ecosystems, and food.

The recording can be found [here](#).



FOOD SECURITY ROUNDTABLE

COP27 Presidency also hosted a series of high-level roundtable discussions, featuring food security. The food security roundtable was hosted on November 6, 2022. A brief summary of the roundtable discussion is below:

FOOD SECURITY ROUNDTABLE: SUMMARY



HUNGER & MALNUTRITION EXACERBATED BY CLIMATE CHANGE

The risks of hunger and malnutrition among the most vulnerable groups exacerbated by climate change was stressed. It was agreed that the agriculture sector has a unique position, being on one hand among the most vulnerable to climate change, and on the other a major contributor to GHGs emissions and the main driver of deforestation



FOOD SYSTEMS TRANSFORMATION IS ESSENTIAL TO COMBAT CLIMATE CHANGE

The transformation of the food systems is a corner stone in combating climate change including regenerative agricultural practices, reduced trade restrictions and changes in consumption and diet patterns, as well as looking into alternatives for proteins



CLIMATE-RESILIENT AGRICULTURE & FOOD SYSTEMS REQUIRE POLITICAL WILL

The implementation of climate resilient agriculture and food systems requires political will, international cooperation, generation and exchange of knowledge and best practices, as well as financial resources to support producers and value chain actors across the world to operate the necessary transformations



FINANCE & INVESTMENT IN FOOD SYSTEMS ARE CRITICAL

Increase in the investment in adaptive and resilient agricultural practices and food systems innovation ecosystems are needed, including innovative finance services, data and digital infrastructure, research, development, and demonstration (RD&D), measures to reduce import dependency and increase on-farm yields of local varieties, improved smallholder farm management skills and cold chain-based commodity associations and measures that consider maladaptation risks.

KORONIVIA JOINT WORK ON AGRICULTURE

The four-year Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security and the Sharm el-Sheikh online portal under that joint work were established by [decision -/CP.27](#). Parties and observers are invited to share their views on these matters via submissions by 27 March 2023.

KORINIVIA JOINT WORK ON AGRICULTURE

Agriculture issues are discussed in the Korinivia Joint Work on Agriculture (KJWA), under UNFCCC since 2017.

KEY TOPICS COVERED ADDRESSED BY KJWA



SOIL



LIVESTOCK



WATER
MANAGEMENT



FOOD
SECURITY



SOCIO-ECONOMIC
DIMENSIONS



METHODS TO ASSESS
ADAPTATION

- At COP27, countries agreed on a four-year timeline for agriculture and food security and a new proposed Sharm-el-Sheikh online portal for countries to share information.
- Key roles of the following were highlighted:
 - Soil health, soil carbon, soil fertility
 - soil and nutrient management practices and the optimal use of nutrients
 - sustainably managed livestock systems, such as enhancing animal health and sinks on pasture and grazing lands
 - scaling up long-term investments and resources to achieve inclusive, sustainable and climate-resilient agricultural systems.
 - Use of organic fertilizers and enhanced manure management for climate-resilient food production systems
 - Tools for assessing and monitoring adaptation and its co-benefits
- A joint letter was signed by c. 100 organizations to negotiators and ministers urging inclusion of food systems in the new Koronivia mandate

Photo Source: WFP



FOOD SYSTEMS INITIATIVES AND ACTIVITIES AT COP27

COP27 brought significant announcements of initiatives in agriculture and food systems.

INITIATIVES & ROADMAPS

1. **Food and Agriculture for Sustainable Transformation (FAST)**

The COP27 Presidency launched the [Food and Agriculture for Sustainable Transformation \(FAST\)](#) initiative to improve the quantity and quality of climate finance contributions to transform agriculture and food systems by 2030, supporting adaptation and maintaining a 1.5-degree pathway whilst supporting food and economic security.

This multi-stakeholder cooperation programme will have concrete deliverables for enhancing country capacities to access climate finance and investment, increase knowledge, and provide policy support and dialogue.

2. **Initiative on Climate Action and Nutrition (I-CAN):** The COP27 Presidency launched the [Initiative on Climate Action and Nutrition \(I-CAN\)](#) on Adaptation and Agriculture Day. The I-CAN Initiative will connect actions to accelerate progress in both climate (mitigation and adaptation) and nutrition, monitor progress and provide technical support to member states. I-CAN is a multi-stakeholder, multi-sectoral initiative that will be implemented with the support of UN agencies and partners including FAO and GAIN and emphasizes pillars of action that consist of implementation, action and support, capacity building, data and knowledge transfer, policy and strategy, and investments.

