

# ENSURING FOOD SECURITY FOR ALL – A RENEWED COMMITMENT TO ACTION

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## **Ensuring Food Security For All – A Renewed Commitment to Action**

April 2023

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### **About Earthna**

Earthna Center for a Sustainable Future (Earthna) is a non-profit policy, research, and advocacy organization, established by Qatar Foundation to promote and enable a coordinated approach to environmental, social, and economic sustainability and prosperity.

Earthna is a facilitator of sustainability efforts and action in Qatar and other hot and arid countries, focusing on sustainability frameworks, circular economies, energy transition, climate change, biodiversity and ecosystems, cities and the built environment, and education, ethics, and faith. By bringing together technical experts, academia, government and non-government organizations, businesses and civil society, Earthna fosters collaboration, innovation, and positive change.

Using their home - Education City - as a testbed, Earthna develops and trials sustainable solutions and evidence-based policies for Qatar and hot and arid regions. The organization is committed to combining modern thinking with traditional knowledge, contributing to the well-being of society by creating a legacy of sustainability within a thriving natural environment.

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## Key Points

The success of addressing the global food security problems will hinge on a bold vision that encompasses several critical factors.

- **Solidarity and partnership:** Political leaders should work together to support local markets and improve distribution mechanisms. Building alliances between stakeholders through trading systems, storage facilities, and partnerships is essential for a stable and sustainable food system.
- **Supply chains:** Strengthening local markets, adding value through food processing and preservation, and improving access to finance are key to achieving sustainable and inclusive agricultural development.

- **Production and efficiency:** Investigating climate change's impact on food security and leveraging data to anticipate future needs are critical for ensuring resilience and equity. Strategic investments in science, technology, and innovation hold immense potential for resolving food security issues, especially within hot and arid lands.
- **Investment and infrastructure:** Investing in agriculture infrastructure and public-private collaborations focused on research and development can lead to substantial progress. A trading model that facilitates the exchange of agricultural inputs and outputs can play a crucial role in creating effective partnerships and ensuring sustainable food supply chains.

## Executive Summary

In the current global context, food security is a pressing issue that requires a comprehensive and determined approach. Political stability, leadership, climate change, the economy, and scientific advancement are all contributing factors to this challenge. The COVID-19 pandemic has amplified the need for a comprehensive approach to ensure sustainable food supply chains. It is clear that no one can achieve food security alone, and collective action is required. Solidarity that focuses on justice, including climate change loss and damage adaptation financing and fair international trade, must be central to our efforts.

We need to improve production, processing, and efficiency to realize significant opportunities, but the challenges of climate change pose major risks not only to production

but also to access and distribution, with extreme weather events on the rise. We are increasingly reliant on global supply chains, which have faced major challenges such as the global pandemic, conflicts, and export bans. International cooperation and solidarity remain critical to ensuring the stability of the global food system.

While we may already know what needs to be done, there are constraints on financing and infrastructure. Finding solutions often requires innovative approaches, and alliances between stakeholders are necessary to overcome complex challenges. It's time for action, and participants at this Roundtable commit to working together to ensure food security for all. No one has been fed based on potential, and we must act now.



# Introduction

Ensuring that all people have reliable access to sufficient, quality, affordable and appropriate food is a key objective of the international community. Sustainable Development Goal 2 (SDG2) aspires to end hunger by 2030. The first Millennium Development Goal also aimed to eradicate extreme hunger, as a part of Goal 1. The most commonly used definition of food security – that all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life was agreed upon at the 1996 World Food Summit. For decades, communities and countries had made significant progress in reducing food insecurity, as measured by metrics such as undernourishment and caloric intake, and have made significant advancements in yield increases. These successes should be celebrated, and demonstrate what collective action on common objectives can make positive contributions on a global scale.

Despite this progress, the last decade has witnessed waves of setbacks. Conflict emerging after 2010 (e.g., South Sudan, Syria, Yemen), contributed to the stalling of progress, followed by increases in numbers of people facing hunger globally. This was followed by a second wave, the global COVID19 pandemic, which not only impacted health systems but also agricultural systems and international trade. According to the Food and Agriculture Organizations of the United Nations, the number of people facing hunger around rose by almost 120 million from 2019 to 2020 alone. The most recent challenges have emerged from the conflict in Ukraine, which has resulted in food and energy crises. The world is not on track to meet SDG2, indeed the situation for world’s most vulnerable and food insecure is worse than when the goal was set. Turning the tide requires newfound commitment. The participants of the Roundtable on “Food Security – Self Sufficiency, Surplus, and Supply in the Developing World” at the 2023 Earthna Summit affirm the urgency of action and call for renewed commitment for action. The session included representatives from governments, the private and public sectors, as well as the research community.





