Agroecology and Public Development Banks

Transforming Development Finance for Equity and Resilience





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Front Cover: Sheep farming in the terraces of the Caliata community, highlands of the Chimborazo region in Ecuador. Caliata is an indigenous community in the central highlands of Ecuador known for its agroecological resilience and ancient cultivation terraces.

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Executive Summary

Food systems are deeply implicated in contemporary poly-crisis, contributing to ecological deterioration, climate change, declining public health, and persistent food insecurity. Calls for food system transformation urge us to step back, critically examine business-as-usual, and embrace bold alternatives. This report examines how public development banks (PDBs) intersect with growing calls to transform food systems toward sustainability and equity.

PDBs are government-backed financial institutions that are mandated to advance public policy goals by financing projects in sectors such as infrastructure, agriculture, and small businesses. Globally, more than 500 PDBs operate, collectively accounting for about 10% of global finance or roughly USD 2.2 trillion annually. Beyond their financial weight, PDBs shape development norms and agendas through "soft power," including loan conditionality, technical support, and institutional and policy influence. Given this influence, PDBs have the potential to play a critical role in addressing climate change, food security challenges, global inequity, and advancing the Sustainable Development Goals (SDGs). In agriculture and food systems, PDBs have increasingly sought to align their operations with sustainability agendas while supporting productivity, food access, and economic growth.

Investment in agriculture has tended to prioritize modernizing infrastructure, market-led development, and expanding food production. This growth-driven paradigm generates structural pressures that favor large-scale monocultures, high-intensity livestock production, and agriculture geared primarily toward export markets. This approach is based on the assumption that economic growth equates to prosperity and that hunger stems primarily from an insufficient food supply. However, decades of this development paradigm, grounded in a narrow economic logic, have been found to undermine ecological integrity and community well-being while reinforcing the structural roots of food insecurity and inequity. Further, as food insecurity and rural poverty are increasingly viewed as issues that can be solved through the market, notions of which agricultural models are best for achieving public goals become overshadowed by which approaches can attract capital.

As demands for just food system transformation intensify, the shortcomings of the status quo are increasingly evident. Alternative models that prioritize human rights, equitably transformative resilience, and community-centered approaches to self-determination are urgently needed. PDBs are public institutions with extensive reach and substantial fiscal capacity to shape the

trajectory of agricultural and rural development. Their central position within the architecture of development finance raises pressing questions about whether, and how, these institutions could be oriented toward creating more equitable, participatory, and ecologically grounded approaches to food system transformation.



Above: A farmer conducts soil analysis on a smallholder shade coffee farm in Chiapas, Mexico.

In this report, we join a growing international effort to use the United Nations High-Level Panel of Experts' agroecological framework as a guiding reference for financing agricultural and food-system development. These principles provide an framework to consider how PDBs can advance equitable food systems transformation. Our scoping study combines multiple methods, including 12 expert interviews, three focus groups, and a comprehensive literature review. We present a series of PDB case studies that exemplify different ways these institutions are operationalizing agroecological principles. Readers should note that PDBs differ significantly in their structure and operation. This report is a scoping study intended to open discussion and points to areas where more detailed research is needed to better understand current links between PDBs and agroecology, and to explore new ways PDBs can more effectively support principles-based agroecological development.

Principal Findings: Our analysis highlights instances in which PDB investments align with agroecological principles, particularly among institutions that have deliberately integrated agroecology into their broader investment portfolios. Organizations such as the International Fund for Agricultural Development (IFAD) and Agence Française de Développement (AFD) have explicitly engaged with agroecology as an orienting framework, helping to shape and deepen their strategic alignment with sustainable food systems. Several case studies, including those from Brazil, IFAD and the Global Agriculture and Food Security Program (GAFSP), showcase promising mechanisms and approaches that offer valuable lessons for how PDBs can more effectively support agroecology in practice. The case studies featured in this report showcase several PDB-funded projects that have resonance with agroecological principles. In addition, several communities of practice, including the Agroecology Coalitions Finance and Investment working group and the Agri-PBD platform, are actively supporting PDBs in engaging with agroecology.

However, our report also discusses persistent challenges that arise from the structural and institutional logics underpinning PDBs that present significant barriers to advancing agroecology. The most fundamental of these are the "lock-ins" of the dominant economic development model and limited political will to move beyond productivism and growth-centered paradigms. These challenges are compounded by weak accountability systems, ecological and social safeguard frameworks, and enforcement mechanisms.

PDB financing remains heavily concentrated in global value chains, with investments favoring commodity sectors and export markets. This orientation reinforces systems that prioritize scale, speed, growth, and financial returns over diversified, resilient, and locally rooted agroecological systems. Once funds are disbursed, it is often difficult to determine whether they genuinely benefit smallholder farmers or instead exacerbate inequality and ecological degradation.

The prevailing approaches to PDB investment in food systems are grounded in a narrow economic logic that treats growth and job creation as the primary pathways to achieving the SDGs, meeting climate commitments, and reducing rural poverty. Food production is often considered in isolation from other dimensions of sustainability and justice. This reflects a entrenched "business-as-usual" mindset that needs to be directly confronted to enable a just transition at scale.

More fundamentally, rethinking PDBs' role requires confronting their contribution to broader systemic and structural issues: rising sovereign indebtedness, the continued industrialization of

agriculture, the promotion of extractive investments that degrade ecosystems and marginalize agroecological farmers, the violation of human rights, and the entrenchment of a narrow vision of modernization and progress. Together, these dynamics undermine efforts to realize the SDGs and the right to food in socially and ecologically just ways.

Despite these constraints, our analysis identifies meaningful opportunities, articulated through six overarching recommendations. Agroecological principles can inform a transformative pathway for investment, technical assistance, and policy engagement. In doing so, they could meaningfully reshape how PDBs finance infrastructure, rural development, and sustainable food systems. Though still largely untapped within PDB financing, these opportunities can help PDBs meet their public-good mandate by realigning their financial tools and commitments with broader efforts to tackle the poly-crisis and advance just food-system transitions.

Recommendations

The recommendations suggest pathways for reform and transformation that range from improving existing mechanisms to provide incremental improvements in support for agroecology, to recommendations that would require tackling more deeply rooted assumptions and lock-ins.

1. Shift the Paradigm: Adopt New Foundations for Financing Food System Transformation

- Foregrounding Human Rights, Agroecological Approaches, and Confronting Inequities
- From Scarcity to Abundance: Challenging the Myth of Limited Public Funds
- 2. Phase out Investments in Industrial Agriculture and Large-Scale Land Acquisitions
- 3. Use Agroecological Principles to Reform Institutional Mandates and Approaches
 - Revisit and Transform Institutional Mandates and Policy Frameworks
 - Develop Agroecology Focused Financial Instruments and Approaches
 - Reexamine Assumptions around Risk and Return on Investment

4. Strengthen Safeguards, Accountability, and Governance

- Develop and Invest in Partnerships for Safeguarding PDB Investments
- Strengthen Environmental & Social Safeguards
- Enhance Monitoring & Evaluation (M&E), Reporting and Accountability Systems
- 5. Actively Support the Alignment of Trade and Agricultural Policy with Agroecology
- 6. Build Internal Capacity and Expertise on Agroecology at PDBs

- Join Communities of Practice Focusing on Agroecology and PDBs
- Invest in Internal Capacity Building & Expertise
- Leverage PDBs' Technical Services
- Support Research on Agroecology-aligned Approaches to Financing and Development

Take Away Message: By centering their public mandate, PDBs have an opportunity to join a growing number of organizations, scientists, funders, and governments that are developing an agroecological approach to advance the Sustainable Development Goals (SDGs), confront climate change, reverse declines in biodiversity and ecological integrity, and provide good, healthy food for all. Our aim in this report is to illuminate ways PDBs can better align with this effort. Agroecological principles provide a framework for PDBs to fulfill their commitments to the SDGs and advance the social, cultural, economic, and ecological objectives of their public-good mandates. Doing so will require a shift in logic and a reversal of the standard approach of making agroecology a "bankable solution." Instead, the focus should be on how PDBs themselves can become more agroecological in their operations and food system-related priorities, enabling them to support just transformations in food systems.



