



Global Donor
Platform for
Rural Development

2024 Annual General Assembly

BACKGROUND PAPER

Financing food systems transformation and rural revitalization: Opportunities and challenges

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This paper will be revised after the AGA to incorporate the key discussions and feedback from the event and then will be published.

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Acronyms

AGA	Annual General Assembly
AGRA	Alliance for a Green Revolution in Africa
BRIC	Brazil, Russia, India, and China*
CAADP	Comprehensive Africa Agriculture Development Programme
COP	Conference of the Parties
DAC	Development Assistance Committee (of the OECD)
DFI	Development Finance Institution
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign direct investment
FOLU	Food and Land Use Coalition
GDP	Gross domestic product
GDPRD	Global Donor Platform for Rural Development
HICs	High-income countries
ICT	Information and communication technologies
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFI	International Financial Institution
L&MICs	Low and Middle-Income Countries
LMICs	Lower Middle-Income Countries
MDB	Multilateral Development Bank
MICs	Middle-Income Countries
NDFI	National Development Finance Institution
NRA	Nominal rate of assistance
OECD	Organization for Economic Cooperation and Development
ODA	Official Development Assistance
OOF	Other Official Flows
SDGs	Sustainable Development Goals
SDG2	Sustainable Development Goal 2 (Zero Hunger)
SMEs	Small- and medium-sized enterprises
SOFI	State of Food Security and Nutrition in the World
UMICs	Upper Middle-Income Countries
UNEP	United Nations Environment Programme
UNFSS	United Nations Food Systems Summit

* In this paper, the four BRIC countries (Brazil, Russia, India, and China) are separated out, but South Africa is not included in this group. See page 34 for more details.

Executive summary

This paper, prepared for the 2024 Annual General Assembly (AGA) of the Global Donor Platform for Rural Development (GDPRD), examines financing challenges and opportunities to support food systems transformation and rural revitalization. With less than a decade remaining to achieve the Sustainable Development Goals (SDGs), particularly SDG2 (Zero Hunger), addressing the growing financing gaps is more urgent than ever. The report emphasizes the need for a multi-sectoral, coordinated approach that leverages both public and private financing to address these gaps effectively.

Key issues and financing gaps

Despite reaching a historic high of \$223.7 billion in total Official Development Assistance (ODA) in 2023, the resources needed for sustainable food systems and rural development far exceed available funds. Factors like conflict, climate change, natural disasters, and the long-term impacts of the COVID-19 pandemic have increased costs and caused a sharp rise in food insecurity. The 2024 State of Food Security and Nutrition in the World (SOFI)¹ report estimates that one out of every eleven people globally suffers from hunger, with 2.33 billion people facing moderate or severe food insecurity, and nearly a third of the world's population unable to afford a healthy diet. Food systems are responsible for nearly one third of global greenhouse gas emissions and much of global biodiversity loss.

The estimated costs of transforming food systems range from US\$14 billion to US\$400 billion annually, depending on the scope of the goals. Meanwhile, the hidden costs of the global food system for health, the environment and social factors are estimated at US\$12 trillion per year.

To overcome these challenges, there is a need to rethink how ODA can be used most strategically and catalytically. Better alignment between public, private, and international development financing will be key for enhancing the scale and impact of investments in food systems and rural development.

Strategic directions for financing transformation

- 1. Catalytic use of ODA and enhanced donor coordination:** Traditional donor funding approaches—often project-specific and fragmented—are inadequate to meet the scale of transformation required. The paper calls for a shift toward a catalytic approach, where ODA is leveraged to attract additional public and private investments. Effective donor coordination is vital, particularly in fragile and conflict-affected areas, where resources are limited, and needs are significant.
- 2. Leveraging blended and innovative finance mechanisms:** Blended finance combines concessional funds (e.g., grants, concessional loans) with commercial finance to attract private capital into higher-risk projects, particularly in low-income and conflict-prone regions. Mechanisms such as green bonds, impact investing, and multi-donor trust funds can help bridge financing gaps by de-risking investments. The paper highlights the need for scaled-up private sector engagement, emphasizing that blended finance can mobilize up to four times the amount of private finance per dollar of donor funding. However, to date, such mechanisms have not yet succeeded in mobilizing large scale private sector financing.
- 3. Reforming public financing and policies:** For food systems transformation to succeed, governments need to reform public finance systems, increase public expenditures for food systems, and repurpose agricultural support toward improved nutrition, productive infrastructure, sustainability, and climate-resilient practices. Currently, global agricultural

¹ FAO, IFAD, UNICEF, WFP and WHO. 2024. [The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms](#). Rome.

subsidies far exceed ODA for food systems in volume but are often inefficient and misaligned with long-term sustainability goals.

4. **Supporting smallholders and small and medium-sized enterprises (SMEs) in the agrifood sector:** Small-scale producers and SMEs are central to food systems in low- and middle-income countries (L&MICs), yet they face significant barriers to accessing finance due to high perceived risks and limited collateral. Development finance institutions (DFIs) and multilateral development banks (MDBs) are crucial in providing concessional finance, equity investments, and guarantees to bridge the funding gap for these SMEs. The paper advocates for scaling up support to address the “missing middle” by ensuring greater access to affordable finance for smallholders and SMEs.
5. **Climate finance for agriculture:** Agriculture is a major contributor to greenhouse gas emissions and is dramatically impacted by climate change, yet, the sector’s transformation is crucial for climate resilience. However, only a small a fraction (about 4 per cent) of climate finance currently supports agriculture, forestry, and related sectors. The report calls for significantly increased climate finance directed toward agriculture and food systems, with an emphasis on sustainable practices that enhance resilience to climate change.

Emerging innovative financing models

The paper explores innovative financing models that hold promise for transforming food systems. These include:

- **Blended finance models:** Such as concessional loans and catalytic capital that attract and de-risk private sector participation in sustainable food systems.
- **Impact bonds:** Raise funds for specific social or environmental outcomes, making them a promising tool for financing food system projects with measurable impact.
- **Green and climate bonds:** Designed to finance environmentally friendly projects, they offer potential for directing capital to sustainable agriculture and land use.
- **Multi-donor trust funds:** Platforms that aggregate public and private funding, enabling pooled investments in high-impact projects across multiple geographies and sectors.
- **Insurance mechanisms:** New insurance models, using information and communications technologies (ICTs), can reduce risks for smallholders and SMEs and increase their bankability.

A significant number of innovative financing mechanisms and trusts have been established over recent years. There is much to be learned from these initiatives, and they show promise for scaling up financing. A key reflection from this report is the importance of an overall **innovative financing ecosystem** which connects capital markets, ODA funding, financing brokers and intermediary organizations, technical support, value chain development and policy reform. The scaling of finance for food systems transformation requires this coordination of actors and integration of financing processes.

Ways forward

The report outlines ways forward to guide international stakeholders and donors in maximizing their impact:

- **Building a positive narrative around investment returns:** To shift the mindset of national governments and attract private investment, the financing narrative should be one of opportunities and returns, rather than emphasizing challenges and financing gaps.
- **Rethinking donor risk tolerance:** The report advocates for donors to adopt higher risk tolerance, especially in high-need areas, to unlock further private investments.
- **Strengthening the last mile of smallholder and SME finance:** The ultimate enduring challenge for agrifood sector financing is being able to provide financially viable lending to

large numbers of small-scale producers and SMEs. This is where the entire financing ecosystem must come together in an integrated way and donors can play a key role in supporting the necessary brokering, intermediary organizations and de-risking of private capital.

- **Tackling structural constraints:** Donors can play an important role in supporting initiatives and policy reforms which help to tackle the structural constraints to financing, which include marginalization of low-income countries in the global financial system, structural underinvestment by national governments and weak enabling policy environments, insufficient ODA and climate finance for food and agriculture, and low-risk appetites of IFIs.
- **Disentangling social protection and commercial agrifood sector development:** Realism is needed about the contexts in which commercial finance can be attracted on a significant scale. This will mostly not be in fragile or conflict affected areas nor in areas or enterprises where economic returns are marginal. Consequently, it is vital for national government and donors to recognize where tackling poverty, inequality and food insecurity, including crises, requires large scale public support and effective social protection mechanisms.
- **Enhancing an integrated food systems financing ecosystem:** Effective financing of food systems transformation requires a sophisticated alignment of not only financing mechanisms but also value chain coordination, technical assistance and policy support. Donors can explicitly support this with better coordination and by taking an integrated approach to financing and to the more technical aspects of food systems transformation.
- **Strengthening monitoring, coordination and transparency:** Greater data alignment between donors, DFIs, and recipient countries is essential. More accurate and harmonized data on financial flows and reporting and reporting in investment impacts can improve accountability, reduce redundancies, and optimize resource allocation.

Looking ahead: The road to the 2025 Financing Conference

The report identifies 2025 as a pivotal year, with the Fourth International Conference on Financing for Development (FfD4)² set to address global financing needs. This event offers an opportunity to strengthen international commitments to food systems transformation, align donor and investment approaches, and implement policy frameworks that can support the SDGs.

Conclusion

The paper calls for a concerted, multi-stakeholder effort to address the substantial financing gaps in food systems and rural development. Leveraging both public and private resources through innovative financing approaches, repurposing public support, and enhancing donor coordination are essential steps toward building resilient, equitable, and sustainable food systems worldwide. This transformation is crucial for achieving SDG2 and ensuring long-term food security, improved nutrition, and sustainable livelihoods for rural communities.

Donors can make a difference; however, they will need to re-orient their investments to be more coordinated with others and more supportive of leveraging private finance, in particular through risk mitigation. Further, they need to support policy reform within global financial systems, IFIs, national governments, and within their own countries, to create a better enabling environment for the integration of public and private financing for the transformation of food systems.

² <https://financing.desa.un.org/ffd4>.

1 Introduction

This background paper has been prepared to underpin discussions during the [Global Donor Platform for Rural Development's](#) (GDPRD) [2024 Annual General Assembly](#) (AGA) which will focus on the theme of “*Financing Food Systems Transformation and Rural Revitalization: Opportunities and Challenges*”. This document is a draft version. It will be revised to incorporate key discussion points and feedback from the AGA, and will then be finalized and published as a GDPRD report.

With only six years to 2030, the issue of financing for development is at a critical juncture. Despite ODA increasing to its highest level in 2023, at US\$223.7 billion, the world remains off-track in achieving the Sustainable Development Goals (SDGs).³ At the same time, governments and development partners face escalating costs driven by rising conflict, natural disasters, increased migration, and the lasting impacts of the COVID-19 pandemic. The [2024 Financing for Sustainable Development Report](#) estimates that global financing gaps have escalated from US\$2.5 trillion before the pandemic to US\$4 trillion today. The report warns that with the current “business-as-usual” approach and without significant economic, social, and technological shifts, the SDGs will likely remain out of reach even in 2050.⁴

While the financing gap continues to widen, millions of people around the world are facing debilitating poverty and inequality, with food insecurity, hunger and malnutrition rising at alarming rates. The [2024 State of Food Security and Nutrition in the World](#) (SOFI) estimates that in 2023, 1 out of 11 people in the world and 1 out of 5 in Africa faced hunger. Globally, an estimated 28.9 per cent of the world’s population – 2.33 billion people – were moderately or severely food insecure. Access to safe and nutritious food continues to be out of reach for millions, especially women and children in rural and conflict-affected parts of the world. The report draws urgent attention to the need for governments, donors, the private sector and other actors to accelerate and scale up financing and investments towards ending hunger, malnutrition and food insecurity.

A transformation of food systems (including agricultural production, processing, transport, and consumption) is core to achieving most of the SDGs, and SDG2 in particular. Over three billion people globally depend on food systems, at least in part, for their livelihoods⁵, and these are mostly the poorest people in societies. Food systems are not delivering affordable diets for over a third of the world’s population⁶, food insecurity is rising and escalating levels of overweight and obesity risk massive future health costs for society. Food systems contribute a third of greenhouse gas emissions⁷ and agricultural production is the biggest contributor to biodiversity loss. Climate change and environmental degradation are ricocheting negatively back onto the world’s ability to ensure food security and reduce poverty resulting in increased extreme weather events, natural disasters, and declining agricultural land productivity.

“There is a serious risk that agrifood systems, agriculture, food security, and nutrition are [being]...a bit forgotten. We need to spend money on these sectors and on these activities that will deliver on many of the SDGs now. We are dealing with a complicated story. Agrifood systems are much more complicated than energy or health systems, they are risky, and sometimes they are messy...but there is also potential here and we cannot just avoid dealing with the problem because it is complicated.” - Interviewee

³ According to the 2024 Financing for Sustainable Development Report, the world is “severely off-track” to achieving the SDGs by 2030 with approximately half of the 140 SDG targets for which adequate data is available deviating from the needed path.

⁴ DESA FSDO. 2024. “Financing for Sustainable Development Report 2024.” UN Department of Economic and Social Affairs. <https://desapublications.un.org/publications/financing-sustainable-development-report-2024>.

⁵ Davis, B., Mane, E., Gurbuzer, L.Y., Caivano, G., Piedrahita, N., Schneider, K., Azhar, N., Benali, M., Chaudhary, N., Rivera, R., Ambikapathi, R. and Winters, P. 2023. *Estimating global and country-level employment in agrifood systems*. FAO Statistics Working Paper Series, No. 23-34. Rome, FAO. <https://doi.org/10.4060/cc4337en>

⁶ FAO, IFAD, UNICEF, WFP and WHO. 2024. [The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms](#). Rome.

⁷ Chiriack, D., Vishnumolakala, H., Rosane, P. 2023. *Landscape of Climate Finance for Agrifood Systems*. Climate Policy Initiative.

The gravity of this situation calls for a profound rethink of how limited ODA (donor) resources can be best used. Conventional approaches that channel donor funding into fragmented, individual projects at the country level only have a marginal impact, and will not lead to the scale of systemic and structural change needed to transform food systems and create more prosperous and resilient livelihoods for rural communities. Financing must be more significant, robust, and catalytic to meet the scale of the challenge in putting the SDGs back on track and creating a just and resilient response to climate change. It also requires a fundamental rethinking of how ODA and development finance can dovetail with public and private sector funding to support country-level food systems transformation pathways more efficiently. Addressing fragile and conflict-affected areas is an especially urgent challenge in this context.

2025 will be a pivotal year for global discussions on financing for development, with the [Fourth International Conference on Financing for Development \(FfD4\)](#) taking place in Seville in July. The conference will review progress on key frameworks such as the [Monterrey Consensus](#), the [Doha Declaration](#) and the [Addis Ababa Action agenda](#), which remain crucial for both the donor community and the wider development sector. The Addis Ababa Action Agenda continues to be a vital guide for financing efforts, emphasizing issues like mobilizing domestic public resources, fostering private finance, promoting international development cooperation, leveraging trade for development, and addressing debt sustainability. This year's SOFI, released in July 2024, also focuses entirely on "[Financing to End Hunger, Food Insecurity and Malnutrition](#)" and draws urgent attention to the need for governments, donors, the private sector and other actors to accelerate and scale up financing and investments towards ending hunger, malnutrition and food insecurity. Noting that the existing food security and nutrition financing architecture is fragmented and siloed, the report outlines recommendations for the use of different and innovative financing tools and reforms, and calls for enhanced transparency, coordination, and harmonization of efforts among different actors to improve the effectiveness and targeting of financing towards achieving SDG2.

It is therefore an opportune time to address the issue of financing gaps, particularly in food systems, and explore how ODA can be used more catalytically. By combining ODA with public and private financing, there are opportunities to close these gaps, enhancing the impact and sustainability of financing for food systems development. Aligning these resources is essential to foster resilient, inclusive, and sustainable food systems globally.

In recent years, the GDPRD has been engaging with its members and other actors on emerging and critical issues in the food systems, agriculture, and rural development spaces. In 2022, the GDPRD published a white paper, [Transforming Food Systems: Directions for Enhancing the Catalytic Role of Donors](#), highlighting the need for a more catalytic approach to ODA. Underlying the debate about finance is the importance of effective donor coordination, as articulated by the 2023 GDPRD report [From Rhetoric to Reality, Donor coordination for food systems transformation](#).

Building on the recommendations of the white paper, in 2024 the GDPRD and the Shamba Centre for Food and Climate published a report, [Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2](#), which investigated how donors, philanthropic organizations, public funds and blended capital funds can make their funding act as an incentive for achieving SDG2. Drawing on the recommendations of this and the 2024 SOFI report, the GDPRD's [Annual General Assembly 2024](#) will focus on the theme "*Financing Food Systems Transformation and Rural Revitalization: Opportunities and Challenges*". Specifically, deliberations at the AGA will focus on optimization of limited ODA for food and nutrition, using innovative financing, better coordination of donor approaches, and stronger harmonization of stakeholder engagement.

This background paper is concerned with financing for food security and nutrition, food systems, and rural development in low and middle-income countries. It outlines the key issues, challenges and opportunities in financing the future of food systems and rural development and the implications of this for donors and seeks to inform discussions at the GDPRD's 2024 AGA.

This paper is based on a literature review of the latest reports and studies on financing for food systems and rural development, the Platform's [webinar series](#) on critical issues in food systems financing, and a series of ten key informant interviews with experts, practitioners and development partners in the public and private sector. Given that achieving food security and nutrition requires a food systems approach, and that the rural development focus of the GDPRD is related to food and agriculture, this

document uses the term “food systems” to encompass food security and nutrition, food systems, and rural development, unless otherwise stated.

The paper begins with an overview of the challenges of financing food systems and rural development, followed by a detailed discussion on development finance basics, institutions and tools. It subsequently provides an overview of the current types and sources of financing for food systems, including public, private and foreign investments, climate finance and new innovative financing mechanisms. It goes on to explore emerging innovative financing models in the agrifood space. The paper concludes with a discussion on the emerging and critical issues within financing for food systems and the implications of this for donors going forward.