3. **[The African Food Systems Transformation Initiative \(AFSTI\)](#)** and 70 African-owned agri-businesses announced an action plan for directing financial flows to food supply chains in Africa. It will draw finance, philanthropy, multilateral development banks, and private sources, targeting much overlooked agri-businesses and food processors who are pivotal to transforming the food outlook in Africa.

4. **Early Warning for All:** To extend early warning coverage to all the world's population by 2027, UN Secretary General together with UNDRR and WMO announced the [Early Warnings for All Executive Action Plan](#). The Plan explicitly calls for greater engagement in partnerships and initiatives in which UNDRR plays an active role, such as the [Climate Risk and Early Warning](#)

Vision of the Initiative on Nutrition and Climate Change (I-CAN)



In response, Egypt as COP27 Presidency, in partnership with WHO, FAO, other UN agencies and partners such as GAIN, are developing a multistakeholder, multisectoral global flagship initiative, I-CAN, that will help foster collaboration to accelerate transformative action to address the critical nexus of climate change and nutrition.



I-CAN will be officially launched at the "Adaptation and Agriculture" thematic day during the 27th session of the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP27) in Sharm El-Sheikh, 6–18 November 2022.



The initiative will leverage the current heightened global attention on food systems transformation and deliver technical and high-level support from parties, UN agencies, NGOs, and the private sector to focus on win-win policies and actions that work to reduce climate change and improve nutrition, particularly for children and vulnerable groups.



Worldwide, currently less than 12% of national policies consider climate, biodiversity and nutrition, only 32% of National Action Plans (NAPs)⁹ included adaptation actions related to food safety and nutrition, and few NDCs commit to actions that aim to tackle climate and nutrition.



The aspirational goal of I-CAN is to support Member States in delivering climate change adaptation and mitigation policy action which simultaneously improves nutrition and triggers transformative action to deliver healthy diets from sustainable food systems thus contributing to achieving the global targets for SDG 13, SDG3 and SDG2. The inclusion of climate action and nutrition in the NDCs and NAPs is an important indicator.

[Systems](#) (CREWS) initiative, the [Risk-Informed Early Action Partnership](#) (REAP), and the Centre of Excellence for Climate and Disaster Resilience. These collaborations, working with national governments and regional organisations such as the African Union, are beginning to make progress in extending coverage.

5. [International Drought Resilience Alliance \(IDRA\)](#) - IDRA is a collaborative platform convened by Spain and Senegal, to rally political momentum and trigger actions that support countries, cities, and communities to reduce their vulnerability and exposure to extreme droughts.
6. [Regen10](#): Inception of Regen10, with detailed plans and process to gather and share evidence on the potential of regenerative food systems and connect those already using regenerative approaches, such as producers, communities and other landscape stewards, to realise their potential. The effort was initiated at COP26 as an international collaboration to put farmers at the heart of food systems transformation so that by 2030, over 50% of the world's food can be produced in a way that benefits people, nature and the climate. The initiative is supported by The Rockefeller Foundation and IKEA Foundation. Founding partners include the Food and Land Use Coalition (FOLU), the International Union for the Conservation of Nature (IUCN), Leaders Quest, Meridian Institute, SYSTEMIQ, the World Business Council for Sustainable Development (WBCSD) and the World Farmers' Organisation (WFO).
7. [Beans is How](#): SDG2 Advocacy Hub and Good Food For All launched a new campaign to fix the future by doubling global bean, pea, pulse, lentil and legume consumption by 2028.
8. [Action on Adaptation, Water and Resilience \(AWARe\)](#): The AWARe initiative promotes measures to decouple economic growth from freshwater use and degradation; develop national utilization plans, adaptation and mitigation strategies and protect and restore freshwater ecosystems; seek cooperative analysis of river basin scale adaptation and mitigation options and risk of mal-adaptation and support mutually agreed policy solutions to advance a 'do no harm' approach. The AWARe initiative, which was drafted by the COP27 Presidency with support of WMO, was launched on Water Day.
9. [Africa Sustainable Commodities Initiative](#) - Ministers of the 10 West and Central African countries signed the expanded Africa Sustainable Commodities Declaration - broadening the focus on sustainably producing palm oil to include cocoa, coffee and other commodities.
10. [Global Food and Nutrition Security Dashboard](#) - Global Alliance for Food Security has launched a new tool to present up-to-date data on food crisis severity, track global food security financing, and make available global and country-level research and analysis to improve coordination of the policy and financial response to the food security crisis.
11. [Soil Health Resolution](#) - a set of commitments to enable and scale healthy soil practices to mitigate and adapt to climate change, restore biodiversity, improve water resilience, enhance food and nutrition security, and protect natural and cultural heritage was presented by Coalition for Soil Health at an event in Food Systems Pavilion.

