



Food and Agriculture
Organization of the
United Nations



Financing for food security and nutrition in Latin America and the Caribbean

Required citation:

FAO, ECLAC, IICA and WFP. 2024. *Financing for food security and nutrition in Latin America and the Caribbean*. Santiago, FAO. <https://doi.org/10.4060/cd0527en>

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

© FAO, 2024



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode>).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original [Language] edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization <http://www.wipo.int/amc/en/mediation/rules> and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org. Requests for commercial use should be submitted via: www.fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

Copyright © United Nations, 2024
ECLAC symbol: LC/TS.2024/44
<http://www.cepal.org/publications>

Cover photo: 1. © FOTO4440/Depositphotos, 2. © kyrien/Depositphotos y 3. © ipopba/Depositphotos

Back cover photo: © Gajus-Images/Depositphotos

Index

1. Introduction	1	4.3 International development flows to agriculture	19
2. Costs to eradicate hunger and all forms of malnutrition	3	4.4 Financing from the banking system and capital markets	24
3. Financing of agricultural and food policies related to food security and nutrition	8	5. Conclusions and recommendations	28
4. Types of financing	11	References	32
4.1 Flows related to food consumption and production	11		
4.2 Government expenditure	12		

Tables

TABLE 1. Estimates of the main types of financing	v	TABLE 4. Annual cost of closing the income gap for access to healthy diets (percentage of gross domestic product)	5
TABLE 2. Cost estimates to eradicate hunger from the world	4	TABLE 5. Summary of estimates of the main types of financing	29
TABLE 3. Incremental cost estimates to solve the problem of hunger and poverty in Latin America and the Caribbean	5		

Figures

FIGURE 1. Financing for agrifood systems	9	FIGURE 8. Evolution of development flows to agriculture in Latin America and the Caribbean, by purpose	21
FIGURE 2. Evolution of government expenditure in agriculture, forestry and fishing; environmental protection; and research and development in world regions, as percentage of gross domestic product	13	FIGURE 9. Evolution of international agricultural development flows, by subregion in Latin America and the Caribbean	21
FIGURE 3. Evolution of the Agricultural Orientation Index	14	FIGURE 10. Evolution of international development flows to agriculture in Latin America and the Caribbean, by type of donor, in millions of constant USD and as a percentage of the total	22
FIGURE 4. Evolution of government expenditure in agriculture, forestry and fishing; environmental protection; and research and development, by subregion in Latin America and the Caribbean	15	FIGURE 11. Main donors in development flows to agriculture for food security and nutrition in Latin America and the Caribbean - 5-year average between 2017 and 2021	23
FIGURE 5. Evolution of government expenditure in agriculture, forestry and fisheries; environmental protection; and research and development, in USD (adjusted to 2015) and as a proportion of the total	16	FIGURE 12. Evolution of agricultural loans in regions of the world	25
FIGURE 6. Social protection expenditure by subregion as a percentage of gross domestic product	18	FIGURE 13. Agricultural orientation index for credit	25
FIGURE 7. Evolution of international development flows to agriculture in the regions of the world	20	FIGURE 14. Evolution of agricultural credits	26

Summary

Hunger and malnutrition persist as global challenges, also affecting Latin America and the Caribbean (LAC). There are different proposals about policies and interventions to address these problems jointly as a region and for each country, but they are generally not accompanied by proposals on how to finance the actions necessary to eliminate hunger and combat malnutrition.

This document presents a first approach to the issue of the financing required to eradicate hunger, food insecurity and malnutrition in all its forms in LAC.

To analyze financing, first it is necessary to know the costs. Therefore, this document presents a brief summary of the discussion on the methodologies used to estimate the costs of ending hunger and other forms of malnutrition, and summarizes some existing estimates for the region. Relatively few detailed analyses have been conducted for LAC, and even fewer for individual countries. The lack of specific cost information presents a challenge when considering effective financing strategies.

In addition to reviewing estimates of the costs to resolve the problems mentioned, a reference is also made to the possible costs of not doing so, that is, the costs of not achieving the targets of the Sustainable Development Goals (in particular, SDG 2) and of other international agreements on hunger and malnutrition.

This document presents a conceptual framework for the analysis of possible financial flows and their relationship with agrifood systems and, in particular, for the elimination of hunger and malnutrition. This conceptual framework adopts a broad notion of

financing, covering six main types of fund flows in agrifood systems: a) two internal flows within agrifood systems (the first flow being consumers' spending on food and related products; and the second flow being the income of all economic actors in those systems used to finance production and related activities), and b) four flows external to agrifood systems (international development financing, public budgets, banking operations and capital market financing).

Understanding these flows within the framework of agrifood systems is of utmost importance, covering the production, distribution, marketing, and consumption of food. The agrifood systems approach focuses on understanding the connection between agricultural and food policies, costs of hunger and malnutrition, and financial flows.

This conceptual framework is then used to analyze the level and composition of the different types of existing financing, based on the available data sources from the Food and Agriculture Organization (FAO), the Economic Commission for Latin America and the Caribbean (ECLAC), the World Bank and others. It is worth noting that these are aggregate sources that do not provide a clear allocation to actions directly related to hunger and malnutrition, and that there may be different opinions about such allocation. A detailed analysis by country would be needed to better estimate these financial flows. With these clarifications, this document presents a preliminary estimate of the magnitude of the different flows of funds that are considered related to food security and nutrition, as can be seen in the following table.

TABLE 1. Estimates of the main types of financing

	ESTIMATE	NOTES
Value of food consumption representing the income of producers and operators in value chains	22% of Gross domestic product (GDP)	Approximate average between 2015 and 2021
Government expenditure	<ul style="list-style-type: none"> • Agricultural expenses: 0.67% of GDP • Non-contributory social protection expenses: 0.57% of GDP 	<p>This amount also includes public spending financed with international development flows to agriculture, and therefore both flows partially overlap</p> <p>Average between 2001 and 2021</p>
International development flows to agriculture	0.07% of the GDP	Average between 2001 and 2021
Financing from the banking sector and capital markets	<p>Banking system: 1.53% of GDP</p> <p>Capital market: no data available</p>	<p>Value of stocks, not flows</p> <p>Average between 2002 and 2021</p> <p>Only includes the banking sector</p>

Source: Prepared by author based on data from the text.

Using this information, and considering cost estimates, the document offers preliminary recommendations to close funding gaps.

In this sense, the document highlights the following aspects:

First, to analyze the financing of food security and nutrition, it is necessary to estimate the costs associated with the implementation of policies, programs and interventions related to these objectives. Currently, there is a lack of estimates at the country level.

Second, it is also important to improve the collection of information on different types of financial flows both for the region and for individual countries. Analysis of available data reveals significant gaps in information related to financing to improve food security and nutrition in LAC. In particular, detailed information is needed on the efficiency, effectiveness, and inclusiveness of financing to promote food security and nutrition. This will allow Member States to assess their actual capacities to finance initiatives to reduce hunger and malnutrition and identify gaps and opportunities to address them.

Third, it is necessary to have macroeconomic and trade policies, as well as regulatory frameworks that promote food security and nutrition.

As the table shows, the main financial flows in agrifood systems are obviously food purchases made by consumers. Food spending by consumers, both at home and outside the home, represents approximately 22 percent of regional gross domestic product (GDP). These expenses are estimated at just under USD 1,2 trillion annually and are the counterpart to the income of all actors in the food chains that use them to finance their production activities.

Therefore, macroeconomic, trade and regulatory policies that generate growth and employment and that provide adequate incentives for the types of expenditures generated by food consumers are key to redirecting food demand and supply towards more sustainable agrifood systems and healthier diets.

Fourth, it is necessary to optimize the public budget (expenditures and income) for food security and nutrition. This includes increasing and making better use of agricultural expenditures, focusing them on public goods such as agricultural research and development (R&D), extension services and technologies for family farming, productive infrastructure and measures for food marketing and protection of biodiversity, among other aspects. It is also important to review and improve social spending, avoiding the

fragmentation of assistance programs, creating, for example, a single national registry of beneficiaries, implementing digital mechanisms for payment and monitoring of complementary services, and integrating programs to avoid duplication or gaps in coverage.

Optimizing agricultural and social protection expenditures should be part of a comprehensive review of the public budget (expenditures and income) to eliminate hunger and all forms of malnutrition. This would include, for example, reconsidering subsidies to ensure that they do not create distortions and evaluating the impact of other fiscal policies, such as taxes and tax exemptions. International collaboration also constitutes an essential tool to avoid practices that erode the fiscal base of developing countries.

Fifth, many current discussions on financing focus on expanding international development flows (IDFs), even though they numerically represent the smallest component of all flows. IDFs need to be expanded and used in a more coordinated and strategic manner.

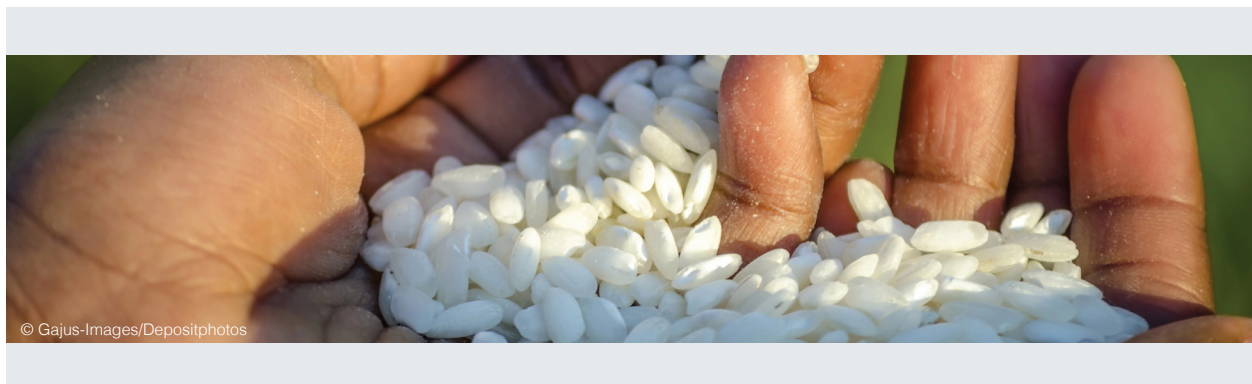
Likewise, more effective coordination between multilateral organizations, bilateral agencies, and philanthropic institutions in developing countries is

important to avoid fragmentation and competition. This requires strengthening internal coordination and implementation capacity within countries, which in turn also improves external coordination mechanisms.

Sixth, it would be important to know the barriers that limit the operations of banking systems and capital markets in support of the SDGs in general, and the elimination of hunger and malnutrition, in particular. It is essential to understand and eliminate systematic barriers that restrict access to financial sources and services, especially for agricultural producers, small and medium-sized agrifood businesses, and other actors (such as women, indigenous peoples, and youth).

Finally, the studies mentioned in the document estimate that hunger and malnutrition generate significant costs for both affected individuals as well as for society as a whole. Moreover, those costs seem higher than the costs to implement solutions to address and eradicate these problems.

This document is intended to serve as a first analysis of the financing necessary to eliminate hunger and malnutrition in Latin America and the Caribbean.





1. Introduction

The region of Latin America and the Caribbean (LAC), along with the rest of the world, has faced various crises in recent years, which have created significant challenges for food security and nutrition. The COVID-19 pandemic, the climate crisis and the war in Ukraine have caused significant disruptions to food supply chains. These challenges, added to the economic slowdown and food inflation, have contributed to the increase in the prevalence of hunger and food insecurity.

The *Regional Overview of Food Security and Nutrition in Latin America and the Caribbean 2023* presents updated data and trends with respect to the fulfillment of Sustainable Development Goals (SDGs) 2.1 and 2.2. Although the most recent estimates indicate that there have been no increases in the prevalence of hunger and moderate or severe food insecurity globally in 2022, these numbers still exceed pre-pandemic levels. In LAC, there was a reduction of 0,5 percentage points in the prevalence of hunger and 2,8 percentage points in the prevalence of moderate or severe food insecurity between 2021 and 2022, both of which are above global estimates and records prior to COVID-19.

Furthermore, it is important to highlight the fact that regional figures mask variations between the different subregions, with improvements observed in South America, stability in Mesoamerica¹ and a deterioration in the Caribbean (FAO, IFAD, PAHO, WFP and UNICEF, 2023a). In Mesoamerica, hunger affected 5.1 percent of the population (9.1 million people); in South America, 6.1 percent of the population (26.8 million); and in the Caribbean, 16,3 percent of the population (7.2 million). On the other hand, moderate or severe food insecurity reached 34.5 percent in Mesoamerica, 36.4 percent in South America and 60.6 percent in the Caribbean.

Regarding the cost and affordability of a healthy diet, Caribbean figures show a cost of 4.41 USD per day per person, followed by South America with 3.82 USD and Mesoamerica with 3.63 USD. As a result, 57 percent of the Caribbean population is not able to access a healthy diet due to its high cost; in Mesoamerica, this figure is 22.2 percent, and in South America, 20.6 percent. In the case of the last two subregions, this percentage is lower than the world average of 42.2 percent.

Recent studies offer guidelines for the formulation of public policies, both jointly and individually by the countries of the region, which will allow them to resume the path towards reduction of hunger and food insecurity in LAC observed until the mid-2010s. A study by the Economic Commission for Latin America and the Caribbean (ECLAC), FAO and the Inter-American Institute for Cooperation on Agriculture (IICA) (2023) considers **collective actions** by countries, emphasizing the importance of regional cooperation to promote sustainable agricultural production; social and economic inclusiveness and gender equality in the agricultural and rural sector; regional agrifood trade; the energy transition; digital technologies and nutrition-sensitive social protection. This work points to the need to estimate the costs associated with various public policy interventions, as well as to formulate evidence-based policies.

In turn, the report from FAO, the International Fund for Agricultural Development (IFAD), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP) and the Pan American Health Organization (PAHO) (2023b) presents national policy recommendations to increase the affordability of healthy diets, organized into three categories: (i) producer-oriented policies, to promote diversification of production towards nutritious foods; (ii) policies aimed at food trade

¹Mesoamerica includes Mexico and Central America.

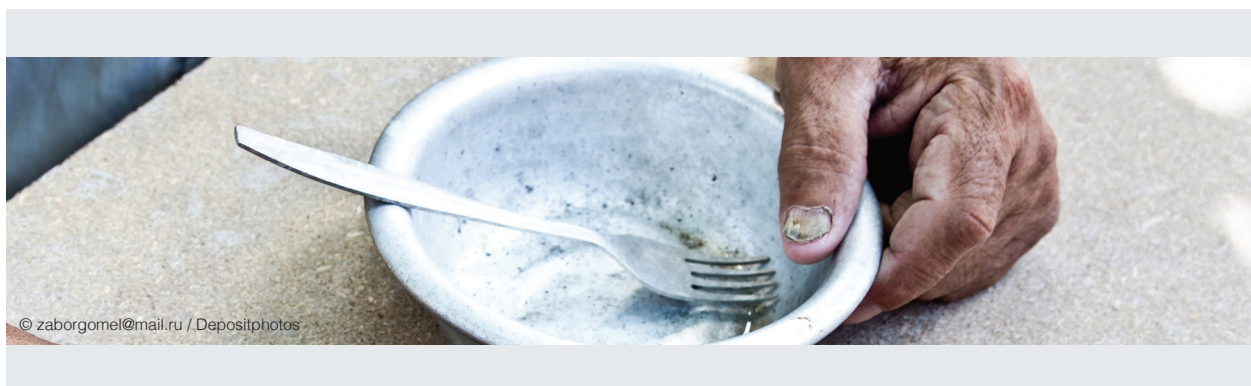
and markets, to ensure price transparency and efficiency in marketing; and (iii) consumer-oriented policies, to improve incomes and promote the consumption of healthy diets among the most vulnerable populations. This study argues that there is no single policy that can, by itself, provide a solution to these problems, and underscores the need for a multisectoral approach that allows agricultural and food policies to be evaluated and readjusted in an integrated manner.

Both studies suggest that in a context of public resource restrictions and limited international financing, it is necessary to analyze in detail what the costs and possible financing of interventions² are to transform agrifood systems and achieve better production, better nutrition, a better environment, and a better life.