2 The challenge of financing food systems and rural development

As outlined in this background paper and the studies it draws from, the cost of transforming food systems to achieve better health, improved livelihoods and environmental sustainability is substantial—multiple orders of magnitude beyond current spending. At the same time, the hidden health, environmental and social costs (market externalities) of how food is produced, processed, and consumed almost equals the entire monetary value of the global agrifood sector. However, there are also substantial economic returns to be made from producing and distributing healthy and environmentally sustainable food for a growing population, which is increasingly middle-class, with greater wealth than ever before.

In terms of society-wide social and economic benefits, as well as long-term returns on investment, the investment case for transforming food systems is unarguable. Although the cost may seem high in comparison to current levels of ODA, it is relatively modest when viewed against global economic wealth and GDP.

So why aren't development and investment goals being met? **Transforming food systems, and mobilising investments to do so, presents several particular challenges**, including:

1. **Risk:** weather, natural disasters, commodity price fluctuations, currency fluctuations and policy uncertainty all make investing in the agrifood sector inherently risky.
2. **High costs associated with serving smallholders and small and medium-sized enterprises (SMEs):** In L&MICs, the agrifood sector is predominantly made up of SMEs, many of which have limited financial and business skills. The small loans sizes needed, along with the necessity for intermediary financing and technical support institutions, generates high costs to serve these groups.
3. **Informality and lack of collateral:** Much of the agrifood sector still operates with informal market structures, and many farmers and enterprises have limited or no collateral for securing loans.
4. **Impeding domestic policy environment:** Inadequate, excessive or poorly enforced regulations combined with corruption add additional complications and disincentives for investors.
5. **Macroeconomic conditions:** Monetary policy, export regulations, exchange rate volatility, credit ratings, inflation dynamics, weak property rights, poor infrastructure and geopolitical tensions are all factors that make it difficult for countries to attract investments into the agrifood sector.
6. **Political economy factors:** Ensuring populations have enough affordable food is a highly political issue. Furthermore, addressing the needs of large numbers of rural producers and urban consumers, both of whom experience high rates of poverty in many parts of the world, means that agricultural policy is highly influenced by political pressures. This can swing policy and government investment towards short-term political goals and away from focusing on long-term sustainability and sound economic strategies.

- 7. Distorting agricultural support mechanisms:** Historically, support to the agrifood sector has prioritized the production of high calorie staples, often at the expense of the environment or more nutrient dense production. This, along with creating other market inefficiencies, adds further disincentives for transforming food systems.

2.1 Financing SDG2 and financing food systems transformation

SDG2 is summarized as “Zero Hunger”, and includes targets related to reducing hunger by increasing access to “safe, sufficient, and nutritious” food, decreasing malnutrition, improving agricultural productivity and smallholder income, implementing resilient agricultural practices, and maintaining agricultural genetic diversity. Within SDG2, activities related to food security and nutrition, livelihoods, equity, and a wide range of environmental objectives are interconnected. Transformation is needed in all these areas, which are also the focus of many other SDGs. The SDGs set targets that are mostly oriented toward low-income countries and the most vulnerable communities and individuals. However, the broader food systems transformation agenda is hugely important for all countries, including MICs, and there is substantial opportunity for the private sector to support food systems transformation in different ways across settings, which is more challenging in conflict-affected countries and situations. The 2024 SOFI report highlights the fact that in absolute terms, there are still large numbers of people – almost 3 billion – facing moderate or severe food insecurity.⁸ In addition, many people facing moderate food insecurity as well as lack of access to healthy diets could benefit from food system transformation that goes beyond SDG2 and addressing food security and basic nutrition.

To address these issues, it is critical for governments, donors, development partners and the private sector to be clear about the scope of the challenge. Financing to address the hunger and nutrition targets of SDG2 looks very different to financing for food systems transformation. One key point from the 2024 SOFI report is that shifting from a narrow focus on food security and nutrition to a broader agenda of food systems transformation dramatically increases the financing required—from billions to trillions. For example, the financing needs are greater for low-income, fragile, and conflict-affected states when it comes to achieving SDG2. The Ceres2030 initiative estimates that about US\$14 billion of ODA and US\$19 billion from low- and middle-income countries is required annually to end hunger by 2030.⁹ In contrast, transforming global food systems, including making healthy diets more accessible in low- and middle-income countries, demands far higher costs—up to US\$400 billion per year, with the cost of inaction estimated at US\$12 trillion annually.¹⁰

How donors, governments, the private sector, and development partners approach the financing challenge thus significantly impacts the solutions for addressing such gaps. Public and private sector financing for SDG2 is more tangible and specific, as it tends to be focused on specific outcomes that are measurable in the short to medium term (i.e. reductions in levels of hunger and malnutrition), making it easier to determine countries’ progress and making the scale of financing needed to plug the gaps more tangible. On the other hand, transforming food systems requires structural, normative and systemic changes in food production, distribution and consumption. Achieving this requires multistakeholder engagement and more diversified financing approaches, such as climate and blended finance, as well as public-private partnerships. Each approach requires tailored solutions and will entail different levels and modalities of funding.

At a macro level, a key challenge for financing is not only defining the issues, but ensuring that these are consistently understood by everyone involved in making investments, including governments, donors, private sector, international financial institutions (IFIs). In so doing, it is critical to acknowledge that ending hunger and overcoming food insecurity is just part of the wider challenge of transforming food systems.

⁸ FAO, IFAD, UNICEF, WFP and WHO. 2024. [The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms](#). Rome.

⁹ Laborde Debucquet, David; Murphy, Sophia; Parent, Marie; Porciello, Jaron; and Smaller, Carin. 2020. [Ceres2030: Sustainable solutions to end hunger summary report](#). Winnipeg, Canada: International Institute for Sustainable Development (IISD)

¹⁰ IFAD. 2023. [Transforming Global Food Systems: \\$400 billion needed per year while doing nothing could cost \\$12 trillion](#). Press Release. Rome. 24 July.

2.2 Overview of financing and costs of food systems

While food systems are central to addressing climate change, tackling poverty and protecting biodiversity, ODA grants to the agriculture, forestry and fisheries sectors have remained flat since 2017, at 5-6 per cent of total ODA¹¹, amounting to only US\$14.1 billion in 2022. By comparison, the annual National Health Service (NHS) budget in the United Kingdom was approximately US\$227 billion in 2022.¹² Climate finance amounted to approximately US\$1 trillion in 2022, yet less than 4 per cent of this financing is directed towards agriculture¹³, and less than 1 per cent supports small-scale agriculture.¹⁴ Furthermore, ODA to the sector is just a fraction of global annual spending on agricultural subsidies (even the most generous estimate of ODA to agriculture is only 10 per cent of global subsidies), that most often do not directly support activities to achieve the SDGs.

Meanwhile, the hidden annual costs of agrifood systems, including their negative impacts on society, health and the environment, are estimated at US\$12 trillion, amounting to more than the global GDP of the food sector (estimated at US\$10 trillion, or 12 per cent of global GDP).¹⁵ According to the Food and Land Use

Coalition (FOLU), investing in transforming food and land use systems could unlock over US\$4.5 trillion in new business opportunities annually.¹⁶ But current levels of financing and investment are not sufficient. UNEP estimates that the transformation of food systems to meet climate and development goals faces a yearly funding gap of up to US\$350 billion by 2030. Public funding alone is insufficient to cover this shortfall, making private investment crucial to close the gap and drive sustainable change.¹⁷

Box 1: The hidden cost of food

“Over half of the hidden costs (US\$6.6 trillion) arise from the impacts of obesity, undernutrition and pollution. An additional US\$3.3 trillion arise from the negative impacts of current food and land-use systems on the climate and natural capital (FOLU, 2019). The remaining US\$2.1 trillion of hidden costs comprise the economic costs of food loss and waste, fertilizer leakage, and the negative impacts on rural welfare from unequal income distribution and people’s inclusion within the value chain.”

FAO, UNDP, and UNEP. 2021. *A Multi-Billion-Dollar Opportunity – Repurposing Agricultural Support to Transform Food Systems.*

2.3 Reforming public financing to support food systems

At the country level, funding flows from donors and the public sector are often misaligned with needs on the ground. Public financing remains one of the main investment sources in the agricultural and rural development sector, with an estimated US\$620 billion in agricultural support policies transferred to farmers per year.¹⁸ While these policies play a crucial role in sustaining agricultural production and supporting smallholder farmers, their implementation is not always efficient. They often lead to unintended outcomes, including market distortions and disproportionate benefits to larger farmers at the expense of smallholders. The redirection of agricultural support and subsidies towards sustainable, climate-smart solutions and research and development could go a long way towards increasing productivity. There is an evident need to re-direct and repurpose agricultural subsidies towards investments that promote greater production and sustainability, but this is no easy task. Political dynamics often hinder efforts to reform longstanding subsidy systems in agriculture and rural development. In many agrarian economies, farmers represent crucial vote banks, which creates a disincentive for policymakers and governments to disrupt established subsidies, even when these policies are inefficient or misaligned with broader development goals. As a result, political

¹¹ [OECD Data Explorer • Aid \(ODA\) by sector and donor \[DAC5\]](#)

¹² [Public Expenditure Statistical Analyses 2018 \(publishing.service.gov.uk\)](#)

¹³ Climate Policy Initiative. 2023. [Global Landscape of Climate Finance.](#)

¹⁴ Climate Policy Initiative. 2023. [44% drop in climate finance to small-scale agrifood systems reveals need for action.](#) Press Release. 22 November.

¹⁵ FAO, IFAD, UNICEF, WFP and WHO. 2024. [The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms.](#) Rome.

¹⁶ Food and Land Use Coalition. 2019. [Growing Better: Ten Critical Transitions to Transform Food and Land Use.](#)

¹⁷ UNEP. 2023. [Driving Finance for Sustainable Food Systems: A Roadmap to Implementation for Financial Institutions and Policy Makers.](#)

¹⁸ International Food Policy Research Institute. 2022. [2022 Global Food Policy Report: Climate Change and Food Systems.](#) Washington, DC: International Food Policy Research Institute

considerations often take precedence over economic reforms, complicating efforts to modernize agriculture and address the sector's long-term challenges.

2.4 Addressing private sector investment challenges

Private sector financing in food systems is critical to supplement available public resources. However, at the country level, private sector investment in food systems and agriculture remains challenging, especially for local investors and banks, due to the perceived risks associated with volatile markets, climate impacts, and regulatory uncertainties. In addition, the limited availability of investable business models and large-scale bankable projects, alongside the perceived risks associated with early-stage business models that have long lead times and high levels of technical assistance (in particular those focused on smallholder farmers in developing countries) significantly dampens investor interest.¹⁹ The public sector has a role to play in creating a more supportive environment for private sector investment, particularly in country contexts which are more fragile and conflict affected. In a nutshell, private sector investment is key to addressing the financing for food systems challenge, but to be able to de-risk its investment, the private sector clearly requires commitment from governments at a national level towards certain agricultural strategies and policies and needs a degree of policy predictability to secure its investments.²⁰ Finally, there is also a clear need for better data and risk assessment that can build investor confidence and attract more private sector financing.²¹

“Not all countries have access to the same amount of finance, and unfortunately the most vulnerable countries, the ones that have also been hurt by recent shocks like the climate and economic crisis, are also those that appear to be the riskiest. Financial actors do not like to invest in risky places. We really need to change the incentives.” - Interviewee

2.5 The critical role of ODA, the challenge of donor coordination and the need for better data and monitoring.

ODA is a critical piece of the food financing puzzle. Globally, ODA grants and loans remain one of the major sources of development finance for agriculture and food security. It is estimated that between 2007-2021, the global volume of ODA grants for agriculture and food security increased significantly from US\$8.9 billion per year in 2007 to US\$14 billion in 2021²², while total ODA and other official flows (OOF) for core investments in food security and nutrition totaled US\$50 billion²³. Investing in food systems requires a long-term vision and approach that acknowledges that investments today will bear fruit over time. However, amid multiple crises, economic uncertainty, rising inflation, mounting debt, and increasing demands for short-term humanitarian assistance, governments appear less willing and more risk averse to making long-term investments that could strengthen resilience to crises and shocks in a more sustainable manner. With less donor funding available, especially where it is most needed and in sectors where it can be the most transformative, donors need to be more willing to take risks and work towards mobilizing their resources more catalytically so that they can attract domestic and private sector resources.

At the country level, the misalignment of country and donor financing mechanisms often make delivering assistance on the ground challenging. The frequent incompatibility between the financing, budgeting, and reporting cycles of different donors complicates coordination and increases transaction costs for partner governments. The lack of good data on available sources of financing – domestic public finance, international development finance and private sector finance – also challenges coordination. Effective monitoring and evaluation of new and innovative modalities of financing can

¹⁹ Asian Development Bank. 2021. [Financing Sustainable and Resilient Food Systems in Asia and the Pacific](#).

²⁰ Commercial Agriculture for Smallholders and Agribusiness. 2023. [Policy Brief: Private Sector and Food Security](#). June.

²¹ Asian Development Bank. 2021.

²² Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. [Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2](#). Global Donor Platform for Rural Development and Shamba Centre for Food & Climate.

²³ FAO, IFAD, UNICEF, WFP and WHO. 2024. [The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms](#). Rome.

help identify conditions for success, as well as failure, and provide opportunities for understanding which approaches work best and under what conditions.

Box 2: Key messages of SOFI Report 2024

Summary of the key messages from the SOFI Report 2024

- **The world is off track to achieve SDG2:** 2.33 billion people are moderately or severely food insecure and nearly 30 per cent of the world's population is unable to afford a healthy diet.
- There is currently **no clear picture of financing for food security and nutrition** – neither that available nor that additionally needed.
- Food security and nutrition receive < 25 per cent of ODA and OOF - US\$76 billion per year (2017-2021) - of which only 34 per cent addresses drivers of food insecurity.
- **Private financing** from philanthropy, remittances for food system investment and foreign direct investment **may reach US\$95 billion** per year (2017 – 2022).
- **The financing gap to drive food system transformation is up to several trillion USD per year;** however, the cost of eliminating hunger is significantly lower than cost of ensuring everyone can afford a healthy diet.
- **Innovative solutions are needed to scale up financing** for food security and nutrition.
- **Low-income countries are much less able to access financing flows** for tackling food insecurity and malnutrition despite high prevalence in these countries.
- For **countries with limited ability to access financing flows**, grants and concessional loans are the most suitable financing options.
- **Countries with moderate ability to access financing** can increase domestic tax revenues, linking taxation to food security and nutrition outcomes and utilise instruments such as such as green, social, sustainable, and sustainability-linked bonds.
- The **current** food security and nutrition **financing architecture is highly fragmented** and needs a shift from a siloed approach to a more holistic perspective.
- **Transparency and harmonizing data collection are crucial** for improving coordination and targeting financing effectively.
- **Donors** and other international actors need to increase their risk tolerance and be **more involved in de-risking activities**.
- **Governments can invest in public goods**, reduce corruption and tax evasion, increase food security and nutrition expenditure and consider repurposing policy support.

Box 3: Key message of GDPRD and Shamba Centre report, Unleashing Catalytic power of donor financing

Summary of key messages from the joint GDPRD and The Shamba Centre for Food & Climate report on *Unleashing Catalytic Power of Donor Financing*

- **If donors and DFIs take higher risks** with their grants and lending, **every donor dollar has the potential to mobilize four dollars in commercial finance**, unlocking more finance and domestic lending for SMEs.
- **Blended finance** is the use of concessional finance from donors and philanthropic foundations to mobilize commercial finance from DFIs and private investors to invest in projects that are too risky and lack sufficient returns for private investors.
- **Blending** public and private sources **of finance is nascent** and taking it to scale requires **widespread changes by donors, DFIs and their beneficiaries**.
- **Additional public investment to achieve SDG2 is estimated at US\$33-50 billion per year**; required donors share is about US\$28 billion – double current levels of spending.
- **ODA for agriculture and food security has been static** at US\$12-15 billion per year since 2010.
- **Emergency food assistance** expenditures have increased by 77 per cent since 2007.
- Only **around 2-3 per cent of ODA (all sectors) is directed towards blended finance** and the entire blended finance market (all sectors) has a median annual financing of approximately USD14 billion, with about half (US\$7.69 billion) dedicated to climate-focused deals. The proportion of transactions (not value) targeted to agriculture was about 41 per cent in 2022.
- Blended finance can make the biggest contribution to SDG2 by **focusing on the financing missing middle** for SMEs of US\$50,000 to US\$2 million.
- **DFIs are governed by rules that discourage them from taking risks** to provide finance that would otherwise not be available from commercial lenders.
- **More research and data** on the performance of agrifood SME loans that originate from donors are a prerequisite for making ODA more catalytic.

Box 4: Key messages from other recent reports on financing for food systems, agriculture and rural development

Key messages from other recent reports on financing for food systems, agriculture and rural development

[Financing for Sustainable Development Report 2024: Financing for Development at a Crossroads](#). United Nations Inter-Agency Task Force on Financing for Development

- Focuses on the **global financial system reforms needed to support the achievement of the SDGs**.
- Stresses the **importance of addressing debt distress in developing countries and increasing public and private financing for sustainable infrastructure and development projects**.
- Highlights the critical **need for innovative financial instruments such as green bonds, climate finance and sustainable investments** to achieve the SDGs.
- Emphasizes the need for **collaboration between governments, financial institutions and the private sector** to overcome these challenges.

[Financing for Regenerative Agriculture 2024](#). Rockefeller Foundation

- Focuses **on financial barriers to scaling regenerative farming practices** and emphasizes the **need to mobilize capital for regenerative agriculture** to address climate change and promote sustainable food systems.
- Emphasizes that **regenerative practices**, which restore soil health and biodiversity, **are key to building resilient agricultural systems**.
- Highlights the **current challenges and financing gaps in the sector**, illustrates a range of innovative financial instruments and structures and **advocates for blended finance models, impact investing, and policy frameworks** to scale regenerative practices.

