

Food security and sustainable agriculture: a global and regional approach

Development Banking as a key player in the promotion of sustainable agriculture, through the financing of projects that foster the resilience of the sector and the implementation of responsible agricultural practices.

The Food and Agriculture Organization of the United Nations (FAO) considers that food security exists when «all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and preferences, in order to lead an active and healthy life»¹. This definition underscores the multidimensional nature of food security, which goes beyond the simple availability of food and includes factors such as equitable access, stability in supply and the proper utilization of resources.

The FAO states that food security is based on four primary dimensions: availability, access, utilization and stability²:

- ▶ **Availability** refers to the physical presence of sufficient food through domestic production, imports, and reserves.
- ▶ **Access** implies that people have the economic and physical capacity to obtain adequate food.
- ▶ **Utilization** pertains to the nutritional value of food and its proper consumption, considering factors such as sanitation and food education.
- ▶ **Stability** ensures that the other three dimensions are maintained over time, avoiding fluctuations



due to economic crises, natural disasters or conflicts.

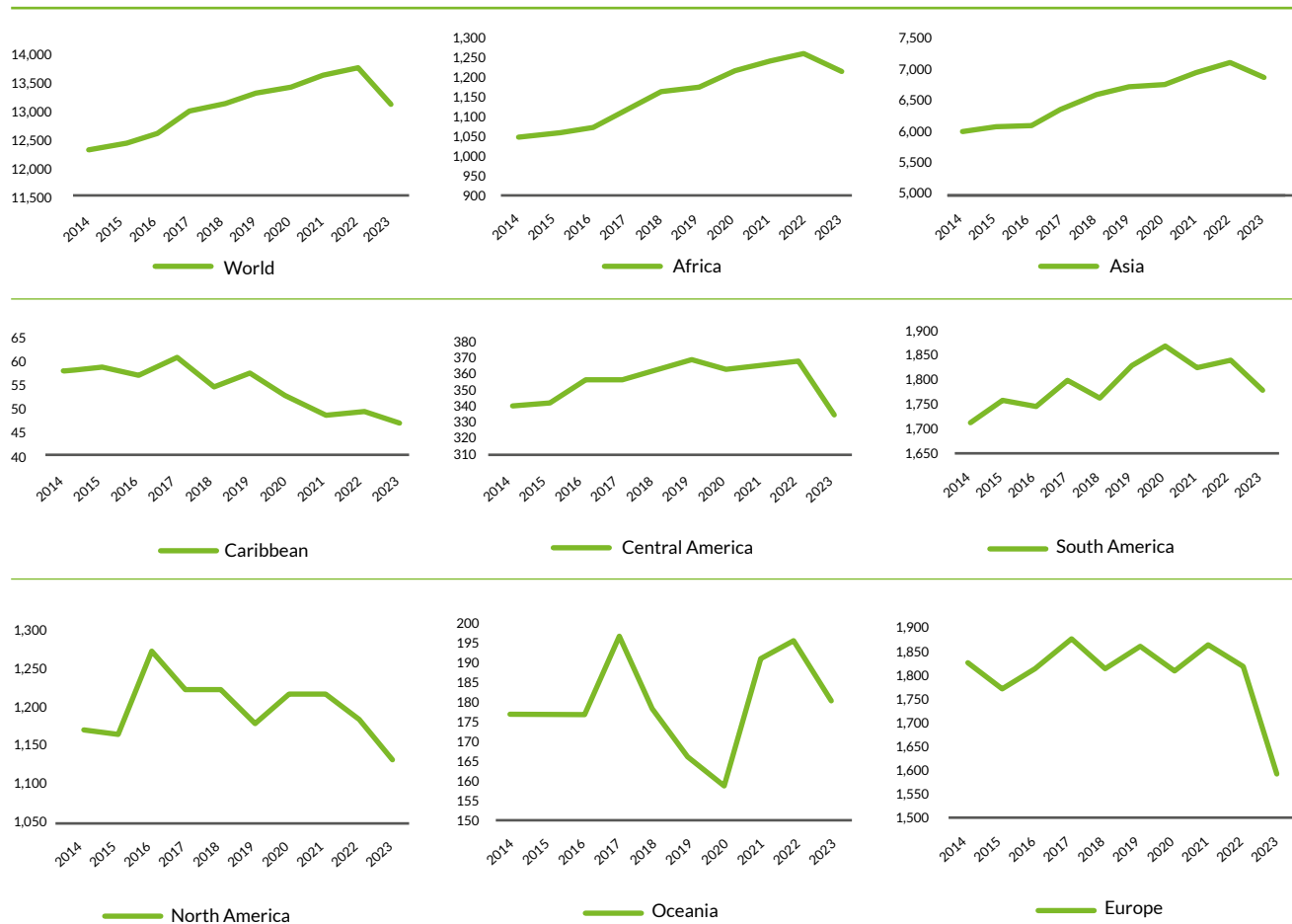
FOOD SECURITY AND GLOBAL SUSTAINABLE AGRICULTURE

At the global level, food security confronts challenges such as climate variability, instability of agricultural markets and pressure on natural resources. It is estimated that between 713 and 757 million people —that is, between 8.9% and 9.4% of the world's population— could have suffered from hunger in 2023³.