Above: Eliana and Carlos, farming participants in Brazil's ECOFORTE program, launched in 2014 to strengthen and increase the networks on agroecology, wild collection and organic agriculture, as part of the country's National Plan for Agroecology and Organic Production (PLANAPO).

Introduction

The Context and the Challenge

Food systems are deeply implicated in contemporary poly-crisis, contributing to ecological deterioration, climate change, declining public health, and persistent food insecurity. The main-stream development model has transformed food systems through a paradigm rooted in intensification, global trade, and increasing production, oriented toward economic growth. However, it is now very clear that this approach has made food systems a major driver of today's ecological and social crises. The recently released EAT Lancet report (Rockström et al., 2025) shows how food systems are a leading driver behind the breach of seven out of nine planetary boundaries. It also reports that less than 1% of the global population lives within the "safe and just space," where food security and human well-being are achieved without exceeding planetary limits (Leach et al., 2013).



Above: A metal installation outlining the second Sustainable Development Goal of the United Nations: zero hunger by 2030. UN Food and Agriculture Organization headquarters, Rome, Italy.

Further, more than 2.3 billion (28%) of people in the world experience moderate or severe food insecurity (FAO et al., 2025) Food systems generate over one-third of global greenhouse gas emissions (Rockström et al., 2025) and contribute substantially to the dramatic decline in biodiversity over the past decades (Benton et al., 2021). The industrial model driving these

harms, built on principles of industrialization, homogenization, and narrow economic efficiency, continues to receive tremendous public support, including roughly USD 670 billion in subsidies each year (World Bank 2023). The actual societal costs of this model are far higher: an estimated USD 12.7 trillion annually (FAO et al., 2023) in damage linked to adverse health outcomes, environmental degradation, entrenched poverty, and rising food and nutrition insecurity. Continuing along this trajectory will undermine progress toward multiple SDGs, including those on eradicating hunger, achieving food security, promoting health, addressing inequality, advancing gender equality, promoting sustainable production and consumption, and taking urgent climate action.

The Imperative for Food System Transformation – Implications for PDBs

Given the significant role that food systems play in the planetary crisis, there are growing calls for transformation (Ingram & Thornton, 2022; Zurek et al., 2022; HLPE, 2025). These perspectives urge us to step back, critically examine business-as-usual, and embrace bold alternatives. They push us to question underlying assumptions and reassess the instruments of development, including the financial architecture that sustains them (Pimbert, 2025). This includes re-examining the global political, economic, and financial systems that have led to highly concentrated economies, generated unsustainable levels of debt (UNCTAD, 2025), and produced vast power asymmetries (UNDP, 2025). Together, these structural imbalances pose significant obstacles to building equitable and resilient food systems, ensuring the right to food, achieving the SDGs, and advancing the health and well-being of all (HLPE, 2025; Fakhri, 2025).

PDBs are influential actors in global development finance, both in the scale of their investments and in their role in norm-setting and the exertion of "soft power" through agenda setting, providing institutional incentives (loan conditionality), policy-advice, convening and technical support (Mendez et al., 2020; Prizzon et al. 2022). There are over 500 PDBs worldwide, operating at subnational, national, regional, international, and multilateral levels (Chandrasekhar, 2022). PDBs are publicly owned by member states and carry a mandate to promote social and economic development while reducing poverty. They were established to mobilize finance for development, particularly in low-income countries, and to help countries respond to shared global challenges such as climate change, food insecurity, and public health crises (Lipper et al.,2021). PDBs provide concessional loans and grants in underserved areas, while also offering technical assistance and policy advice to strengthen institutions and build capacity (Mhlanga, 2024). In addition, they are staffed by many skilled and dedicated professionals who work to

align financial resources with development priorities.

At the same time, PDBs have faced widespread criticism for financing strategies that prioritize production growth and profit over people and the environment (Nature Finance, 2021). Where climate change is a focus, it is generally narrow, focusing on making agricultural production and rural incomes less vulnerable to it (Bazbauers, 2025). By directing resources toward large-scale monocultures, intensive livestock operations, and export-oriented agriculture, these banks have perpetuated a model that has eroded community well-being, intensified inequity, and fueled environmental degradation (IPES-Food, 2016; Ceddia et al., 2024; HLPE, 2023; HLPE, 2025). Critics argue that instead of addressing structural inequities, PDBs have reinforced them through investments that erode ecological sustainability, perpetuate food insecurity, and exacerbate inequality (Rowden, 2019; FOE, 2023; Boehm et al., 2023; Germanwatch, 2022; McNamara & Narain, 2025). There is a pressing need to rethink the organizing principles, values, and approaches that guide PDBs toward supporting more equitable, transparent, and ecologically sound pathways for development. In this report, our focus is on food systems, but this need is relevant across all sectors.



Above: Laying chickens in battery cages on a typical intensive poultry farm. This method of "factory farming" has significant negative impacts on the environment and human health (<u>Gržinić</u>, 2023).

The Opportunity: Agroecological Principles as a Foundation for Transforming PDBs

PDBs have engaged in efforts to support sustainability, including engaging with climate-smart agriculture (Kamninga, 2025), alignment with the Paris agreement (Gebel et al., 2022), poverty alleviation (Zaicev & Knobel, 2024), and resilience (Lipper et al., 2021). While these approaches share some connections with agroecology (see box 1), the agroecological approach is unique in that it offers a framework for food system transformation that gives equal weight to social, ecological, and economic concerns. It centers the role of farmers and civil society in building sustainable food systems and the importance of endogenous development. Scientists and institutions have developed a set of widely adopted agroecological principles to guide investment and development (HLPE, 2019; FAO, 2018). Indeed, agroecology is gaining increasing recognition globally, both in science (Masden et al., 2025; Wezel, 2020) and in social movements (Nyéléni, 2015) and more recently in policy at the global level (HLPE, 2019; HLPE 2025), through the development of National Agroecology Plans (Biovision, 2025) and through resolutions in international governing bodies, like the UN General Assembly (UN Press, 2024).

Several PDBs have begun recognizing the transformative potential of agroecology (e.g., IFAD, 2021; Agence Française de Développement, 2023). Agri-PDB (2023), a platform supporting agriculture-focused PDBs, has established a working group to build PDB capacity to support agroecology. While there is little other visible direct engagement with agroecology amongst the existing 500 PDBs, these forays by a selection of banks signal an opening for deeper institutional engagement with agroecology. A broader network of philanthropic, policy, research, and grassroots actors is already working to reimagine financial systems in line with agroecological principles (Global Alliance for the Future of Food, 2025; Anderson & Bruil, 2021; Moeller et al., 2024). Within this community, several major donors have made explicit commitments to agroecology, elevating it as a strategic investment priority (Agroecology Coalition, 2024; Bader et al., 2024; Agroecology Fund, 2023; Global Alliance for the Future of Food, 2024). Building on these efforts and the growing movement to redirect finance toward agroecological transitions, PDBs now have a critical opportunity to expand their role by adopting financing models that foster resilience, equity, and sustainability in food systems through agroecology.

Box 1 - What is Agroecology and What are Agroecological Principles?