[Global Landscape of Climate Finance 2023](#). Climate Policy Initiative

- Provides a comprehensive **overview of global climate flows**, highlighting **public and private investments** and identifying gaps.
- Emphasises that **current climate finance is insufficient to meet the Paris Agreement targets** and that **innovative financing mechanisms such as green bonds, carbon pricing and blended finance are needed** to bridge the funding gap.
- Underscores the agriculture sector as **both a significant contributor to greenhouse gas emissions and a sector highly vulnerable to climate impacts**. Notes that **agriculture along with forestry and land use, receives a relatively small share of climate finance** compared to sectors like energy. This makes it a priority for targeted climate finance.

[Rural Development Report 2025: Financing for Rural Transformation \(Forthcoming\)](#). IFAD

- The report will focus on **financing for rural transformation**.
- It will review **financing flows and demand**, explore a range of **financing instruments**, the impact of **public policies, subsidies, incentives, trade** and the role of **technology and innovation** in shaping the future of rural spaces.
- The report will use **foresight to understand how technology may help (or hinder) the process of rural transformation, estimate what financing is required** for this, and develop an **action agenda** for key stakeholders such as the private sector, MDBs, governments and civil society.

3 Understanding development finance

The food and agriculture and finance sectors are two different worlds where the practical realities, concepts, and language of each is not necessarily well understood by actors in the other. This itself creates difficulties for financing food and agriculture.

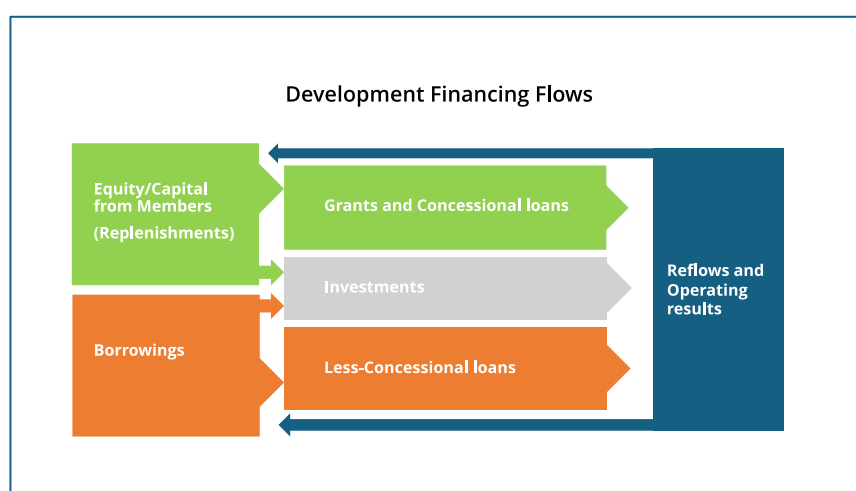
This section provides a brief overview of the development finance world and introduces key concepts, main funders and financial instruments.²⁴

3.1 The basics of financing

Every business requires capital—financial resources essential for operations and growth. This capital includes cash, assets, investments and retained profit. Business capital can come from revenue, loans, or equity investments in the business. Capital structure is the combination of debt (concessional and commercial) and equity (via private or public investment) as well as mezzanine finance (a combination of debt and equity) that a business uses to operate and grow.

In development finance, donors, development banks, foundations and impact investors help to lower the cost and/or risk of financing business development, as well as help to make finance more accessible. Figure 1 illustrates how donor (member) capital is combined with borrowings to finance development that reflows from this financing. The intended catalytic effect of development finance is illustrated in the following ways:

- 1) Providing **grants** for certain aspects of business development, which reduces the amount that needs to be borrowed or helps create a more enabling and profitable operating environment.
- 2) Providing **technical assistance**, so that businesses can have viable business plans and necessary knowledge and skills, making them more attractive and viable for investors.
- 3) Providing **concessional finance** with loans at below market rates to reduce borrowing costs.
- 4) Taking **equity** in an enterprise and accepting a higher risk and/or low returns.
- 5) Providing **equity guarantees** for other investors who may take equity in an enterprise (i.e., covering the loss if a business fails, or does not provide the expected return on the equity).
- 6) Providing **debt guarantees** for other investors who make a loan to enterprise (i.e., covering investor losses if the business goes broke or if it does not provide expected return on the equity).
- 7) Establishing **insurance mechanisms** to help protect a business and hence the equity and debt



held by others from extreme events, such as floods or droughts.

8) Providing **commercial finance** with loans at market rates, with interest supporting further investments.

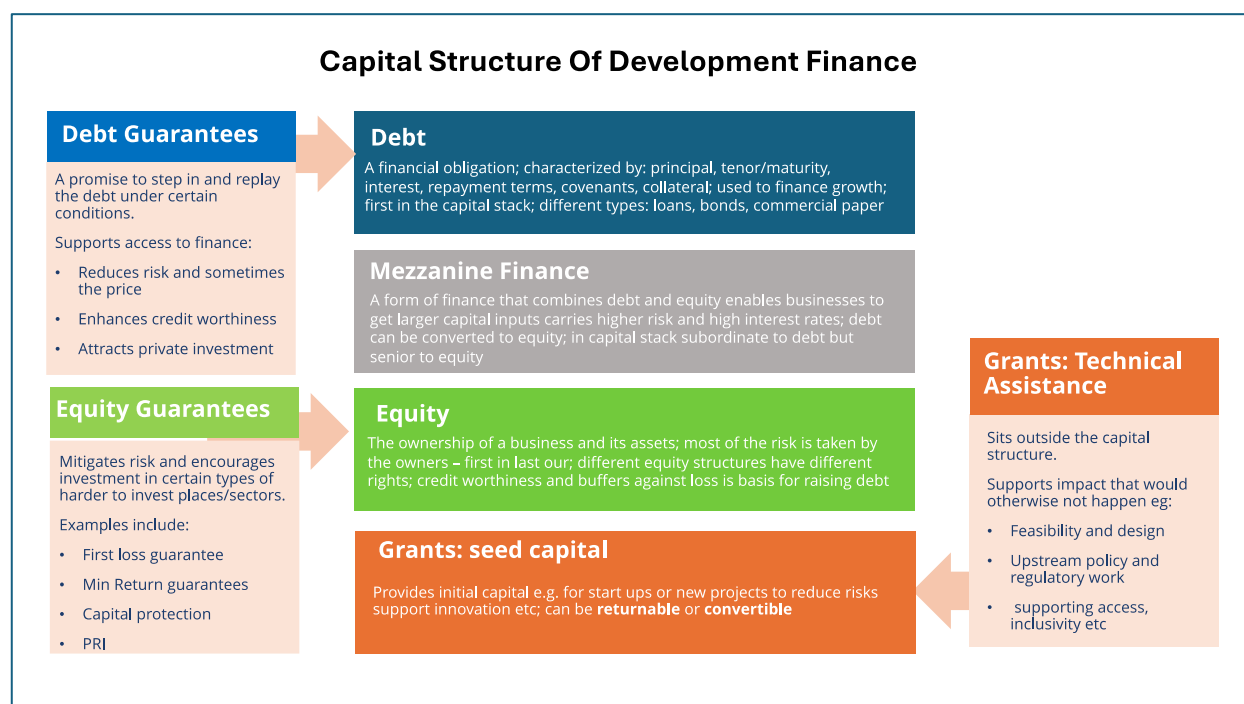
Figure 1: The structure of development finance²⁵

²⁴ This section draws on the [GDPRD Webinar Decoding the Fundamentals of Development Finance](#), including the presentations of Natalia Toschi and Mita Samani.

²⁵ Ibid., presentation by Mita Samani.

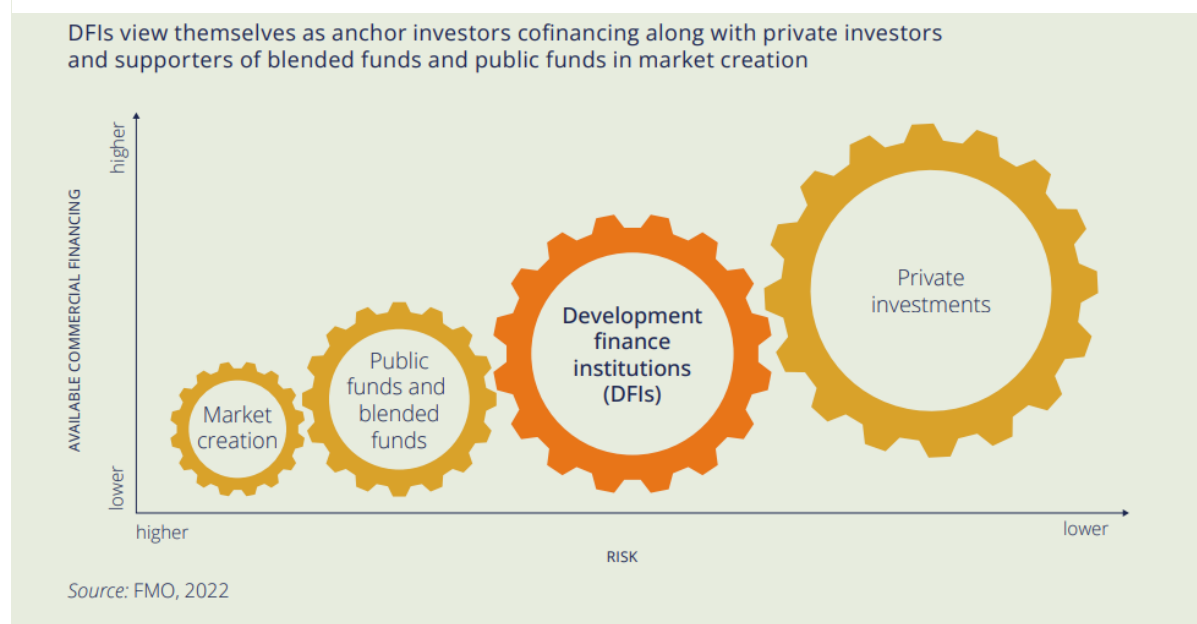
There are **three fundamental issues in financing the food and agriculture sector**. The first is the cost of serving the **large number of small enterprises**. It is dramatically more expensive to administer many small loans or equity investments than single large ones, and this raises the cost of capital. Second are the **high levels of risk, particularly in agriculture, related to weather variability and market fluctuations**. Third, is the **poor enabling environment for agrifood businesses**, including poor infrastructure, lack of market transparency, corruption, and ineffective or unenforced regulations. All these factors mean that effective financing of the agrifood sector generally requires an integrated package of interventions involving government, the finance sector, field-level development organisations and larger scale agrifood enterprises. Part of such an integrated and coordinated approach is blended finance, which will be discussed in section 4. It also means that intermediaries are often needed between the commercial financing or banking sector and individual enterprises. These include micro-financing institutions, cooperatives, value chain development initiatives and supporting NGO or community organisations, who can offer business services.

Figure 2: Capital structure of development finance



Development finance is based on the idea that by making finance more accessible and less risky, there will be wider **public benefits** related to poverty reduction, economic development, enhanced food security and nutrition and environmental sustainability. This justifies public sector contributions to development finance, which can be seen as a response to **market failures** related to social and environmental outcomes.

The principle of **additionality** (Figure 3) in development finance refers to the idea that financing from development institutions (i.e., multilateral development banks, development finance institutions, and other aid agencies) should lead to change beyond what would otherwise happen without their involvement. This principle ensures that development finance does not merely substitute for private sector funding but instead provides additional impact, resources, or outcomes that would not be achievable through private capital alone.

Figure 3: *Additionality and the catalysing of private investment.*

3.2 Development finance institutions

Development finance institutions are not-for-profit entities with a mission-driven purpose of fostering social and economic progress in L&MICs. They are established and backed by one or more sovereign state. Multilateral Development Banks (MDBs), also called International Financial Institutions (IFIs), are formed by multiple sovereign states and operate under international law. National Development Finance Institutions (NDFIs) are created by a single sovereign state and operate under the law of that country. Some development finance institutions are banks and themselves borrow from capital markets to lend and make a margin to cover costs. Others have regular replenishments from their sovereign members enabling them to deliver grants and offer loans at concessional rates. The terms IFIs and DFIs are often used interchangeably, and not very precisely. Vertical funds are a development funding mechanism that is multilateral (in terms of funders) and are focused on a specific issue or sector rather than distributing funds across a range of development issues. Examples of all types of IFIs are included in Table 1.

Figure 4: An overview of development finance institutions.

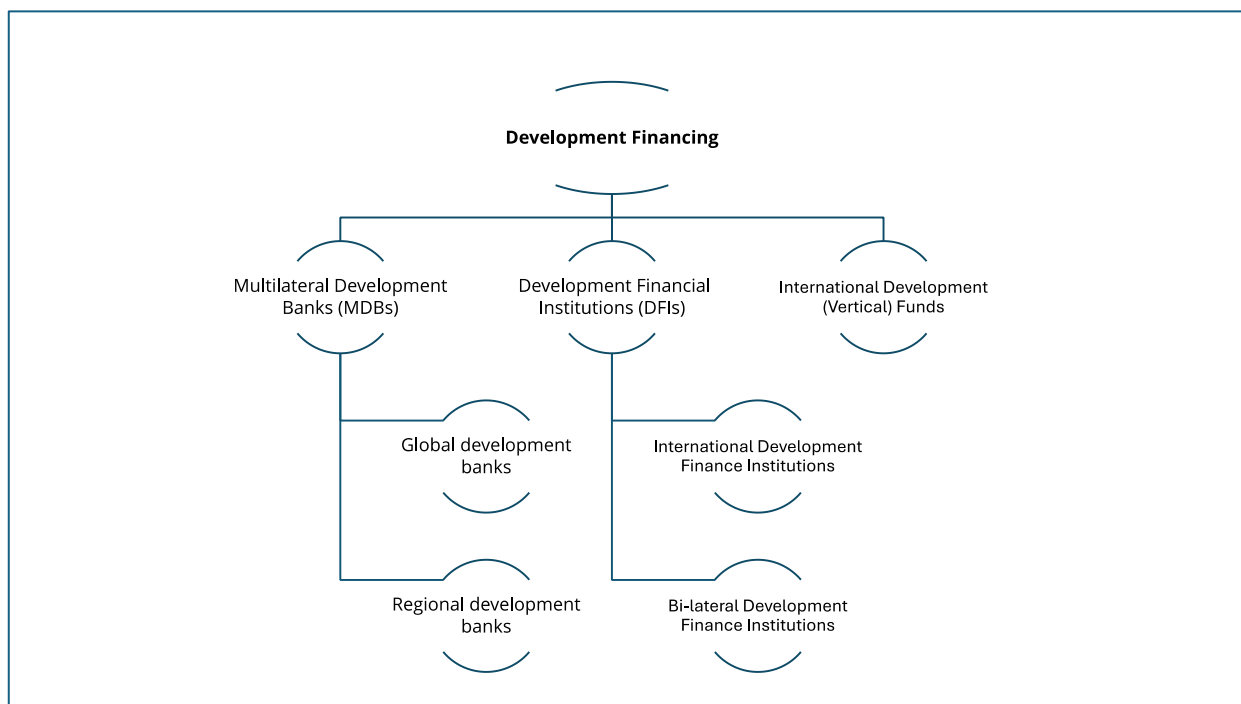


Table 1: Main development finance institutions

Multi-lateral Development Banks (IFIs)	International Development Finance Institutions (Funds)	Bilateral Development Finance Institutions (examples)	Vertical Funds (examples)
International Bank for Reconstruction and Development (World Bank Group)	International Development Association (World Bank Group) (IDA)	KfW (Germany)	Global Environment Facility (GEF)
International Finance Corporation (IFC) (World Bank Group)	African Development Fund (AfDF)	BNDES (Brazil)	Global Agriculture and Food Security Program (GAFSP)
Asian Development Bank (ADB)	Asian Development Fund (AsDF)	Development Bank of South Africa (DBSA)	Green Climate Fund (GCF)
African Development Bank (AfDB)	International Fund for Agricultural Development (IFAD)	SIDBI (Small Industries Development Bank of India)	Adaptation Fund
Inter-American Development Bank (IDB)	OPEC Fund for International Development	Industrial Development Bank of India (IDBI)	Climate Investment Funds (CIF)
European Bank for Reconstruction and Development (EBRD)		FMO	Global Fund to Fight AIDS, Tuberculosis, and Malaria

3.3 Development finance instruments and mechanisms

There are multiple financing instruments that donors and development finance institutions can use to raise capital, support development initiatives, and catalyse greater private sector investment. Often these are used in combinations as explained in Section 5. Table 2 describes the main instruments used in development finance.

Table 2: List of main financing instruments and mechanisms

Instrument	Description
Grants	Cash contributions for development projects, often targeted to create favourable conditions for enterprises, enabling them to become commercially viable or improve access to loans.
Non-concessional loans	Loans provided at market rates, typically to projects or countries with lower risk. These loans must be repaid with interest and are generally offered by development finance institutions or commercial banks.
Concessional loans	Loans offered at below-market rates, with longer repayment periods and lower interest rates to support projects with significant social or environmental impact, often in lower-income countries.
Equity	Direct investment in an enterprise, providing ownership stake rather than debt. This approach allows for potential return on investment and can help catalyze private-sector investment in development projects.
Bonds	Debt securities issued by governments or institutions to raise funds for development projects. These can include green bonds, social bonds, and impact bonds aimed at financing specific development outcomes.
Guarantees	Financial promises to cover loan defaults, mitigating risks for lenders and encouraging investment in high-risk areas or projects by protecting against potential losses.
First loss capital	Investment or funding that absorbs initial losses in a project, reducing risk for other investors and attracting additional capital by providing a safety buffer to de-risk investments.
Insurance	Financial products that protect against specific risks, such as natural disasters or political instability, allowing development projects to proceed by mitigating potential losses.
Results-based finance	Funding that is disbursed based on the achievement of predefined results or outcomes, incentivizing efficiency and effectiveness in project implementation.
Blended finance	Combining concessional funds (grants or concessional loans) with private investment to increase resources for development projects, typically by de-risking and making investments more attractive to private investors.
Trust Funds	Pooled funds managed by institutions or governments to finance targeted development projects, often focused on specific sectors or regions.
Micro-finance institutions	Organizations that provide small loans and financial services to low-income individuals or small enterprises, supporting financial inclusion and economic development at the grassroots level.