Global food production, directly related to the availability and access components of the definition of food security, has shown significant variations due to extreme weather events. In 2024, global agricultural production showed significant variations due to extreme weather conditions. After a prolonged series of months with exceptionally high global average temperatures, 2024 was the warmest year on record to date, according to the World Meteorological Organization (WMO)⁴. The biotic



Figure 2. Amount of agricultural-livestock production 2014-2023 (million of tons)



Crafted in-house with data from FAOSTAT.

and abiotic stress resulting from these high temperatures contributes to losses ranging from 30% to 50% of global agricultural productivity⁵. These losses in the amount of food production, measured in millions of tons, have been observed in all regions since 2022 (see image 1).

OVERVIEW OF LATIN AMERICA AND THE CARIBBEAN (LAC)

LAC is one of the most important regions in global food production, but it confronts serious challenges in terms of food security and agricultural sustainability. Despite its productive potential, more than 22% of the region's population suffers from moderate or severe food insecurity. LAC ranks as the world's second

region most exposed to extreme weather events, after Asia.

At least 20 LAC countries face a high frequency of such events, which indicates a significant exposure, and 14 are considered vulnerable because they are more likely to have an impact on undernourishment due to these phenomena. In the face of these challenges, various initiatives have emerged to promote more sustainable agri-food systems for the countries of the region:

The Development Bank promotes projects and financing programs that seek to improve agricultural productivity without compromising natural resources.

- ▶ **Global Information and Early Warning System for Food and Agriculture (GIEWS):** continuously oversees food supply and demand and other key indicators to assess the overall food security situation.
- ▶ **Regional System for Intelligence and Monitoring of Agricultural Markets (Simmagro):** Central American virtual platform of national systems for monitoring agricultural markets, which includes daily information on wholesale

prices, trade and the 40 most traded products in the region.

- ▶ **Market Information Organization of the Americas (MIOA):** A government cooperation network that collects, processes, analyzes, and disseminates information related to agricultural markets and products.
- ▶ **Observatory of Public Policies for Agri-food Systems (OPSAa):** Digital platform of the Inter-American Institute for Cooperation on Agriculture (IICA) that serves as a meeting point for exchanging knowledge and promoting a new generation of public policies that strengthen agri-food systems in the Americas.

DEVELOPMENT FINANCE INSTITUTIONS (DFIS) - SUSTAINABLE AGRICULTURE IN THE REGION

DFIs have assumed a key role in promoting food security and agricultural sustainability in LAC. Through financing, technical assistance and investment programs, they have promoted projects aimed at improving the resilience of the agricultural sector and promoting more sustainable practices. Among the main actions of DFIs we have:

- ▶ **Credit and financing:** facilitating financing for agricultural producers adopting sustainable practices, such as regenerative agriculture and water efficiency.



- ▶ **Climate resilience programs:** initiatives to mitigate the impact of climate change on food production, with agricultural insurance mechanisms and risk management mechanisms.