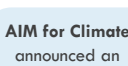








12. **[FAO Sustainable Food Systems Roadmap](#)** - FAO announced they will launch a roadmap by COP28 that will set out key milestones and a cost-effective pathway to transition the world's food system to one that provides affordable, nutritious and plentiful food, while protecting livelihoods in the face of climate change, and aligning with 1.5C. [The announcement came at an event hosted by the FAIRR Initiative](#), following calls from an \$18tn investor coalition for a roadmap that addresses financially material risks to which the food system is exposed.
13. **[Agri-Food Commodity Sector Roadmap](#)** - a joint plan from 13 of the world's major agricultural commodity and trading companies to address ecosystem conversion related to palm oil, beef and soy.
14. **[SAVE Cleantech Utilities, a new "Water-and-Energy-as-A-Service-Model"](#)** - launch of a new initiative by Egyptian, French and Swedish companies that will empower small farmers and local growers in rural and off grid area of Moghra Oasis with clean water and energy without any capital or technical burdens.

FOOD SYSTEMS RELATED INITIATIVES & INVESTMENTS AT COP27







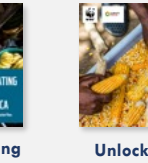
INITIATIVES & ROADMAPS

	Food and Agriculture for Sustainable Transformation (FAST)		Africa Sustainable Commodities Initiative
	Initiative on Climate Action and Nutrition (I-CAN)		Global Food and Nutrition Security Dashboard
	Early Warnings for All		Action on Adaptation, Water and Resilience (AWARe)
	The African Food Systems Transformation Initiative (AFSTI)		SAVE Cleantech Utilities, a "Water-and-Energy-as-A-Service-Model" for small farmers
	International Drought Resilience Alliance		Agriculture Sector Roadmap to 1.5C
	Beans is How		Regen10
	USDA International Climate Hub for Climate-Smart Agriculture		FAO Sustainable Food Systems Roadmap (announced at COP27, to be launched at COP28)
	Soil Health Resolution		G7 CompensACTION
	Sharm-El-Sheikh Joint Work on Agriculture		12 3 Pledge on Food Waste

PLEDGES

 AIM for Climate announced an increased investment of > US\$ 8Bn	 US\$ 25Mn Pledged by US for Africa Adaptation Initiative to launch its Food Security Accelerator	 US\$ 15Mn Pledged by US to expand early warning systems in SIDS
 US\$ 1.4Bn Pledged by BMGF for farmers in sub-Saharan Africa and South Asia	 US\$ 1Bn Committed by IRENA, World Bank & partners for Solar Electrification for food storage, health	 US\$ 11Mn In grants by Rockefeller Foundation to support scaling of regenerative agriculture
 €15 Mn Pledged by Germany for IFAD's Enhanced Adaptation for Smallholder Agriculture Programme	 US \$25 Mn Commitment by US to Global Fertilizer Challenge to advance fertilizer efficiency & research	 €170 Mn Announced by Germany as part of GLOBAL SHIELD initiative for climate risk finance and preparedness

REPORTS, DOCUMENTS & CALLS TO ACTION

			
Sharm-El-Sheikh Adaptation Agenda COP27 Presidency, High Level Champions & Marrakech Partnership	Sustainable & Circular Bioeconomy in the Climate Agenda FAO	Scaling finance for Nature-based solutions in Kenya FOLU	Compensating farmers for ecosystem services Clim-EAT, University of Vermont & CIAT Alliance
			
An Action Agenda for Future Food Systems Consumer International	Brazilian Cattle & Soil supply chains Chain Reaction Research	Closer look at NDCs from a Food & Land Perspective FOLU, FELU, UN SDSN	The Fertilizer Trap Institute for Agriculture and Trade Policy
			
Scaling & Accelerating Adaptation in Food Systems in Africa WWF & Climate Focus	Unlocking & Scaling Climate Solutions in Food Systems WWF & Climate Focus	Business Call for Action WBCSD	