4 Current status of financing

Financing and resources for food systems focus on a wide range of needs and goals. These include addressing food insecurity and associated social protection in low-income countries, providing emergency food aid in fragile contexts, addressing malnutrition associated with both over and underconsumption of balanced diets, supporting adaptation to a variety of climate hazards and risks, and growing the commercial agrifood sector to support national and regional food supply and economic development. However, the specific types of funders and types of financing to meet these diverse goals vary widely, making it difficult to get a full picture of where the funding gaps are and which development actors are best positioned to address them. For example, as emphasized in the 2024 SOFI report, what is included in the definition of “financing for food systems” significantly influences estimates of the resources currently available. In one set of estimates, the average annual total of ODA grants for food security and nutrition varied almost 10-fold, from US\$6.9 billion to US\$62 billion, depending on the definition of what constitutes investment in food systems.²⁶ To address the challenge of characterizing both current flows and estimated future needs, methodologies like the one piloted in the SOFI 2024 report as well as the Financial Flows to Food Systems (3FS) tool²⁷ provide more explicit and systematic structure to defining what counts as funding for food systems. This section looks across definitions and information sources to clarify the ‘full’ picture of the funding ecosystem for food systems globally and specifically for L&MICs. **Error! Reference source not found.** provides a summary of the best estimates of development finance and private finance flows to the agrifood sector. The table highlights that private investments from producers and SMEs themselves, as well as subsidies from L&MIC governments to the sector, far exceed any other source of development finance.

Box 5: The 3FS Tool

The Tracking Financial Flows to Food Systems Tool (3FS):

Established by IFAD and the World Bank, this tool is designed to track the public sector, ODA and private sector flows to food systems. It integrates five areas of investment - agricultural development and value chains, infrastructure for food systems, nutrition and health, social assistance, and climate and natural resources. The tool is being piloted in 3 countries: Niger, Peru and Kenya. The tool aims to create the data needed for game changing policies for food systems financing.

²⁶ The methodology piloted in the 2024 SOFI report expands the set of DAC codes that count, and utilizes an extensive list of keywords to try to expand the definition and add precision the geography and purpose of financing flows for food security and nutrition. FAO, IFAD, UNICEF, WFP and WHO. 2024. *Supplemental Material: The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms*. Rome.

²⁷ Rosa, Della. 2023. “[Food Systems Transformation for and by Rural People](#).” Document EB 2023/139/R.11. IFAD.

Table 3. Estimates of annual financing for agrifood systems in L&MICs by source and type of finance (all estimates for 2021)

Instrument	ODA and OOF	DFIs	Private finance	L&MIC national governments	Climate finance
Grants	\$50 billion ¹		\$4 billion ¹ (philanthropy)	\$276 billion (subsidies estimated in 2030) ²	\$10.83 billion ⁴
Concessional loans		\$29 billion ³ (regional development banks)			\$12.5 billion ⁴
Commercial loans	\$19 billion ¹ (FDI) \$2 billion ¹ (domestic banks) \$630 million in private equity ⁵				
Blended finance	\$1.2 billion ¹ (concessional)	\$523 million ³			\$8 billion ³
Remittances			\$371 billion ¹ (\$341 billion for food consumption, \$30 billion invested in food systems)		
Individual farmer/SME investment			\$412 billion ¹		

¹ FAO, IFAD, UNICEF, WFP and WHO. 2024. *The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms*. Rome.

² FAO, UNDP, and UNEP. 2021. “A Multi-Billion-Dollar Opportunity – Repurposing Agricultural Support to Transform Food Systems.” FAO, UNDP, and UNEP. <https://doi.org/10.4060/cb6562en>.

³ Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. *Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2: Technical note*. GDPRD and Shamba Centre for Food & Climate.

⁴ Chiriack, Daniela, Harsha Vishnumolukala, and Paul Rosane. 2023. “Landscape of Climate Finance for Agrifood Systems.” Climate Policy Institute.

⁵ Planet Tracker. 2023. “Financial Markets Roadmap for Transforming the Global Food System.” Planet Tracker.

4.1 ODA and OOF funding

The 2024 SOFI²⁸ report estimates that in the period of 2017-2021, ODA and OOF investments in core food security and nutrition activities consistently accounted for 14-16 per cent of total ODA and OOF. When investments in ‘extended’ activities related to the drivers of food security and nutrition are added, total investments were 22-25 per cent of total ODA and OOF in the same period. Other estimates of ODA (Ceres2030²⁹) suggest that aid is nearly evenly divided between bilateral aid (US\$24 million in 2021), which is further split between grants (58 per cent) and concessional loans (42 per cent), and aid to multilateral development institutions (with an estimated US\$29 million to regional development banks, for example).

Figure 5 shows estimates of ODA and OOF for investments (grants, concessional, and commercial loans) in core food security and nutrition activities, as well as investments in ‘extended’ activities related to the drivers of food security and nutrition for 2021. Investments in food security and food aid comprise almost half (45 per cent) of total core and extended investments.

Figure 5. ODA and OOF investments in food security and nutrition in 2021

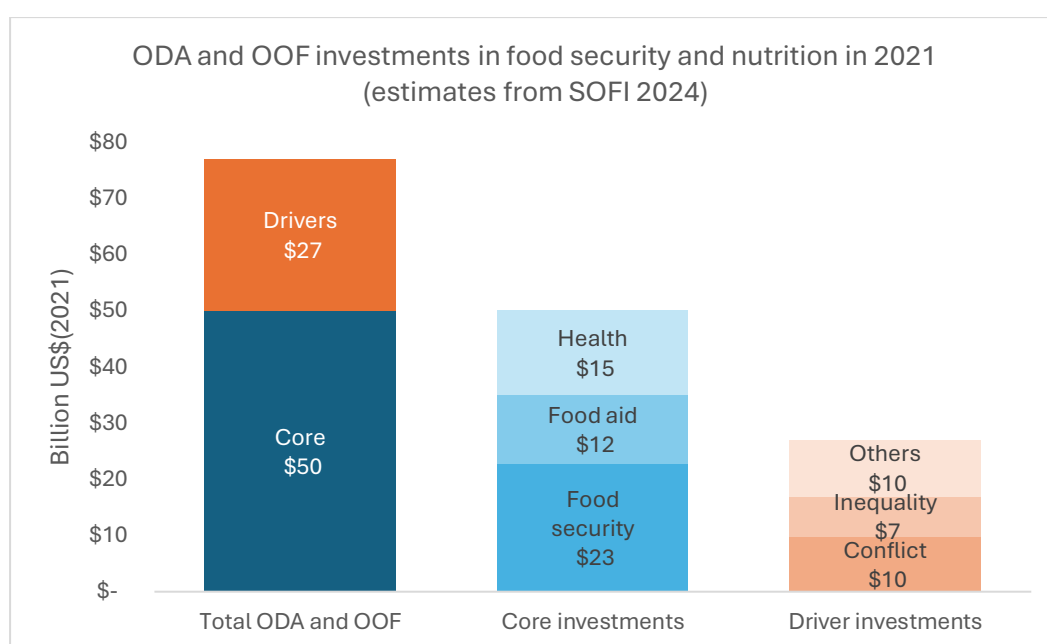


Figure 5 shows that even when applying an extended definition of ODA and OOF for food systems investments (as defined by SDG2 and drivers of the targets included in SDG2)³⁰, over one-quarter (28 per cent) focuses in the most vulnerable settings (addressing conflict and providing food aid), and about the same amount focuses on food security. The SDG2 goals are not expansive enough to capture all food systems transformation needs, but they do include a focus on improving practices, stabilizing rural livelihoods, and improving investments in small-scale agriculture. However, with steady and even increasing numbers of people globally experiencing moderate or severe hunger, and increasing conflict and climate hazards³¹, meeting immediate needs related to hunger and malnutrition will likely continue to be a key proportion of ODA for the sector without substantial increases in overall flows and improved coordination to allow for more diversification in investments.

²⁸ FAO, IFAD, UNICEF, WFP and WHO. 2024. *The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms*. Rome.

²⁹ David Laborde, Marie Parent, and Carin Smaller. 2020. *Ending Hunger, Increasing Incomes and Protecting the Climate: What Would It Cost Donors?* Ceres2030. International Institute for Sustainable Development (IISD) and International Food Policy Research Institute.

³⁰ FAO, IFAD, UNICEF, WFP and WHO. 2024. *The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms*. Rome.

³¹ GDPRD. 2021. *Donor Contributions to Food Systems*. Global Donor Platform for Rural Development.

4.2 Funding from DFIs

As stated above, DFIs encompass a wide range of institutions that invest in the agrifood system through various approaches. Global and regional development banks leverage ODA and their own funds for concessional and commercial loans. This makes it difficult to fully capture the value of investments made by DFIs in food systems, since some ODA flows to banks for specific projects are included in the data presented in

Figure 5, while general replenishment funds for global and regional development banks that are then used to finance food sector projects are reported separately. In addition, MDBs also provide a substantial proportion of climate finance (discussed below), and when those funds include activities in agriculture or land use, they can be reasonably categorized as both investments in agrifood systems and climate change mitigation and/or adaptation.

Even with these limitations, there is some data that helps to characterize the scope of IFI investment in food systems. **In 2021, MDBs provided about US\$29 billion in funds for the agrifood system through regional development banks³².**

There are also several vertical funds, mostly focused on climate, that have pledged roughly US\$32 billion in total. The majority of support is not focused on agriculture, food systems, or rural development, though each fund has at least one programme that does focus in these areas. Table 4 shows the total amount currently committed in five key vertical funds, all but one of which focus on climate, with proportional breakdowns, when possible, for food systems-related activities.

Table 4. Total commitments and commitments for food systems in vertical funds

Fund	Total committed
Global Environment Facility (GEF)	US\$5 billion
Global Agriculture and Food Security Program (GAFSP)	US\$681 million
Green Climate Fund (GCF)	US\$12.8 billion (US\$2 billion for health, food, and water)
Adaptation Fund	US\$1.25 billion (13 projects for agriculture, food security, and rural development)
Climate Investment Funds (CIF)	US\$12 billion

4.3 National government budgets

National governments spend money on agriculture through price incentives and fiscal subsidies, as well as by providing financing through national development banks and other national financial institutions. Globally, government support to producers has averaged around 15 per cent of total agricultural production value.³³ However, the total dollar value, proportion of GDP, and focus of these subsidies varies widely across the world. In low-income countries, public funds to support food systems tend to focus on lowering food costs for consumers, which can have a negative impact on producer livelihoods. **This impact on producer finances is measured by an index called the nominal rate of assistance (NRA), which was negative in low-income countries every year but two in the period of 2005-2018. This means that in total, these national government investments in food systems negatively impact producers' bottom line, rather than help them.**³⁴ In MICs, the NRA has hovered just below 10 per cent in the same period.

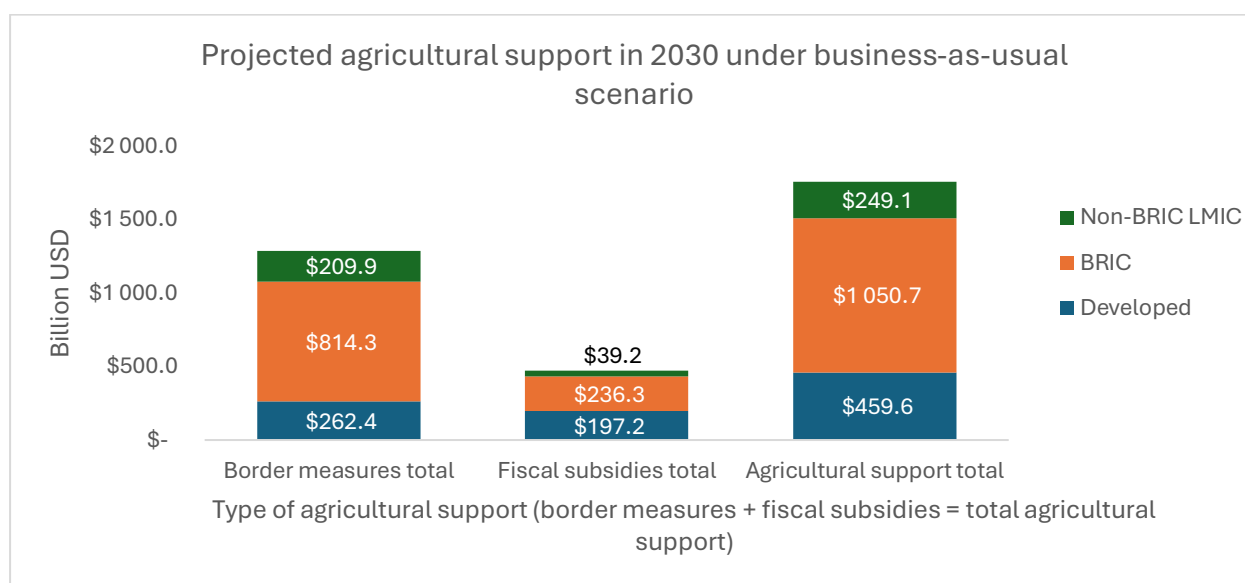
³² Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. *Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2: Technical note*. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate.

³³ FAO, UNDP, and UNEP. (2021). *A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems*.

³⁴ Ibid.

Figure 6 shows the total value and focus of public support for food systems globally, indicating high-income countries (HIC), BRIC³⁵ countries, and all other L&MICs. In absolute dollars, estimates from the same FAO report suggest that in a business-as-usual scenario, L&MICs will spend about US\$276 billion per year on subsidies by 2030, which can have very different impacts on food system transformation depending on the focus. Even when adjusted for estimated population size in 2030³⁶, BRIC countries are estimated to spend roughly US\$73 per capita, compared to US\$10 per capita in all other non-BRIC L&MICs. These figures, especially in sub-Saharan Africa, are unlikely to meet the Comprehensive Africa Agriculture Development Programme (CAADP) Malabo Commitments focus on spending 10 per cent of government budgets to agriculture and rural development.³⁷ In addition, CAADP goals include an emphasis on mobilizing private finance through targeted public investment, which as described throughout this section, remains a challenge in high-risk or otherwise vulnerable settings.

Figure 6. Projected agricultural support in 2030³⁸.



As noted above, food systems in most L&MICs are primarily comprised of many small producers and SMEs, and more investment in local food systems (via both public support and private loans) could support local food security.³⁹ Although it is difficult to summarize the current proportion of L&MIC budgets allocated to agriculture, the combination of data on NRA and per capita spending on agricultural support suggests that investments in agriculture in most L&MICs are not currently prioritizing areas that would strengthen local food systems via food security and producer livelihoods. Estimating domestic flows to agriculture and broader food systems can be challenging within single countries, as well as when comparing or aggregating across countries. To address this challenge, the 3FS tool is being developed by IFAD and the World Bank through a working group initiated at the United Nations Food Systems Summit (UNFSS). The 3FS tool focuses primarily on domestic public flows but is being expanded to include private sector finance as well.⁴⁰

³⁵ In the referenced report, the four BRIC countries (Brazil, Russia, India, and China) are separated out, but South Africa is not included in this group.

³⁶ UNESA. 2024. World Population Prospect. Population Division, United Nations Economic and Social Affairs. <https://population.un.org/wpp/Graphs/Probabilistic/POP/TOT/643>

³⁷ CAADP.

³⁸ Ibid.

³⁹ Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. *Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2*. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate.

⁴⁰ Santala, S. and Slocum, R. 2023. "Food Systems Transformation for and by Rural People." Document EB 2023/139/R.11. IFAD.

4.4 Private sector investment in the agrifood sector

Globally, private finance provides just under two-thirds (63 per cent) of the total asset value of the agrifood system (US\$9 trillion of a total value of US\$14 trillion)⁴¹, most of which is comprised of equity and owner funding/retained profit. In addition, US\$630 billion in private capital is available to invest in food systems every year.⁴² This means that each year, private capital valued at about 45 per cent of the total value of the global food system is available. However, most of this capital is focused in large agrifood companies based in HICs and upper middle-income countries. In addition to formal private capital, informal producer and SME investment in the agrifood sector in L&MICs is estimated at US\$412 billion per year.⁴³

As noted throughout this report, private finance is seen as key for transforming food systems, given that the private sector offers resources on a scale far greater than current public sector flows of grants and loans. However, private finance has a different logic than public development funds and requires less risk and more certainty in returns on investment. Because of this, it will take innovative approaches to de-risk investments to expand and maximize the potential impact of private finance on food system transformation in L&MICs.

4.5 Blended finance

Blended finance is seen as a key approach to de-risking commercial lending, especially in vulnerable, fragile, or otherwise high-risk countries and parts of the agrifood system.⁴⁴ It uses concessional loans offered from direct ODA or through DFIs to leverage commercial funds offered by public or private financial institutions and investors. Currently, the total amounts of blended finance are difficult to estimate, because the concessional loans are often counted in ODA flows and not separated out as relating to blended finance, and commercial loans from the private sector are not tracked consistently. However, 2021 estimates show ODA for concessional loans at US\$4.5 billion across all sectors (just 2 per cent of total ODA)⁴⁵.