Within this framework, this document presents a first approach to the issue of the financing necessary to eradicate hunger, and address food insecurity and malnutrition in the region.

Considering that to analyze financing it is necessary to know the costs first, the second section presents a summary of the discussion on the methodologies used to estimate the costs of ending hunger and other forms of malnutrition, including existing estimates for the region. An important factor to consider is the lack of comprehensive and updated studies in this regard, especially at the country level. While the above focuses on estimates of the costs of solving the problem, reference is also made to the estimated costs of not doing so: that is, the negative impact of not achieving the targets of the Sustainable Development Goals (in particular, SDG 2) and other international agreements on hunger and malnutrition.

Next, the third section presents the conceptual framework for the analysis of possible finance flows. The fourth section uses this conceptual framework to analyze the level and composition of the different types of financing, using the available information. Finally, the fifth section addresses potential financing gaps and offers recommendations for closing them, also considering the costs of not solving hunger and malnutrition problems.



² The notion of “interventions” is used in a general sense, as with all policies, programs, plans, investments, regulations, and other activities aimed at achieving the desired objectives.



2.

Costs to eradicate hunger and all forms of malnutrition

The analysis of available financing for plans, programs or other types of interventions requires the quantitative determination of the costs to solve the identified problem.³ This involves defining quantifiable objectives, deadlines for their achievement, the necessary actions, and the actors responsible for carrying them out. Below are the different studies that have addressed these estimates in the region, as well as the costs associated with failure to meet these objectives.

a) General cost estimates

Regarding the costs for the **transformation of agrifood systems**, which include eliminating hunger and different forms of malnutrition in the world, some studies suggest amounts ranging

between USD 300 and 360 billion additional per year until 2030 (FOLU, 2019). More recently, the Director-General of the Food and Agriculture Organization of the United Nations (FAO), Qu Dongyu, at the United Nations General Assembly in September 2023, mentioned that around USD 680 billion total annually would be required for this comprehensive transformation of agrifood systems (FAO, 2023a).⁴ However, there are no similar analyses specifically for LAC and even less so for individual countries in the region.

Other studies focus more directly on the costs of the interventions necessary to eliminate hunger. Table 2 shows the estimates from two studies (ZEP and FAO, 2020; Laborde, Parent and Smaller, 2020).

³ As mentioned, there is also the cost of not solving the indicated problem, that is, the economic value of the problem persisting. This notion of “cost” is discussed below.

⁴ Cost estimates differ for several reasons: 1) different definitions of the objectives and their quantification, and the time horizon for achieving them; 2) differences in the chosen public policy instruments, and whether costs include public funds only or whether costs for the private sector (broadly defined) are also estimated; 3) differences in approaches and methodologies for making estimates (from simple cost projections using unit values or elasticities, to complex global models); 4) if they are total costs or only incremental expenses above a future trajectory of the economy and society that is considered as a reference; and in the latter case, due to different assumptions about the evolution of that trajectory; 5) differences in the monetary unit used; and 6) differences in geographic coverage.

TABLE 2. Cost estimates to eradicate hunger from the world

ESTIMATE SOURCE	CUMULATIVE NUMBER OF PEOPLE WHO WOULD NO LONGER SUFFER HUNGER UP TO 2030 (MILLIONS)	ADDITIONAL COST PER YEAR (USD BILLION)
Laborde, Parent and Smaller (2020)	490 ^a	33
Laborde, Parent and Smaller (2020)	840 ^b	63
ZEF and FAO (2020)	876 ^c	51

Notes: ^a Defines the objective of reducing the prevalence of hunger (prevalence of undernourishment in FAO terminology) to 3 percent by 2030; ^b Defines the objective of reducing the prevalence of hunger to 0 percent by 2030 (see Figure 10 of Laborde, Parente and Smaller (2020)); ^c Allows several combinations of interventions with different levels of hunger reduction. This table includes only the first fifteen interventions in that study (see Figure 18 in ZEF and FAO (2020)).

Source: ZEF and FAO. 2020. Investment costs and policy action opportunities for reaching a world without hunger (SDG2). Rome and Bonn (Germany). <https://doi.org/10.4060/cb1497en>; Laborde, D., Parent, M., and Smaller, C. 2020. Ending Hunger, Increasing Incomes, and Protecting the Climate: What would it cost donors? Ceres2030. IISD and IFPRI. <https://ceres2030.iisd.org/wp-content/uploads/2021/03/ceres2030-en-what-would-it-cost.pdf>

Both studies consider reductions in the number of people suffering from hunger by 2030 within a range of between 840 and 876 million (equivalent to an effective prevalence of hunger of 0 percent, without considering the occurrence of other shocks leading up to that year). This would require an additional annual cost of between USD 51 and 63 billion (an average per person of between USD 58 and 75 per year). The additional cost for the first 490 million people would be 33 billion.⁵

These estimates include interventions related to both production and marketing as well as consumption. The former interventions generate jobs and income, as well as reduce the price of food; the latter support consumption in sectors in situations of poverty and vulnerability, which, even with improvements in supply, would not be able to access healthy diets. It should be noted that these estimates are aggregated at the global level, or for developing countries, without specific details for LAC.

b) Cost estimates for Latin America and the Caribbean

In the region, there are studies that have estimated the costs associated with the eradication of poverty and hunger, aligned with SDG 1 (No Poverty) and SDG 2 (Zero Hunger). An analysis by ECLAC (2023a) considers poverty gaps (extreme and total), and the amount of monetary transfers necessary for their eradication in 14 countries.⁶ The extreme poverty indicator can be considered as an approximation for the prevalence of hunger, while total poverty can be used as an approximation to calculate the cost of improving the affordability of healthy diets using monetary transfers exclusively (Díaz-Bonilla, 2023a).

On the other hand, the report by FAO, the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP) (2015) calculates: i) the cost of an investment program in the production and marketing sectors

⁵ Note that the cost per person is not linear, but rather increases with the number of people rescued from hunger. For example, in the case of the CERES 2030 initiative, going from 490 million to 840 million people not suffering from hunger (350 million more) requires increasing expenses from USD 33 billion to USD 63 billion of additional cost (USD 30 billion USD). This implies an additional cost per person of almost USD 86 against just over USD 67 on average for the first 490 million people. The same could be shown with data from study by the Center for Development Studies (ZEF) of the University of Bonn and the FAO, using Figure 18 in that document.

⁶ The study includes 14 countries in the region: Argentina, Brazil, the Plurinational State of Bolivia, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Panama, Paraguay, Peru, the Dominican Republic, and Uruguay. The inclusion of other countries with the highest poverty rates in the region (such as Haiti) would surely increase the estimated cost.

to generate employment and income, and to lower the cost of food by increasing its affordability and ii) monetary transfers aimed at people living in poverty. However, this report does not provide estimates on other aspects of food security and nutrition beyond the scope of hunger.

Table 3 presents both studies with estimated costs. In the case of ECLAC (2023a), the range of costs to resolve poverty (extreme and total) in each of the 14 countries and the average for the group is shown. Data from FAO, IFAD, and WFP (2015) reflect the average related to the elimination of hunger for LAC as a whole.

TABLE 3. Incremental cost estimates to solve the problem of hunger and poverty in Latin America and the Caribbean

SOURCE	PERCENTAGE OF GROSS DOMESTIC PRODUCT (GDP)	COMMENTS
ECLAC (2023a)	0.1-0.5 (0.24% average)	Extreme poverty; transfers to cover the poverty gap
ECLAC (2023a)	0.5-2.8 (1.53% average)	Total poverty; transfers to cover the poverty gap
FAO, IFAD and WFP (2015)	0.14%	Combination of interventions to increase food production and transfers to poor sectors to eliminate hunger

Source: ECLAC, 2023a. Institutional Frameworks for Social Policy in Latin America and the Caribbean: a Central Element in Advancing towards Inclusive Social Development. (LC/CDS.5/3). Santiago. and FAO, FIDA & WFP. 2015. Achieving Zero Hunger: the Critical Role of Investments in Social Protection and Agriculture. Rome, FAO.

Following a methodology similar to the one used by ECLAC (2023a), but excluding administrative expenses and assuming perfect targeting,⁷ it is possible to estimate the cost of covering the

income gap necessary to access a healthy diet in LAC.⁸ Table 4 presents the results for the entire region and for the countries that have data in the three subregions.⁹

TABLE 4. Annual cost of closing the income gap for access to healthy diets (percentage of gross domestic product)

REGION OR SUBREGION	COST IN PERCENTAGE OF GDP
Central America and Mexico	0.73 %
South America	0.51 %
Caribbean	4.45 %
Latin America and Caribbean	0.52 %

Source: Prepared by author with world development indicators from the World Bank.

⁷ That is, there is no error either in the selection of beneficiaries nor in the determination of the transfer amounts for each of them.

⁸ Díaz-Bonilla (2023a) shows that the World Bank's USD 6,85 PPP/day/person poverty line serves as an approximation (upper limit) of the income needed to access a healthy diet (see also FAO (2023b) for other uses of World Bank poverty lines).

⁹ The countries with individual data are Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama (Mexico and Central America); Argentina, the Plurinational State of Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, and Uruguay (South America); and Haiti, the Dominican Republic and Saint Lucia (the Caribbean). The calculation for Latin America and the Caribbean is based on the entire region as estimated by the World Bank.

Closing the gap for the entire region would require approximately 0.52 percent of the region's gross domestic product (GDP) in 2021, with significant variations between subregions and countries. Extreme cases are observed, ranging from a little over 31 percent of GDP in Haiti (which significantly influences the high cost for the Caribbean) and 5.3 percent in Honduras, to less than 0.1 percent in Costa Rica, Panama, Argentina, Chile and Uruguay.

These estimates offer an approximation of the costs required by countries to increase access to and consumption of healthy diets, thus reducing malnutrition in all its forms, including hunger. However, it should be noted that these estimates do not consider government expenditure on sanitation and access to drinking water, crucial elements to reduce the prevalence of stunting. Also excluded are the costs of medical visits or immunizations that are essential to combat certain forms of malnutrition. Nor do they refer to the costs of creating food environments that facilitate patterns for the consumption of healthy diets.

Additionally, the estimates analyzed in Table 3 do not cover all the targets of SDG 2 and the World Health Assembly. The SDG 2 targets that are not considered are those related to stunting and wasting in children under 5 years of age, as well as the nutritional needs of adolescent girls, pregnant and lactating women, and older persons (SDG 2.2.2). Targets agreed upon by the World Health Assembly, such as reducing the number of stunted children under 5 years of age by 40 percent and reducing child wasting to less than 5 percent,¹⁰ are not reflected in these estimates either.

Finally, SDG 2 (Zero Hunger) encompasses other goals, such as doubling the productivity and income of small producers, making agriculture and food production sustainable, and maintaining genetic diversity, which are not considered in the estimates in Table 3. The costs in Table 2 include production and climate change aspects, but are not disaggregated for LAC.¹¹

In summary, more detailed calculations of the costs of food security and nutrition plans and programs for the region are necessary, especially, at the country level. These cost estimates would enable a more accurate and effective analysis of the financing requirements.

c) Costs of inaction in the face of hunger and malnutrition

As previously mentioned, it is also necessary to consider the costs faced by the economy and society if hunger and malnutrition are not reduced.

ECLAC and WFP carried out studies in several LAC countries¹² between 2014 and 2019. These studies estimated that the average costs of malnutrition problems, which include undernutrition, overweight and obesity,¹³ represent on average 6.4 percent of the GDP of these countries. The range varies from 0.2 percent to 16.3 percent, demonstrating the magnitude of the economic and social consequences of not solving these problems (see data and methodology in Fernández et al. (2017)).

Another recent study by FAO (2023b) estimated the costs of obesity and other problems related to malnutrition in more than 150 countries, including

¹⁰ The nutritional goals to be achieved by 2025 and which were approved by members of the World Health Organization in 2012 also include: achieving a 50 percent reduction in anemia in women of reproductive age; achieving a 30 percent reduction in low birth weight; avoiding increases in overweight in children; and increasing the percentage of exclusive breastfeeding in the first 6 months to at least 50 percent.

¹¹ Other studies have estimates for specific SDG 2 topics. For example, SDG 2.4 includes "implementing resilient agricultural practices that increase productivity and production... and that progressively improve land and soil quality". Nkonya, Mirzabaev and von Braun (2016) have estimated that in LAC, USD 125 billion would be needed annually over a period of 6 years to rehabilitate soils.

¹² Chile, Ecuador and Mexico (Fernández et al. 2017); El Salvador (Prost, M. y Martínez R. 2019a), Guatemala (Prost, M. y Martínez R. 2020a), Honduras (Prost, M. y Martínez R. 2020b); Peru (Mejía, C. y Martínez, R. 2022) and the Dominican Republic (Prost, M. y Martínez R. 2019b).

¹³ Malnutrition in these studies includes the indicators of low birth weight, underweight, failure to thrive, low weight/height ratio and micronutrient deficiency (iron, zinc, vitamin A or others).



23 LAC countries.¹⁴ On average, these costs represent almost 9 percent of the GDP of these territories. Broken down by region, the average cost for Caribbean countries is 13.3 percent of GDP, 6.9 percent in Mexico and Central America, and 8.8 percent in South America.¹⁵

The approaches and methodologies of both studies are different and, therefore, the cost estimates also differ. However, even so, the estimated cost of not addressing the problems of hunger and malnutrition is significant (as a percentage of GDP), and even appears to be higher than the cost of solving them.

¹⁴ Argentina, the Plurinational State of Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Haiti, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, the Dominican Republic, Uruguay and the Bolivarian Republic of Venezuela.

¹⁵ These are averages for individual countries and are not weighted based on the size of each economy, to have an aggregate per subregion.



Financing of agricultural and food policies related to food security and nutrition

Financing food security and nutrition is a complex process, as there are different approaches and conceptual frameworks for its analysis. Two key methodological aspects to consider are understanding what constitutes “financing” and identifying financing activities directly linked to food security and nutrition.¹⁶

Regarding the first aspect, a broad notion of financing is adopted in this document, covering six main types of finance flows (Díaz-Bonilla, Swinnen and Vos, 2021):¹⁷ a) two internal flows within agrifood systems (with the first flow being consumers’ spending on food and related products; and the second flow being the income of all economic actors in those systems used to finance production and related activities) and b) four flows external to agrifood systems (international development financing, public budgets, banking operations and capital market financing).¹⁸

Regarding the second methodological aspect (which of these six flows specifically address food

security and nutrition issues) the response must be addressed within the framework of agrifood systems, encompassing all stakeholders and their interrelated activities. These activities include food production; supply chains; storage, distribution, packaging, and processing; wholesale and retail marketing and international trade; and food loss and waste management. Food environments and consumer behavior, that is, the decision about what foods to purchase, prepare, cook, store, and eat, and where, must also be considered. Additionally, the importance of information and awareness regarding nutrition and health must be taken into account, as well as the impact on individual eating patterns.

Investment in agriculture alone does not guarantee the reduction of food insecurity or malnutrition. In LAC, the main causes of hunger and food insecurity do not derive from food shortages, but from the lack of physical and economic access to them, especially in rural areas with high levels of poverty. The rural poverty rate in the region is 41 percent,

¹⁶ See, for example, the classification of expenses in the Global Nutrition Report (2022), in the nutrition-specific and nutrition-sensitive categories.

¹⁷ This approach is an application of the system of national accounts of social accounting matrices (Pyatt and Round, 1985). It is also aligned with the financial analysis of actions necessary to combat climate change, based on Article No. 2. Paragraph 1 (c) of the Paris Agreement, which reads “Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” (see UNFCCC, United Nations Framework Convention on Climate Change).