Agroecology provides a framework and an approach to redesigning food systems. The UN High-Level Panel of Experts (HLPE, 2019) defines agroecology as an approach that prioritizes natural processes, minimizes reliance on external inputs, promotes closed-loop systems with minimal negative externalities, and values local knowledge through participatory and experiential learning. Importantly, it also recognizes the agency and importance of local communities and is based in a commitment to human rights. Agroecology is related to but distinguished from related approaches such as sustainable agriculture, regenerative agriculture, climate-smart agriculture, and nature-based solutions. It is not that these lack merit, but that they typically emphasize one or two dimensions of sustainability (for example, ecological or social), rather than encompassing the full spectrum.

In contrast, agroecological transitions explicitly integrate ecological, social, economic, political, and cultural dimensions of transformation, making them uniquely holistic (Anderson et al., 2025; HLPE, 2019; Wezel et al., 2020). Moreover, agroecology is not a uniform model; it is inherently context-specific, shaped by local histories, ecologies, and cultures. Agroecology focuses on ongoing improvement and transition processes. To guide this understanding, the FAO has articulated 10 Elements of Agroecology, while the HLPE of the Committee on World Food Security has developed 13 Agroecological Principles, both of which are now widely applied in agricultural development, research, and policymaking (Figure 1).

Evidence for Agroecological Principles as a Pathway to Meeting the SDGs and Other Targets

Building on current perspectives in the field, this report understands agroecology as both an on-farm practice and a roadmap for transforming food systems (HLPE, 2019), advancing the SDGs, and regenerating communities and nature. Agroecology spans a continuum of approaches—from innovative farming practices to territorial markets and public procurement policies—that strengthen farmer livelihoods, enhance access to nutritious food, and foster fair market dynamics that support both people and ecosystems. Increasingly recognized as a unifying framework for advancing the SDGs, agroecology offers a coherent vision for equitable, resilient, and healthy food systems. It also provides PDBs with a pathway to move beyond the often too-narrow focus on productivity gains (box 1) and market growth toward embracing

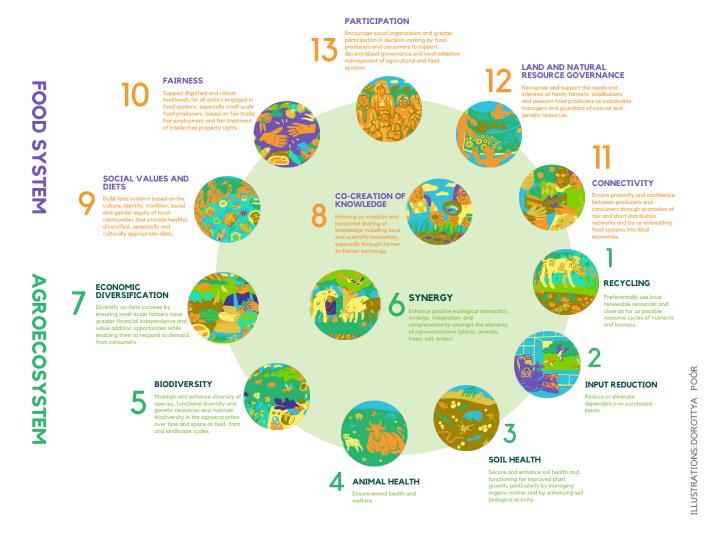


Figure 1 - The 13 Principles of Agroecology - https://agroecology-coalition.org/what-is-agroecology/

a more holistic approach to agricultural development that can improve the livelihoods of the most vulnerable.

A growing body of evidence has documented the multifunctional benefits of agroecology to society and, additionally, as an approach that can help to achieve global targets, agreements, and goals (Bezner-Kerr, 2023; Bezner-Kerr et al., 2021; Dittmer, 2023; Madsen, 2025; Mouratiadou, 2024; Romero Antonio et al., 2025; Snapp et al., 2022). Recent scholarship has charted out how agroecology provides pathways to achieve multiple Sustainable Development Goals (specifically SDG 1, 2, 3, 5, 8, 10, 12, 13, 15) by addressing interconnected ecological, social, and economic challenges (Gupta, 2025; Gliessman, 2025; Sorenson et al., 2025; Si et al., 2023; Crippa et al., 2021; Madsen et al., 2025). For example, it contributes to SDG 2 (Zero Hunger) by promoting food security and sovereignty, and by supporting diverse, resilient farming systems

that enhance nutritional outcomes and strengthen farmer livelihoods. It advances SDG 13 (Climate Action) by fostering diversified agroecosystems that reduce greenhouse gas emissions, increase carbon sequestration, and support the adaptive capacity of farming systems (Bezner-Kerr et al., 2023).



Above: An indigenous Lepcha farmer inspects traditionally saved seeds, Lower Dzongu village, Sikkim, India. All of Sikkim's produce is certified organic. Photo credit: David Meek.

Agroecology's outcomes in climate adaptation and mitigation also underpin its potential to help meet commitments under the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement. Agroecological practices also support SDG 15 (Life on Land) by protecting and restoring ecosystems and designing agriculture to work in harmony with nature. In addition, agroecology contributes to SDG 1 (No Poverty) by improving the livelihoods of small-scale producers and supporting territorial markets, small and medicum businesses, and local food webs (see next section). By centering the agency and leadership of women in agriculture, agroecology also plays a key role in advancing SDG 5 (Gender Equality).

However, progress on the SDGs is often undermined by reductionist approaches to development finance that rely on narrow metrics such as yields and GDP growth, or more narrow measures of sustainability like carbon sequestered, while sidelining equity, biodiversity, and community resilience. Further, the claims that only industrial agriculture can feed the world lack evidence. Despite producing sufficient food, the dominant system continues to leave millions hungry while driving climate change, ecosystem degradation, and malnutrition (IPCC, 2019; FAO et al. 2025). Increasing yields alone does not end hunger; food security depends

Box 1- Going Beyond Growth and Productivity as a Pathway to Meet the SDGs

When PDBs discuss the SDGs in regard to agriculture, they tend to focus on the issue of increasing productivity with only marginal attention to sustainability and equity. For example, in a 2020 report by the Islamic Development Bank and other PDBs, the example chosen to illustrate the contribute of PDBs to the SDGs in the area of agriculture exemplifies the overwhelming emphasis on increasing productivity:

AfDB launched the Technologies for African Agricultural Transformation Program in 2018. The program aims to enhance the competitiveness of the sector by deploying high impact, proven agricultural technologies to raise productivity, mitigate risks, and promote diversification and processing in 18 agricultural value chains. It aims to reach 40 million farmers by 2023 and add 120 million tons to the African food basket. The 19 million farmers reached by the program so far have increased their incomes by 39% and the productivity of their crops by 58%. (Islamic Development Bank et al. 2020, p. 8)

The prevailing focus on enhancing competitiveness and adopting modern technologies to boost and scale up food production has often come at significant environmental cost and has marginalized smallholders and disadvantaged rural communities. By invoking benefits for a generalized "farmer" without addressing issues of equity, such approaches risk excluding those most in need. Consequently, the advantages tend to concentrate among wealthier and more privileged actors (e.g., Kafle et al. 2021; Davis et al. 2022; Davis et al. 2024) and among agribusiness corporations that supply technologies, inputs, and market access (Ducastel et al. 2023; Ferrando 2022). If the goal is to foster equitable and sustainable livelihoods, PDBs should critically examine the prevailing dogma that growth is equal to socially just ecological development. As outlined in this report, agroecology presents an alternative approach rooted in a human- and nature- centered worldview that has demonstrated considerable potential and warrants increased support.

on rights, entitlements, and governance structures that determine access to food (HLPE 2020; Clapp, 2022). Agroecology, rooted in a commitment to human rights, offers a way forward by integrating ecological, social, and economic dimensions, advancing climate, biodiversity, and livelihood goals simultaneously (Bezner Kerr et al., 2023; Sorensen et al., 2025; Si et al., 2024; HLPE 2019).