The number of people experiencing severe food insecurity, as measured by having an insufficient quality of food, is nearly 12% of the global population. This is nearly 1 billion people. The direct consequences of food insecurity are negative impacts on health and well being. An insufficient quality of inappropriate quality (e.g., micronutrient deficiencies) have long-term impacts on growth and development, including cognitive impairment and chronic diseases, particularly for infants and children. The experience of hunger also has social and mental health impacts, as people experience anxiety and stress regarding their inability to meet basic needs. In the short- and long-term this results in negative impacts on educational outcomes and economic development. Eliminating hunger and ensuring food security for all is a global priority.

The burden of global food insecurity is unevenly borne. Food security (or the lack thereof) is measured by hundreds of metrics; taking two examples we can examine the prevalence of hunger (% of a population identifying severity within a population) and numbers of people. These two metrics are important to consider together, as countries with larger populations may appear to require the greatest support if we only look at the latter.

When looking at prevalence, countries experiencing severe food insecurity as a percentage of their population includes Somalia, Central African Republic, Haiti and Yemen, each with 45% or more of their population undernourished (according to the UN FAO). This can also be assessed by other measures, such as childhood stunting as measured by the World Health Organization, the countries facing the highest percentage of children experiencing childhood stunting are Burundi, Eritrea, Timor and Papua New Guinea, each of which have populations with half or more of their child populations experiencing stunting. These two results align with the Global Hunger Index, which assesses the most severe situations as being in Somalia, Yemen, Central African Republic, Burundi, Syria, Comoros and South Sudan. Conversely, the countries that are home to the largest number of people experiencing food insecurity are India, China, Nigeria and Pakistan. These four countries are home to one-third of all people experiencing hunger globally. These examples make clear that responding to food insecurity and strengthening food security requires tailored responses, that identify specific challenges and find appropriate and effective localized solutions.

To compound the issue further, food insecurity is not just an issue of insufficient food production or distribution, but also a result of economic, political, and social factors. In many cases, poverty, inequality, and conflict can lead to food insecurity, particularly in developing countries. Moreover, food insecurity is not a static issue, and its prevalence can vary depending on the season, region, and demographic group. For instance, women, children, and marginalized communities are often disproportionately affected by food insecurity. This highlights again the need for targeted and tailored interventions that take into account these specific factors.

Another important aspect to consider is the environmental impact of food production and consumption. Climate change, soil degradation, water scarcity, and other environmental factors can all affect food security, both in terms of quantity and quality. Hence, addressing food insecurity also requires sustainable agricultural practices and reducing food waste. Finally, it's important to acknowledge that food insecurity is not just a problem in developing countries. Even in developed economies, there are communities that experience food insecurity, often due to poverty, inequality, and other social and economic factors. Therefore, addressing food insecurity

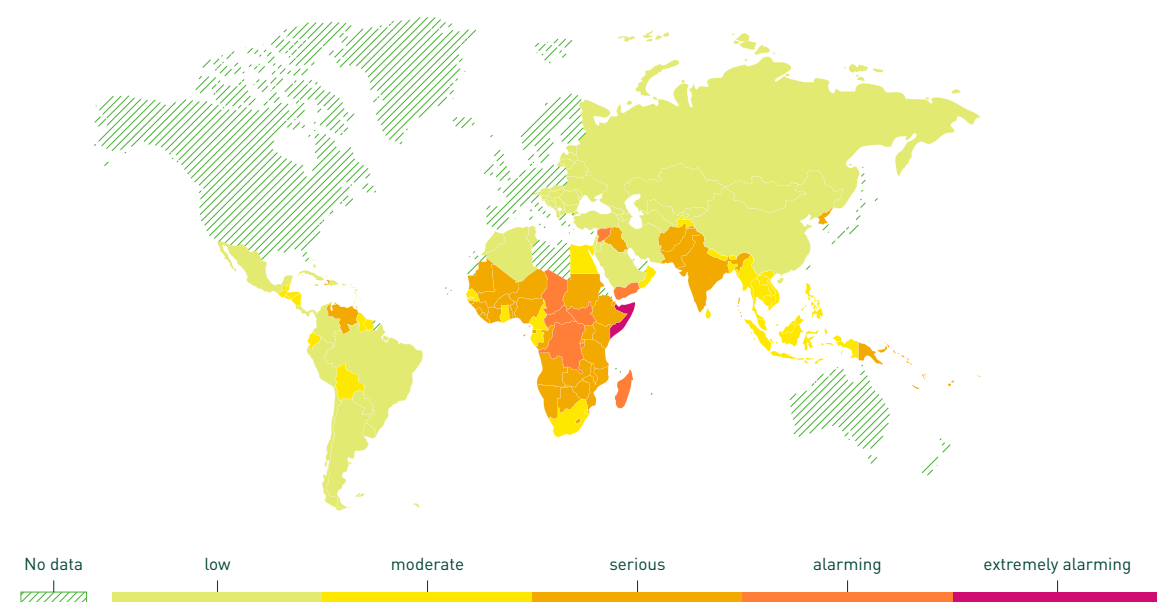
requires a global effort that involves all countries and stakeholders, from governments and international organizations to farmers and consumers.