¹⁸ The flows are “internal” with respect to agrifood systems but can include national and international components (that is, some would be “external” with respect to the country). And “external” flows to agrifood systems, such as a bank loan to food producers, may depend for their repayment on internal financial flows of agrifood systems, and may also be national or international. Therefore, the idea of “internal” or “external” should be understood as a simplification to organize information on flows with a focus on agrifood systems. In this report, these two words will be used between quotation marks to reflect these considerations (Díaz-Bonilla, Swinnen and Vos, 2021).

approximately 15 percentage points higher than urban poverty (ECLAC, 2024). Therefore, it is imperative to promote inclusive public policies that directly impact the most vulnerable populations, such as women, Indigenous Peoples and Afro-descendants, among others. In addition, it is essential to consider other support systems for food production, such as those linked to the environment, social protection, health systems, and transportation and energy systems (FAO, IFAD, PAHO, WFP and UNICEF, 2023b). The agrifood systems approach is essential for understanding the connection between food and agricultural policies, the costs and affordability of healthy diets, and finance flows.

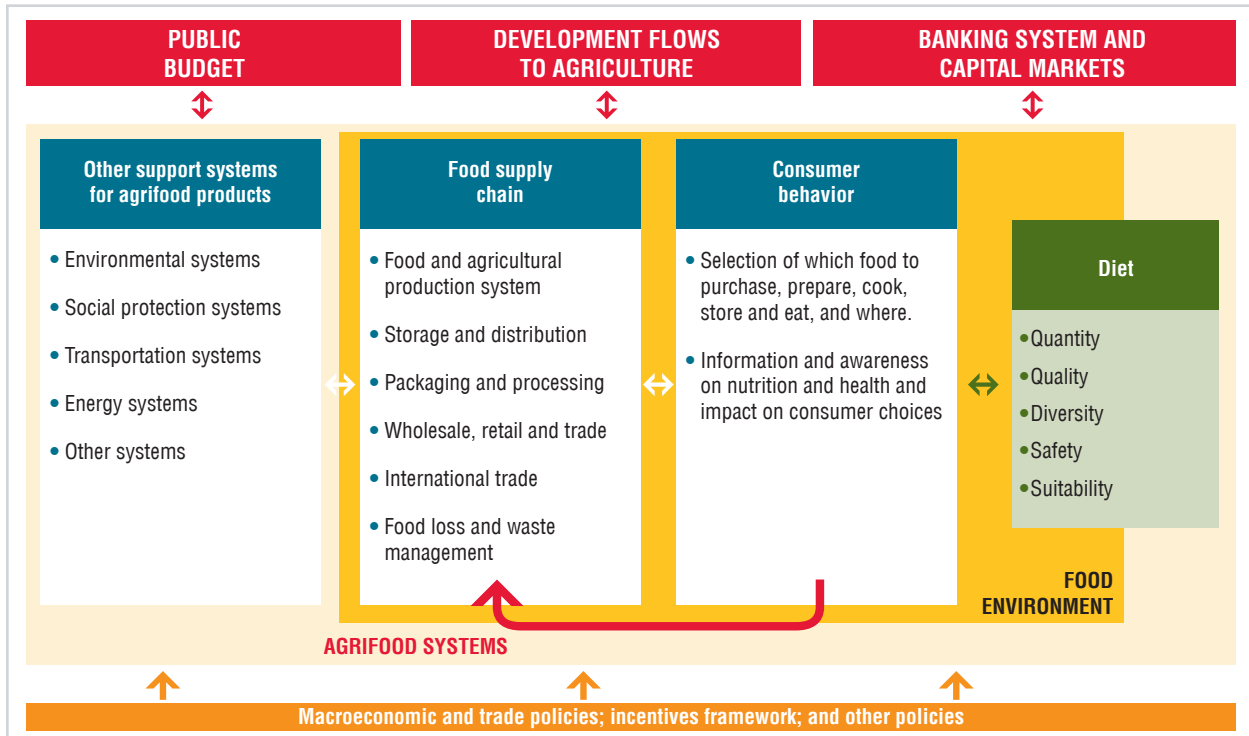
flows between the participants of agrifood systems are, in many cases, complemented by the “external” flows mentioned and that appear in the upper part of Figure 1.

Each of these flows is operated by different actors, both public and private, at the national and international level. Furthermore, all these flows are influenced by macroeconomic policies (fiscal, monetary, financial and exchange rate), commercial and regulatory policies (on prices, minimum wages, food safety, labeling, among others), which define the incentives framework for the actors that operate within agrifood systems.

The financial analysis presented in this document is aimed at various areas, including food production through agriculture, forestry, and fishing; processing and distribution, considering agroindustry and rural development; and social protection.

Figure 1 presents in a simplified way the combination of both methodological aspects. The lower red arrow represents food purchases made by consumers, which in turn finance the operations of the various actors in food chains. These “internal”

FIGURE 1. Financing for agrifood systems



Source: Prepared by the author, with information adapted from FAO, IFAD, PAHO, WFP & UNICEF. 2023b. Regional Overview of Food Security and Nutrition – Latin America and the Caribbean 2022: Towards improving affordability of healthy diets. Santiago de Chile. <https://www.fao.org/documents/card/en?details=CC3859EN> and Díaz-Bonilla, E., Swinnen, J., and Vos R. 2021. Financing the Transformation to Healthy, Sustainable, and Equitable Food Systems. Beyond the Pandemic: Transforming Food Systems after COVID-19. IFPRI.

Regarding the direction of these flows towards activities directly linked to food security and nutrition, this document uses aggregate data available mainly in the Corporate Database for Substantive Statistical Data (FAOSTAT) and other international organizations. It should be noted that a more detailed assessment of the direct relationship between these flows and food security and nutrition would require a country-level analysis that is beyond the scope of this document.

Below, the data relating to different finance flows in LAC, considered in this document as associated with food security and nutrition, is detailed at the aggregate level of the information available. A more detailed analysis at the country level will

determine the specific direction of these flows in relation to food security and nutrition, as well as their positive, negative, or neutral impact with respect to the objectives wanted. Subsequently, it would be necessary to calculate the financing gap, comparing current resources with the costs of the actions necessary to achieve the planned objectives. With this information, it can be defined how to (re)orient or increase existing fund flows to close these gaps, also considering the possible general or systemic effects that this redirecting and expansion of funds could have. Although, as noted above, this assessment must be performed with country-specific data and is not within the scope of this report. The final section provides some considerations to guide such an analysis.





© LENblR / Depositphotos

4.

Types of financing

In a context of successive crises and limited resources, investment in agrifood systems has become vitally important. The aim is to make these more efficient, inclusive, resilient, and sustainable, which implies allocating resources towards certain subsectors, without generating distortions in market prices and without harming the environment.

Following the conceptual framework presented in the previous section, this section presents the available data on the different finance flows, at the available aggregation level, and which are considered to be related to food security.

This first effort to estimate the resources currently available in LAC is expected to lay the foundation for a next step, which would be the evaluation of the resources available at the country level, to then focus or reorient them in an efficient and equitable manner. The objective is to generate positive effects both in the productive sphere, by making it more sustainable, and in the area related to food security and nutrition, by making healthy diets more affordable for all people (FAO, IFAD, WHO, WFP and UNICEF, 2022).

4.1 Flows related to food consumption and production

As noted above, expenditures on food by consumers, whether at the national or international level (exports), represent the counterpart of the

income of all actors in agrifood systems, both local and external (the latter via the payment for imports).¹⁹

Estimates of consumer spending come mainly from private sources such as Euromonitor International. Using this data, the Economic Research Service (ERS) of the United States Department of Agriculture (USDA) has calculated the value of household food consumption for several countries in the period 2018-2022 (United States Department of Agriculture, n/a).²⁰ According to this data, average food consumption is approximately a quarter of the value of total consumption in LAC countries for which data is available.²¹

If these percentages are extrapolated using national accounts information on total household consumption, they account for around USD 900 billion annually (average of the period 2015-2021, with values adjusted to 2015), or around 17 percent of regional GDP in that period. However, these values do not include food expenses outside the home. Euromonitor International estimates for this type of consumption in LAC during 2015-2017, an average of about USD 250 billion per year (adjusted to 2015). Therefore, the average annual value of total food consumed inside and outside the household in the region would be just under USD 1.2 trillion (adjusted to 2015) in that period, representing around 22 percent of regional GDP during that period.

¹⁹ From the perspective of families, remittances are part of the total internal income of the family group, which finance different types of consumption, including food. In that sense, they are no different from other income earned by these families from the use of their productive resources. There are also no studies that determine that remittances have a special use for food consumption. However, it can be argued that at the country level (no longer at the family level), they serve as external financing for a series of imports, including food. However, there is no data to suggest that they are especially used for food imports. Thus, based on these considerations, this document does not treat remittances separately, as they would be included in the consumption expenses of families discussed in the main text.

²⁰ This estimate does not include food and alcoholic beverages consumed outside the home.

²¹ In the case of LAC, these countries are Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, the Plurinational State of Bolivia, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, the Bolivarian Republic of Venezuela and Uruguay.

4.2 Government expenditure

Public sector activities play a crucial role in food security and nutrition, impacting them in various ways. This section analyzes public spending for the agricultural sector and social protection, addressing areas that may impact food security and nutrition, using aggregated information from FAOSTAT for the agriculture sector and from ECLAC for social protection. Different areas are explored which, through efficient, effective, and inclusive public spending, can positively influence food security and nutrition. First, it addresses agricultural production and, secondly, social spending aimed at supporting consumers in situations of poverty and vulnerability. Also included is a brief reference to nutrition expenditures using partial estimates.

Unfortunately, there is no consolidated data on the different components of value chains and agrifood systems beyond the agriculture sector. For this reason, other sectoral expenses relevant to food security and nutrition, such as spending on health or infrastructure, among others, have not been considered in this section. The difficulty lies in determining how much of these expenses are

directly related to food security and nutrition, which requires a detailed analysis of each country's budget. The absence of detailed data in this initial analysis at an aggregate level limits the accuracy of the estimated public spending on food security and nutrition.

a) Production-related agricultural expenditure

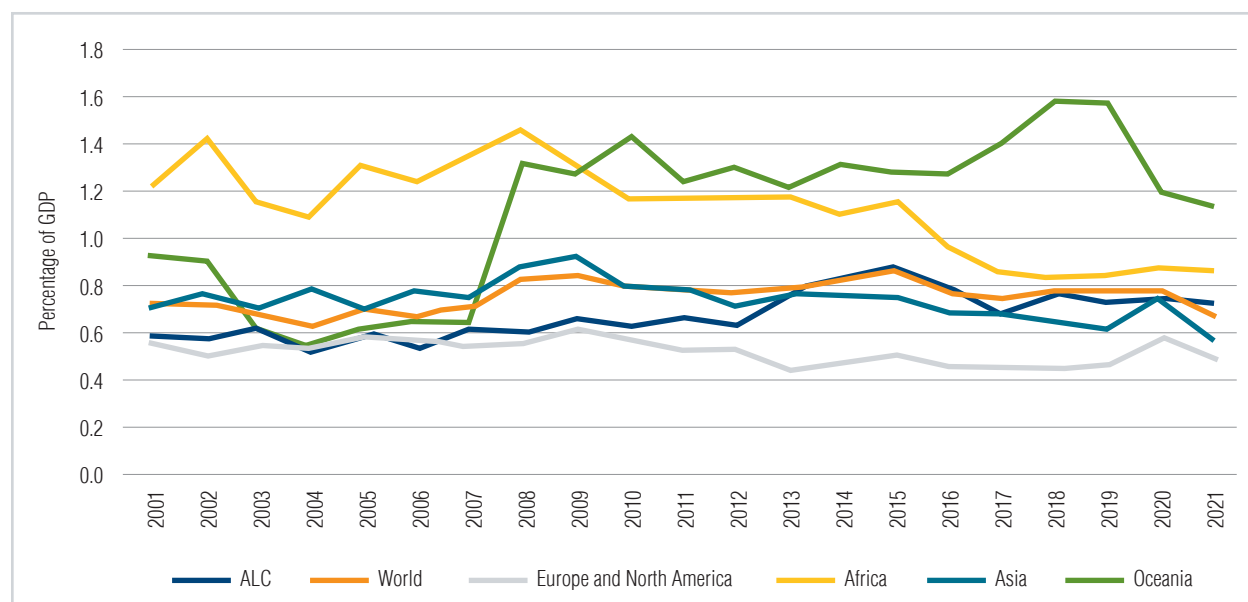
According to the FAOSTAT²² database, this group comprises three public expenditure lines: i) agriculture, forestry and fishing; ii) environmental protection (including waste management, wastewater management, pollution reduction, biodiversity and landscape protection, and R&D in environmental protection); and iii) resources allocated to agricultural, forestry and fishing R&D.²³

Government expenditure on these items averaged USD 23.4 billion annually during the period between 2001 and 2021 (constant dollars of 2015), representing approximately 0.67 percent of LAC's total GDP, below the world average (0.75 percent) (Figure 2).

²² The data presented on public expenditure refers to the core areas of government functions relevant to the agriculture, fisheries and forestry sectors, according to the classification of functions of government (COFOG), as described in the Public Finance Statistics Manual of the International Monetary Fund, 2001 (FAOSTAT) https://fenixservices.fao.org/faostat/static/documents/IG/IG_e.pdf.

²³ FAOSTAT aggregate data on agriculture, forestry and fishing is used (which for simplicity is called "agricultural" in the text), which includes a good part of the production activities related to food security and nutrition, but also others that go beyond the scope of this document (for example, expenditures on non-food agricultural production and forestry expenditures). In order to differentiate which expenses correspond to food security and nutrition and which do not, more granular information would be needed that is not available for this analysis.

FIGURE 2. Evolution of government expenditure in agriculture, forestry and fishing; environmental protection; and research and development in world regions, as percentage of gross domestic product



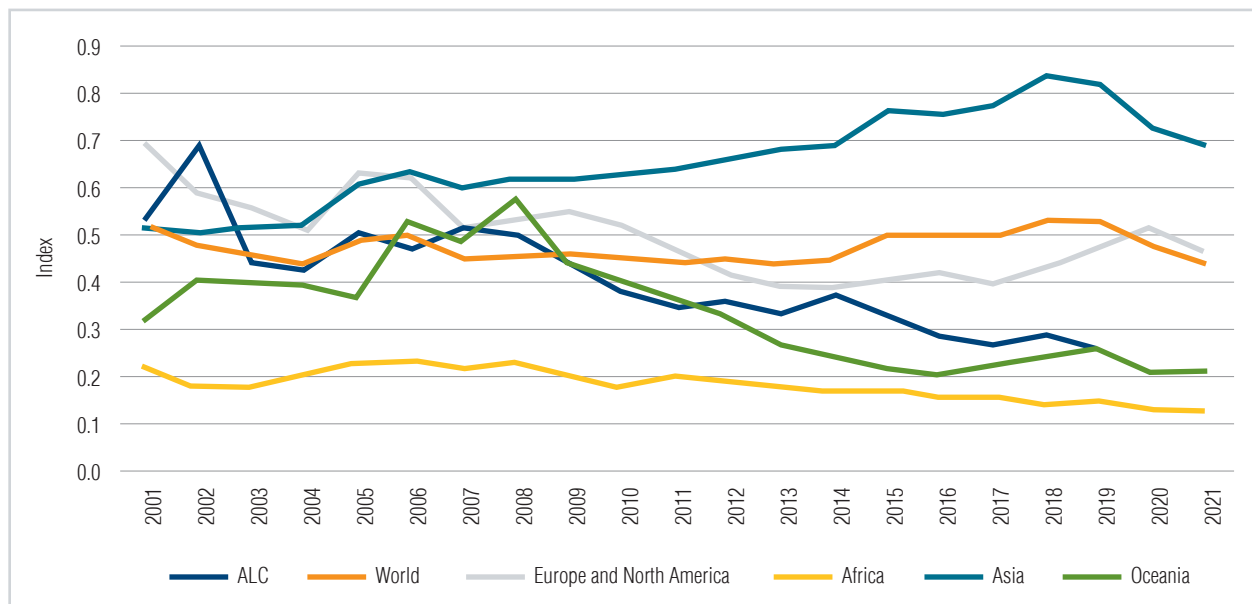
Source: Own elaboration based on FAO. 2023d. FAOSTAT: Government Expenditure. In: *FAO*. Rome. [Consulted on 11/23/2023]. www.fao.org/faostat/es/#data/IG, y FAO. 2023e. FAOSTAT. Macro Indicators. In: *FAO*. Rome. [Consulted on 11/23/2023]. <https://www.fao.org/faostat/es/#data/MK>. Countries included vary annually based on available data.