A Special Focus on Productivity and Profitability

As we will discuss later in this report, the narrow emphasis on productivity and profitability that dominates financing discussions on agroecology means that policymakers and other actors fail to see the systemic and structural changes that can address the roots of inequity and unsustainability. At the same time, proponents of agroecology are often obliged to justify its value on these narrow terms. Indeed, when a draft of this report was circulated among leaders in PDBs, a typical response was precisely this challenge: "Agroecology sounds promising but prove that it works and is profitable." To address this challenge, we provide a brief review of the evidence on agroecology's performance in terms of productivity and livelihoods. The capacity of agroecology to "feed the world" is frequently questioned. Critics argue that it cannot match the yields of industrial agriculture and might drive expansion into fragile ecosystems (Kremen, 2015). The evidence, however, suggests that agroecology performs at least on par with, and in many cases better than conventional approaches in terms of economic viability and sustainable livelihoods. While yield gaps between traditional and organic systems have been reported, these are often overstated (Leippert et al., 2020; Sibhatu & Qaim, 2018). Research shows that under favorable conditions and with appropriate support, agroecology can match or even surpass conventional yields (Ponisio et al., 2015; Pretty et al., 2003) while also delivering social and ecological benefits that industrial farming cannot. Additional research provides further evidence that diversified agroforestry systems can enhance gender equity by increasing women's financial autonomy (Jassogne et al., 2013; Sanial & Ruf, 2018). In another example, a study from Malawi showed how HIV-affected farmers who adopted practices such as composting, legume rotations, and crop diversification experience higher labor productivity, greater sales, and improved food security (Nyantakyi-Frimpong et al., 2016).

Agroecological systems strengthen rural economies by centering small and medium enterprises, territorial markets, and regional food systems (D'Annolfo et al., 2017; López-García & de Molina, 2021; IPES Food, 2024). They generate employment, raise farmers' incomes, and reduce production costs by lessening dependence on costly external inputs and instead relying on locally available resources (Mishra, 2024; Hussain et al., 2022; APCNF Team, 2022). Although more labor- and knowledge-intensive, agroecology enhances farmer autonomy and control over key resources such as seed, fertilizer, land, and labor (Madsen et al., 2021; Duval et al., 2021).

Taken together, the evidence demonstrates that agroecology can enhance productivity and profitability while enabling communities to nourish themselves and contribute to achieving the SDGs. This is especially significant for smallholders and rural workers, who constitute a large share of the world's hungry. By focusing on livelihoods, well-being, and community nourishment, rather than narrowly defined growth and profit, agroecology offers a credible and essential pathway to reorient food systems toward justice, resilience, and sustainability.



Above: Farmers check on their drip tape irrigation system in the Comunidade Quilombola Lagoinha, in the village of Casa Nova, State of Bahia, Brazil. A "quilombola" is an Afro-Brazilian person who is a descendant of enslaved people who escaped from plantations and formed autonomous communities called "quilombos" in colonial Brazil. Photo credit: Manuela Cavadas.

Findings from the Study on the Link Between PDBs and Agroecology

To better understand the potential of PDBs to support agroecology, we conducted a scoping study comprising three main components. First, we conducted a review of academic and grey literature on PDBs, agroecology, and related fields. Next, we conducted 12 interviews with PDB key informants with expertise in the relationship between PDBs and agroecology (Table 1). The aim was to address three core research questions: 1) What is the current state of PDB involvement with agroecology? 2) Are PDBs a viable mechanism for advancing agroecology? and 3) How can PDBs support the expansion and institutionalization of agroecological systems? Professionals with knowledge and interest in agroecology within PDBs were interviewed. Key topics included PDBs' theory of change, investment decision-making, and advocacy strategies, using the flagged projects as illustrative examples of alternative agricultural investments PDBs could prioritize. We then carried out three focus groups (Table 2) to discuss the preliminary report (Draft 1) and the findings from Part 1, incorporating insights from these sessions into this final report.

Interviewee	Organization Type
1	Civil Society Organization (CSO)
2	Civil Society Organization (CSO)
3	PDB
4	PDB
5	Universities and Research Institute
6	PDB
7	PDB
8	Independent Policy Think Tank
9	Donor Organization
10	Donor Organization
11	Civil Society Organization (CSO)
12	Civil Society Organization (CSO)

Table 1 - Semi-structured interview participant list.

Focus Group	Participants
1	Civil Society and ODA funders X 8 people
2	PDBS X 2 people and X 2 academics
3	PDBs and academics X 4 people

Table 2 - Focus group interview participants.

A. Examining the Challenges and Contradictions of PDBs in Relation to Agroecology

Our literature review, interviews and focus groups revealed contradictory dynamics of PDBs in relation to agroecology, their climate goals, the Sustainable Development Goals (SDGs), and principles of social accountability. Our findings in this section explore the structural, systematic, operational, and conceptual challenges facing PDBs in relation to their alignment with agroecological principles and their potential to contribute meaningfully to just transformations in food systems.



Above: An aerial view of deforestation in the Phang Nga province of Thailand. Photo credit: Richard Carey.

Investment Model Favoring Large-Scale Industrial Agriculture and Global Value Chains

PDBs exhibit a persistent structural bias toward global value-chains and large-scale, export-oriented models of industrial agriculture within their financing frameworks. The assumption that global value-chain development will lead to progress on zero hunger and inclusion is increasingly called into question (Mausch, 2020; Lähde et al., 2023; Mechri et al., 2023). Investments in global value chains and agribusiness operations are often characterized by heavy reliance on synthetic inputs, methane-intensive livestock production, reliance on fossil fuels, globalized

feed supply chains, energy-intensive cold storage, and exploitative labor practices (Wasley & Heal, 2020; Faure et al., 2015; Big Shift Global, 2021).

Intensive livestock systems, in particular, generate significant environmental and public health externalities, including antibiotic overuse, deforestation, biodiversity loss, and animal welfare violations (Oakland Institute, 2022; World Animal Protection, 2023). For example, beef production accounts for approximately 41% of tropical deforestation, while more than 77% of global soy output is used for animal feed rather than direct human consumption (Good Food Institute, 2022). Historical analyses have shown that countries receiving World Bank structural adjustment loans have experienced significantly higher deforestation rates (Shandra et al., 2011). One of our respondents explained,

There is a real problem with how PDBs measure progress and development. They focus on large-scale investments rather than local needs, which often leads to land grabbing and the displacement of smallholder farmers. At the same time, funding for policy development and capacity building—needed to support agrarian reforms and agroecology—is overlooked. We have numerous reports that have reflected that PDBs continue to support agribusiness that foster the drivers of land grabbing. (Independent Policy Think Tank Executive, 2025)

Such financing practices undermine PDBs' stated objectives on climate mitigation, biodiversity conservation, and food security, while entrenching structural inequalities. By continuing to advance industrial agriculture under the guise of rural development, PDBs obstruct urgently needed agroecological transitions and divert public resources away from equitable and sustainable food systems.

Problematic Orthodoxy of "Bankable" Projects, Risk, and ROI

PDBs continue to rely on standardized financing models that privilege large-scale, "bankable" projects based on narrow criteria of financial viability, risk tolerance, and acceptable social or ecological impact. Bankability is determined by a project's overall risk and return profile, with factors like financial viability, technical feasibility, market demand, and legal and political stability all playing crucial roles in demonstrating its long-term reliability and ability to generate a sufficient, sustainable return. The focus tends to be on big-ticket investments expected to

deliver economic growth and, for private sector arms of banks, high rates of returns. This often results in collateral damage by intensifying ecologically harmful agriculture, displacing small-holders, and excluding them from the benefits such projects promise. As one PDB executive observed.