Figure 7 shows the breakdown of how concessional finance can leverage commercial finance. By that estimate, for the entire development sector, the US\$1.7 billion in ODA and DFI concessional loans for blended finance (as shown in Table 3) should be generating around US\$6.9 billion in commercial finance, including US\$3.6 billion from DFIs and US\$2.38 billion from private finance. However, currently only 5-10 per cent of investments by DFIs and MDBs in agriculture mobilize private finance⁴⁶, so a more realistic estimate of private capital leveraged in for the sector is US\$240 million.

Table 3 and the section above also show the large amount of FDI that is available to agrifood systems globally, largely focused on low-risk and relatively high return investments. Re-orienting even a small proportion of private finance toward higher-risk investment opportunities, using both concessional financing and other innovative finance approaches (see Table 2 and Section 5 below), could significantly expand overall access to capital for food system actors in L&MICs.

⁴¹ Planet Tracker. 2023. "Financial Markets Roadmap for Transforming the Global Food System." Planet Tracker.

⁴² Ibid.

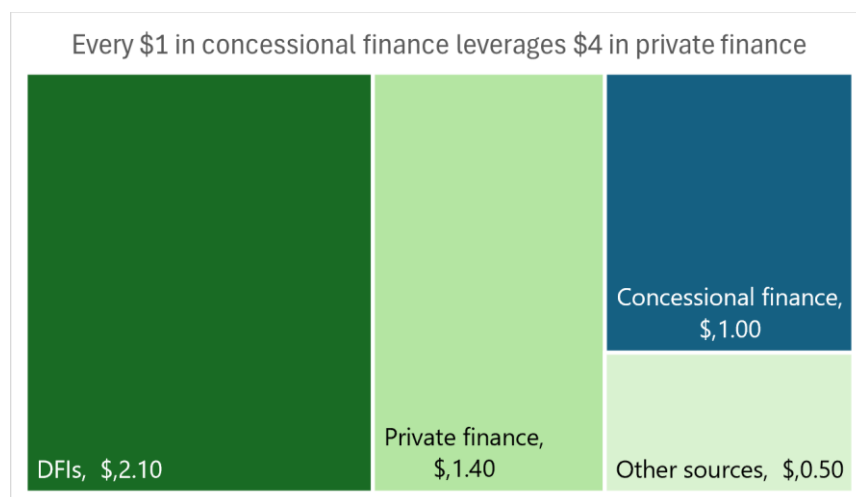
⁴³ FAO, IFAD, UNICEF, WFP and WHO. 2024. [The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms](#). Rome.

⁴⁴ IFC, 2021. *Using Blended Concessional Finance to Invest in Challenging Markets: Economic Considerations, Transparency, Governance, and Lessons of Experience*. World Bank.

⁴⁵ Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. [Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2: Technical note](#). Global Donor Platform for Rural Development and Shamba Centre for Food & Climate.

⁴⁶ IFC, 2021. *Using Blended Concessional Finance to Invest in Challenging Markets: Economic Considerations, Transparency, Governance, and Lessons of Experience*. World Bank.

Figure 7. Potential leverage created by concessional finance



The GDPRD and Shamba Centre for Food & Climate⁴⁷ report describes how DFIs use their own concessional funds to leverage their own commercial dollars, noting that blended finance that uses concessional loans from DFIs is not necessarily bringing in new financial institutions/expanding the overall pool of capital. Several reports note the gap in credit and funding for SMEs, generally defined as business needing US\$25,000 to US\$5,000,000 in credit. These food system actors would be well-served by domestic commercial lending, but recent reports show that there is on average a 10 per cent loss on these loans⁴⁸. Thus, flexible and patient capital is needed to supplement credit for these actors. However, blended finance has never amounted to more than US\$30 billion annually (in 2018) and by 2022 had fallen to US\$14 billion.⁴⁹ In 2021, the reference year used throughout this report, an estimated US\$25 billion went into blended finance, and 33 per cent of this was focused on agriculture for a total of about US\$8 billion.

In addition to concessional funds from DFIs, there are also several innovative blended funds focused on land use, agriculture, and food systems. These funds range in size from millions to hundreds of millions in concessional finance, with a few of the largest being:

- [Land Degradation Neutrality \(LDN\) Fund](#), which closed in 2021 with US\$208 million.
- The [AGRI3 Fund](#) has US\$145 million in concessional financing, with the goal of leveraging US\$900 million of commercial financing.
- [AgDevCo](#) has US\$90 million and a portfolio of leveraged funds worth US\$280 million.
- The [Food Securities Fund](#) is aiming to raise just over US\$50 million in concessional finance to leverage US\$734 million in commercial finance.

4.6 Climate finance

Food and agriculture systems contribute about one-third of total global emissions⁵⁰ and have the potential to mitigate about 20 per cent of total global emissions⁵¹. In 2019/2020, total estimates for agriculture and forestry climate finance amounted to US\$28.5 billion, or 4 per cent of total climate finance. Climate finance includes grants, concessional loans, and commercial loans from public and private sources focused on climate change mitigation and/or adaptation. Within current climate finance

⁴⁷ Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. [Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2](#). Global Donor Platform for Rural Development and Shamba Centre for Food & Climate.

⁴⁸ IFC, 2021. *Using Blended Concessional Finance to Invest in Challenging Markets: Economic Considerations, Transparency, Governance, and Lessons of Experience*. World Bank.

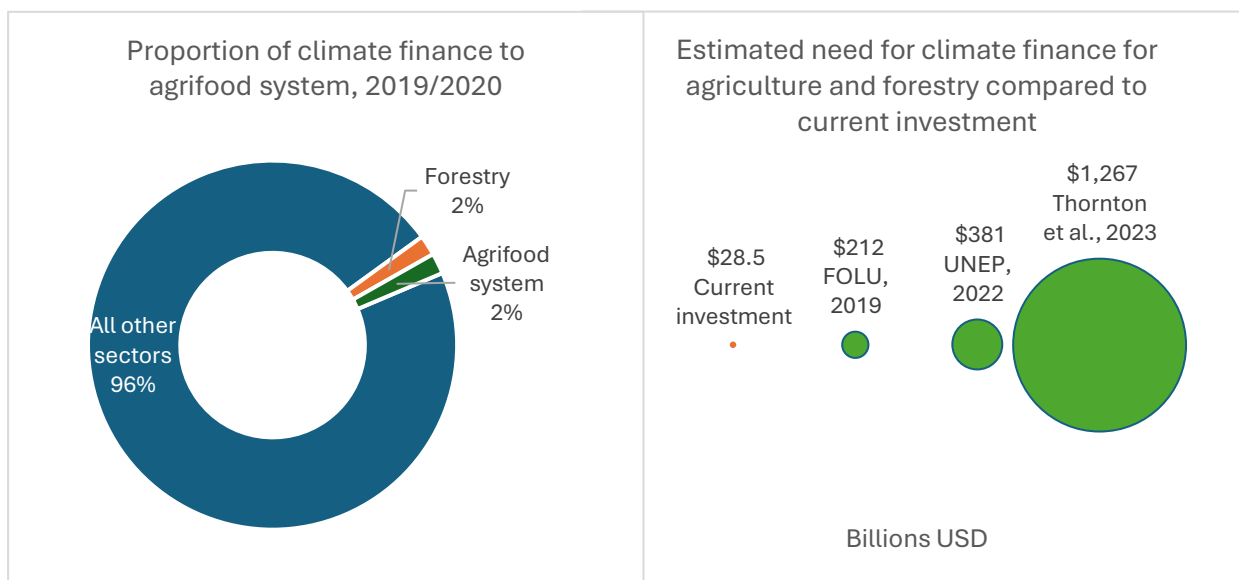
⁴⁹ Ibid.

⁵⁰ Crippa, M., E. Solazzo, D. Guizzardi et al., "Food systems are responsible for a third of global anthropogenic GHG emissions", *Nature Food*, vol. 2, 2021, pp. 198-209, <https://www.nature.com/articles/s43016-021-00225-9#citeas>.

⁵¹ Global Alliance for the Future of Food, *Untapped Opportunities Climate Financing for Food Systems Transformation*, 2022, <https://futureoffood.org/wp-content/uploads/2022/10/climatefinancereport-english.pdf>.

for agriculture and forestry, US\$11.9 billion focused on the agrifood sector and US\$11.7 billion focused on forestry (the remaining funds support projects with multiple focal areas, and those focused on fisheries, diet, and national policy). An additional US\$4.8 billion of private climate finance was invested by companies within their supply chains or supply sheds.⁵² Figure 8 shows the proportion of total climate finance focused on agriculture and forestry in 2019/2020, as well as the funding gap in climate finance for agriculture and forestry, as estimated by several recent studies. Estimates range from needing 10 to 45 times more climate finance for the sector.⁵³

Figure 8. Proportion of current climate finance focused on agriculture and forestry, and additional estimate needs⁵⁴



More recent estimates show similar gaps in overall climate finance for food systems. In 2022, public funds, via ODA (which includes flow through IFIs) and other mechanisms, surpassed the US\$100 billion goal set in 2020.⁵⁵ The vast majority of climate finance for food systems comes from the public sector (86 per cent in 2023 based on initial estimates),⁵⁶ meaning that increases in public funding have led to increased overall investments in food systems. In addition, climate finance often uses blended finance mechanisms, with IFIs using a combination of concessional and commercial loans. For example, the International Finance Corporation (IFC) has used US\$624 million in donor concessional funds to leverage US\$1.7 billion in IFC commercial loans and US\$5.1 billion in private finance, in total leveraging US\$10 in commercial finance for every dollar of concessional loans.⁵⁷ However, total funding levels are still too low to leverage substantial private funds and increase overall flows.

⁵² Chiriack, D., Vishnumolakala, H. and Rosane, P., 2023. *Landscape of Climate Finance for Agrifood Systems*. Climate Policy Initiative

⁵³ Ibid.

⁵⁴ Chiriack, D., Vishnumolakala, H. and Rosane, P., 2023. *Landscape of Climate Finance for Agrifood Systems*. Climate Policy Initiative

⁵⁵ Mitchell, I., and Wickstead, E. 2024. "Has the \$100 Billion Climate Goal Been Reached?" Center for Global Development.

⁵⁶ Naran, B, Buchner, B., Price, M., Stout, S., Taylor, M., and Zabeida, D. 2024. *Global Landscape of Climate Finance 2024*. Climate Policy Initiative.

⁵⁷ IFC, 2021. *Using Blended Concessional Finance to Invest in Challenging Markets: Economic Considerations, Transparency, Governance, and Lessons of Experience*. International Finance Corporation, World Bank Group.

5 Emerging innovative and blended financing mechanisms for the agrifood sector

There is a long history of development initiatives working to improve access to finance for agricultural producers and agrifood sector SMEs. This has included numerous, and often successful, microfinance programmes and more recently information and communication technology (ICT)-based financing mechanisms, as well as ICT-based models for aggregating farmer input supply and offtake mechanisms. There has also been significant support for the financing of larger-scale agrifood sector enterprises through IFIs. As reflected throughout this paper, the big issue is how to shift from “islands of success” to financing the sector on a much larger scale, particularly in difficult contexts, and in ways that incentivise health, equity, and environmental outcomes.

Particularly over the last decade, there has been considerable innovation in mechanisms and approaches for improving and scaling up financing for the agrifood sector. This has been driven by the interconnected objectives of: increasing the scale of access to finance for smallholders and SMEs; raising greater levels of capital from private capital markets and businesses; reducing risk for investors; and connecting with funds related to achieving environmental, climate and nutrition benefits. Much of this innovation has been framed around the concept of blended finance, alongside the establishment of new multi-donor trust funds.

Reflecting the 2024 SOFI report⁵⁸, innovative finance is used to refer to an instrument or initiative with at least one of the following characteristics: developed in recent years; adapted to meet new purposes; newly applied to the agrifood sector; or involves new actors or combinations of instruments.

While some funds associated with innovative financing are quite large, the overall value of these mechanisms remains small relative to the scale of resources needed, and the total volume of ODA funding for the sector. Further, the scale of private finance mobilized is still extremely modest. Nevertheless, experience and lessons from the emerging diversity of innovative financing mechanisms provide an excellent foundation for creating a new ecosystem of financing for food systems, with the potential for substantially scaling up the deployment of private capital into the sector. At the same time, there must be clear-eyed realism about the extent to which private finance can substitute the public finance needed for public good outcomes. Additional public investment in public goods, such as infrastructure, is often essential to attract private capital.

The UNFSS, pre and post, catalysed much discussion on financing along with a series of reports. There has also been the establishment of a range of networks and alliances focused on innovations for food systems financing (see Box 6).

⁵⁸ FAO, IFAD, UNICEF, WFP and WHO. 2024. [The State of Food Security and Nutrition in the World 2024 – Financing to end hunger, food insecurity and malnutrition in all its forms](#). Rome.

Box 6: Networks and alliances

Networks and alliances supporting innovative financing for food systems (alphabetical)**Agricultural Public Development Bank Coalition (Agri-PDB Platform)**

Agri-PDB is hosted by the International Fund for Agricultural Development (IFAD) in partnership with the French Development Agency (AFD). Access is free for Public Banks or institutions which have a public mandate to finance agriculture. The platform has 141 members and provides training, technical expertise, and peer-to-peer exchange to assist Agri-PDBs in sharing best practices and applying innovative solutions to their challenges and climate finance.

Blended Finance Task Force

Launched by the Business & Sustainable Development Commission in 2017, the Blended Finance Taskforce was established to help mobilize largescale capital for the UN Sustainable Development Goals (SDGs). As well as supporting the finance lever of the UN Food Systems Summit, the task forces has produced a report “[Better Finance, Better Food](#)” with a series of innovative case studies.

Council on Smallholder Agricultural Finance (CSAF)

Founded in 2012 as a forum for lenders to share learning, CSAF now includes 17 members and affiliates committed to market growth and impact.

Good Food Finance Network (GFFN)

The Good Food Finance Network (GFFN) brings together a large network of banks, insurers, investors and capital market influencers to collectively catalyse capital and create an enabling financial environment for the transition to sustainable and just food systems. Launched in September 2021, GFFN aims to take forward the finance outcomes of the UN Food Systems Summit. During the 2021 summit, the “[Food Finance Architecture: financing a healthy, equitable and sustainable food system](#)” report and policy brief were published.

Smallholder and Agri-SME Finance and Investment Network (SAFIN)

SAFIN is an inclusive partnership of actors working in different parts of the global ecosystem for agricultural development and related small and medium enterprise (SME) finance and investment. It is hosted by IFAD with a membership of over 50 institutions working on finance in agriculture and food systems. As well as holding network meetings, it produces research and [reports on innovative financing](#).

Other networks and alliances that partly focus on innovative financing include:

- The [World Economic Forum’s \(WEF\) Food Action Alliance](#)
- The [Food and Land Use Coalition \(FOLU\)](#)
- The [Global Alliance for Climate-Smart Agriculture \(GACSA\)](#)
- [Agri-SME Learning Collective](#)
- [Convergence – Global Network for Blended Finance](#)
- [Food Systems Economic Commission](#)

5.1 Examples of innovative financing mechanisms and funds

As illustrated in Table 5, there is a rapidly expanding wide range of innovative financing mechanisms and funds serving the agrifood sector. Many funds or initiatives combine several different financing mechanisms, making a simple categorisation difficult. The examples given are largely drawn from the “Better Finance Better Food Report”, the GDPRD and Shamba Centre report *Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2* and the 2024 SOFI report. The table is meant to be illustrative and not comprehensive.

The examples show that a diverse range of mechanisms are increasingly being deployed to raise private and public capital, de-risk investments (which is related to raising capital), create incentives for

sustainable practices, pay for environmental services, improve access to finance for SMEs, and provide the technical assistance need for bankable and commercially viable operations. What makes financing innovative is not a specific mechanism, but rather how mechanisms are integrated and the formation of new partnerships between financing and delivery entities.

The Blended Finance Task Force case study report is a broad-based review of financing mechanisms for the food systems current available, and it is now five years old. Case studies of innovative financing initiatives can also be found in the joint GDPRD and Shamba Centre Report and the 2024 SOFI.