Meeting Sustainable Development Goal 2 and ensuring that all people have reliable access to a sufficient quantity of affordable, nutritious food by 2030 seems increasingly unlikely. This reality demands serious action. In many parts of the world food insecurity is increasing, with climate and conflict being primary causes of that, alongside interlinked pressures of supply chain disruptions, a lack of infrastructure and social safety nets, inequality, amongst others.

The Earthna Summit brought together leading actors from the private sector, governments, and researchers to identify and prioritize key action items to scale progress. Participants of the Roundtable at the Earthna Summit noted four main areas for prioritization, namely: solidarity and partnership, supply chains, production and efficiency, and investment and infrastructure, which are detailed in the sections that follow.

## Global Hunger Index, 2021

The index score comprises of key hunger indicators: prevalence of undernourishment; childhood wasting; childhood stunting; and child mortality. It is measured on a 100-point scale where 0 is the best score (no hunger) and 100 the worst.



Source Concern Worldwide and Welthungerhilfe

OurWorldInData.org/hunger-and-undernourishment.CC BY



## Solidarity and Partnership

The international trade system is not working for the Global South nor small holder farmers, who are the producers of the majority of the world's food. Solidarity first and foremost means justice, unfair trade and investment practices need to be reformed as a fundamental first step. There is an urgent need to transform the international system that disadvantages the Global South, which cannot be changed by single states alone and requires global solidarity. Partnership may then follow, such as by offering unique opportunities for trade for countries that the United Nations classifies as 'Least Developed', for which additional supports may be required. Corporations play an important role in both acting in solidarity and as partners, this means ensuring employees are paid a living wage and have working conditions that are dignified.

For far too many commodities, global market share is controlled by a few multinational companies, which extract values and profits within the farm-to-plate supply chain. New forms of 'win-win' alliances can provide mutual benefit, such as direct trade of secure supplies of agricultural inputs for food commodities. Examples of this include countries such as the State of Qatar, which produce and export fertilizer, can trade directly with nations from which it imports food supplies. This could be strengthened through both investment and official development assistance, where deemed appropriate. Ensuring these benefits are realized for the benefit of majority requires careful policy making. There are also new opportunities for seeking mutual benefit within the Global South, such as those emerging out of the African Continental Free Trade Area. Sharing amongst nations what has worked and what has not worked (as well as research and innovations), on the basis of solidarity, was demonstrated during this session and will be key to advancing food security, particularly for the most vulnerable in the Global South.





## Production, Processing & Efficiency

Africa disproportionately faces the burden of hunger, but also has the greatest opportunities for transformation. The continent has under-utilized land, under-employed populations, and agricultural yields are lower than global averages. For some key food commodity and export crops, production is below 40% of the global average. Capitalizing on these opportunities, however, will require leadership and investment, primary from governments. Relying on the private sector, such as through foreign direct investment, without coordination and monitoring can (and has) resulted in negative consequences for the most vulnerable (such as farmers losing their lands to investors). In many instances, raw commodities are exported with value addition occurring outside of the continent. Yet, there are options to ensure value is retained within producing countries, such as limitations on exporting raw commodities. Capturing value addition in this case involved not only improving production, but supporting agroprocessing.

Crop yields can be improved, but taking a systems approach to food security identifies additional challenges and opportunities. For example, food loss and food waste

(from production, storage, preservation and distribution to consumption) present significant losses of resources and reduce efficiency. As an example, improved distribution networks can reduce food loss and waste by 16%. Mechanization, as well as opportunities emerging from new research and development (including of adapted indigenous crops) can enhance production levels. However, climate change presents risks that will reduce productivity, unless adaptive measures are taken. This will require international solidarity and partnership. The Loss and Damage mechanism is one such avenue, which aims to redistribute resources from those who disproportionately benefited from utilizing hydrocarbon resources to those who are disproportionately being harmed by the negative impacts of climate change. Support for this has been minimal to date, since it was approved at COP19 in 2013, in the form of the Warsaw International Mechanism for Loss and Damage. The lack of solidarity by the large GHG emitters to contribute to this process has hampered potential progress, resulting in a lost decade of opportunities. Without leadership and responsibility, this may continue.