PDBs want to invest in large-ticket projects like large-scale irrigation, which can significantly impact agriculture—positively by improving water access, but also negatively by displacing small farmers. (Interviewee, 2025)

These prevailing economic logics of bankability do not open a direct pathway to achieving social and ecological goals. This logic is also often misaligned with the decentralized and context-specific nature of agroecological systems. Agroecology enhances farmers' profitability and community well-being while delivering ecological co-benefits, yet it seldom produces the financial returns or scale that attract institutional financiers. Instead, it requires flexible, locally attuned financing that supports experimentation, collective action, and adaptation beyond conventional investment-readiness frameworks. The prevailing notion of "bankable projects" thus predominantly sidelines agroecological approaches that generate long-term public value. Because agroecological systems primarily benefit farmers and communities rather than agribusiness or global capital, they sit uneasily within growth-centric portfolios. These structural misalignments are reinforced by PDBs' return on investment (ROI) and risk frameworks, which prioritize short-term financial performance over enduring ecological and social gains (Ferrando,



Above: Maria Auxiliadora do Nascimento and her son harvest cilantro in the Valdeci Santiago agrarian settlement, Cajazeiras, Brazil. These family farms directly supply a farmers' market run by the farmers themselves. Photo credit: Rayra Martins.

2022). Current appraisal tools favor capital-intensive, input-heavy models deemed efficient and scalable, while undervaluing alternatives that yield distributed and long-term benefits such as biodiversity, resilience, and equity. Risk, meanwhile, is often narrowly understood as potential financial loss, rendering community-based or cooperative agroecological initiatives "too risky" or unviable. As shared by one of our interviewees,

The EBRD [European Bank for Reconstruction and Development] has included agroecology in its new agribusiness strategy, but it still needs to translate what this approach means in terms of risk assessment and how risks are evaluated beyond the usual financial metrics. (Civil Society Executive, 2025)

This bias perpetuates corporate agriculture models and often fails to fully account for the broader risks of environmental degradation, social displacement, and inequality. Without reimagining how PDBs define risk and value, including risks to the public good, their ability to finance just and sustainable food system transformations will remain constrained.

Weak Accountability and Limited Inclusion in Governance

Decision-making in PDBs has been critiqued for being opaque, highly concentrated, and offering little opportunity for affected people and communities to guide investment. The inequity in governance also follows geopolitical lines where "Decision-making power within these institutions has been concentrated in the hands of a few major shareholders (the US, Japan, China, Germany, UK and France), often with limited input from the countries that are most affected by their policies" (Lahn and Schröder, 2023).

An increasing numbers of banks are deepening their engagement and commitments to human rights; however, this is highly uneven (UN Human Rights Council, 2023). Further, weak accountability mechanisms and compliance in PDBs fail to ensure that funded projects do not harm communities, violate human rights, or damage ecosystems. There is a large body of work documenting the role of PDBs in investments that violate human rights and cause significant ecological damage through industrial development and large-scale land acquisitions (e.g., Fern 2017; Roggenbuck, 2024; Early Warning System 2025; Factory Farming Finance Tracker 2025). Governments in the global north risk, through their PDB investments, the violation of their extra-territorial obligations under international law to respect, protect, and fulfill human rights not only within their own borders but also beyond them, impacting people in other countries (Global Initiative for Economic, Social and Cultural Rights 2014; Crippa, 2010).

Grievance and conflict resolution mechanisms remain underfunded, opaque, and difficult to access, leaving affected communities with few options for redress (Coalition for Human Rights in Development 2023; Bissell & Nanwani, 2009). Furthermore, PDBs routinely exclude farmers' movements, Indigenous communities, and civil society organizations from project design and oversight, limiting the integration of grounded, context-specific agricultural knowledge and priorities. There is a lack of accountability on the part of PDBs to rights holders, where PDBs enjoy broad immunities because they are hybrid structures with both "state-like and corporate-like attributes" that can avoid accountability measures (Erdem Türkelli, 2020, p. 252).

Existing Environmental and Social Safeguards (ESG) are insufficient and often poorly enforced, putting biodiversity, food sovereignty, and community rights at risk. PDBs generally loan in line with safeguard standards to minimize social and environmental risks, such as the Sustainability Framework developed by the International Finance Corporation (IFC). However, these frameworks rely on client self-reporting, lack robust protections for affected communities, and require significantly greater investment to ensure accountability (Bretton Woods Project, 2025). Two of our interviewees provide examples that illustrate how the current safeguards and grievance mechanisms can be subverted:

Our work on conflict resolution mechanisms in Ukraine shows how ESS safeguard mitigation plans—such as worker complaints and grievance platforms—can become tokenistic in practice. When entire families are employed by a single agribusiness, raising a complaint risks not just workplace retaliation but family conflict as well. In such cultural and conflict-affected contexts, these platforms often fail to prevent persistent labor violations, including child labor and exploitative conditions. PDB support for large-scale poultry operations only entrenches these issues, despite outwardly impressive ESS compliance. There is a need to stop factory farming financing and invest in local family poultry farming in this context. (Advocacy Group Program Manager, 2024)

The current accountability and conflict resolution mechanisms used by many PDB-funded projects feels completely unadaptable and far removed from the culture and lived experiences of rural communities. They are often top-down, technocratic, and difficult for people to access or even understand. In our work with communities in rural Ukraine, we have seen how critical it is to have locally grounded approaches that respect cultural norms, language, and community-based

processes. Without that, these mechanisms lack legitimacy and fail to address the real grievances on the ground. (Civil Society Executive, 2025)

It is especially difficult to ensure positive impacts and control over its indirect finance and investments (e.g., when PDBs provide finance to financial intermediaries such as local banks and investment funds), where there is even less scrutiny and accountability (Ferrando, 2022).

Narrow Narratives on Modernization and Progress

PDBs continue to approach agricultural development primarily through the paradigms of technological modernization, economic growth, and market liberalization. Within this framework, agroecology is frequently dismissed as outdated or inefficient, despite its documented benefits. Capacity-building programs often reinforce these biases, emphasizing top-down technical interventions rather than fostering farmer-led innovation, knowledge co-creation, and bottom-up solutions. Consequently, agroecological initiatives remain chronically underfunded.

PDBs are historically intertwined with structural adjustment policies, conditionalities that countries must adopt to be eligible for loans, often through packages of economic reforms they are required to implement in exchange for financial loans (Huang, 2024). These reforms have typically included privatization of public services, austerity measures, shifts in land tenure systems, market liberalization that permits the use of genetically modified seeds and harmful agrochemicals, the replacement of indigenous livestock breeds, and the relaxation of environmental regulations to accelerate agricultural industrialization (Oakland Institute, 2016). While framed as strategies to integrate countries into the global economy, these measures have primarily advanced the interests of powerful corporations, predominantly in the Global North (Hickel et al., 2022; Goyal, 2025).

PDB-linked land tenure reforms have often contributed to the commodification of land, paving the way for large-scale corporate acquisitions. For instance, the African Development Bank's agro-industrial strategy aims to transform over 25 million hectares of land, an effort criticized for the likelihood of displacing millions of smallholder farmers (AFSA, 2025). Such initiatives are typically justified by problematic assumptions: that Africa contains vast areas of "unused" land, that industrial agriculture is the only viable path to food security, and that small-scale farmers should give way to export-oriented agribusiness (AFSA, 2025).