INVESTMENTS

- The Agriculture Innovation Mission for Climate (AIM for Climate):** AIM for Climate announced an increased investment of more than USD 8 billion, up from USD 4 billion at COP26 with the support of over 275 government and non-government partners. AIM for Climate is a global initiative by the United Arab Emirates and the United States. The increased investment is comprised of over USD 7 billion from Government Partners with contributions from Australia, Bangladesh, Canada, Denmark, the European Commission, Finland, Hungary, Ireland, Israel, Japan, Lithuania, New Zealand, the Republic of Korea, Romania, Singapore, Spain, Sweden, Ukraine, United States, United Arab Emirates, United Kingdom, Uruguay, Vietnam, and over USD 1 billion investment from 30 [Innovation Sprints](#).
- Global Shield against Climate Risks:** Germany launched the development of a "Global Shield against Climate Risks", unanimously supported by the G7. This is a new insurance system to provide swift financial aid for nations hit by the devastating effects of climate change and will bundle

activities in the field of climate risk insurance and prevention in close cooperation with the V20 (an association of states that are particularly threatened by climate change).

3. **U.S. Commitments:** President Biden made several announcements including at least \$100 million in climate smart food system adaptation funding in FY 2022; Establishing an International Climate Hub for Climate-Smart Agriculture; an additional \$25 million to the African Union's flagship Africa Adaptation Initiative (AAI), which will dramatically speed- and scale-up private sector investments in climate resilient food security in Africa.
4. **CompensACTION:** Germany's G7 Presidency launched the **CompensACTION** initiative, which includes a [policy brief](#) with recommendations on mobilizing smart income mixes for smallholder farmers and a [€15 million investment in IFAD](#) to pilot projects in Brazil, Ethiopia and Lesotho.
5. **Bill and Melinda Gates Foundation support to farmers:** BMGF announced \$1.4 billion for farmers in sub-Saharan Africa and South Asia to enhance resilience in the face of climate change.
6. **Solar Electrification for food storage and health facilities:** IRENA, the World Bank and other partners commit \$1 billion towards the empowering lifts and livelihood, renewables, follow adaptation, initiative to connect people and livelihood through renewable energy solution in agriculture, food and health sectors.
7. **Scaling Indigenous and Regenerative Agriculture Practices Globally** - The Rockefeller Foundation announced more than US\$11 million in grants to ten organizations to support strategies to end compounding crises of climate, hunger, and malnutrition through community-led changes to global food systems.
8. **Global Fertiliser Challenge:** U.S. other partners committed \$135 million to expand fertilizer and soil health programs in sub-Saharan Africa and in key middle-income countries outside the continent. This included \$21 million from a group of leading philanthropies and investors which will more broadly address fertilizer's role in the climate, food security, and energy crises.
9. **Farmers First Cluster** - The Soft Commodities Forum will collectively invest USD \$7.2 million to establish a financial model incentivising soy producers to halt deforestation and conversion in four key Cerrado landscapes: Western Mato Grosso, Southern Maranhão, Western Bahia, and Tocantins.

REPORTS

1. **Sharm-El-Sheikh Adaptation Agenda:** The Sharm-El-Sheikh Adaptation Agenda by the COP 27 Presidency through collaboration with High-Level Champions, Marrakech Partnership will serve as aspirational adaptation outcomes for global adaptation action towards 2030, and to inform state and non-state adaptation agendas. On Food Security and Agriculture Systems, the agenda has 4 Adaptation Outcome Targets:
 - Climate resilient, sustainable agriculture increases yields by 17% and reduces farm level greenhouse gas (GHG) emissions by 21%, without expansion of the agricultural frontier.
 - Halve the share of food production lost, and per capita food waste (relative to 2019).
 - Healthy alternative proteins capture 15% of the global meat and seafood market.
 - The global consumption of fruits, vegetables, seeds, nuts and legumes increases 1.5 times.