Currently, public agricultural spending in LAC is below the world average and below all the regions included in Figure 2, except for Europe and North America (which include most of the developed countries). These comparisons are influenced not only by the sums spent but also by the different size of each region's GDP.

Another analysis considers the Agricultural Orientation Index (AOI) for government expenditure.²⁴ The AOI compares the proportion

of government expenditure for the sector in relation to total public spending and divides it by the contribution of agriculture to the GDP. This index offers a more precise picture of the relative importance that countries assign to financing for the agriculture sector. An AOI that is less than 1 indicates that this sector receives a proportion of public spending lower than its share in the economy, while an AOI greater than 1 indicates a proportion of public spending for the sector greater than this share (FAO, 2023c) (Figure 3).

²⁴ The AOI corresponds to indicator 2.a.1 measuring progress in target 2.a of the SDGs, which proposes to “increase investment... in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries”.

FIGURE 3. Evolution of the Agricultural Orientation Index

Note: For a complete list of the countries included by region for each year, see the FAOSTAT link.

Source: Own elaboration based on FAO. 2023d. FAOSTAT. Government Expenditure. In: FAO. Rome. [Consulted on 11/23/2023]. www.fao.org/faostat/en/#data/IG.

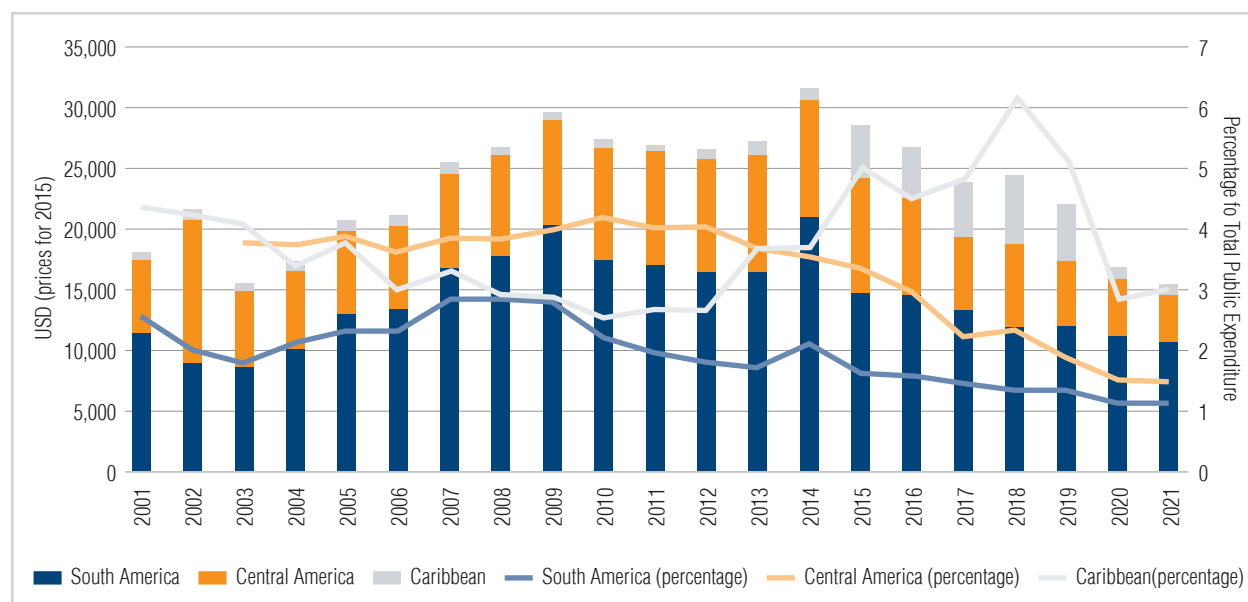
As can be observed, the proportion of government expenditure for the agriculture sector is lower than its share in the economy and, in addition, shows a downward trend. The AOI in LAC has decreased from approximately 0,5 in 2007 to 0,2 in 2021, well below the world average which is between 0,4 and 0,5 in recent years. In comparison, Africa and Oceania show a high percentage of agricultural government expenditure with respect to GDP, but when compared to the contribution of agriculture to the GDP, it can be observed that their AOI is very low, 0,13 and 0,22, respectively, also below the world average. In contrast, Europe and North America show low agricultural government

expenditure relative to GDP, but their AOI (and Asia's²⁵) indicates that they allocate significant public funds to the agriculture sector in relation to its share of the economy.

When analyzing by subregions of LAC, the Caribbean shows an AOI higher than the world average, around 0,77 between 2015 and 2021, with several countries with values higher than 1, such as Barbados, Saint Lucia, The Bahamas and Trinidad and Tobago. On the other hand, South America and Central America (and Mexico) have an average AOI of 0,2 and 0,4 respectively.

²⁵ In Asia, the agricultural government expenditure of China is particularly significant, but the expenditure in Japan, the Republic of Korea and India is also important.

FIGURE 4. Evolution of government expenditure in agriculture, forestry and fishing; environmental protection; and research and development, by subregion in Latin America and the Caribbean



Note: For a complete list of the countries included by region for each year, see the FAOSTAT link.

Source: Own elaboration based on FAO. 2023d. FAOSTAT. Government Expenditure. In: *FAO*. Rome. [Consulted on 11/23/2023]. www.fao.org/faostat/en/#data/IG

Despite a notable increase after the 2008 food price shock, when it rose to almost USD 30 billion (adjusted to 2015), government expenditure on agriculture, forestry and fisheries, environmental protection, and R&D has gradually declined to around USD 15 billion in 2021, despite the establishment of the 2030 Agenda for Sustainable Development in 2015 and the increase in the prevalence of hunger and food insecurity since 2014.²⁶

Analyzing the evolution by subregion and in proportion to total government expenditure for the agriculture sector, it is observed that, in South America, spending in the agricultural sector has represented between 1 and 2 percent of total government expenditure in the last decade, decreasing from around 3 percent in 2009. In Central America (and Mexico), agricultural spending remained at about 4 percent of total government expenditure between 2007 and 2021, decreasing to almost 1 percent of total government expenditure in 2021. In the Caribbean, the proportion has fluctuated, with values below 3 percent between 2008 and 2012, increasing to more

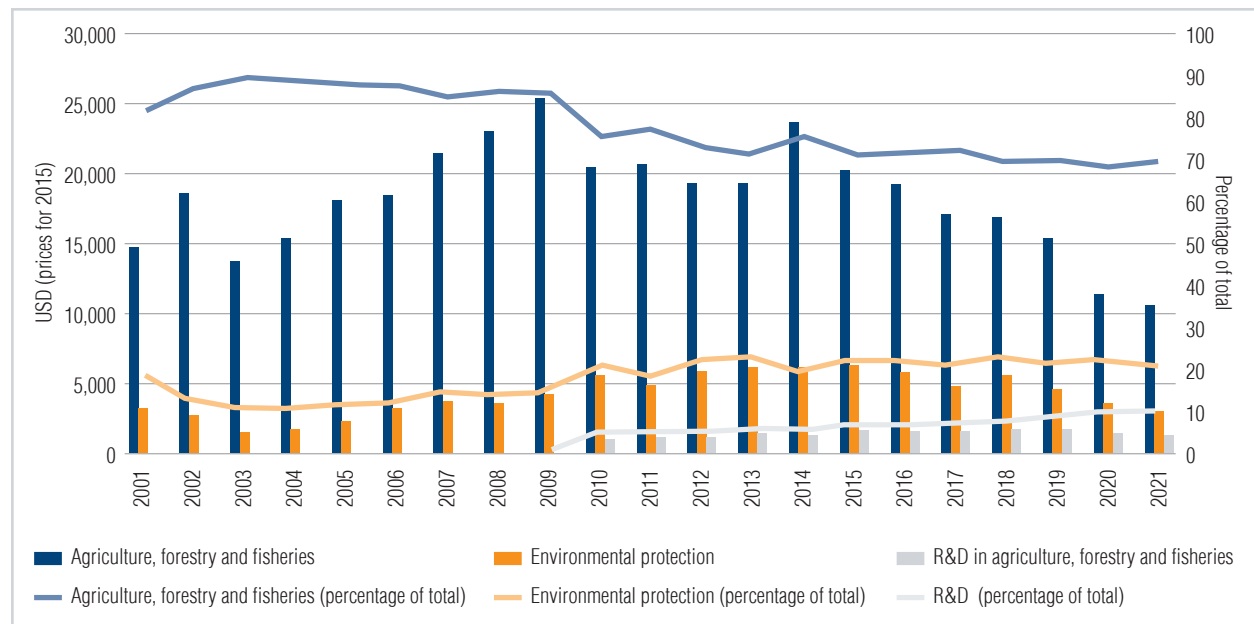
than 6 percent of total government expenditure in 2018 and decreasing again to around 3 percent in 2021 (Figure 4).

In absolute terms, Brazil is the country that has spent the most, with an annual average of more than USD 7 billion between 2017 and 2021, followed by Mexico, which spent around USD 4 billion on average in that period. Other noteworthy countries are those with relatively larger economies, such as Argentina, Chile, Colombia and Peru. When analyzing the proportion of government expenditure in the agricultural sector with respect to total spending, it is observed, as indicated by the AOI, that some smaller countries (in terms of area and population) top the list. Examples of this are Guyana (8.7 percent), Cuba (6.7 percent), Haiti (6.7 percent), Barbados (5 percent) and Saint Lucia (4.3 percent).

Figure 5 divides the total expenditure for the sector between the three areas mentioned above: agriculture, forestry and fishing; environmental protection; and R&D for the sector.

²⁶ However, part of this decline may be due to the fact that spending for small producers in Mexico has been reclassified, going from the agriculture sector to the social sector.

FIGURE 5. Evolution of government expenditure in agriculture, forestry and fisheries; environmental protection; and research and development, in USD (adjusted to 2015) and as a proportion of the total



Note: For a complete list of countries included by region for each year see the FAOSTAT link.

Source: Own elaboration based on FAO. 2023d. FAOSTAT. Government Expenditure. In: FAO. Rome. [Consulted on 11/23/2023]. www.fao.org/faostat/en/#data/IG.

Of the total USD 15 billion in 2021, approximately USD 10.5 billion went to agriculture, forestry, and fisheries; 3 billion was allocated to environmental protection, while 1.5 billion went to R&D in agriculture, forestry, and fisheries. The proportion represented by spending on agriculture, forestry, and fisheries has fallen from levels of 80 percent between 2001 and 2009 to 70 percent in 2021, while government expenditure on R&D has come to represent almost 10 percent of the total in 2021.

Allcott, Lederman, and López (2006) and Anríquez et al., (2016) for LAC, and other studies for different regions (Mogues et al., 2012), highlight the benefits of spending on public goods, including R&D or infrastructure, compared with the lower impact at the aggregate level of direct subsidies to producers, called “private goods”. Data from Agrimonitor, the Inter-American Development Bank’s database on support measures for the agricultural sector, suggests that spending on general services (considered “public goods”) would be slightly more than 50 percent of total expenses, while “private goods” would be somewhat below half (De Salvo, 2023). This indicates that there is room for redirecting government expenditure towards more

public goods, with positive impacts on production and employment in the sector.

Although an increase has been observed in funds allocated to R&D and environmental protection, there is concern because in many cases investment in R&D appears to be below the recommended minimum of 1 percent of the agricultural GDP (Nin-Pratt et al., 2023). A deeper analysis of the quality of public agricultural spending in general, and investment in R&D in particular, is necessary to determine its effective contribution to food security and nutrition objectives. Studies indicate the need to increase spending on public goods, which include not only R&D, but also extension services and technologies for family farming and smaller-scale producers, productive infrastructure and measures for marketing, water management, and regularization of land tenure.

FAO, IFAD, WHO, WFP and UNICEF (2022) have analyzed the impact on the affordability of healthy diets by “repurposing” support for agricultural production, considering the types of products that receive this support. It is argued that redirecting existing tax subsidies towards consumers, rather

than producers, can achieve better results in the affordability of healthy diets. This reorientation, at a global level, would lead to a reduction in greenhouse gas (GHG) emissions from the agriculture sector, but with negative effects on agricultural production and income, and even on the reduction of poverty for certain groups of countries. For Latin America and the Caribbean, it is estimated that, if tax subsidies were allocated to consumers, the effective cost for them of a healthy diet would fall by almost 3.1 percent by 2030 in terms of its value. Furthermore, agricultural production and income would increase, and poverty would decrease, although all this would lead to greater greenhouse gas (GHG) emissions (FAO, IFAD, WHO, WFP and UNICEF, 2022, Tables 12 and 13).

In summary, within the total existing expenditures for the agricultural sector, there is still room for optimization. However, increasing total spending so that the region is on par with other regions in relation to AOI values is also very necessary. The simulations mentioned in the document developed by FAO, IFAD, WHO, WFP and UNICEF (2022) also highlight the need to consider the interaction between the different indicators and those of food security and nutrition, since there may be synergies, but also trade-offs between them.

b) Social protection expenditure

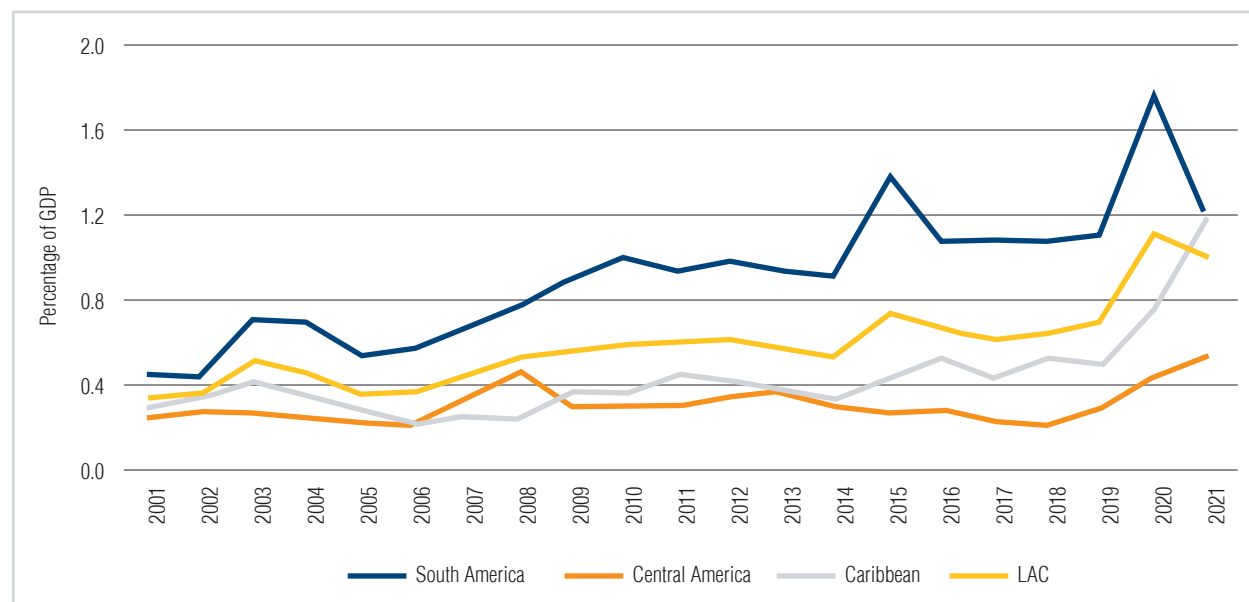
Social protection programs play a crucial role in expanding the food consumption capacity of people living in poverty or vulnerability.²⁷ Furthermore, by increasing domestic demand from those with lower incomes (for whom food represents a greater proportion of their budget), a virtuous circle could be generated that can sustain growth and employment at the national level. This section focuses on the analysis of spending on non-contributory social protection²⁸ in LAC, excluding contributory systems such as pensions and unemployment insurance that are usually related to formal jobs.²⁹

Until 2014, spending on non-contributory social protection in LAC remained around 0.5 percent of GDP. Between 2015 and 2019, this percentage increased, reaching an average of 0.7 percent of GDP. In 2020 and 2021, in response to the needs generated by the COVID-19 pandemic, it stood at 1.1 percent and 1.0 percent respectively (Figure 6). This increase was more pronounced in South America, reaching 1 percent of GDP already in 2009 and remaining steady with important peaks in 2015 and 2020. In the Caribbean, the average until 2014 was 0.33 percent of GDP, which then increased to 0.5 percent of GDP until 2019 and culminated at 0.7 percent and 1.2 percent of GDP in 2020 and 2021 respectively. In Central America (and Mexico), the average until 2019 was 0.3 percent of GDP without significant fluctuations, and only increased in 2020 and 2021 to 0.4 percent and 0.5 percent of GDP respectively.