The Role of PDBs in Sovereign Indebtedness and Financialization

For many countries in the Global South, reliance on credit, including from PDBs, has exacerbated sovereign debt crises, reinforcing cycles of indebtedness and constraining policy autonomy. Between 2010 and 2020, emerging markets and developing economies experienced the "largest, fastest, and most broad-based increase" in debt in fifty years (Sugawara & Zettelmeyer, 2021, p. 2). In 2023, developing countries spent US\$1.4 trillion, or 4 percent of Gross national income, to service their debt, and in most cases, external creditors of developing economies have been pulling out more in debt repayments than they have been putting into investment (World Bank, 2024). This debt-driven model of development is also linked to the broader trend of the financialization of agriculture, whereby food systems are increasingly governed by



Above: Terraced farming fields of the Caliata community, highlands of the Chimborazo region in Ecuador. Caliata is an indigenous community in the central highlands of Ecuador known for its agroecological resilience and ancient cultivation terraces.

financial actors and logics rather than ecological sustainability or social equity (Clapp, 2014). As food insecurity and rural poverty are increasingly framed as problems the market can address, discussions about which agricultural models best serve public interests are often eclipsed by considerations of which ones are most attractive to investors. In effect, this seemingly neutral stance, "letting the market decide", benefits large-scale industrial agriculture, allowing mainstream players to capture most development funding (Oxfam, 2020; Ducastel et al., 2023).

B. Case Studies Illustrating Promising PDBs Alignment Agroecological Principles

Case Study 1 - The Pró-Semiárido Project in Bahia (Brazil)

This case study is adapted from a report entitled: Lights in the Sertão (Petersen et al. 2022).

This project was co-funded by IFAD and the state government of Bahia, implemented by the Regional Development and Action Company (CAR), a company linked to the Rural Development Secretariat (SDR) of the Bahia government, in partnership with non-governmental organizations (NGOs). The Pró-Semiárido Project in the semi-arid region of Bahia, Brazil, stands as a transformative experiment in participatory and inclusive rural development and a strong example of financing Agroecology by PDBs. The project engaged over 70,000 farming families across 32 municipalities, investing approximately USD 56 million by 2021.



Above: A farmer feeds fresh calumbi forage to goats as part of the Pró-Semiárido Project, in which the state government of Bahia, Brazil invested USD 56 million to help 70,000 families better cope with the semi-arid climate in 32 municipalities in the Bahian hinterland. Photo credit: Manuela Cavadas.

From a global development perspective, the Pró-Semiárido Project sought to advance multiple SDGs, notably SDG 1 and 2 through improved rural livelihoods and food sovereignty, SDG 5 through women's empowerment and recognition of care work, SDG 8 and 10 via diversified incomes and reduced inequalities, SDG 12 and 13 through regenerative agroecological practic-

es, and SDG 16 by fostering participatory governance and policy dialogue. Overall, the project aligned with an agroecological vision and orientation of sustainability that integrates ecological care, economic justice, and social inclusion beyond conventional environmental stewardship and agriculture.



Above: Two members of the Riachão Community hold up fronds of the native calumbi plant (mimosa tenuiflora), municipality of Filadélfia, Bahia State, Brazil. Calumbi is a source of forage for animals and bees, is used medicinally, and fertilizes the soil via nitrogen fixing bacteria. Photo credit: Manuela Cavadas.

The project sought to reduce rural poverty over the long term by fostering sustainable development, generating employment in both agricultural and non-agricultural sectors, and strengthening human and social capital. From its inception, the project explicitly positioned itself within a framework that recognizes the knowledge, labor, and agency of smallholder farmers, particularly women, as central to the sustainability of agroecosystems. In contrast to a top-down technocratic model of rural modernization, it instead builds on collective governance, social learning, and gender justice as the foundations of sustainable livelihoods.

Analysis of Impact:

The project used the Lume methodology to measure and understand progress and impact (Petersen et al., 2020). "Lume", derived from the Latin word for light (*lūmen*), represents illumina-

tion on the flows of wealth and social and ecological reproduction, which is hidden by neoclassical economics. Lume integrates ecological economics, political economy, and feminist theory to evaluate and guide the process of implementing transformative agroecology. This combination enabled it to make visible the relational and distributive dimensions that are often unaccounted for through conventional approaches to assessing value. Financing and investment strategies were analyzed across the thematic index measures for 2015 and 2019, complemented by qualitative data from interviews, workshops, and community narratives. The analysis showed a steady and significant improvement over the study period, indicating multidimensional progress in livelihoods, agency, and ecological resilience. This upward trend underscores the value PDB investments in participatory and gender-responsive rural development models.

Learnings From the Case to Inform Transformative Financing for PDBs

- 1. **Social Integration:** The theme of social integration centered on the creation of new spaces of collective participation, governance, and knowledge sharing. This implies investments in infrastructure and institutions that foster social integration such as equipment workshops, social movements, learning spaces, processing hubs, and village cultural kitchens. Further investments included supporting farmers' participation in political and organizational spaces such as fairs, cooperatives, and learning exchanges that enabled the co-creation of technical innovations like forage reserves, intercropping systems, and soil conservation practices. These exchanges also reshaped gender and generational relations, allowing women and youth to assume leadership roles and claim ownership of production. Participation in socio-technical learning networks was found to expand dramatically, evidencing a surge in collective learning through workshops, participatory research, and "farmer-to-farmer" training. Similarly, engagement in commons management spaces from seed banks and goat fairs to community warehouses and agroecological markets enhanced cooperative governance and trust. Access to public support programs was found to approximately double, signaling that social participation translated into material benefit. This synergy between social capital and institutional responsiveness shows that community self-organization is not just socially cohesive: it is politically empowering and materially transformative, and if PDBs embrace agroecology, they are able to address interconnected SDGs at once.
- **2. Responsiveness:** Responsiveness reflected the system's adaptive capacity: the ability of communities and institutions to co-evolve amid environmental and socio-economic

pressures. Through decentralized and participatory management mechanisms such as the Investment Plans in Rural Territories (PITR), communities co-designed, executed, and monitored local initiatives. IFAD's investments into institutions that are central to political discourse and facilitate bottom-up processes become critical. These institutions and spaces allowed for integrating project planning within, are the central culture, and are aligned with the agendas of social movements (e.g., MPA, MST, and Fundo de Pasto associations), creating governance linkages across scales. Qualitatively, this led to faster collective responses to droughts, market fluctuations, and social conflicts; while reinforcing trust between communities and the state as well as mitigating emergency funding needs due to climate change impacts. Quantitatively, improvements in responsiveness indices coincided with expanded infrastructure access and diversification of rural incomes. The Lume approach demonstrated that participatory governance itself functions as an ecological resilience mechanism, turning PDB investments from acts of self-organization into an adaptive response to structural vulnerability by embracing agroecology.

3. Gender Equity and Women's Empowerment: The project centered women's leadership and challenged gender norms within development practice, leading to gender-transformative outcomes. By recognizing both productive and reproductive work as co-constitutive sustainability, the Pró-Semiárido Project transformed gender relations within households and communities. The average index of women's participation in socio-organizational spaces increased from 0.38 to 0.60, and access to support from public programs doubled across the 26 agroecosystems studied. Women assumed leadership roles in cooperatives, social control committees, and production groups. A critical innovation was the establishment of children's cirandas (a term for traditional song and dance circles, also used more broadly as a term for community-building activities), providing educational and childcare spaces managed by trained cirandeiras (female leaders). These cirandas freed women's time for collective engagement while cultivating ecological and cultural awareness among children. The feminist pillar of the project thus translated gender justice into measurable empowerment while embedding it within the social fabric of community agroecology. Several case studies illustrated how women-headed and women-managed households leveraged social-technical learning networks, collective organization, and improved access to public policies to expand their market reach at the territorial level. These women not only assumed leadership roles within their communities but also began to claim ownership over key factors of production such as land, water, and seed systems, reshaping local economies and governance dynamics from the ground up.