2. **[From Global Commitments to National Action – A closer look at NDCs from a Food and Land Perspective \(2022 Update\):](#)**
This report is an expanded analysis of NDCs by Food, Environment, Land and Development (FELD), UN SDSN and FOLU. The purpose of this brief is to provide policymakers and other interested parties at global level and in countries with a systematic analysis and cross-read of current NDCs from a food and land use perspective. Specifically, the team mapped NDC commitments and references against FOLU's Critical Transitions, and assessed NDCs for their focus on action and national policy follow up.
3. **[Unlocking and scaling climate solutions in Food Systems: An Assessment of NDCs:](#)** Noting that NDCs present a key opportunity for identifying domestic mitigation and adaptation needs and measures to tackle climate change through food systems, this report by WWF aims to shine a spotlight on all kinds of progress on food systems in NDCs, encourage best practices, identify key challenges and call out laggards, with the goal of increasing the overall ambition of the NDC process.
4. **[The Fertiliser Trap :](#)** Study from the Institute for Agriculture and Trade Policy which highlights increase in fertiliser prices and fact actions must focus on reducing the consumption of chemical fertilisers and supporting alternative technologies - not increasing production. This will cut costs, and the damage which chemical fertilisers cause to the environment and the climate.
5. **[Scaling and Accelerating Adaptation in Food Systems in Africa:](#)** This report by WWF has analyzed African NDCs and NAPs, concluding that despite many food-based action, a US\$60 billion shortfall in adaptation finance for Africa is hindering the transformation of food systems. Investors and donors need to urgently make additional resources available, and countries need to broaden ambition of their plans to ensure diets and food loss and waste are included.
6. **[Prosperous Land, Prosperous People: Scaling finance for Nature-based Solutions in Kenya:](#)** This report by the Food and Land Use Coalition (FOLU) presents a possible investment pathway for public and private financiers to unlock the benefits of NbS in Kenya, which would require USD 1.2 billion of investment per year by 2050.
7. **[Brazilian Beef & Soy Report:](#)** This report by Chain Reaction Research finds that full traceability of Brazilian soy supply chains is possible and is already part of existing sector agreements; and full traceability of Brazilian cattle supply chains is challenging, but possible.
8. **[Compensating farmers for ecosystem services:](#)** This report by Clim-EAT, University of Vermont and CIAT Alliance makes a case for incentivizing climate action and environmental outcomes as part of Payment for Ecosystem Services.

CALLS TO ACTION

1. **[Business Call to Action for Food and Climate](#)** - WBCSD members published a call for food companies to adopt time-bound, science-based, targets towards net zero; governments to develop and implement national food strategies and to integrate food into NDCs and NAPs; and international organizations to develop clear strategies for food systems, including a 1.5°C roadmap for food.
2. **[Consumers in Crisis: An Action Agenda for Future Food Systems](#)** – Consumers International launched an action agenda highlighting the need for urgent and aligned action on food and climate crises, in order to build resilient food systems that meet consumer rights and needs.

CONCLUSION

The importance of food systems for climate action is being increasingly recognized at national and international levels. However, there is still progress needed on this front as there remains a lack of clarity on how food systems can be accounted for in NDCs, and whilst decision 1/CP.27 recognizes the fundamental priority of safeguarding food security and ending hunger, and the vulnerabilities of food production systems to the adverse impacts of climate change, no clear course of action was outlined, aside from the renewed endorsement of the KJWA

Throughout COP27, CRFS Alliance has demonstrated its commitment to continue advocating for climate resilient food systems, underlining their potential to drive climate action, all while calling for multi-level governance and support for enhanced international collaboration among countries and regions to share capacities, expertise, and resources.

Moving forward, the Alliance will strive to position itself as a key agent of change for COP 28 and will start outlining concrete actions and deliverables towards this end in its 2023 work plan.

SOURCES

- Compensating farmers for ecosystem services:
<https://cgspace.cgiar.org/bitstream/handle/10568/125381/brief.pdf?sequence=1&isAllowed=y>
- Joint work on implementation of climate action on agriculture and food security: <https://unfccc.int/documents/624317>
- How COP27 became the food systems COP: <https://www.greenbiz.com/article/how-cop27-became-food-systems-cop>
- COP27 Key outcomes agreed at the UN Climate Talks by Carbon Brief: https://www.carbonbrief.org/cop27-key-outcomes-agreed-at-the-un-climate-talks-in-sharm-el-sheikh/?utm_campaign=Carbon%20Brief%20Daily%20Briefing&utm_content=20221122&utm_medium=email&utm_source=Revue%20Daily
- Adapt or Starve – COP27 spotlights agriculture challenges and solutions in the face of climate change:
<https://news.un.org/en/story/2022/11/1130517>
- WWF Food Digest by Peter McFeely
- Sharm-El-Sheikh Adaptation Agenda: https://climatechampions.unfccc.int/wp-content/uploads/2022/11/SeS-Adaptation-Agenda_Complete-Report-COP27_FINAL-1.pdf