²⁷ Social protection programs have contributed significantly to alleviating poverty; however, their effects on preventing and mitigating malnutrition in the region are mixed (see Nisbett, Nicholas, et al. (2023) and Olney, Deanna K., et al. (2021)).

²⁸ Non-contributory programs are financed with general revenues and not with direct contributions from the beneficiaries, while contributory programs have an important financing component that comes from the beneficiaries themselves.

²⁹ Obviously, there may be cases, which must be determined at the level of each country, that would require to also include contributory social protection systems in the analysis. In general, these expenses are high in LAC, which would significantly increase the spending attributed to food security and nutrition.

FIGURE 6. Social protection expenditure by subregion as a percentage of gross domestic product

Note: Central America includes Mexico. For a complete list of countries included by region for each year, see the FAOSTAT link.

Source: Own elaboration based on ECLAC. 2023b. Non-contributory social protection database in Latin America and the Caribbean. In: ECLAC. Santiago. [Consulted on 11/29/2023]. <https://dds.cepal.org/bpsnc/>.

The World Bank and Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE) database (World Bank, 2023) contains additional information based on household surveys. An important variable is the coverage of social assistance programs: the median for LAC of the countries included³⁰ in the database is 52 percent of the total population (versus a median of 37 percent in the entire database of developing countries), and 79 percent for the poorest 20 percent of the population (versus 59 percent for the median of the countries in that database). Household surveys also show that transfers are equivalent to 22 percent of income or consumption before the transfer (median for LAC countries), which is similar to the global median. The impact is a reduction in the number of people in poverty in LAC of almost 8 percentage points and almost 2 points of the Gini index (median for the countries mentioned). These results could be improved by expanding coverage and transfer levels, but this would imply higher total expenditure.

One way to reduce these additional costs is with better targeting of spending. Data from ECLAC (2023a) indicates that approximately 43.4 percent of total transfers in LAC (equivalent to almost 0.4 percent of GDP in the period considered) benefits households with per capita income below the poverty line, while 56.5 percent goes to households with incomes above said line. It is also essential to analyze other aspects, such as the inclusion of productive, nutritional, or educational components; the frequency and amount of these transfers; sustainability over time; the mechanisms for distributing funds and providing other services; the existence of unique lists of beneficiaries; the coordination of permanent emergency programs; and, in general, the budgetary and institutional mechanisms of its operation.

Social assistance programs must also incorporate components related to poverty, food production and consumption, environmental payments, and financial inclusion, as this combination has

³⁰ Argentina, Belize, the Plurinational State of Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and the Bolivarian Republic of Venezuela. The years covered vary by country and range between 2006 and 2021, and the average considers all annual observations for each country.

been shown to generate greater positive impacts (Gilligan et al., 2022).

Although increased national public spending is vital to finance food security and nutrition, its effectiveness is not automatically guaranteed. More exhaustive evaluations of the results of the actions carried out are necessary to adapt policies as needed and improve the quality and management of this expenditure.

c) Nutrition expenditures

There is no database for nutrition expenditures comparable to those analyzed above. There are estimates from the “Scaling-Up Nutrition Movement” (SUN Movement) for four LAC countries: Costa Rica, El Salvador, Guatemala, and Peru.³¹ The estimates distinguish “nutrition-specific investments” and “nutrition-sensitive investments”.³² The latter are usually included in the agricultural and social protection expenses discussed above. Nutrition-specific investments were estimated as follows (in current USD): Costa Rica, 109.3 million (2014-2015 average, 0.2 percent of GDP for that period); El Salvador, 3.8 million (2015, 0.02 percent of GDP); Guatemala, 194.8 million (2016-2018 period, 0.28 percent of GDP); and Peru, 307.7 million (2014, 0.15 percent of GDP).

At least in the four countries considered, and particularly in El Salvador, nutrition investments

appear below the levels of expenditures considered in the previous sections. A more detailed analysis of these expenses is needed, along with a classification that ensures that they are not counted in more than one category (as may happen in the case of “nutrition-sensitive investments”).³³

4.3 International development flows to agriculture

This section presents an estimate of the evolution of international development flows to agriculture (IDFs) in LAC, categorized by subregion, purpose, and type of entity. In this report, financing provided by cooperating countries, multilateral organizations and private philanthropic entities is considered under the title of IDFs in the FAOSTAT database, including the following categories: i) agriculture, forestry and fisheries; ii) agribusiness; iii) food security and food safety; iv) rural development; v) food and nutritional assistance; and vi) environmental protection.³⁴

It should be noted that the amounts of the IDFs and government expenditure (see the previous section) are not directly cumulative, since the latter may include funds from the former.³⁵ Likewise, it is observed that the IDFs are considerably lower than the public spending fund flows analyzed previously.

³¹ For more information see SUN's website: <https://scalingupnutrition.org/about/how-we-do-it/increasing-nutrition-financing/tracking-nutrition-investments>

³² Nutrition-specific interventions are those that directly improve nutritional status, such as the provision of supplements, while nutrition-sensitive interventions are those that do so indirectly, such as agricultural spending on fruits and vegetables or on social protection.

³³ The United Nations World Health Organization has an expenditure database category on “nutritional deficiencies”, with partial data for Guyana, Haiti, and Costa Rica (<https://apps.who.int/nha/database/ViewData/Indicators/en>), but these are small values.

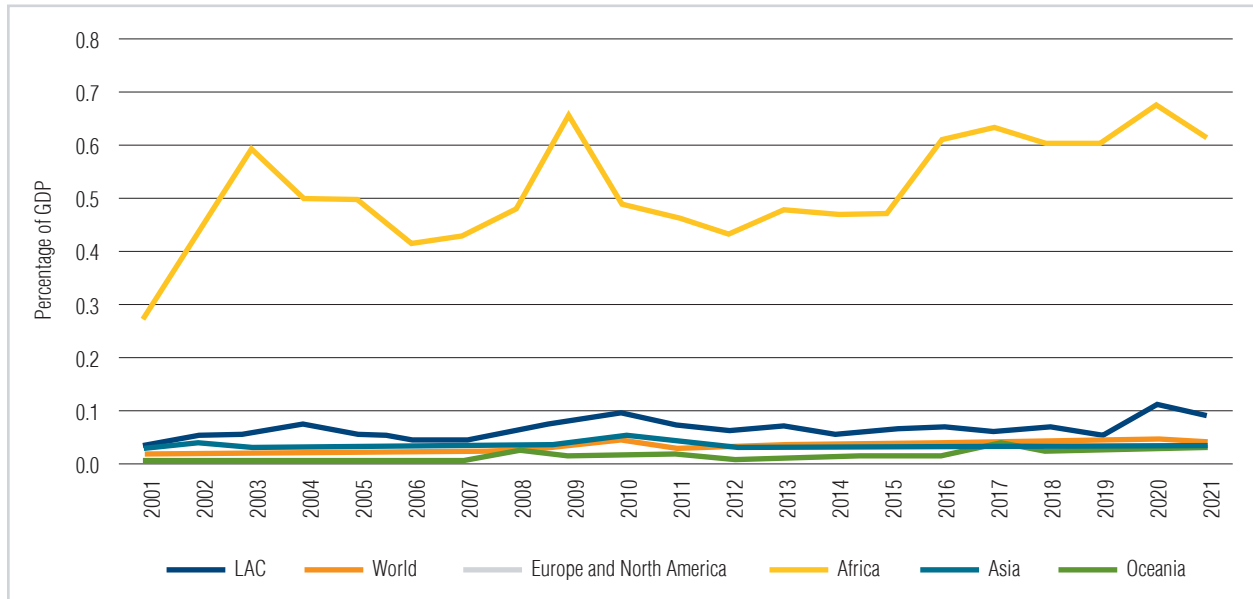
³⁴ There is debate over which categories of international development funds (which in the OECD nomenclature include Official Development Assistance and other flows as well) are considered part of what could be called “international cooperation for food security and nutrition”. FAOSTAT data are used here, including the environmental aspects that affect agricultural production, although these are identified separately in some of the figures. The report “The State of Food Security and Nutrition in the World 2024” is developing a definition of food security and nutrition and their financing that will also contain the codes to be included. For this publication, FAOSTAT data are being used consistently with other finance flows analyzed in this document.

³⁵ It should also be noted that international development funds can be provided to non-governmental entities, and not only to governments.

Figure 7 shows the amounts of development flows to agriculture disbursed³⁶ as the sum of the categories mentioned above. It is shown that after Africa, which received an average of 0.53 percent of its GDP in IDFs related to food security and

nutrition, LAC is the region that has received the most in relation to its GDP in the last two decades, with an average of 0.07 percent (ranging from 0.04 percent to almost 0.10 percent of GDP), above the world average of 0.04 percent of GDP.

FIGURE 7. Evolution of international development flows to agriculture in the regions of the world



Note: Disbursements. Includes flows from the following categories: Agriculture, forestry and fishing; other agricultural, forestry and fishing activities; agroindustry; food and nutritional assistance; food security and food safety; rural development, and environmental protection.

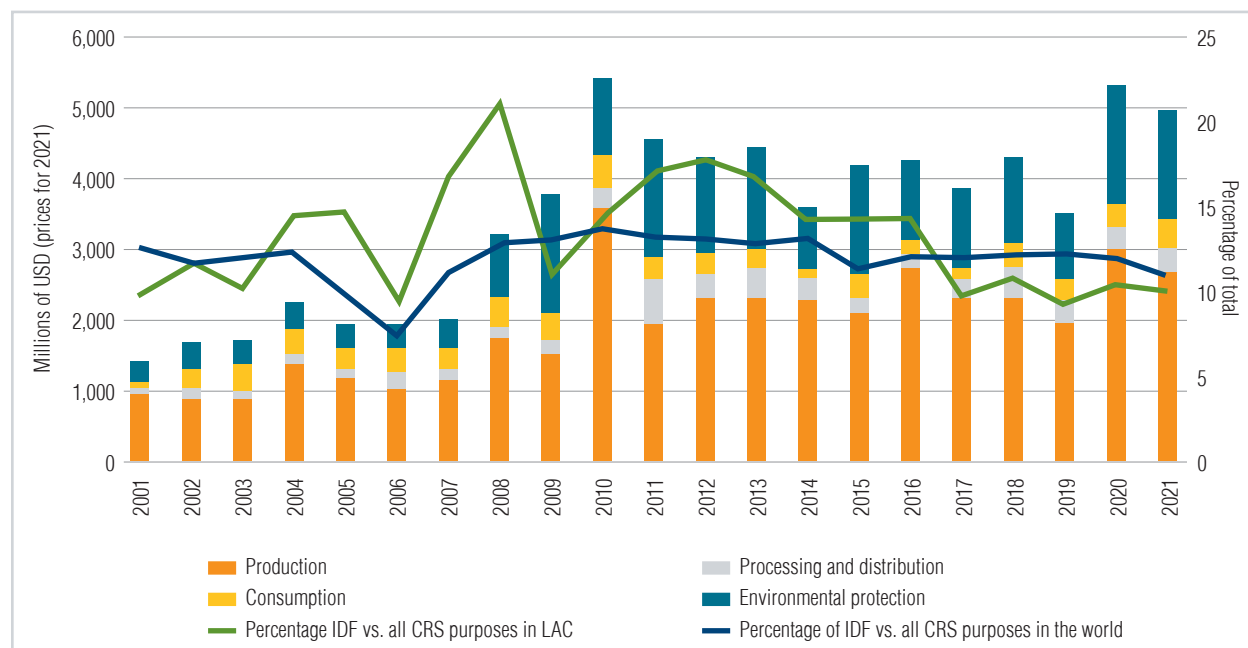
Source: Own elaboration based on FAO. 2023g. FAOSTAT. Development Flows to Agriculture. In: *FAO*. Rome. [Consulted on 11/23/2023] www.fao.org/faostat/en/#data/EA.

In absolute values (Figure 8), IDFs and other categories mentioned previously ranged between USD 3 billion and USD 5 billion annually in the last decade (adjusted to 2021 prices). During the period 2001-2007, the amounts remained below USD 2 billion, increasing significantly in 2008 and 2009 in response to the food price crisis. In 2010, they peaked, exceeding USD 5 billion and representing 0.09 percent of the region's GDP.

Between 2011 and 2019, the amounts decreased to around USD 4 billion and increased again in 2020 to address the COVID-19 crisis, also exceeding

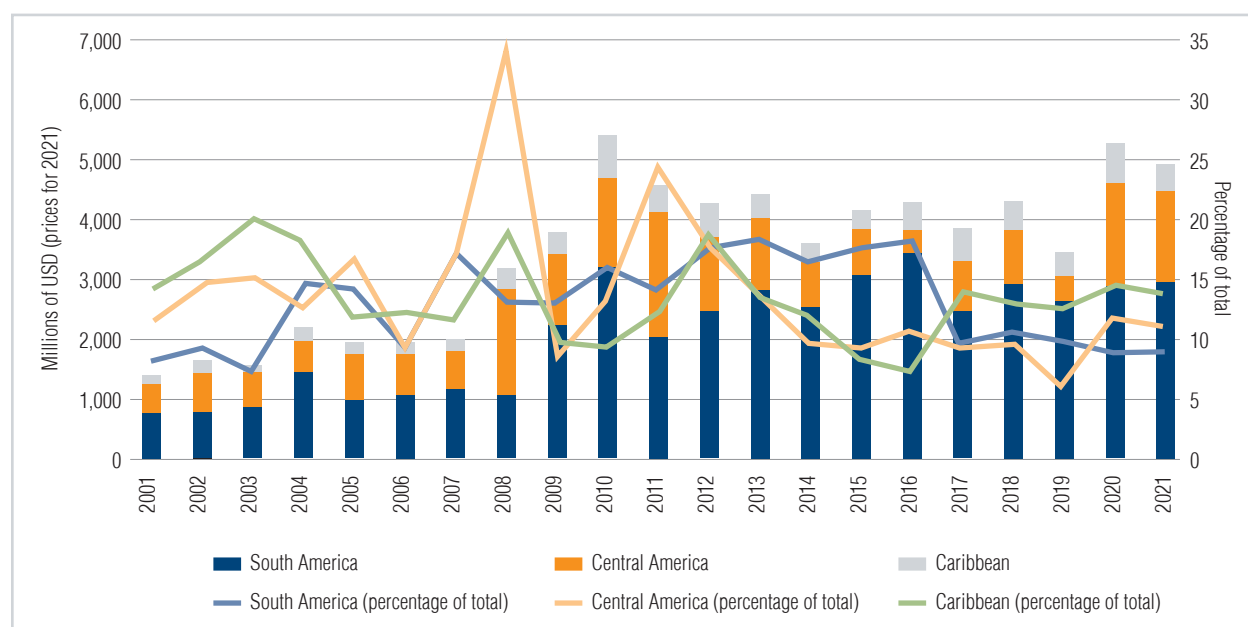
USD 5 billion. Figure 8 also shows that the percentage of the analyzed flows with respect to all international development flows for LAC ranged between 6 percent and 21 percent. In the 2017-2021 period, this percentage, in LAC, was around 7 percent, while, globally, agricultural activities and those mentioned received 10 percent of all international development flows. The proportion of monetary flows reached a peak in 2008, reflecting the prioritization of these activities during the commodity price crisis, with another rise during the price shock of 2011-2012.

³⁶ The information available in FAOSTAT also includes the amounts allocated (even if they have not been disbursed), but they are not considered in this analysis.