Table 5: Description and examples of innovative financing mechanisms

Financial Mechanism	Description	Examples
Paying for nature	Farmers or landowners are paid for maintaining practices that protect natural environments, such as reducing deforestation, improving soil health, or enhancing biodiversity.	<p>REDD+: A UN-backed framework that provides financial incentives to developing countries for reducing emissions from deforestation and forest degradation while promoting conservation and sustainable forest management.</p> <p>Costa Rica's PES Program: A pioneering national payment for ecosystem services programme that compensates landowners for maintaining forests and environmental services.</p> <p>Watershed payments in Mexico: A national programme where water users pay for watershed conservation services provided by upstream communities and landowners.</p>
Bonds	Bonds can finance sustainable farming practices, irrigation systems, renewable energy in agriculture, and other eco-friendly innovations in food systems.	<p>EIB Sustainability Awareness Bonds: Debt instruments issued by the European Investment Bank that focus on raising funds for sustainability projects with clear environmental and social benefits.</p> <p>IFC's Green Bonds: Financial instruments that fund climate-smart agriculture projects globally through the International Finance Corporation.</p> <p>The World Bank's Green Bonds: Fixed-income securities that raise funds for projects addressing climate change and environmental challenges.</p> <p>Africa GreenCo's renewable energy bonds: Specialized bonds supporting renewable energy infrastructure development across Africa.</p> <p>Louis Dreyfus Company's sustainability-linked bond: A bond whose terms are connected to the company's sustainability performance indicators.</p>
Blended finance	Public and private financing packaged together including grants, concessional loans and commercial loans designed to de-risk and scale up private investment.	<p>IDH FarmFit: A blended finance facility that helps make investments in smallholder farming more efficient and bankable.</p> <p>Aceli Africa: A combination of financial incentives and technical assistance designed to increase lending to agricultural SMEs in East Africa.</p> <p>Food Securities Fund: An investment fund providing working capital loans to agricultural companies that source from smallholder farmers.</p> <p>Proparco: The French Development Finance Institution that provides financing and support for sustainable development projects.</p> <p>RK-FINFA: A financial inclusion facility specifically designed to improve access to finance for rural communities in Kenya.</p>
First loss	First-loss capital can incentivize investments in high-risk agricultural innovations, such as new crop technologies or smallholder farming	<p>The ABC Fund (Agri-Business Capital Fund): Initiated by the International Fund for Agricultural Development (IFAD), EU, and ACP, uses first-loss financing to support smallholder farmers and agribusinesses.</p>

Financial Mechanism	Description	Examples
	projects, by mitigating risk for other investors.	AgDevCo: An impact investor focused on African agribusiness, which often includes first-loss capital from DFIs or foundations. Land Degradation Neutrality Fund: An investment vehicle that blends public and private funding to support sustainable land management and land restoration projects.
Guarantee fund	Guarantee funds help mitigate lenders' risks by covering a portion of potential loan defaults, enabling financial institutions to extend more credit to farmers and agribusinesses.	ARIZ Fund: A guarantee fund managed by the French Development Agency (AFD) that facilitates access to bank financing for African SMEs.
Equity investment	An equity investment involves purchasing ownership stakes (shares) in a company, which can provide the capital for startup and reduce the need for loans.	Africa Agriculture and Trade Investment Fund: A public-private partnership providing debt financing to support agricultural value chains in Africa. ARCH Cold Chain Solutions: An investment platform focused on developing cold storage infrastructure across emerging markets.
Securitization	Agricultural loans or receivables can be bundled into securities, allowing investors to support smallholder farmers or agricultural infrastructure indirectly through financial products.	Credit Suisse/Althelia Ecosphere Nature Conservation Notes: impact investing product for reducing carbon emissions and promoting sustainable agriculture.
Impact investing	Impact investors target sustainable agriculture projects, supporting food systems that improve food security, reduce waste, and enhance environmental sustainability.	Acumen Resilient Agriculture Fund: An impact investment fund supporting innovative agricultural enterprises that help smallholder farmers adapt to climate change. TPG Rise Fund: A large-scale impact investing platform that includes significant investments in agricultural technology and sustainable food systems. Moringa Fund: A specialized investment fund focusing on sustainable agroforestry projects in Africa and Latin America. Livelihoods Carbon Fund: A social impact investment fund for ecosystem restoration, clean energy, and agroforestry projects.
Sustainability-linked loans and financial products	Farmers or agribusinesses can access better loan terms by improving environmental performance, like reducing fertilizer use or increasing biodiversity on farms.	Danone's sustainability-linked loan: A credit facility where interest rates are tied to the company's environmental and social performance metrics. Olam's sustainability-linked revolving credit: A financing facility where terms improve as the company meets sustainability targets. Barry Callebaut's sustainability-linked loan: A credit instrument tied to the company's progress on sustainable cocoa sourcing and carbon reduction.
Supply chain finance	Enables small farmers or suppliers to receive early payments for their produce, reducing financial strain and improving efficiency in the food supply chain.	Unilever's supply chain finance programme: A financing scheme that offers better terms to suppliers meeting sustainability criteria. ECOM's coffee farmer finance: A targeted programme providing working capital to coffee farmers in their supply chain. Rabobank's "Kickstart Food": A programme combining financing and technical support for sustainable food production.

Financial Mechanism	Description	Examples
		Nestlé's Responsible Sourcing programme: aims to help build the foundations to advance regenerative food systems at scale.
Insurance	Crop insurance helps farmers mitigate risks from natural disasters, while livestock insurance covers the health and productivity of animals in agrifood systems.	<p>Index-based crop insurance in Kenya: A weather-based insurance product that automatically pays out based on predetermined weather triggers.</p> <p>Rwanda's National Agricultural Insurance: A government-backed scheme providing crop and livestock insurance to farmers.</p> <p>Africa Risk Capacity: A specialized agency offering parametric insurance to African countries for climate-related risks.</p> <p>Pula's agricultural insurance: A tech-enabled insurance provider offering innovative coverage solutions for smallholder farmers.</p> <p>ACRE Africa: A microinsurance intermediary developing affordable insurance products for smallholder farmers.</p>
Technical assistance	Provision of technical and management expertise and advice to farmers and agrifood enterprises	Wide range of ODA funded programmes and projects from bilateral donors, IFIs and NGOs and foundations. There will often be a technical assistant component in loans and investments.
Fintech and mobile services	Mobile banking services or digital platforms provide smallholder farmers with access to credit, savings, and insurance, improving financial inclusion and resilience.	<p>M-Pesa: Kenya's pioneering mobile money platform that revolutionized financial access for rural communities.</p> <p>Agri-wallet: A digital platform providing farmers in East Africa with access to finance and inputs.</p> <p>Hello Tractor: A digital platform connecting smallholder farmers with tractor owners through a mobile app.</p> <p>FarmDrive: A credit scoring application using alternative data to assess creditworthiness of smallholder farmers.</p> <p>DigiFarm: Safaricom's integrated mobile platform providing farmers with access to financial services, inputs, and markets.</p>
Global funds	Financial mechanisms that pool and channel resources from donor countries and IFIs to support sustainable development initiatives, poverty reduction programmes, in low- and middle-income countries	<p>Food Systems 2030: World Bank multi-donor trust fund that helps countries build better food systems.</p> <p>Global Agriculture and Food Security Program (GAFSP): A multilateral partnership for food and nutrition financing, including concessional loans, grants, and technical assistance.</p>
Results-based financing	Private entities are paid by public funds if specific development outcomes are achieved but the private entity must meet all or part of the upfront costs / investments.	<p>Roots of Impact: Designs and implements innovative impact finance solutions.</p> <p>Agresults: Multilateral initiative using pay-for-results prizes to pull in private sector investors.</p>
Sovereign wealth funds	State-owned investment funds, often funded by revenue from natural resources, trade surpluses, or other government sources, used to benefit the countries long-term development.	<p>Agaciro Rwanda Sovereign Wealth Fund: created by citizen investments and considered innovative.</p> <p>Nigeria Sovereign Investment Authority (NSIA): makes significant investments into the agriculture sector.</p>

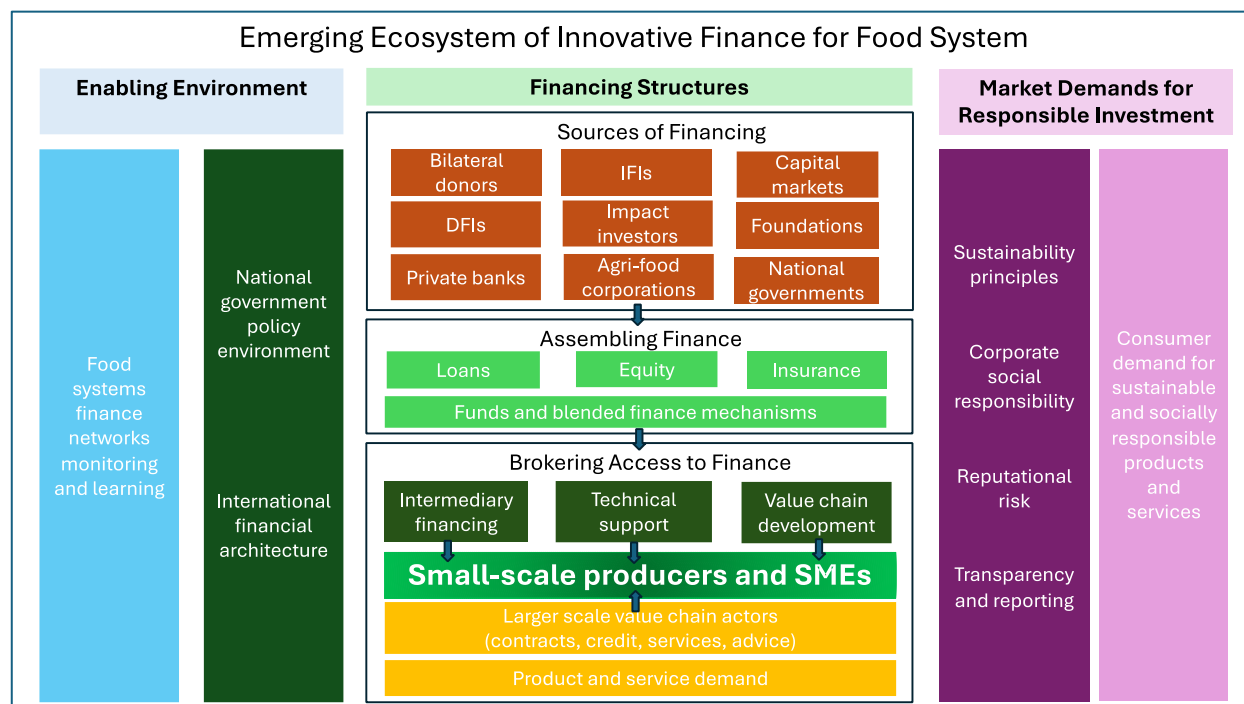
5.2 An emerging food systems financing ecosystem

Financing sustainable and equitable development of the agrifood sector is arguably more difficult than for most other sectors, due to the complexity of risk factors and the high costs required to serve the large numbers of smallholders and SMEs involved. Many of these smallholders and SMEs have limited managerial and technological capabilities, limited assets, and poor access to financial, business, and advisory services. Further, the agrifood sector has highly complex dynamics in terms of public and private goods and market externalities. The centrality of food security for social and political stability and the very large numbers of poor people employed in the agrifood sector of L&MICs also creates high levels of political economic complexity and sensitivity.

In this context, effective financing requires a highly interconnected and coordinated network of systems, entities and processes. This includes creating incentives for sustainable practices and investment, raising capital, managing complex risk dynamics, brokering blended financing mechanisms, connecting financing with new business models and improved value chain functioning, providing “last mile” financial services, optimising Fintech services, and matching financial services with the necessary technical assistance for enterprises to operate profitably.

Looking across the diverse range of emerging innovative financing initiatives, all these different elements are being considered and put in place to varying degrees by various initiatives, trusts and organisations. However, in terms of establishing a fully functional “ecosystem” capable of achieving impact at scale, efforts are still in the early stages. Success over the longer-term will require system-wide thinking, learning and coordination, which requires investment. Large numbers of individual and fragmented innovative financing initiatives could be counterproductive, leading to the same criticisms and problems traditional donors face, particularly at the national and local levels. For the whole ecosystem to function effectively, the right scale of effort and investment is needed across all the different functions and processes.

Figure 9 illustrates this emerging financing ecosystem, and emerging issues and ways forward are discussed below and in Section 6. The centre of the figure illustrates financing structures from raising finance to assembling it, which involves both different sources of finance and integrating different financial mechanisms, often done through blended finance or other types of funds. This assembled finance is then used to provide finance for small-scale producers and SMEs, often through specialised intermediary financing institutions, which need to be connected with technical support and value chain development. At this level, larger-scale enterprises also play a critical role in financing, including through credit for inputs and contracts for offtake (contracts set at the beginning of the growing season that guarantee purchase of production, which provides individual producers with financial stability knowing that they have a buyer for their production). The willingness of the financial sector to provide finance is partly driven by an increasing consumer-driven demand for corporate social responsibility, transparency, and accountability, and to avoid reputational risk. The left of the diagram illustrates the critical role that an enabling environment for finance plays both domestically and internationally, and also illustrates the emergence of networks to support learning and innovation around financing food systems (see Box 6: Networks and alliances Box 6, p.22).

Figure 9: Illustration of key elements of a food systems financing ecosystem⁵⁹

5.3 Reflections on the state of innovative financing

The number of innovative and blended financing mechanisms has expanded rapidly over the last decade. There is currently no substantial meta-level monitoring or evaluation of this field. In that context, based on existing reports, available data and interviews, the following reflections are offered for further discussion.

1. The scale of private sector finance mobilized remains modest, relative to the scale of the challenges and public sector financing.
2. A wide diversity of new funds and initiatives have been established by IFIs, private sector companies and not-for-profit development organisations. These are forging new partnerships between different actors.
3. Private sector engagement in financing these initiatives appears to be mainly from HICs / international corporations.
4. Most initiatives engaging private sector finance are targeted to higher potential areas and sectors where risks are lower and operating costs are more manageable.
5. While many of these initiatives have their own comprehensive monitoring and reporting mechanisms, there remains a significant gap in understanding collective lessons learned and overall impact.
6. Many initiatives are relatively new, which means that their impact and long-term sustainability is still to be fully proven.
7. While blended finance is a term being used to cover many of the emerging initiatives/funds, there is a very diverse range of financial instruments being employed.
8. Connecting the raising of finance with “last mile” financial access and technical support for smallholders and SMEs is critical to success and is a key component of many initiatives; however, this has significant costs requiring public financial support.

⁵⁹ Source: Authors own

9. For impact and longer-term scaling, the financing mechanism needs to relate to effective and efficient value chain development on one end, and a demand for meeting and reporting on environmental and social responsibility principles and objectives, at the other.
10. There is often a knowledge and understanding gap between actors and organisations of the finance sector and those of the agrifood sector. Intermediaries who understand both and can broker innovative solutions and viable deals are critical.
11. There is a rapidly growing level of experience and lessons from innovative financing for food systems; however, this remains fragmented, and poorly synthesised and shared.

6 Ways forward

This section outlines some broad ways forward for the financing of food systems. These have been derived from the conclusions and the recommendations of the reports covered by this document and insights from the key informant interviews. The perspectives presented below are tentative and intended for stimulating debate during the AGA.

6.1 Shifting the narrative

Change requires, and is driven by, story lines or narratives that resonate with people and provide coherent articulation of the potential benefits. This lesson is increasingly evident in political shifts across the globe. So, what is the narrative that will bring investors to the table for food systems transformation? A more positive and opportunity-oriented narrative is likely needed, one that puts more emphasis on the potential returns on investment.

Key issues and ways forward include:

Broadening the narrative: There is an urgent need to change the narrative from one that is looking at food security and nutrition as an isolated challenge, to one that sees investment in food systems as a critical opportunity to future-proof livelihoods and support the realisation of a host of global public goods, including better health, nutrition, livelihoods, biodiversity conservation, migration, and climate resilience. Donors, private sector entities and DFIs should approach food systems funding as a long-term investment opportunity with substantive returns in addressing global public goods issues such as health, food security and migration. Shifting the conversation from a gap mindset to one that sees investing in food systems transformation as an opportunity could potentially be a much more effective means to bring in greater financing and investment and build constituencies of support at national, regional, and international levels.⁶⁰

Balancing risk and reward: Changing the narrative around financing for food systems involves highlighting the investment rewards in addition to the risks. Investing in food systems and rural development is often seen as a risky endeavour, particularly in fragile and conflict-affected contexts where countries face high debt burdens and political instability. However, the focus tends to be more on the risks associated with these investments rather than the potential rewards, such as building greater resilience, enhancing economic security, and promoting social stability. Governments, donors, DFIs, and other stakeholders need to put as much emphasis on the rewards as they do on the risks. This balanced approach can help attract both private and public investment in food systems and rural development.

Redirecting and reinventing financing mechanisms: Instead of focusing on meeting a set dollar figure, which can quickly feel overwhelming and unrealistic, reinventing how existing financial flows from the public and private sector are channelled, coordinated, and used as efficiently and effectively as possible will allow stakeholders to meet specific and varied challenges in different geographies and points in the food system. This involves leveraging diverse financing tools not only to address core food security and nutrition needs but also to build broader resilience and security outcomes that relate as well to climate change, human conflict, and other hazards.

Highlighting good examples and best practices: As highlighted in this paper, while there are undoubtedly several challenges, there are a number of emerging examples and best practices when it comes to innovative financing tools, approaches and initiatives. To get more donors, governments and the private sector to support these solutions, there needs to be a greater emphasis on highlighting what is working, rather than what is not.

Bringing citizens and governments on board: A focus on solutions and best practices can also help to build greater public support for investments in the agrifood space among both citizens and policymakers. What is the narrative to get parliamentarians, politicians and citizens on board? A sense of common good, identity, understanding and emotional connection may be key to garnering communal support.

⁶⁰ Interview with Key Informant

This reframing encourages a transition from a short-term crisis management approach that focuses on the financing gap for food security and nutrition in vulnerable, fragile, and high-risk settings, to a focus on how the substantial resources that are available could be better utilized to build a more robust and sustainable food system that can address the core challenge of SDG2 and many more. Part of shifting the narrative is making it apparent to all players involved that the costs of inaction far outweigh the costs of action, and that investments in food systems transformation today will deliver benefits for generations to come.

6.2 Mitigating risk in the agrifood sector

As outlined in this paper, one of the fundamental financing challenges for food systems is managing risk. At the national level, local banks and investors still limit their involvement in the agriculture sector, viewing it as an area where the upfront investment costs, sectoral risks, high transaction costs and lengthy timeframes required to see a return on investments don't match the investment proposition. This needs to change. De-risking investments in food systems and rural development requires donors, governments and other stakeholders to commit to understanding the diversity of risks within the sector, while investing in and leveraging the wide range of innovative de-risking instruments and solutions.