## Global Supply Chains

The causes of food insecurity are complex, with interlinked challenges and pressures. One of the key drivers for the rise of food insecurity is instability or disruptions to global supply chains. Exemplary of this are the vulnerabilities that were exposed when many countries, particularly from the Middle East and North Africa region, were heavily reliant upon food imports from Ukraine and/or Russia. With the restrictions of trade and the disruption of production, food shortages and resulting inflation were experienced across the region. This has forced countries to revisit their food security strategies, particularly countries reliant upon food imports, but also countries that have commodity specific

imports. Options to mitigate these risks include trade diversification and the expansion of strategic reserves. The State of Qatar faced significant challenges of this nature in 2017, when a land, sea and air trade routes were blocked by some of its neighbouring nations. The country has made significant strides in enhancing food security since, including making significant improvements in the Global Food Security Index, despite environmental constraints on production. In solidarity with other countries, these experiences are offered as lessons for other nations in navigating the challenges of an increasingly interconnected global food system.





## Investment & Infrastructure

Countries can, and have, been transformed from net food importers to regional breadbaskets. Leaders of these transformations, including those participating in the Earthna Roundtable, offered their experience as lessons for others. These transformations included partnerships between researchers, private sector actors, government agencies, and non-governmental organizations. Nexus approaches to transformations ensure that developments ensure that infrastructure is climate resilient and “green centric” as a central objective. Infrastructure has, and will be, central to these transformations. This includes improving supply and distribution systems, providing improved access to storage, grading, market information, and markets, as well as access to water and energy. In making these investments, cash crops oriented to export will remain important, but attention to other opportunities is just as important, ranging from locally adapted indigenous crops (e.g., teff and enset) and opportunities in the livestock sector (fish, aquaculture, poultry, beef). Many of these infrastructural supports require political will, multi-sectoral planning and financing to be effective not only for today’s problems but also to anticipate and respond to the challenges of the future. Moving from responsive action to proactive action in this form is also in recognition that new developments typically take a decade to reach farmers at scale, necessitating a long-term vision of research and infrastructural investments.

One of the primary reasons that opportunities are not realized is a lack of financing and/or access to finance. This barrier exists for small-scale farmers to improve their techniques and tools, for large commercial farms to invest in start-up costs and adapt technology to local contexts, as well as governments to finance infrastructure. There is no simple solution to the lack of access to capital, however collaborations have shown that partnerships are possible to overcome these barriers. In some cases, this requires rethinking business models and assumptions that might have previously been standard; for example, corporations moving from short-term perspectives oriented toward shareholders to long-term investments in partnership within communities that they work. Governments and in some cases intergovernmental organizations have been also to support market stability and confidence, such as providing guarantees for product sales via long-term contracts or supply agreements. Innovative forms of insurance for agricultural producers are mitigating the risks involved in agriculture, particularly for small-scale farmers who are vulnerable to short-term climate shocks. While the list of challenges is daunting, the opportunities compel action. For example, within regions (e.g., southern and eastern Africa) there is significant production of food commodities as well as significant demand. The African Continental Free Trade Area provides support for this potential inter-regional trade as well. What is largely missing is transport infrastructure to move large quantities of product across the region. Governments and private sector players need to work together to invest in infrastructure to ensure that inter-regional trade can reach its full potential.





# Conclusion

We cannot achieve food security for all alone. Everyone has to work together for this objective to be met. We need to start with the common understanding that no one has food security until all of us have food security. This is a collective issue and requires collective action. Solidarity that focuses on justice, including climate change loss and damage adaption financing and fair international trade, are focal to this. Improvements in production, processing and efficiency present significant opportunities, while the challenges of climate change present major risks (not only to production, but also to access and distribution with the rise of extreme weather events). We are increasing

reliant upon global supply chains, yet these have faced major challenges – from the global pandemic to conflict and export bans. International cooperation and solidarity remain focal to ensure the stability of the global food system. In most instances, we already know what needs to be done, but there are constraints of financing and/or infrastructure. Alliances between stakeholders is required to find solutions, often to complex challenges that require innovative approaches. No one has been fed based on potential. It is a time for action. Participants at this Roundtable commit to join hands and work toward ensuring food security for all together.