FIGURE 8. Evolution of development flows to agriculture in Latin America and the Caribbean, by purpose

Note: Production includes agriculture, forestry and fishing and other agricultural, forestry and fishing activities; processing and distribution includes agribusiness and rural development; consumption includes food and nutrition assistance and food security and food safety. The complete list of codes and purposes included in FAOSTAT can be found on the link.

Source: Own elaboration based on FAO. 2023g. FAOSTAT. Development Flows to Agriculture. In: *FAO*. Rome. [Consulted on 11/23/2023] <http://www.fao.org/faostat/en/>.

FIGURE 9. Evolution of international agricultural development flows, by subregion in Latin America and the Caribbean

Note: Disbursements. Includes flows from the following categories: agriculture, forestry and fishing; other agricultural, forestry and fishing activities; agroindustry; food and nutritional assistance; food security and food safety; rural development, and environmental protection. Central America includes Mexico in FAOSTAT classification.

Source: Own elaboration based on FAO. 2023g. FAOSTAT. Development Flows to Agriculture. In: *FAO*. Rome. [Consulted on 11/23/2023] www.fao.org/faostat/en/#data/EA.

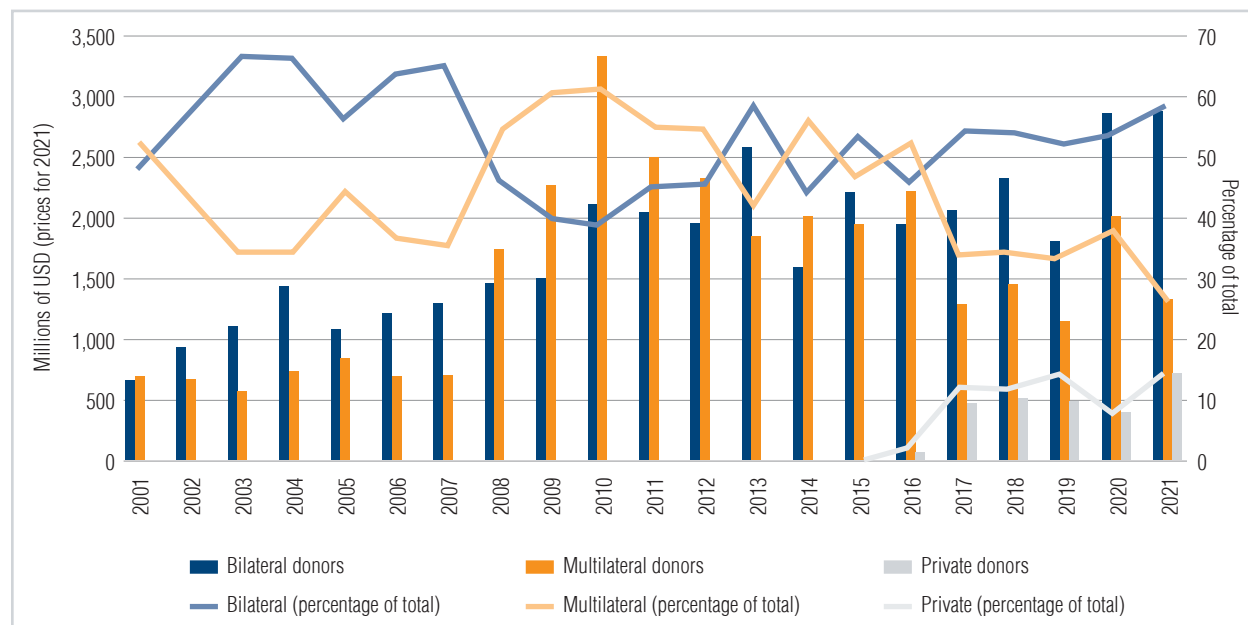
Figure 9 shows the percentage of agricultural flows over the total international flows for development in each LAC subregion. As of 2017, the average percentage in the Caribbean was 14 percent, in South America 10 percent, and in Central America (and Mexico) 9 percent.

International flows for agricultural development in FAOSTAT can be aggregated into four subgroups within agrifood systems: those destined mainly for agricultural production, forestry and fishing; those geared towards food processing and distribution (the agroindustry and rural development categories mentioned above); those oriented towards consumption (the categories of food and nutritional assistance and food safety); and finally, those intended for environmental protection (Figure 9). It can be seen that the funds are clearly directed towards agricultural production, which has received around 55 percent of all flows, leaving

less room for financing processing and distribution, food and nutritional assistance, or food safety. Flows for environmental protection have seen significant growth, representing around 23 percent in the decade 2001 to 2010 and increasing to 31 percent in the decade 2011 to 2021.

The evolution of flows by type of entity (Figure 10) shows that values at the regional level by bilateral agencies for the agriculture sector have surpassed those of multilateral organizations in the topics considered in this document, during 14 of the 21 years recorded in this figure.³⁷ Since 2017, the amounts reported by private philanthropy entities have been included, whose share has been increasing to represent 15 percent of the total in 2021, with slightly less than 60 percent of flows corresponding to bilateral agencies and less than 30 percent to multilateral organizations.

FIGURE 10. Evolution of international development flows to agriculture in Latin America and the Caribbean, by type of donor, in millions of constant USD and as a percentage of the total



Source: FAO. 2023g. FAOSTAT. Development Flows to Agriculture. In: *FAO*. Rome. [Consulted on 11/23/2023] www.fao.org/faostat/en/#data/EA

³⁷ At the aggregate level of all development financing, and not just the categories considered here, multilateral financing organizations show higher monetary values than bilateral agencies.

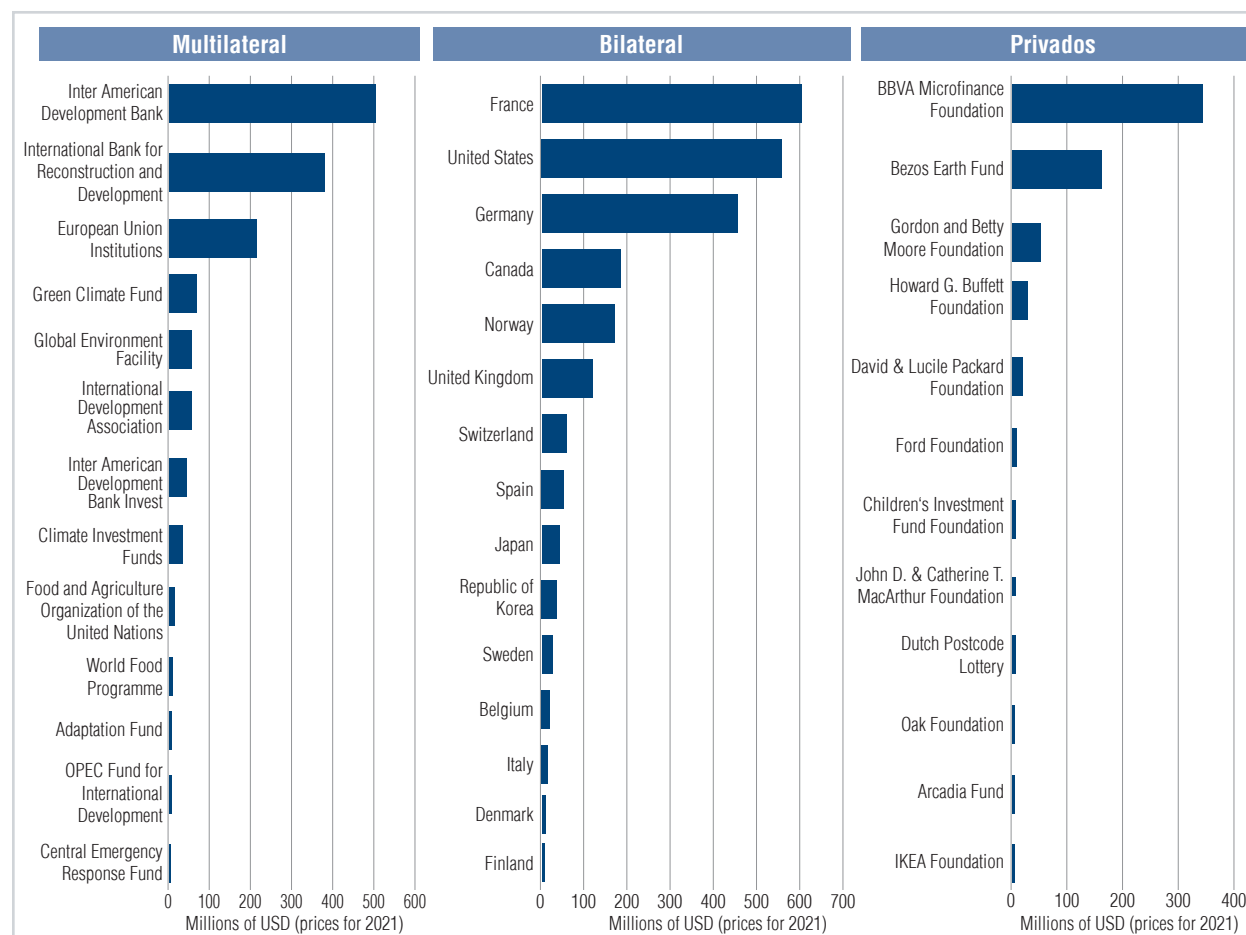
It is important to consider the differentiated nature of these type of financing. Bilateral and philanthropic flows tend to be non-refundable, while those from multilateral international financial organizations consist, for the most part, of credits that, with varying levels of concessionality, require subsequent repayment by the beneficiary countries.

The mechanisms and actors that influence financial allocation decisions are also different: bilateral agencies and philanthropic organizations make independent decisions on resource allocation, while multilateral international financial organizations do so through a programming dialogue with countries, subject to the approval of the boards of directors

composed of the governments of the Member States.

Figure 11 disaggregates the three groups of development flows by individual entities in Latin America and the Caribbean. The most important multilateral organizations are the Inter-American Development Bank, the International Bank for Reconstruction and Development, the institutions of the European Union, the Green Climate Fund and the International Development Association. The most important bilateral partners are France, the United States of America, Germany, Canada, and Norway. Relevant private partners include BBVA Microfinance Foundation, Bezos Earth Fund, Howard G. Buffett Foundation and Gordon and Betty Moore Foundation.

FIGURE 11. Main donors in development flows to agriculture for food security and nutrition in Latin America and the Caribbean - 5-year average between 2017 and 2021



Note: Data on the Bezos Earth Fund covers only the last years, since it was recently created.

Source: Own elaboration based on FAO. 2023g. FAOSTAT. Development Flows to Agriculture. In: FAO. Rome. [Consulted on 11/23/2023] www.fao.org/faostat/en/#data/EA. Disbursements.

4.4 Financing from the banking system and capital markets

a) Banking system

This section presents the sums granted in the form of loans by the banking sector to agricultural, forestry and fishing producers, to the population of rural areas, to agricultural cooperatives or to any business related to primary agriculture. There is no aggregate information available that allows the identification of financing for other components of agrifood systems, or for food consumption.³⁸

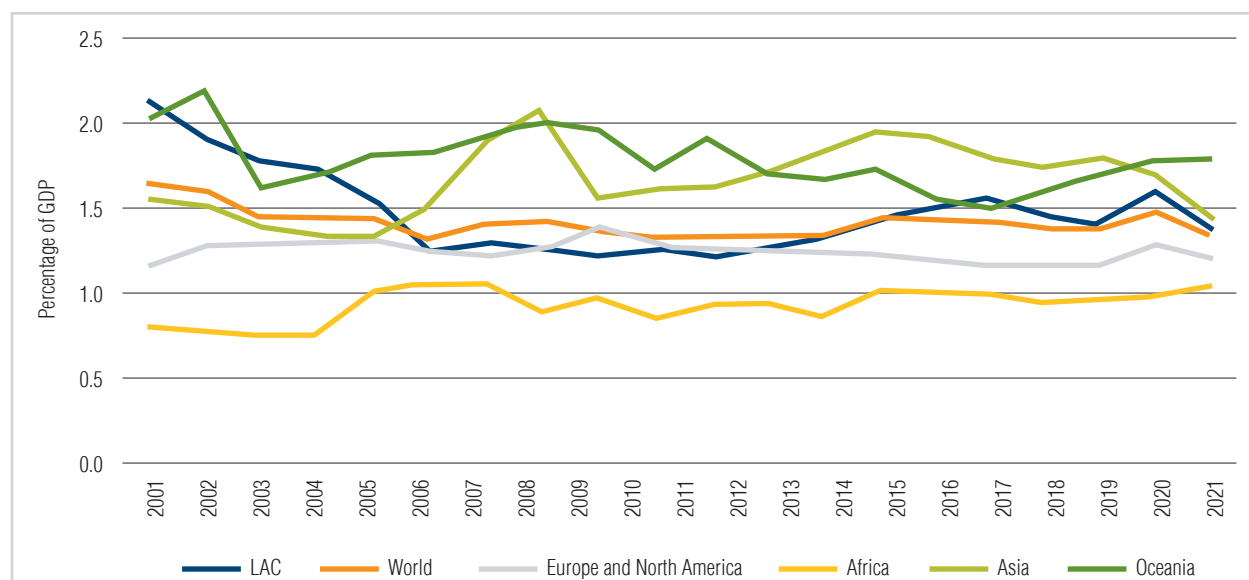
Unlike the previous sections, which referred to annual financial flows, the bank credit data is presented in stocks corresponding to the portfolio at the end of the year. Another point to note is that the banking system includes private and public banks, as well as cooperative and community banks, and microcredit entities, to the extent considered by the financial statistics of each country.

Farmers are the largest private investors in agricultural activities, surpassing all other investments combined, both public and private (government expenditure, IDFs, foreign direct

investment), in low- and middle-income countries (World Bank, 2018). Access to formal credit is crucial for producers to acquire essential inputs such as seeds, fertilizers, and production equipment. However, loans from informal sources, such as moneylenders, family or friends, can carry excessively high interest rates and unfavorable conditions, further highlighting the importance of formal credit for the agriculture sector. Furthermore, the period of time between the initial expenditure on an agricultural activity (including investments) and obtaining income through the sale of products can be significant; therefore, in the absence of savings, access to credit becomes essential (FAO, 2022).

At a global level, the stock of loans to the agricultural sector in the last two decades has represented an average of 1.44 percent of GDP (Figure 12). In LAC, these loans averaged 1.53 percent, ranging between 1.25 and 1.30 percent during the period 2008-2013, before increasing to 1.6 percent in 2020 and decreasing to 1.37 percent in 2021. Compared to other regions, in Oceania and Asia, loans to the sector remained above 1.5 percent of GDP, in Africa around 1 percent, and in Europe and North America around 1.24 percent.

³⁸ A few countries report microcredits as part of total bank financing. In those cases, a more granular analysis at the country level could determine that a part of this financing may be helping not only with production aspects but also with family consumption.

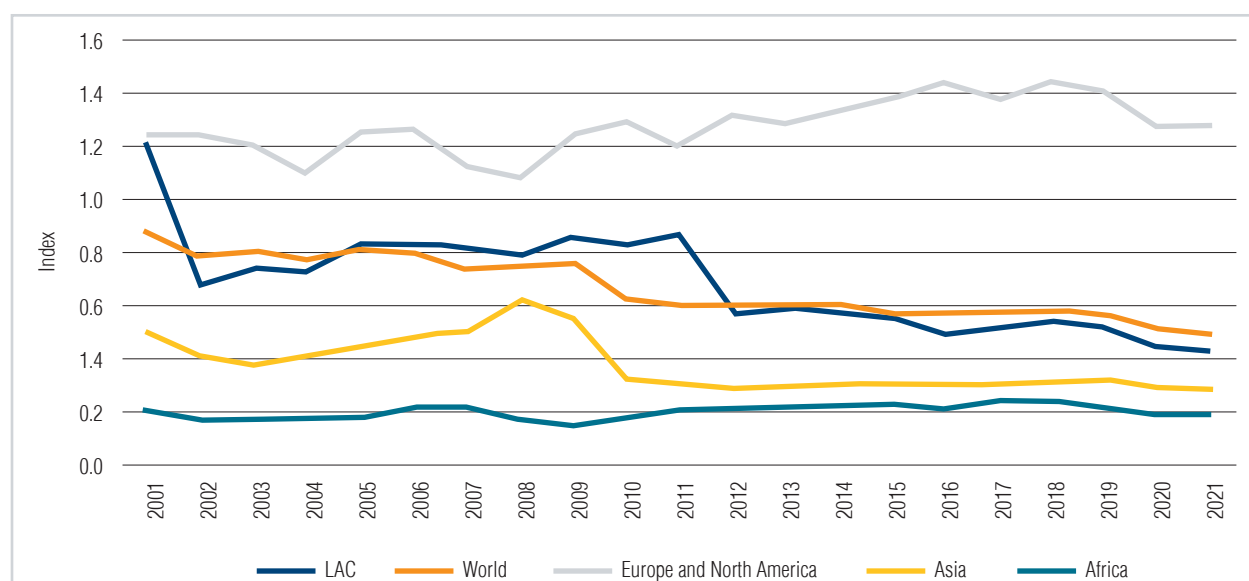
FIGURE 12. Evolution of agricultural loans in regions of the world

Nota: For a complete list of countries included by region for each year, see the data in the FAOSTAT link for Latin America and the Caribbean.