Key issues and ways forward:

Recognizing and managing multiple forms of risk: The agrifood sector inherently faces a wide and intersecting range of risks including:

- **Variability in yields and production:** Weather and climate change induced factors, pest infestations and disease outbreaks can significantly affect crop yields, leading to unstable production levels.
- **Limited capital and uncertainty in the return on investments:** Access to capital for the upfront costs associated with agriculture and food production requires significant upfront investment, which is out of reach for many farmers. The uncertainty of the return and timeframe for returns makes it a risky proposition for local investors and banks, making it a no-win situation.
- **Market access and price fluctuation:** Market prices for agricultural products can vary dramatically due to global demand-supply imbalances, trade policies, and market disruptions. Disruptions in market access due to poor infrastructure, logistics, and lack of access to information can further skew market access and cause price variability.
- **Policy unpredictability:** Frequent and unpredictable shifts in government priorities and policies including debt waivers, farm subsidies, procurement and trade policies can create unstable and uncertain environments for domestic and international investors.
- **Transition risks in changing practices:** There are also financial, social, and cultural risks associated with shifting to more sustainable or innovative agricultural practices, which can be expensive and difficult to implement.

These and other risks combine to make investment in the sector challenging, even where there are viable business opportunities. Addressing these risks requires a tailored approach and set of solutions.

Investing in innovative de-risking instruments: There are several emerging innovations that are designed to de-risk investment in the agrifood sector, such as **weather and flood indexed insurance** – helping to protect farmers from the financial impact of crop losses due to unpredictable weather and climate events; **guarantee funds** – designed to provide guarantees to lenders and low the risk of lending to farmers and agribusinesses; **credit enhancement mechanisms** – designed to help improve access to finance by providing partial risk guarantees and making it easier for smallholders and agricultural enterprises to secure loans; and **incentive-based risk sharing systems** – aimed at increasing access to finance and risk sharing in agricultural value chains. In addition to these established risk instruments, there are range of emerging innovative financing mechanisms in the field of regenerative agriculture. These instruments include **regenerative operating loans** that typically finance farm expenses to bridge seasonal illiquidity of farmers from preparation to harvest; **climate risk-adjusted insurance** that align insurance with risk assessments that include regenerative practices; **blended funds that help increase access to finance** by combining private investments with strategies that spread out risk, making it safer for private investors and guarantee mechanisms that seek to mobilize

private capital by insuring a proportion of investment losses in the event of default⁶¹. These and other derisking instruments illustrate how targeted financial products can help mitigate the risks that investors and farmers face in the agrifood sector.

Building a holistic financing ecosystem to mitigate risk: To effectively manage the various risks in the agrifood sector, **it is essential to view risk mitigation as part of a broader financing ecosystem**. This means moving beyond standalone solutions and ensuring that the entire system – financial institutions, governments, private investors, and development organizations – works together to reduce risk. Blended finance is a key component of this ecosystem, combining public and private funds to lower risks for investors. For example, blended finance mechanisms can help bridge the gap between commercial investment and development goals, by reducing the exposure to risk for private investors. This approach has proven particularly effective in fragile and conflict-affected contexts where traditional financing models are less viable.

Increasing financing to support risk mitigation: Given the complexity of managing risk in the agrifood sector, donors have a critical role to play. There is a clear need for increased investment in risk mitigation mechanisms. Donors can contribute by:

- **Funding de-risking instruments:** Supporting the development and scaling of financial instruments that reduce risk for both investors and agricultural producers.
- **Strengthening public-private partnerships:** Facilitating collaborations that leverage both public and private resources to create more resilient financing ecosystems.
- **Scaling up transition finance:** Private sector financing is not a magic bullet. Transition finance will be needed to provide incentives and capital to farmers and small-scale producers to spur the transition to and adoption of more ecologically and climate sound approaches.
- **Investing in knowledge and innovation:** Supporting research and initiatives that focus on new approaches to risk management in agriculture.
- **Investing in better data, monitoring and evaluation and risk assessment:** Supporting investments in and access to better data and information, as well as monitoring and evaluation of the performance and impact of de-risking innovations and instruments, are critical to ensuring the validity of these schemes, understanding their relative advantages and disadvantages, and enhancing their scalability and replicability.

Donors can help build a more sustainable and resilient agrifood sector that attracts private investment even in challenging contexts by focusing more resources in these areas.

6.3 Tackling the last mile of smallholder and SME finance

The ultimate enduring challenge for agrifood sector financing is being able to provide financially viable lending to large numbers of small-scale producers and SMEs. This is where the entire financing ecosystem must come together in an integrated way.

Key issues and ways forward include:

Mobilising domestic banks: For most domestic banks, lending to the agrifood sector is a very small proportion of their portfolio, often significantly less than 10 per cent. Given the inherent risks and costs of lending to the sector, there is little incentive for this to change. However, domestic banks are potentially a significant source of financing for food systems transformation. For this potential to be unlocked, there is a need to better couple domestic banks with blended finance and risk management mechanisms, financial intermediaries and improved fintech. There is also a need for domestic banking and financial regulatory changes to shift incentive structures.

Better integrating finance into the supply chain: Improving supply chain management and contractual arrangements is a way of both enabling producers and SMEs to gain direct access to finance or to have guaranteed markets that make financing through other means easier. This requires

⁶¹ Rockefeller Foundation. 2024. [Financing for Regenerative Agriculture](#)

general upgrading and formalization of markets, underpinned by transparent market information and supported by innovative market information technologies.

Cascading risk management: As mentioned repeatedly in this brief, risk is the most fundamental barrier to being able to finance the “last mile” of the agrifood sector. Reducing the risk requires an integrated and cascading system. At the immediate enterprise level are mechanisms, such as micro-insurance, property rights and collateral, formalised contracts, and access to technical assistance. Moving up the chain are mechanisms for underwriting the risk of collectivised financing instruments and funds, including blended finance. IFIs financing national agrifood sector programmes and multi-country natural or climate-related disaster funds are also part of this cascading risk management. Strengthening and better integrating all these mechanisms across scale is a key way forward.

Strengthening the intermediary function for aggregating servicing financial needs: Efficient and effective intermediary institutions who can aggregate financial demands and receive larger ticket loans are essential in the financing ecosystem. These can be cooperatives, specialised micro-finance institutions, out grower mechanisms (groups of producers growing on contract), specialised banks, or blended finance funds. The challenge is to optimize the efficiency of such mechanisms, through innovative financial technologies and for these mechanisms themselves to be able to spread and mitigate risk. Supporting such institutions is likely to remain a key opportunity and need for donor and public financing to be catalytic.

Providing technical and business support: Ultimately, no financing system is going to work if producers and SMEs are not optimising their returns and profits through utilising the best technologies and management approaches available. This also extends to having the necessary business, accounting and IT skills. Consequently, integrating technical support with financial support is vital. This is another dimension of necessary coordination that needs to be strengthened, between value chain development, government advisory services, technical support from input supplier and off takers and technical support from financing institutions.

6.4 Tackling structural constraints

Deep structural constraints to the financing of food systems need to be recognized and tackled. These include the way low-income countries are marginalised in the functioning of the global financing system, the low-risk appetite of IFIs, the unintended consequences of agricultural support and the large market externalities of the food system. **Overall, investors of all types need to ensure that food systems finance is incentivizing production practices and systems that integrate health, environmental protection, and social equity concerns, and that food systems finance is fit-for-purpose for SMEs, fragile contexts, as well as for the ensuring the availability and accessibility of nutritious food for the growing population.**⁶²

Key issues and ways forward include:

IFIs and the funds within them need to expand their risk portfolios to support investments in places and parts of the food system where transformation is most needed but where risk remains high, in part due to the lack of resources currently available. For example, a specific action would be to lower the required debt-to-equity ratio to support investments in riskier environments.⁶³ This is especially important for global development banks, and there are examples of how even a change in debt-to-equity ratio of 1 per cent can have implications for the ability to lend.⁶⁴ Continued reflection on how the Basel banking rules⁶⁵, which set requirements for banks on topics like debt-to-equity ratios, can

⁶² World Bank. 2021. “[Food Finance Architecture: Financing a Healthy, Equitable and Sustainable Food System.](#)” World Bank.

⁶³ Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. [Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2.](#) Global Donor Platform for Rural Development and Shamba Centre for Food & Climate.

⁶⁴ World Bank. 2023. “Ending Poverty on a Liveable Planet: Report to Governors on World Bank Evolution.” <https://www.devcommittee.org/content/dam/sites/devcommittee/doc/documents/2023/Final%20Updated%20Evolution%20Paper%20DC2023-0003.pdf>.

⁶⁵ Basel III: <https://www.bis.org/bcbs/basel3.htm>

further support innovative finance and increased risk in IFI portfolios is needed to ensure that capital is available where it is needed most.⁶⁶

National governments in L&MICs, especially in LICs, need to increase their investments in the agrifood sector and ensure that those funds are focused as much or more on national development priorities as on export-oriented food system activities. National governments should ensure that subsidies provide general support to the agrifood sector and rural communities⁶⁷. Subsidies in middle-income countries are often going to areas that are creating unintended negative outcomes (through commodity crop production using excessive external inputs) rather than investing in infrastructure and local financial institutions to make it more attractive for the private sector to invest in agriculture. Instead, governments should improve their NRA in low-income countries in a way that supports food systems transformation in terms of production practices, nutrition, and local food system development. MICs can also focus resources on nutrition-sensitive policies and investments, including a focus on food labelling and taxes on unhealthy foods.

Donors can facilitate these structural changes by supporting the processes and dialogues that examine the unintended consequences of the current food finance environment, as well as exploring opportunities to expand and enhance innovative finance mechanisms. Donor investments, via ODA as well as in blended finance, vertical funds, and other innovative approaches, can help de-risk changes for the broader financial system and leverage capital from a wide range of sources.

“We tend to forget one important thing, and that is related to the prices of food, which remains stubbornly high in most developing countries. And that brings us down to the reality that if you are growing fruits and vegetables for the domestic market, you are practically left out of the financial system. It is very difficult to raise money, whereas if you're growing tea and coffee commodities or green beans for export and you have a purchasing order in in a foreign currency, then raising money becomes easier. That brings us back to the point that to provide money for SMEs and farmers that will solve the food security problem, we need domestic financing in local currencies.”

- Interviewee

6.5 Scaling up innovative and blended finance mechanisms

Although there has been a significant upsurge in innovative and blended finance initiatives serving the agrifood sector, the scale of additional finance being mobilized remains relatively modest at this stage. Further, such initiatives remain much more difficult to establish in marginalised or fragile contexts, particularly in low-income countries, where the highest levels of hunger are concentrated.

Key issues and ways forward include:

Clarifying the “territory” of innovative finance: As illustrated above, there is a wide range of financial mechanisms being deployed and being integrated into fund mechanisms in various combinations. Blended finance has started to become a general term of initiatives that integrate different mechanisms, although, strictly speaking, blended finance is a risk mitigation mechanism. There would be value in a more comprehensive mapping of different instruments and how they are being combined in different ways and to what effect. For those without a finance background, the terminology can quickly become quite confusing, yet it is vital that those in the food systems space do have a better comprehension of innovative financing and the implications for their work.

Strengthening the incentives for investors: Besides meeting shorter term profit objectives, there is a need to demonstrate more clearly how innovative financing in the agrifood sector can help financial institutions and other investors meet corporate environmental and social responsibility principles and guidelines, gain market share, be prepared for policy shifts, and avoid reputational risk.

⁶⁶ Gottschalk, Ricardo, Lavinia B. Castro, and Jiajun Xu. 2022. Should National Development Banks Be Subject to Basel III? *Review of Political Economy* 34 (2): 249–67. <https://doi.org/10.1080/09538259.2021.1977541>.

⁶⁷ FAO, UNDP, and UNEP. (2021). *A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems*.

Learning lessons: With the growing experience of innovative finance, it is critical to ensure lessons are learned and shared, which requires investment. There is already a range of networks and initiatives supporting blended and innovative finance, and these groups need the mandate and resources to effectively create a learning network.

Demonstrating impact: Ultimately, the investment of donors and financial institutions into innovative finance approaches requires demonstrated impact. Meta-level monitoring and reporting on impact and translating findings in ways that are convincing to investors can be strengthened.

Pooling and coordination of bilateral funds: The bulk of donor funding still flows to individual projects, which are often fragmented and poorly coordinated. Scaling innovative finance will require greater pooling and coordination of donor funds. However, coordination and integration must also align with individual donor policy priorities and their requirements for showing the direct impact of their investments.

Avoid fragmentation: Many small innovative financing funds/mechanisms runs the risk of duplicating the same coordination problems that donors have. Further, there are clearly economies of scale and transaction costs when considering the appropriate size of funds. This is an overarching issue and challenge for the sector to consider.

Buy-in from national governments, and domestic banks and agrifood sector firms: With notable exceptions, most innovative financing is coming from international and HIC institutions. A next phase of development is clearly to get greater buy-in from L&MIC national governments and domestic private sector players.

“I know that’s an unpopular thing to say, but unless we reinvent donor financing and pull all the tools that we have available to us, we will still be talking about the 33 to 50 billion gap rather than the ability to reposition food system and food security as an incredible investment opportunity for the 21st century. A lot of donors are existing in a 20th century model, where they need to upgrade to a 21st century model. Politics is always difficult, but we need institutional change.” - Interviewee

6.6 Accessing climate finance

The data presented in Section 4 show a substantial disconnect between the volume of climate finance committed globally (estimated at over US\$1 trillion in 2023⁶⁸) and the proportion of that finance focused on agriculture, forestry and land use, as well as other parts of the food system. This gap exists for several reasons, some of which are unique to climate finance and some of which reflect more general challenges in financing food systems transformation.

Most climate finance comes from the private sector, but most climate finance for food systems comes from the public sector. This means that the overall pool of funds that could focus on food system transformation is substantially lower than the US\$1 trillion available globally to finance climate change mitigation and adaptation. Private climate finance tends to be focused in sectors where regulatory requirements mean climate change mitigation investments will generate returns through market incentives or avoided penalties, or where there are strong market signals showing a return on investment through consumer spending. Food systems, especially in L&MICs, do not necessarily provide a high-value proposition for private climate finance in terms of a return on investment.

Climate finance often uses blended mechanisms, and there are challenges in directing blended finance into higher-risk and lower financial return settings and projects. However, innovative finance mechanisms tend to focus on climate, so there are opportunities to pilot these approaches using public climate finance to de-risk private investments.

The climate change mitigation potential of agrifood systems is not nearly as simple nor as consistent over time and space as compared to the potential for mitigation through investments in the energy and transport sectors. Climate finance seeks not only (and often not even primarily) a financial return on investment, but also a carbon dioxide equivalent return on investment. Agriculture’s current and future contributions to climate change suggest that mitigation in the sector should be a key

⁶⁸ Naran, B., Buchner, B., Price, M., Stout, S., Taylor, M., and Zabeida, D. 2024. [Global Landscape of Climate Finance 2024](#). Climate Policy Initiative.

focus of investment⁶⁹; however, the mitigation potential of changing production practices varies widely across contexts, making it challenging for development projects and investors to quickly and consistently assess the mitigation potential of specific investments. Likely for this reason, most climate finance for agriculture focuses on adaptation or co-benefits, which are generally the focus areas of public rather than private finance.

Most climate finance focuses on investments that generate public goods (decreased emissions and mitigated risks associated with climate change) as well as returns on the investments. Investments in food systems to drive climate change mitigation will require more financial flows focused on the public good outcomes, and the willing and ableness to accept lower returns on that investment. Increasing climate finance flows into food systems will require increased investment in public and private research and development to clearly quantify mitigation potential of practice changes and investments in new technology, and public finance to de-risk and underwrite investments that do not directly lead to returns or increased revenues. Enabling environments that include both pull factors, like consumer demand and corporate commitments, and push factors like increased regulation on emissions from agricultural production and supply chains, can also incentivize increased private investment in the sector.

6.7 Disentangling social protection, fragile contexts and commercial agrifood sector development

The uncomfortable truth is that in many L&MICs, a significant number of small farmers are unlikely to be able to make a commercial return on investments or repay loans. This situation arises from a broad range of factors such as the size of their land holdings, land tenure issues, commercial viability, debt levels, and poverty. Therefore, when donors, governments, and the private sector consider investing in food systems and rural development – regardless of the type of financing (ODA, grants, concessional loans, private investments, or blended finance) – it is crucial to clarify whether these investments are aimed at social protection measures or at developing the commercial agrifood sector⁷⁰. This distinction becomes critical in fragile and conflict-affected areas, where there are fewer financing and investment opportunities. In such contexts, funding for both social protection and commercial development is essential as is mobilizing private finance that is carefully structured and heavily backed by public resources.

Key issues and ways forward:

Balance investments in social protection with investments in agricultural development interventions for greater impact: Donors and governments should balance their agricultural development interventions to target both commercially viable farmers and the most marginal smallholder farmers. It cannot be an either-or approach. While it is important to support those who can scale and become market participants, we also need stronger social protection mechanisms for those who are unable to make that leap. Development efforts should address this dual challenge to create more inclusive and sustainable agricultural systems.

Leverage market development programmes to drive economic growth: There are a growing number of innovative market development programmes that are blending public, private and multilateral efforts. By linking smallholder farmers to larger markets through aggregation, storage, and distribution networks, these programmes can create sustainable economic pathways for smallholder farmers away from mere subsistence. For example, [IFAD's Agri-Business Capital \(ABC\) Fund](#) is providing financing solutions including loans, equity and technical assistance to help scale agribusinesses and improve market access for farmers. In Asia, Grow Asia is a multistakeholder partnership with the World Economic Forum, ASEAN countries and the private sector focusing on value chain development, market access, and capacity building for smallholder farmers. In Africa, [AGRA's Partnership for Inclusive Agricultural Transformation in Africa \(PIATA\)](#) brings together multilaterals and the private sector and seeks to improve smallholder farmer productivity, market access, and income levels across sub-Saharan Africa by strengthening agricultural value chains and expanding access to inputs, markets, and finance.