4. Income, Food, and Nutrition Security: The project recorded notable improvements in food sovereignty, dietary diversity, and income stability, driven by agroecological diversification and the expanded economic participation of women. Quantitatively, wealth-generation indices increased in line with the revaluation of unpaid care and subsistence work. Qualitatively, households reported greater autonomy, reduced dependence on external markets, and strengthened intergenerational cooperation. The inclusion of care and domestic labor within the economic analysis repositioned value creation as a life-centered process, echoing SDG 2 and SDG 5 commitments. The Pró-Semiárido Project's approach to economic transformation demonstrates that ecological well-being and social justice are co-dependent, and that the recognition of invisibilized labor is essential for achieving substantive economic sustainability. It also amplifies autonomy for farmers and the need for PDBs to invest in agroecological markets that are conscious of demographic and other pertinent socio-economic conditions present in these territories.

Summary of the Pró-Semiárido Project's approach to investments and financing of poverty and rural development

The Pró-Semiárido Project demonstrates that financing agroecological transitions requires a fundamental paradigm shift in development investment. Rather than focusing solely on production or short-term returns, the funders supported a project that emphasized human rights, social inclusion, and ecological sustainability. By institutionalizing agroecology, centering wom-



Above: Farmers appreciate their lettuce and herb garden in the village of Casa Nova, State of Bahia, Brazil. Photo credit: Manuela Cavadas. The person on the left is wearing a "Defensores da Caatinga" shirt; the caatinga (meaning "white forest" in Tupi) is a biome found exclusively in Brazil, covering 70% of the Northeast Region in dry forests, humid valleys, and rocky areas. It is experiencing high deforestation rates.

en's leadership, and challenging gender inequity, the project enabled communities to claim ownership over resources, co-create technical innovations, and strengthen collective governance. Investments in participatory institutions, learning networks, and commons management not only facilitated the co-design and implementation of local initiatives but also enhanced adaptive capacity, social cohesion, and political agency. This model shows that PDBs can catalyze structural transformation when they adopt flexible, context-sensitive financing strategies that integrate social, ecological, and economic objectives. The project's outcomes highlight that transformative PDB investments are those that recognize the multidimensionality of poverty and development, prioritize human rights, and support community-led agroecological transitions that generate lasting ecological, social, and economic impact.

Case Study 2 - Agence Française de Développement's Strategic Commitment to Agroecology (International)

This case study is adapted from: Agence Française de Développement (2023).

As France's PDB, the Agence Française de Développement (AFD) allocates approximately €12 billion (USD 13.9 billion) annually to projects aligned with the SDGs, with about 10% dedicated to agriculture, rural development, and biodiversity. Over the past few decades, AFD has increasingly supported the agroecological transition, beginning with early investments in research and extension services, such as no-till farming and plant cover systems in West and Central Africa, Southeast Asia, and Madagascar. Around a decade ago, AFD adopted a broader, context-specific understanding of agroecology, which has since become a cornerstone of its strategy. In 2022, agroecology was established as a top priority in AFD's revised strategy for agriculture, biodiversity, and rural development, to deepen its contributions to climate action and biodiversity preservation.

To scale its impact, AFD has diversified its portfolio beyond traditional, ground-level projects. While support for agroecological practices remains essential, recent efforts have emphasized enabling policy environments and institutional support. Between 2015 and 2019, 42% of AFD's ARB-division projects integrated agroecological elements, with 32 of these naming agroecology as a primary objective, many of them funded through grants. This support has taken multiple forms: from policy-based loans that include agroecological components (e.g., in Costa Rica and the Philippines), to financing national agroecology strategies (e.g., Burkina Faso), to supporting practitioner networks such as DyTAES in Senegal and the ASSET project in South-

east Asia. AFD has also contributed to regional efforts, such as those of ECOWAS, which aims to facilitate agroecological transitions in West Africa and align national policies with agroecological goals.

AFD has further cemented its commitment to agroecology in 2023 when it released a detailed position paper outlining its definition of agroecological projects and its criteria for monitoring progress. This includes a classification system based on internationally recognized frameworks such as Gliessman's five levels of transition, FAO's ten elements, and HLPE's thirteen principles. This allows projects to be categorized as precursors, initiators, catalysts, or transformational actors in the agroecological transition (AET). This classification serves as both a planning and accountability tool, guiding project teams and partners while enabling systematic tracking of outcomes, such as the number of family farms and the total land area converted to agroecological systems. Through these operational tools, participatory approaches, and support for territorial diagnostics, AFD aims to institutionalize agroecology within its development financing model and strengthen its role in reshaping food systems for long-term resilience.



Above: A family poses with an Ecoforte placard that reads "Agroecology and Organic Production Networks Project - Terra Network".

Case Study 3 - Ecoforte Program for Strengthening Territorial Agroecology Networks (Brazil)

This case study is adapted from Milhorance et al. (2022) and Schmitt et al (2020)

The Ecoforte programme was established in Brazil under the umbrella of the Política Nacional de Agroecologia e Produção Orgânica (PNAPO) and its implementation plan, PLANAPO (Agroecology INFOPOL, 2025). Launched in 2014, Ecoforte aims to strengthen and expand territorial networks dedicated to agroecology and organic food systems. It addresses multiple pressures simultaneously: the need for sustainable food production, biodiversity conservation, climate resilience, and the empowerment of historically marginalized rural populations, including women, youth, and Indigenous and traditional communities.





Above left: A field in Brazil with interplanted lettuces and cruciferous vegetables. **Above right:** Refrigerator with seeds from the ABD 12-18 field, state of Botucatu Brazil. Photo credit: Alfredo Nagib Fo.

For the 2024–2027 cycle, investments reached R\$100 million (USD 18.7 million), financed by the Brazilian Development Bank (BNDES), the Bank of Brazil Foundation (FBB), and other public bodies. Funding was divided roughly evenly between infrastructure investments and management, capacity building, and technical assistance. Most supported networks serve family farmers and traditional people and communities (Schmitt et al. 2020), with explicit prioritization of women and youth.

Ecoforte operates through competitive public calls and is structured around two modalities.

Ecoforte Redes (networks), the flagship strand, provides substantial grants (typically USD 200,000 - 500,000) to consolidated territorial networks. Ecoforte Empreendimentos (enterprises) offers smaller, targeted support to emerging networks and collective enterprises. All funding is non-reimbursable, an essential feature that enables grassroots organizations with limited financial capacity to participate.

A central innovation of Ecoforte lies in its network approach, which shifts focus from isolated organizations to the collective strengthening of entire territorial ecosystems. Networks typically include family-farmer organizations, technical-support NGOs, processing units, and commercialization partners. Grants fund shared equipment, infrastructure upgrades, sustainable technology adoption, knowledge exchange, participatory action research, and the development of collective branding. This collaborative model generates synergies between local actors, local resources and local economic activities that facilitate transitions towards agroecological, resilient food systems.

Investments by BNDES and FBB through Ecoforte generated several important outcomes that illustrate how public development banks can support agroecological transitions. Viewed through the HLPE's thirteen agroecological principles, Ecoforte represents a shift away from productivity- or input-driven finance toward networked, territorial, and rights-based investment models.