COUNTRY	INSTITUTION	PROGRAM	FOOD SECURITY SUPPORT
Latin America and the Caribbean	Kreditanstalt für Wiederaufbau (KfW)	Ecobusiness Fund	<ul style="list-style-type: none"> ▶ Availability: It finances sustainable agricultural practices that are resilient to climate change, promoting biodiversity conservation and responsible agricultural-livestock production. ▶ Access: It offers financing to agri-food companies and producers through local financial intermediaries, facilitating access to credit for sustainable practices. ▶ Utilization: It promotes the production of high-quality food with sustainability standards, such as the Rainforest Alliance and the Forest Stewardship Council (FSC), ensuring a healthy and environmentally responsible supply. ▶ Stability: It provides long-term funding for the resilience of agricultural-livestock production vis-à-vis climate and economic shocks.
Latin America and the Caribbean.	Compañía Española de Financiación del Desarrollo S.A. (COFIDES)	Huruma Fund and Kualí Fund	<ul style="list-style-type: none"> ▶ Availability: It finances financial intermediaries that provide loans to agricultural SMEs for improvements in agricultural production. ▶ Access: It facilitates access to credit for small producers and rural cooperatives to improve their capacity to purchase inputs and food. ▶ Utilization: It promotes the adoption of better agricultural and storage practices to reduce post-harvest losses and improve food quality. ▶ Stability: It facilitates access to agricultural insurance and other risk mitigation mechanisms that help ensure long-term food production.
Guatemala	Banrural	Catastrophic Microinsurance for Microentrepreneurs in the Agricultural Sector	<ul style="list-style-type: none"> ▶ Disponibilidad: Financia intermediarios financieros que otorgan préstamos a pymes agrícolas para mejoras en la producción agrícola. ▶ Acceso: Facilita el acceso al crédito a pequeños productores y cooperativas rurales para mejorar su capacidad de compra de insumos y alimentos. ▶ Utilización: Promover la adopción de mejores prácticas agrícolas y de almacenamiento para reducir pérdidas poscosecha y mejorar la calidad de los alimentos. ▶ Estabilidad: Facilitar el acceso a seguros agrícolas y otros mecanismos de mitigación de riesgos que ayuden a garantizar la producción alimentaria a largo plazo.
Mexico	Trust Funds Instituted in Relation to Agriculture (FIRA)	Financing Program for Medium-Sized Agri-Food and Rural Enterprises	<ul style="list-style-type: none"> ▶ Availability: It finances the modernization and strengthening of agri-food enterprises to improve productivity and ensure a greater supply of food in Mexico. ▶ Utilization: By incentivizing investment in infrastructure and technology in the sector, it improves food quality and preservation by reducing losses and promoting better nutrition. ▶ Stability: It reduces the vulnerability of agri-food companies to economic fluctuations by offering long-term financing, guaranteeing continuity of food supply in adverse situations.



PAÍS	INSTITUCIÓN	PROGRAMA	APOYO A LA SEGURIDAD ALIMENTARIA
Panamá	Savings Bank	School Orchards Program	<ul style="list-style-type: none"> ▶ Availability: It promotes organic food production through home orchards in rural and urban areas. ▶ Access: It facilitates direct access to nutritious food for families by training them in farming techniques and food self-sufficiency, reducing dependency on external markets. ▶ Utilization: It includes education on balanced and sustainable food, which helps to improve the consumption habits and nutrition of the beneficiary families. ▶ Stability: It fosters resilience to economic crises and fluctuations in food supply by strengthening the capacity of families to produce their own food on a continuous basis.
Uruguay	Banco de la República Oriental (BROU)	Field Purchase Credit	<ul style="list-style-type: none"> ▶ Availability: By facilitating the purchase of productive land, this credit promotes the expansion of agricultural and cattle production, increasing food supply at the national level. ▶ Access: Long-term financing allows more agricultural-livestock producers, including small and medium-sized producers, to acquire land and strengthen their operations, improving their economic capacity to access inputs and markets. ▶ Utilization: Investing in land can incentivize improvements in agricultural infrastructure and sustainable practices that optimize the quality and nutritional value of the food produced. ▶ Stability: By offering flexible financing conditions, the program contributes to the resilience of the agricultural-livestock sector vis-à-vis economic or climate fluctuations, ensuring constant production over time.



▶ **Strengthening sustainable value chains:** promoting inclusive business models that benefit both small producers and consumers.

Development Banking promotes projects and financing programs that seek to improve agricultural productivity without compromising natural resources. A comprehensive approach that combines financing, technology, and agricultural education is key to confronting food security challenges. Some of the programs

promoted by Development Banking in the region to serve sustainable agribusiness are:

CONCLUSIONS

Food security and sustainable agriculture are essential for the economic and social development of LAC, especially in a context of population growth, climate change, and volatility of agricultural markets. LAC faces major challenges, such as extreme weather events, soil

degradation, and financing difficulties for small producers. However, its productive potential and various sustainable initiatives represent opportunities for strengthening the resilience of the sector.

In this scenario, Development Banking plays a key role by offering financing, technical assistance and incentives for the adoption of sustainable technologies, as well as green credit programs, agricultural insurance and the strengthening of inclusive value chains to improve productivity without compromising natural resources. In order to ensure food security in the region, cooperation between governments, financial institutions and actors in the agricultural sector is fundamental, promoting investments in infrastructure, technological innovation and education, that balance productivity and sustainability for the benefit of future generations.

1. C World Food Summit of 1996.
2. Policy Brief: Food Security, Food and Agriculture Organization of the United Nations. FAO (2006).
3. The State of Food Security and Nutrition in the World. FAO (2024).
4. The global mean surface temperature exceeded by 1.55°C the mean for the period 1850-1900, according to the WMO consolidated analysis of the six datasets.
5. Coping with the Challenges of Abiotic Stress in Plants: New Dimensions in the Field Application of Nanoparticles. Rajput, V. D., Minkina, T., Kumari, A., Harish, Singh, V. K., Verma, K. K., Mandzhieva, S., Sushkova, S., Srivastava, S., and Keswani, C. (2021).
6. Regional Overview of Food Security and Nutrition 2024. UN (2025).