⁶⁹ Yi Yang et al. (2024). Climate change exacerbates the environmental impacts of agriculture. *Science* 385, eadn37. DOI:10.1126/science.adn3747

⁷⁰ Key Informant Interview

Scaling and leveraging these efforts, with strong donor support, can help build more resilient smallholder farmers, local markets and economies.

Focus on tailoring private sector finance for fragile contexts: Attracting private sector investment in fragile and conflict-affected areas requires a tailored approach. Due to weak infrastructure, limited capacity, policy instability, and poor market conditions, these contexts need unique private sector engagement strategies. Public and donor support will remain vital in attracting and building private sector confidence and in helping to underwrite some of the risks associated with these market conditions.

Expand the use of blended finance in high-risk areas: Blended finance should be further utilized in fragile contexts to de-risk private investments. By combining concessional finance with private capital, governments and development institutions can reduce investment risks and attract more private sector engagement. In fragile areas, this model must rely on a greater share of public and donor funding to create the necessary conditions for private investment to thrive.

Reform agricultural policy to support structural transition: Agricultural policy and financing support must evolve beyond serving as a default social protection mechanism. Policymakers and donors need to prioritize reforms that support structural transition, enabling those who cannot sustain livelihoods in agriculture to transition into other sectors, while continuing to provide social protection to those on the margins. This will require carefully balancing social protection systems with economic diversification strategies to create new opportunities for the rural poor.

6.8 Enhancing an integrated food systems financing ecosystem

As discussed in Section 5, the effective financing of food systems transformation requires a sophisticated alignment of not only financing mechanisms but also value chain coordination, technical assistance and policy support. For many initiatives, this requires coordination and integration from local to global scales. To establish blended financing mechanisms and enable access to finance at a local level, a range of brokering and intermediary organisations are also necessary.

Key issues and ways forward include:

Mapping out and clarifying the key functions and interlinkages of the overall financing ecosystem:

There is still much to learn about optimising the overall financing ecosystem for food systems transformation. A starting point would be to use existing experiences to provide a clearer mapping of key functions and interlinkages. Such a mapping needs to be made simple and user friendly so that actors across both financing and food systems can better understand the opportunities for engagement.

Clarifying the functions and complementarities of supporting networks: Table 5 lists a range of different networks, alliances and initiatives involved in supporting the financing of food systems. There would be value in reviewing the current work of these efforts to identify complementarities and assess the scale of resources needed for them to be effective.

Investing in research networking and learning: There is a need to more clearly identify an overall research and learning agenda for food systems financing and, through collaborative funding mechanisms, ensure such research can be done and shared through appropriate networks.

Investing in brokering: It is increasingly clear that the development of innovative financing mechanisms requires individuals and organisations who can play effective brokering, fund development and coordination roles. Such **intermediaries** need understanding and experience of both the financing and the agrifood sectors and experience that gives them credibility. The costs of such brokering and assembling of finance will often require at least some public funds.

Investing in capacity development: For the food financing ecosystem to be developed and work effectively, there is a broad set of capabilities that individuals and organisations require. This includes knowledge about how financing works, in-depth knowledge about risk and risk mitigation in the agrifood sector, understanding corporate social responsibility and reputational risk, knowledge of climate finance, ability to broker deals, multi-stakeholder facilitation skills, financial regulations, food systems analysis, and abilities to communicate across the finance and agrifood sectors. More could be done to

offer short courses, masterclasses, online resources, policy seminars, and to embed such capabilities into university curriculums.

6.9 Supporting effective target-setting, monitoring, and reporting

To track and quantify financial flows to food systems more fully, definitions, targets, and reporting systems must continue to converge and align. The current core approach to tracking ODA and OOF, as well as some IFI flows, is to utilize the [Creditor Reporting System](#) of the OECD Development Assistance Committee (DAC). DAC codes are applied to donor-reported finance based on the geography and sector ('purpose') to which funds flow, as well as the funding mechanisms used (grants, various types of loans, etc.). DAC codes have continually expanded to reflect global development priorities and frameworks, but there is not a consistent, agreed upon set of codes used to define investments in food security and nutrition, let alone a consistent set of codes for the much more expansive and complex tracking of investments across the entire food system.

Both the methodology piloted in the 2024 SOFI report⁷¹ and the 3FS methodology,⁷² developed as an outcome of the UNFSS, seek to standardize and characterize financial flows to different elements of the food system. The SOFI methodology takes a broader view of what counts as investment in food security and nutrition as well as drivers of change by relying not only on standard DAC codes, but also on keywords associated with specific projects and funding flows. The 3FS approach specifically tries to expand these categories beyond food security and nutrition to include commercial market development, subsidies, investment in research and development, and other activities in public (national government) budgets focused on the agrifood system. However, these methodologies are in their early stages and will require more deliberation and alignment with existing methodologies before they will be adopted as shared standards.

Donor coordination and prioritization of funding flows needs to start with a shared definition of 'what counts' as investment in food systems, and will require agreement on methodologies to track, report, and analyze these flows. Donors should be explicit and consistent in their own target-setting and reporting around investments in food systems and should align donor definitions with those being developed with L&MIC governments to track domestic spending. Consistent definitions and monitoring of flows across donors and national governments, as well as IFIs and the private sector, will enable a more accurate and detailed assessment of where there are gaps and additional needs for funding. Having a more accurate understanding of financial flows into food systems is also an important first step in estimating the impact and the potential risks and returns of investments, which is necessary information for leveraging private sector investments and ensuring that public sector spending is leading to the intended outcomes.

⁷¹ FAO, IFAD, UNICEF, WFP, and WHO. 2024. *Supplementary Material: The State of Food Security and Nutrition in the World 2024*. <https://doi.org/10.4060/cd1254en>.

⁷² Santala, S. and Slocum, R. 2023. "[Food Systems Transformation for and by Rural People](#)." Document EB 2023/139/R.11. IFAD.

7 Conclusion

It is abundantly clear that achieving the SDGs and avoiding backsliding on the progress made requires profound changes in food systems and commensurate investments to bring about such change. The scale of resources needed is vastly greater than what is currently being invested, but relatively small in comparison to global wealth and the likely future costs of a business-as-usual approach.

The last decade has seen many new innovative and blended financing mechanisms emerge. These show promise and there is much to learn from them, but they are yet to catalyse large-scale private sector financing.

As articulated in the SOFI 2024 report, context is critical. The capacity to finance food systems transformation varies dramatically between low-income and middle-income countries, with countries experiencing fragility and conflict facing particularly difficult challenges. At the same time, in MICs, rural areas that have poor infrastructure and natural resources also face significant difficulties in attracting larger scale private sector investment.

Although future opportunities for growth in the agrifood sector, combined with blended financing, has the potential to drive significant private sector investment, this is far from a universal solution. Governments and the donor community must face the reality that change still requires significant public investment, along with substantial policy reforms that transform food systems, and address health and market externalities.

Key implications for donors are:

1. Engage in a much **deeper debate** about how to optimize the impact of limited development financing in years ahead.
2. Increase the use of **innovative financing mechanisms**, which can potentially be more catalytic than fragmented grant-funded bilateral projects, while being realistic about the scale of private finance that can be leveraged.
3. Increase the **risk appetite** for investments to more effectively de-risk private sector financing into the sector.
4. Advocate for **increased ODA for food systems transformation**, given the wide range of global public goods that can be generated and the high future costs of not making change.
5. Invest in **policy support** initiatives which can assist countries, in particular MICs, in reorienting public financing to better support food systems transformation.
6. Support the improvement of the **monitoring of financing flows** for food systems and the effectiveness of innovative financing mechanisms.
7. Support **brokering capabilities** and processes needed to bring public and private sector actors together for innovative financing.
8. Recognize and respond to the **growing challenges in LICs**, particularly those experiencing **fragility or conflict**.

8 References

- ADB. 2021. *Financing Sustainable and Resilient Food Systems in Asia and the Pacific*. Asian Development Bank. <https://www.adb.org/sites/default/files/publication/749251/sustainable-resilient-food-systems-asia-pacific.pdf>.
- Burwood-Taylor, L., Leclerc, R., Chauhan, R., and AgFunder Inc. 2024. “Climate Capital: Financing Adaptation Pathways for Smallholder Farmers.” *Convergence*.
- . n.d. “Climate Capital: Financing Adaptation Pathways for Smallholder Farmers.”
- Carter, P. 2021. “The Economics of Development Finance.” Impact Study 024. CDC Group.
- CASA. 2022. “The State of the Agri-SME Sector: Bridging the Finance Gap.” ISF Advisors.
- Chiriack, D, Vishnumolukala, H., and Rosane, P. 2023. “Landscape of Climate Finance for Agrifood Systems.” Climate Policy Institute.
- . n.d. “Annexes: Landscape of Climate Finance for Food Systems.” Climate Policy Institute.
- Davies, S., and Palacin, J. n.d. “Innovative Financing Mechanisms and Solutions.” Policy Brief. UN Economist Network. https://www.un.org/sites/un2.un.org/files/innovative_fincancing_14_march.pdf.
- Davis, B., Mane, E., Gurbuzer, L.Y., Caivano, G., Piedrahita, N., Schneider, K., Azhar, N., Benali, M., Chaudhary, N., Rivera, R., Ambikapathi, R. and Winters, P. 2023. *Estimating global and country-level employment in agrifood systems*. FAO Statistics Working Paper Series, No. 23-34. Rome, FAO. <https://doi.org/10.4060/cc4337en>
- DESA FSDO. 2024. “Financing for Sustainable Development Report 2024.” UN Department of Economic and Social Affairs. <https://desapublications.un.org/publications/financing-sustainable-development-report-2024>.
- De Teixeira Soares, F. L., and Inoue, C.Y.A. 2020. “Financing Development Cooperation: Modalities of Private Sector Engagement.” *Carta Internacional* 15 (1). <https://doi.org/10.21530/ci.v15n1.2020.979>.
- Diaz-Bonilla, E., McNamara, B., Swinnen, J., and Vos, R. 2023. “Financial Imperatives to Food System Transformation.” *Nature Food* 4 (7): 531–33. <https://doi.org/10.1038/s43016-023-00785-y>.
- Editorial. 2023. “Finance for Food Systems Transformation.” *Nature Food* 4 (6): 437–437. <https://doi.org/10.1038/s43016-023-00791-0>.
- FAO. 2021. *Guide on Incentives for Responsible Investment in Agriculture and Food Systems*. FAO. <https://doi.org/10.4060/cb3933en>.
- . 2023. “The State of Food and Agriculture 2023.” FAO. <https://doi.org/10.4060/cc7724en>.
- . n.d. “Overcoming Market Failures in Agrifood Systems | Support to Investment | Food and Agriculture Organization of the United Nations.” Accessed May 7, 2024. <https://www.fao.org/support-to-investment/news/detail/en/c/1681668/>.
- FAO, IFAD, UNICEF, WFP, and WHO. 2024. *The State of Food Security and Nutrition in the World 2024*. FAO; IFAD; UNICEF; WFP; WHO; <https://doi.org/10.4060/cd1254en>.
- FAO, UNDP, and UNEP. 2021. *A Multi-Billion-Dollar Opportunity – Repurposing Agricultural Support to Transform Food Systems*. FAO, UNDP, and UNEP. <https://doi.org/10.4060/cb6562en>.
- GDPRD. 2021. *Donor Contributions to Food Systems: Stocktaking Report*. Global Donor Platform for Rural Development. https://www.donorplatform.org/wp-content/uploads/2022/07/GDPRD_Stocktaking-Report_2021_final-2.pdf
- . 2023. *From Rhetoric to Reality | Donor Coordination for Food Systems Transformation*. Global Donor Platform for Rural Development. <https://www.donorplatform.org/post/from-rhetoric-to-reality-donor-coordination-for-food-systems-transformation/>
- Good Food Finance Network. 2023. “Good Food Finance Week Outcomes: Driving Change in Food Systems Finance.” *Good Food Finance Network* (blog). May 24, 2023.

<https://goodfood.finance/2023/05/24/good-food-finance-week-outcomes-driving-change-in-food-systems-finance/>.

Gottschalk, R., Castro, L. B., and Xu, J. 2022. “Should National Development Banks Be Subject to Basel III?” *Review of Political Economy* 34 (2): 249–67. <https://doi.org/10.1080/09538259.2021.1977541>.

Horrocks, P. 2023. “The Funding Models of Bilateral Development Finance Institutions.” OECD. [https://one.oecd.org/document/DCD\(2023\)31/en/pdf](https://one.oecd.org/document/DCD(2023)31/en/pdf).

IFC. 2021. “International Financial Institutions and Development through the Private Sector.” International Finance Corporation. https://www.deginvest.de/DEG-Englische-Dokumente/PDFs-Download-Center/IFI_and_Development_Trough_the_Private_Sector.pdf.

International Finance Corporation. 2021. *Using Blended Concessional Finance to Invest in Challenging Markets: Economic Considerations, Transparency, Governance, and Lessons of Experience*. World Bank. <https://doi.org/10.1596/36262>.

König, A, Club, C., and Apampa, A. 2020. “Innovative Development Finance.” KfW Development Bank.

Lario, A., and Goldfajn, I. n.d. “President, International Fund for Agriculture Development.”

Lavagned Ortigue, O. (ESS). 2015. “Credit to Agriculture.”

Ly, J. 2023. “Unleashing the Power of Finance for Sustainable Food Systems.” World Economic Forum.

Mitchell, I, and Wickstead, E. 2024. “Has the \$100 Billion Climate Goal Been Reached?” Center for Global Development.

Naran, B., Buchner, B., Price, M., Stout, S., Taylor, M., and Zabeida, D.. 2024. *Global Landscape of Climate Finance 2024*. Climate Policy Initiative.

OECD. 2022. *Multilateral Development Finance 2022*. OECD. <https://doi.org/10.1787/9fea4cf2-en>.

———. 2023. *Development Co-Operation Report 2023: Debating the Aid System*. Development Co-Operation Report. OECD. <https://doi.org/10.1787/f6edc3c2-en>.

Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. *Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2*. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate. <https://www.donorplatform.org/post/unleashing-the-catalytic-power-of-donor-financing-to-achieve-sustainable-development-goal-2/>

Perera, O., Smaller, C., El Harty, K. and Lefebvre, L. 2024. *Unleashing the Catalytic Power of Donor Financing to Achieve Sustainable Development Goal 2: Technical note*. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate. <https://www.donorplatform.org/post/unleashing-the-catalytic-power-of-donor-financing-to-achieve-sustainable-development-goal-2-technical-note/>

Planet Tracker. 2023. “Financial Markets Roadmap for Transforming the Global Food System.” Planet Tracker.

Policy Institute, International Food. 2022. “2022 Global Food Policy Report: Climate Change and Food Systems.” 0 ed. Washington, DC: International Food Policy Research Institute. <https://doi.org/10.2499/9780896294257>.

Policy Research Institute, International Food. 2021. “2021 Global Food Policy Report: Transforming Food Systems after COVID-19.” 0 ed. Washington, DC: International Food Policy Research Institute. <https://doi.org/10.2499/9780896293991>.

Pollination. 2024. “Financing for Regenerative Agriculture.” The Rockefeller Foundation and TIFS.

Porciello, J. 2023. “The Future of AI in Food Systems.” Global Donor Platform for Rural Development. 9 August 2023. <https://www.donorplatform.org/post/the-future-of-ai-in-food-systems/>.

Santala, S. and Slocum, R. 2023. “[Food Systems Transformation for and by Rural People](#).” Document EB 2023/139/R.11. IFAD.

UN. 2022. *Remedy in Development Finance Guidance and Practice*. New York: United Nations.

UN Secretary-General. 2023. “Making Food Systems Work for People and Planet UN Food Systems Summit +2.” UNFSSS.

UNEP. 2023. “Driving Finance for Sustainable Food Systems.” UN Environment Programme. <https://www.unepfi.org/wordpress/wp-content/uploads/2023/04/Driving-Finance-for-Sustainable-Food-Systems.pdf>.

United Nations Department of Economic and Social Affairs. 2021. *Report of the Inter-Agency Task Force on Financing for Development: Financing for Sustainable Development Report 2021*. Report of the Inter-Agency Task Force on Financing for Development. United Nations. <https://doi.org/10.18356/9789216040031>.

Von Braun, J., Chichaibelu, B.B., Laborde, D., and Torero, M. 2024. “Cost of Ending Hunger – Consequences of Complacency, and Financial Needs for SDG2 Achievement.” <https://doi.org/10.2139/ssrn.4908718>.

WEF. 2024. “100 Million Farmers: Breakthrough Models for Financing a Sustainability Transition.” World Economic Forum.

World Bank. 2023a. “Ending Poverty on a Livable Planet: Report to Governors on World Bank Evolution.” <https://www.devcommittee.org/content/dam/sites/devcommittee/doc/documents/2023/Final%20Updated%20Evolution%20Paper%20DC2023-0003.pdf>.

———. 2023b. “Food Finance Architecture: Financing a Healthy, Equitable, and Sustainable Food System.” World Bank. <https://documents1.worldbank.org/curated/en/879401632342154766/pdf/Food-Finance-Architecture-Financing-a-Healthy-Equitable-and-Sustainable-Food-System.pdf>.

———. n.d.-a. “Financing the Agrifood System Transformation – There Is No Lack of Money to Do It.” World Bank Blogs. Accessed October 28, 2024. <https://blogs.worldbank.org/en/agfood/financing-agrifood-system-transformation-there-no-lack-money-do-it>.

———. n.d.-b. “Food Finance Architecture: Financing a Healthy, Equitable and Sustainable Food System.” World Bank. Accessed November 9, 2024. <https://www.worldbank.org/en/topic/agriculture/publication/food-finance-architecture-financing-a-healthy-equitable-and-sustainable-food-system>.

Xu, J, Xiaomeng, R., and Xinyu, W. n.d. “Mapping Development Finance Institutions Worldwide:”