Source: Own elaboration based on FAO. 2023c. FAOSTAT. Credit to Agriculture. In: *FAO*. Rome. [Consulted on 12/13/2023]. www.fao.org/faostat/en/#data/IC and FAO. 2023e. FAOSTAT. Macro Indicators. In: *FAO*. Rome. [Consulted on 12/13/2023]. www.fao.org/faostat/en/#data/MK.

Figure 13 shows that the AOI for the portfolio of loans to the agriculture sector is notably higher than the AOI corresponding to government expenditure. Between 2012 and 2021, the AOI in LAC averaged 0.53, close to the world average (0.57). In comparison, Asia and Africa had lower AOIs (0.31 and 0.22 respectively), while Europe

and North America had an AOI of 1.36. This difference observed in high-income countries can be attributed to the prioritization of the agriculture sector in public policies, the relatively low contribution of said sector to the GDP, and the predominant presence of commercial producers.

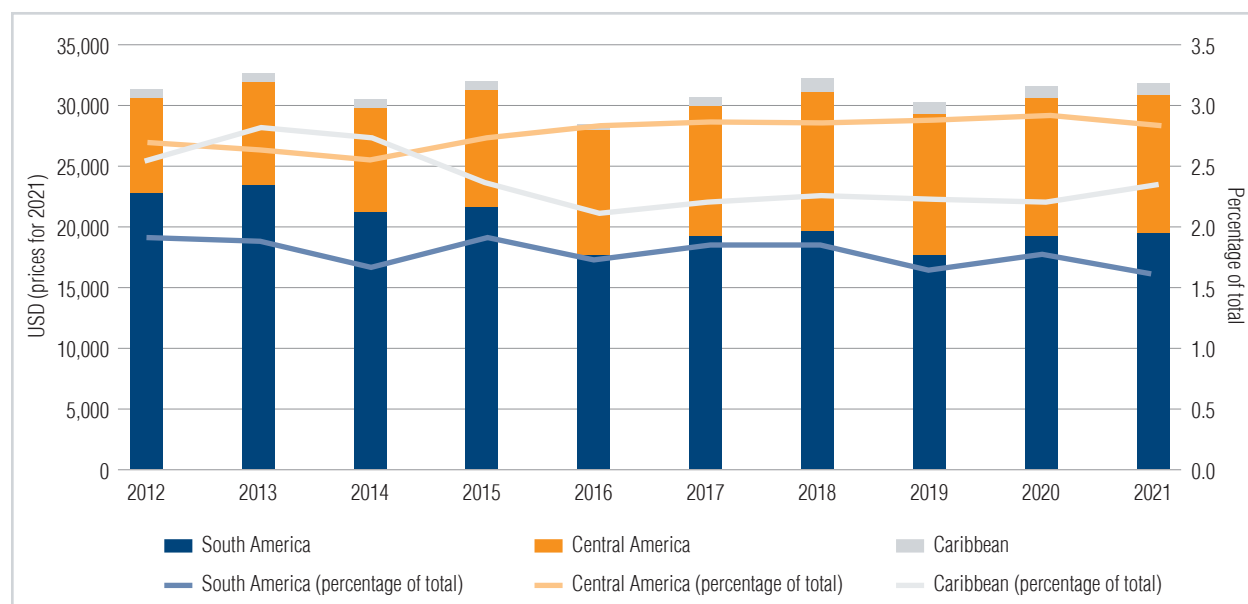
FIGURE 13. Agricultural orientation index for credit

Source: Own elaboration based on FAO. 2023c. FAOSTAT. Credit to Agriculture. In: *FAO*. Rome. [Consulted on 12/13/2023]. <http://www.fao.org/faostat/es/>.

In absolute terms, the bank loan portfolio to the agriculture sector (in the broad sense, which as stated, includes forestry and other activities) has remained around USD 30 billion between 2012 and 2021 (adjusted to 2015) (Figure 14). In South America, these loans represented more

than 2 percent of total credits to all sectors at the beginning of the series and have decreased to around 1.6 percent in 2021. In Central America (and Mexico) they represented approximately 2.8 percent, while in the Caribbean they were close to 2.5 percent of total loans in 2021.

FIGURE 14. Evolution of agricultural credits



Note: Central America includes Mexico

Source: Own elaboration based on FAO. 2023c. FAOSTAT. Credit to Agriculture. In: FAO. Rome. [Consulted on 12/13/2023]. www.fao.org/faostat/en/#data/IC

b) Capital markets

Capital markets have the potential to be an important source of funds for agrifood systems. They involve a variety of actors and instruments, from private investors with exclusive financial return objectives, to private investors with social, environmental and governance objectives. In addition, there are public or semi-public investors, such as the sovereign investment funds of some countries, venture capital funds managed by governments and others similar to these. Regarding financial instruments, they include equity shares of companies, different types of bonds, and a variety

of investment funds, including venture capital. All of these types of investors and instruments (and particularly those with social and environmental objectives) can be used to transform agrifood systems and promote food security and nutrition.

However, there is no precise data on the actual volume of operations, partly because the definitions of new types of investments that include social and environmental aspects are evolving³⁹ Díaz-Bonilla (2021) shows that the global issuance of green bonds in 2019 was USD 260 billion and of social bonds was about USD 131 billion in 2020. However, the largest proportion of investments in

³⁹ Key definitions include “environmental, social and governance” (ESG) investments, which focus on how companies operate; “green investment” that seeks to invest in environmental assets, whether funds/bonds, companies, infrastructure or projects; “impact investing” that tries to generate a positive social and environmental impact along with financial return (thus converging with ESG investments); “green bonds” which is a specific instrument to finance projects or activities considered to be environmentally positive; “social bonds” that finance projects, activities and investments that seek to solve a specific social problem; “sustainability bonds” that combine concepts from “green” and “social” bonds; “blue bonds” linked to sustainable fishing activities; “sustainability-linked bonds” which, instead of financing activities defined a priori as “green” or “social”, can finance any activity as long as certain defined objectives are achieved and whose achievement is independently verified.



capital markets seems to take place in developed countries, and the amounts directed to the agriculture sector are small (Díaz-Bonilla 2021).⁴⁰

Although the potential volume of funds in capital markets is significant, the challenge is to mobilize these resources for investments that support the transformation of agrifood systems, and food

security and nutrition in developing countries, and particularly in LAC. To do this, it is necessary to structure a portfolio of investment opportunities, including individual projects, impact investment funds, green bonds and other financial instruments that have an adequate return and risk profile for potential investors (Díaz-Bonilla et al., 2018).

⁴⁰ Multilateral development banks have issued green bonds and social bonds, including some (such as two from the African Development Bank for 600 million in 2017 and 1.25 billion in 2018) that include food security as eligible spending activities (Impact Investment Lab, 2018). However, the money from the bonds is used to finance their own loan operations, which are already counted in the development flows to agriculture discussed above (Díaz-Bonilla, 2021).



5. Conclusions and recommendations

Based on the analysis presented, this report offers some conclusions and recommendations on the issue of financing for food security and nutrition in LAC.

- a. To analyze the financing of food security and nutrition, it is necessary to first estimate the costs associated with the implementation of policies, programs, and interventions related to these objectives.

Currently, there is a general lack of country-level estimates, a problem that goes beyond this region, and is reflected in the “roadmaps” prepared by countries for the Food Systems Summit: only between 29 percent and 33 percent of these roadmaps consider implementation costs or an investment plan (UN, 2023).

- b. Data collection on different types of financing must be improved, both for the region and at the country level, related to food environments, as well as health and education systems, infrastructure, and other aspects that influence food security and nutrition.

An analysis of available data reveals significant gaps in information related to financing to improve food security and nutrition in LAC. Although this document presents some estimates, there are gaps that prevent complete and detailed information from being available.

This report highlights some key data, such as the value of food purchased by consumers which is estimated at 22 percent of GDP during the period considered. Agricultural government expenditure linked to production is estimated at an average of approximately 0.67 percent of GDP, while non-contributory social protection is around 0.57 percent of GDP. The scarce data by country shows a limited level of spending on nutrition issues (between 0.28 percent in Guatemala and 0.02 percent in El Salvador). International agricultural development flows represent approximately 0.07 percent of GDP, and the loan portfolio to the agriculture sector remains around 1.53 percent of the region's GDP (stock value).

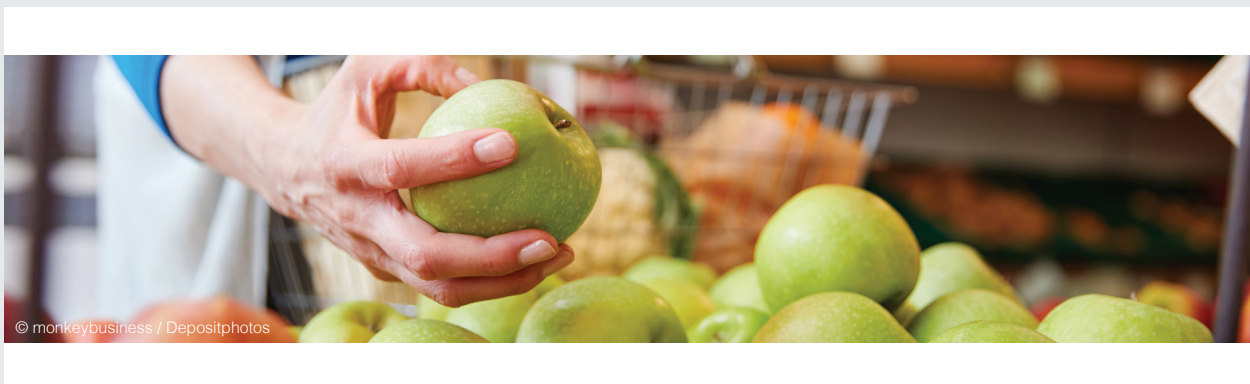


TABLE 5. Summary of estimates of the main types of financing

	ESTIMATE	NOTES
Value of food consumption representing the income of producers and operators in value chains	22% of GDP	Approximate average between 2015 and 2021
Government expenditure	<ul style="list-style-type: none"> • Agricultural expenses associated with production: 0.67% of GDP • Non-contributory social protection expenses: 0.57% of GDP 	<p>This amount also includes public spending financed with international development flows to agriculture, and therefore both flows partially overlap</p> <p>Average between 2001 and 2021</p>
International development flows to agriculture	0.07% of the GDP	Average between 2001 and 2021
Financing from the banking sector and capital markets	<p>Banking system: 1.53% of GDP</p> <p>Capital market: no data available</p>	<p>Value of stocks, not flows</p> <p>Average between 2002 and 2021</p> <p>Only includes the banking sector</p>

Source: Prepared by the author, based on information previously mentioned in the document.

Existing data does not adequately cover the level and composition of different finance flows towards food security and nutrition, especially in areas such as food and nutrition policies focused on creating healthier food environments and increasing the consumption of healthy diets. Furthermore, the lack of information also makes it difficult to integrate existing data, which affects the accuracy of financing-related calculations that cover all components of agrifood systems.

It is essential to recognize that an increase in financing for the agrifood sector does not automatically guarantee an improvement in food security and nutrition. Therefore, it is important to recognize the importance of having estimates that incorporate detailed information on the efficiency, effectiveness, and inclusion of financing. This will allow Member States to assess their actual capacities to finance initiatives to reduce hunger and malnutrition and identify gaps and opportunities to address them. This solid foundation will facilitate the analysis of financing requirements.

c. Developing macroeconomic and trade policies and incentive frameworks that promote food security and nutrition.

Countries are implementing a series of policies, programs and interventions that do not necessarily align with food security and nutrition objectives.

It is evident that the flow of funds related to the final consumption of food, which represents the direct income of producers, exceeds several times all other types of financial flows (government expenditure, international development funds and operations of the banking system and capital markets). Therefore, macroeconomic, trade and regulatory policies that generate growth and employment and that provide appropriate incentives for the types of expenditures generated by food consumers are key. Food supply and demand must be reoriented towards more sustainable agrifood systems and healthy diets.

To achieve these goals, interventions are required that address both income and access to nutritious foods and healthy diets and the preferences that guide consumer decisions. Examples include public procurement systems that support family farming in school feeding programs, and properly implemented and undistorted food programs and taxes and subsidies. Social safety nets with a nutritional focus should be considered, as well as food information and education, regulations on nutritional front-of-pack labeling of foods, and rules to reduce advertising of highly processed foods.

On the production side, this includes fiscal policies that discourage the production of non-nutritious foods and subsidies that promote healthy diets, as well as risk analysis and control systems related

to food safety and health and environmental conditions.

Incentives should create enabling conditions for the resilient and sustainable production of nutritious foods, facilitate the efficient functioning of supply chains, and foster healthier food environments. This will help maximize the effectiveness of financing and investments for food security and nutrition.

d. Optimizing the current public budget (expenses and revenues) for food security and nutrition

Considering limited resources both nationally and internationally, it is necessary to improve monitoring and evaluation systems to determine the effectiveness, efficiency, and inclusion of public spending in food security and nutrition. This would allow for a more precise redirecting of resources towards areas that have a greater impact on solving the problems raised.

A review and better use of agricultural expenditure is necessary, focusing on public goods such as agricultural R&D, extension and technologies for family farming, productive infrastructure and measures for food marketing and protection of biodiversity, water management and regularization in land tenure.

Optimizing the use of resources within the public budget allocated to the agriculture sector can generate significant impacts, such as improving production and productivity, generating employment, reducing poverty, and increasing access to healthy diets (FAO, 2023b).

Regarding the improvement of social spending, various actions have been proposed, including avoiding fragmentation through the consolidation of social programs and the creation of a single national registry of beneficiaries. The implementation of digital mechanisms for payments and monitoring of complementary services is also relevant. Another recommended action is the integration of permanent programs with emergency programs, avoiding duplications or gaps in coverage. Likewise, actions must promote the compatibility of social programs with incentives for entry into

formal labor markets, in order to avoid gaps in the coverage of beneficiaries.

Other specific actions can help maximize the impact of social protection interventions on food security and nutrition, such as i) promoting good self-care practices, and healthy diets and lifestyles; ii) strengthening ties with health and sanitation services; iii) providing guidance to vulnerable populations from a nutrition perspective; iv) addressing the needs of women; v) including nutrition indicators in the program monitoring and evaluation mechanism; vi) increasing the scale of social protection in times of crisis; and viii) incorporating a “do no harm” policy regarding nutrition outcomes (FAO and World Bank, 2021).

In general, it is crucial to guarantee coverage for all people in situations of poverty and vulnerability.

Optimizing agricultural and social protection expenditures should be part of a comprehensive review of the public budget (expenditures and revenues) for food security and nutrition. For example, it is advisable to explore additional financing by reallocating other expenditures within the total budget, such as reconsidering some subsidies that may generate distortions (see for example Black et al., 2023 in relation to subsidies for energy based on fossil fuels).

With respect to revenues, another possible option is the evaluation of the impact of other fiscal policies associated with the production and consumption of food, as well as their effects on the mobilization of fiscal resources.⁴¹ International collaboration is also essential to avoid practices that erode the fiscal base of developing countries (ECLAC, 2022; 2023c).

e. Expanding and using international development flows to agriculture (IDFs) in a more coordinated and strategic manner

Most current financing debates focus on scaling up IDFs, even though they numerically represent a smaller fraction of all flows. It can be highlighted that, in the area of financing for food security and nutrition, funds from bilateral development agencies have generally exceeded flows from international

⁴¹ See for example IMF (2011), and Benitez et al. (2023)

and multilateral financial organizations in LAC. In comparison, private philanthropic funds are even more limited.

The suggestions to increase these resources cannot follow a single pattern. More effective coordination is needed between multilateral organizations, bilateral agencies, and philanthropic institutions in developing countries to avoid fragmentation and competition. This requires strengthening internal coordination and implementation capacity within countries, which in turn also improves external coordination mechanisms.

f. Reduce barriers that limit the operations of banking systems and capital markets in support of the SDGs, in general, and the elimination of hunger and malnutrition, in particular.

It has now become possible to expand the levels of financing provided by banks and investors for the transformation of agrifood systems. To achieve this, it is essential to understand and eliminate the systemic barriers that restrict the supply of financial sources and services, especially for agricultural producers, small and medium-sized agrifood businesses, and other actors that could face difficulties in meeting all the necessary requirements to access loans and other financial instruments (such as women, Indigenous Peoples and youth).

In addition, public funds (both international and from public budgets) and philanthropic funds can be used more strategically through the use of “blended financing”, in particular to eliminate or reduce the risk associated with private investors’ operations. This strategy can take various forms, such as absorbing early losses, providing technical assistance and support to entities making these

investments, and other forms of financial operations that improve the risk profile for private investors.

Finally, there is a need to implement mechanisms dedicated to the development of a robust portfolio of investment opportunities related to the SDGs, focusing particularly on SDG 2.

g. Considering the cost of failing to solve the problems of hunger and malnutrition.

The studies mentioned in the document reveal that hunger and malnutrition generate significant costs for both affected individuals and society as a whole.

In many cases, these costs turn out to be higher than those associated with solving the problems of hunger and malnutrition. As mentioned, according to ECLAC and WFP⁴² studies, the cost of doing nothing represents an average of 6.4 percent of the GDP in the countries studied. In contrast, the average cost of closing the income gap with transfers to access healthy diets is 1.5 percent of GDP (although this does not include administrative expenses and assumes perfect targeting). Obviously, monetary transfers alone do not solve the problems of hunger and malnutrition, considering that healthier food environments and consumer behaviors that facilitate the consumption of healthy diets are also required. In any case, the costs of the problem appear greater than the costs of solving it, even without considering the benefits that this would generate for the nutrition and health of people and for the sustainable development of countries.

In conclusion, this document is expected to serve as a first analysis of the financing required to eliminate hunger and malnutrition in Latin America and the Caribbean.

⁴² Including Chile, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Peru, and the Dominican Republic.

References

- Allcott, H., Lederman, D. y López, R.** 2006. *Political Institutions, Inequality, and Agricultural Growth: The Public Expenditure Connection*. Washington DC, World Bank.
- Anríquez, G., Foster, W., Ortega, J., Falconi, C. y Salvo, C.P.** 2016. *Gasto público y el desempeño de la agricultura en América Latina y el Caribe*. IDB Working Document: 722. Washington, D.C., Inter-American Development Bank (IDB). <https://publications.iadb.org/en/publications/spanish/viewer/Gasto-p%C3%BAblico-y-el-desempe%C3%B1o-de-la-agricultura-en-Am%C3%A9rica-Latina-y-el-Caribe.pdf>
- Benitez, J. C., Mansour, M., Pecho, M. y Vellutini, C.** 2023. *Building Tax Capacity in Developing Countries*. Staff Discussion Note SDN/2023/006. Washington DC, International Monetary Fund.
- Black, S., Liu A., Parry, I., y Vernon, N.** 2023. *IMF Fossil Fuel Subsidies Data: 2023 Update*. IMF Working Paper. Washington DC, International Monetary Fund.
- De Salvo, P.** 2023. Políticas de apoyo a la agricultura: balance entre bienes públicos y privados. Seminario Internacional "Hacia una nueva generación de políticas públicas para los Sistemas Agroalimentarios en las Américas", 2-3 de November 2023. San José.
- Development Initiatives.** 2022. *2022. Global Nutrition Report: Stronger Commitments for Greater Action*. Bristol.
- Díaz-Bonilla, E.** 2021. *Financing SGD2 and Ending Hunger. Food Systems Summit*. <https://doi.org/10.48565/scfss2021-ba75>
- Díaz-Bonilla, E.** 2023. Transformation of food systems: How can it be financed?. *Frontiers of Agricultural Science and Engineering*, 10(1): 109-123. <https://doi.org/10.15302/J-FASE-2023483>
- Díaz-Bonilla, E., Loboguerrero, A., Verchot, L., Viglizzo, E., & Mirzabae, A.** 2018. *Financing A sustainable food future*. T20 Argentina Food Security and Sustainable. Development Task Force Brief. <https://t20argentina.org/publicacion/financing-a-sustainable-food-future/>
- Díaz-Bonilla, E., Swinnen, J., & Vos R.** 2021. Financing the Transformation to Healthy, Sustainable, and Equitable Food Systems. *Beyond the Pandemic: Transforming Food Systems after COVID-19*. IFPRI. <https://ebrary.ifpri.org/utills/getfile/collection/p15738coll2/id/134334/filename/134555.pdf#page=15>
- ECLAC, FAO & IICA.** 2023. *The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2023-2024*. San Jose. <https://repositorio.iica.int/handle/11324/21836>
- ECLAC.** 2022. *Fiscal Panorama of Latin America and the Caribbean 2022* (LC/PUB.2022/7-P). Santiago.
- ECLAC.** 2023a. Institutional Frameworks for Social Policy in Latin America and the Caribbean: a Central Element in Advancing towards Inclusive Social Development. (LC/CDS.5/3). Santiago. <https://www.cepal.org/en/publications/68583-institutional-frameworks-social-policy-latin-america-and-caribbean-central>
- ECLAC.** 2023b. Non-contributory Social Protection Programmes Database Latin America and the Caribbean. In: ECLAC. Santiago. [Consulted on 29 November 2023]. <https://dds.cepal.org/bpsnc/home>
- ECLAC.** 2023c. *Fiscal Panorama of Latin America and the Caribbean 2023* (LC/PUB.2023/5-P). Santiago.
- FAO & World Bank.** 2021. *Inter Agency Social Protection Assessment (ISPA) tool on Food Security and Nutrition*. Rome and Washington, D.C. <https://www.fao.org/documents/card/en/c/CB1564EN>
- FAO, IFAD & WFP.** 2015. *Achieving Zero Hunger: the Critical Role of Investments in Social Protection and Agriculture*. Rome, FAO.
- FAO, IFAD, PAHO, WFP & UNICEF.** 2023a. *Latin America and the Caribbean - Regional Overview of Food Security and Nutrition 2023: Statistics and trends*. Santiago. <https://www.fao.org/documents/card/en/c/CC8514EN>
- FAO, IFAD, PAHO, WFP & UNICEF.** 2023b. *Regional Overview of Food Security and Nutrition – Latin America and the Caribbean 2022: Towards improving affordability of healthy diets*. Santiago de Chile. <https://www.fao.org/documents/card/en?details=CC3859EN>
- FAO, IFAD, WHO, WFP and UNICEF.** 2022. *The State of Food Security and Nutrition in the World 2022: Repurposing food and agricultural policies to make healthy diets more affordable*. Rome, FAO. <https://www.fao.org/documents/card/en?details=cc0639es>
- FAO, IFAD, WHO, WFP and UNICEF.** 2023. *The State of Food Security and Nutrition in the World 2023: Urbanization, agrifood systems transformation and healthy diets across the rural-urban continuum*. Rome, FAO. <https://www.fao.org/publications/home/fao-flagship-publications/the-state-of-food-security-and-nutrition-in-the-world/en>
- FAO.** 2022. *Credit to agriculture – Global and regional trends 2012–2021*. FAOSTAT analytical brief, No. 56. Rome. <https://doi.org/10.4060/cc3748en>
- FAO.** 2023a. *SDG Action Weekend: FAO touts High Impact Initiatives to transform agrifood systems and boost the 2030 Agenda*. In: *Food and Agriculture Organization of the United Nations*. New York (United States), United Nations. [Consulted on 29 November 2023]. <https://www.fao.org/newsroom/detail/sdg-action-weekend--fao-touts-high-impact-initiatives-to-transform-agrifood-systems-and-boost-the-2030-agenda/en>
- FAO.** 2023b. *The State of Food and Agriculture 2023: Revealing the true cost of food to transform agrifood systems*. Rome. <https://www.fao.org/documents/card/en?details=cc7724es>
- FAO.** 2023c. FAOSTAT. Credit to Agriculture. In: FAO. Rome. [Consulted on 13 December 2023]. www.fao.org/faostat/en/#data/IC
- FAO.** 2023d. FAOSTAT. Government Expenditure. In: FAO. Rome. [Consulted on 23 November 2023]. www.fao.org/faostat/en/#data/IG

- FAO.** 2023e. FAOSTAT. Macro Indicators. In: *FAO*. Rome. [Consulted on 23 November 2023]. <https://www.fao.org/faostat/en/#data/MK>
- FAO.** 2023f. FAOSTAT. Food Balances. In: *FAO*. Rome. [Consulted on 28 November 2023]. <https://www.fao.org/faostat/en/#data/FBS>
- FAO.** 2023g. FAOSTAT. Development Flows to Agriculture. In: *FAO*. Rome. [Consulted on 23 November 2023] <https://www.fao.org/faostat/en/#data/EA>
- Fernández, A., Martínez R., Carrasco, I. & Palma, A.** 2017. *Impacto social y económico de la doble carga de la malnutrición. Modelo de análisis y estudio piloto en Chile, el Ecuador y México*. ECLAC and WFP. <https://repositorio.cepal.org/items/b90e5503-1f42-4709-b42b-a7d2617e5b97>
- Gilligan, D., Devereux, S. & Tenzing, J.** 2022. Social Protection: Designing Adaptive Systems to Build Resilience to Climate Change. In: *2022 Global Food Policy Report: Climate Change and Food Systems*, chapter 6 pgs. 58-63. Washington, D.C., International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/9780896294257_06
- Impact Investment Lab.** 2018. *The Social Bond Market: Towards a new asset class?* Paris.
- International Monetary Fund.** 2011. *Revenue Mobilization in Developing Countries*. Washington, D.C.
- Laborde, D., Parent, M. & Smaller, C.** 2020. *Ending Hunger, Increasing Incomes, and Protecting the Climate: What would it cost donors? Ceres2030*. IISD and IFPRI. <https://ceres2030.iisd.org/wp-content/uploads/2021/03/ceres2030-en-what-would-it-cost.pdf>
- Mejía, C., & Martínez, R.** 2022. *El costo de la doble carga de la malnutrición. Impacto económico y social en el Perú*. Panama City, WFP and CEPAL. <https://es.wfp.org/publicaciones/el-costode-la-doble-carga-de-la-malnutricion-impacto-economico-y-social-en-el-peru>
- Mogues, T., Yu, B., Fan, S. & McBride, L.** 2012. *The impacts of Public Investment in and for Agriculture: Synthesis of the Existing Evidence*. Washington, D.C. IFPRI.
- Nin Pratt, A., Stads, G., de los Santos, L. & Muñoz, G.** 2023. *Unlocking Innovation: Assessing the Role of Agricultural R&D in Latin America and the Caribbean*. Washington, D.C. Inter-American Development Bank.
- Nisbett, N., Salm, L., Roelen, K., Baldi, G., Mejía, C., Jaramillo Mejía, J. G., Paredes Cauna, F., Gelli, A., Olney, D. & Vooris, E.** 2023. *Social Protection Pathways to Nutrition. Synthesis Report*. Brighton (United Kingdom). IDS, WFP and IFPRI.
- Nkonya, E., Mirzabaev, A. & von Braun, J.** (coords.). 2015. *Economics of Land Degradation and Improvement – A Global Assessment for Sustainable Development*. Springer Cham. <https://doi.org/10.1007/978-3-319-19168-3>.
- Olney, D.K, Gelli, A., Kumar, N., Alderman, H., Go, A., Raza, A., Owens, J., Grinspun, A., Bhalla, G. & Benammour, O.** 2021. *Nutrition-Sensitive Social Protection Programs within Food Systems*. FAO and IFPRI. Washington, D.C. <https://doi.org/10.2499/p15738coll2.134593>
- Prost, M., & Martínez R.** 2019a. *El costo de la doble carga de la malnutrición. Impacto social y económico en El Salvador*. Panama City, WFP and CEPAL. <https://es.wfp.org/publicaciones/el-costode-la-doble-carga-de-la-malnutricion-el-salvador>
- Prost, M., & Martínez R.** 2019b. *El costo de la doble carga de la malnutrición. Impacto social y económico en la República Dominicana*. Panama City, WFP and CEPAL. <https://es.wfp.org/el-costode-la-doble-carga-de-la-malnutricion-republica-dominicana>
- Prost, M., & Martínez R.** 2020a. *El costo de la doble carga de la malnutrición. Impacto social y económico en Guatemala*. Panama City, WFP and CEPAL. <https://dds.cepal.org/redesoc/publicacion?id=5354>
- Prost, M., & Martínez R.** 2020b. *El costo de la doble carga de la malnutrición. Impacto social y económico en Honduras*. Panama City, WFP and CEPAL. <https://es.wfp.org/publicaciones/el-costode-la-doble-carga-de-la-malnutricion-impacto-social-y-economico-en-honduras>
- Pyatt, G. & Round, J.** (coords.). 1985. *Social Accounting Matrices: A Basis for Planning*. Washington, D.C. World Bank Symposium. www.un.org/en/development/desa/policy/mdg_workshops/eclac_training_mdgs/pyatt_round_1985_sams.pdf
- Townsend, R., Ronchi, L., Brett, C. & Moses, G.** 2018. *Future of Food: Maximizing Finance for Development in Agricultural Value Chains*. Washington, D.C., World Bank <https://hdl.handle.net/10986/29686>
- UNFCCC (United Nations Framework Convention on Climate Change).** 2022. Fifth Biennial Assessment and Overview of Climate Finance Flows. Bonn (Germany). <https://unfccc.int/documents/619173>
- UNFCCC.** 2023. *Draft decision -/CMA.5 Outcome of the First Global Stocktake*. https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf
- United Nations.** 2023. *Making Food Systems Work for People and Planet-Report of the Secretary-General*. www.unfoodsystemshub.org/docs/unfoodsystemslibraries/stocktaking-moment/un-secretary-general/unfss2-secretary-general-report.pdf?sfvrsn=560b6fa6_19
- United States Department of Agriculture.** (n/d) Economic Research Service calculations based on annual household expenditure data from Euromonitor International. [data-on-expenditures-on-food-and-alcoholic-beverages-in-selected-countries_2018-2022.xlsx](https://www.ers.usda.gov/topics/international-markets-u-s-trade/international-consumer-and-food-industry-trends/#data) (live.com). Excel revised on December 2023 on <https://www.ers.usda.gov/topics/international-markets-u-s-trade/international-consumer-and-food-industry-trends/#data>
- Von Braun, J. & Diaz-Bonilla, E.** 2021. Letter: Perpetual bonds can help states fight hunger. Financial Times. In: *The Financial Times*. London. June 6, 2021. www.ft.com/content/6c0fae16-0662-42b5-a2b5-90b4b6facc78
- World Bank.** 2023. *The Atlas of Social Protection Indicators of Resilience and Equity*. <https://www.worldbank.org/en/data/datatopics/aspire>
- ZEF & FAO.** 2020. *Investment costs and policy action opportunities for reaching a world without hunger (SDG2)*. Rome and Bonn (Germany). <https://doi.org/10.4060/cb1497en>