- 1. Network strengthening and territorial scale: Civil society networks are central actors in Ecoforte and serve as key spaces for farmer collaboration and knowledge exchange ("co-creation of knowledge"). In its early phase, the programme supported roughly 28 territorial agroecology networks. These networks facilitated collective organization, improved bargaining power, resource pooling, and peer-to-peer learning, thus advancing the HLPE principles of integration across scales and synergies.
- 2. Processing and market access improvements: Ecoforte uses public calls and participatory selection to support technical assistance, training, seed systems, infrastructure, equipment, and processing facilities. Many projects improved value addition and market access. For example, COPABASE (Urucuia Grande Sertão–MG) used Ecoforte funding to upgrade infrastructure and reach new markets. These actions reflect the HLPE principles of diversification by enhancing local markets.
- 3. Training, technical assistance, and co-creation of knowledge: The programme invests in

- participatory learning spaces, youth and women's training, and the exchange of agroecological practices such as intercropping and community seed banks. These activities align with the HLPE principles of co-creation of knowledge and social values and diets.
- **4. Inclusion of women, youth, and traditional peoples:** The 2024–27 Ecoforte cycle explicitly prioritizes women, youth, and traditional communities, embedding fairness, equity, and social justice into investment criteria. This approach aligns with the HLPE principles of fairness, values and diets, and responsible governance.
- 5. Ecological practices and biodiversity: Ecoforte promotes transitions to agroecological and organic production systems that reduce external inputs, strengthen biodiversity, and foster circular nutrient flows. BNDES highlights Ecoforte's contributions to "conserving biodiversity" and expanding access to healthy foods. These outcomes correspond to HLPE principles of recycling and circularity, input reduction, and biodiversity.
- 6. Territorial empowerment and rights-based governance: By emphasizing collective governance, social organization, and civil-society participation, Ecoforte supports a territorial, rights-based agroecological transition rather than a narrow productivity-oriented model. This mirrors HLPE principles of synergies across spatial scales and responsible governance. Ecoforte thus becomes a vehicle for both economic investment and broader social transformation.

By aligning financing mechanisms with key agroecological principles, Ecoforte has strengthened territorial networks, improved market access, expanded knowledge co-creation, and deepened the inclusion of women, youth, and traditional communities. The programme demonstrates how PDBs can move beyond conventional productivity-focused approaches toward rights-based, socially just, and ecologically resilient modes of investment that support agroecological transition at scale.



Above: A handmade greenhouse for field germination testing, ABD 12-18 field, state of Botucatu Brazil. Photo credit: Alfredo Nagib Fo.

C. Case Studies from The Global Agriculture and Food Security Program (GAFSP)

The Global Agriculture and Food Security Program (GAFSP) is a multilateral financing initiative established in 2010 to enhance food and nutrition security in low-income countries by supporting sustainable agriculture and rural development. We chose to zoom in on several case studies within GAFSP's Farmer-Producer Organizations (FPO) program, which provides direct funding to farmer organizations and aims to strengthen smallholder farmers' agency, build resilience to shocks, and improve access to markets (GAFSP, 2025). To date, the program has received over USD 2 billion in contributions. In its most recent funding cycle, GAFSP allocated USD 80 million to 30 FPOs across Africa, Asia, and Latin America.

GAFSP finances projects through a combination of grants and loans. The public sector window primarily delivers grant financing, implemented in partnership with supervising agencies such as UN bodies and PDBs. Notably, GAFSP's FPO track offers a unique modality in which FPOs can directly design and implement projects, bypassing government intermediaries. These projects still benefit from technical assistance and oversight provided by supervising agencies, which are mostly PDBs. The following three case studies highlight how GAFSP support has contributed to agroecological transitions and inclusive rural development across diverse geographic and sociopolitical contexts.

Case Study 4: "Promotion of Resilient Agroforestry in Grand'Anse" (Haiti)

Source: GAFSPFUND, 2025

In Haiti's Grand'Anse region, the Promotion of Resilient Agroforestry project, funded by a USD 3 million GAFSP grant, supports about 10,000 smallholder farmers recovering from the August 2021 earthquake. Led by ROPAGA (Réseaux des Organisations de Producteurs et Productrices de la Grand'Anse), in partnership with ActionAid and the World Food Programme (WFP), the initiative strengthens climate resilience through agroecological strategies such as agroforestry, improved livestock management, and beekeeping. Building on traditional knowledge, these efforts help restore livelihoods and food systems in one of Haiti's most vulnerable areas.

The project promotes diversified cropping systems that incorporate climate-resilient fruit and tuber varieties, enabling farmers to better withstand droughts and floods while expanding their income sources. At the same time, access to finance and markets is improved through collaborations with local banks and private-sector actors to establish smallholder credit lines and

develop sustainable rural value chains. These measures not only stabilize food production but also foster organizational growth rooted in local priorities. With ROPAGA leading implementation, interventions remain grounded in community realities while benefiting from the operational scale of international partners like WFP.

The project advances key agroecology principles. For example, related to social values and diets, it aimed to increase food diversity and strengthen the resilience of women and youth. Economically, expanded access to credit enables producers to invest in sustainable agroforestry systems, reducing dependency on extractive, input-intensive markets. Ecologically, the scaling up of agroforestry improves soil health, promotes biodiversity, and enhances water retention. In contrast to monocropping and extractive industrial models, this case illustrates how community-driven finance and agroecological investments can provide viable, sustainable alternatives for PDBs seeking to support just and regenerative rural development.

Case Study 5: Strengthening Capacities for Climate Resilience and Economic Empowerment of Rural, Smallholder Producers in the Dry Corridor (Honduras)

Source: GAFSPFUND, 2025

This project, funded with a USD 2.13 million grant and implemented by the Alternative Community Economy Network, supports 1,022 smallholder producers, over half of whom are women, in Honduras's Dry Corridor. In one of Central America's poorest regions, where youth and rural populations face significant economic exclusion, the initiative strengthens local food systems by developing diversified, climate-resilient value chains for avocado, vegetable, and bee honey producers. With technical support from the Inter-American Development Bank (IDB), it facilitates agroecological practices that align with HLPE principles of diversity, co-creation of knowledge, and resilience. The project enables producers to adopt sustainable agricultural methods by providing training and promoting peer learning, consistent with the HLPE principles of knowledge sharing and responsible governance. Farmers are empowered to engage in collective processing and marketing through the establishment of a new collection center, advancing synergies across the value chain and enhancing circular and solidarity economic practices. The focus on market access and linking small farmers to local businesses and consumers embodies principles of economic diversification, fairness, and participation.

Looking ahead, the initiative includes the construction of greenhouses, water storage systems, and drip irrigation, along with native seed conservation centers supporting principles of effi-

ciency, recycling, and resilience. The Producer Organization will manage these infrastructures while engaging in the broader community through business fairs, awareness campaigns, and farmer testimonials. In doing so, the project not only builds agroecological knowledge and autonomy but also reshapes local food systems to be more inclusive, sustainable, and nutrition sensitive.

Case Study 6: Strengthening Women's Livelihoods and Local Food Systems in Tambacounda (Senegal)

Source: GAFSPFUND, 2025



Above: Tolou Keur planting in Touba Thilla, Senegal. This traditional method of growing biodiverse crops in gardens planted in concentric circles helps with water retention Photo credit: E. Diop.

The Missing Middle Initiative (MMI) is a pilot program designed to close the gap in support for smallholder farmers — especially women and youth — who are often overlooked by both microfinance institutions and large-scale agribusiness investments. In Senegal's Tambacounda region, where over half the rural population lives in poverty and faces challenges like irregular rainfall and limited market access, the MMI project supported the economic empowerment of small-scale farmers by focusing on banana and fonio value chains. With a \$2.48 million grant,

the initiative aligned with the HLPE agroecology principles of social values and diets and economic diversification, strengthening food security while fostering healthy, culturally appropriate diets.

Led by the producer organizations APROVAG and YNW, the project built governance, production, and management capacity, with a focus on women's participation, decision-making, and entrepreneurship. Six new women- and youth-led rural enterprises were established, contributing to fairer livelihoods and improved access to agroecological knowledge and inputs. These efforts reflect the HLPE principles of fairness, participation, and land and natural resources governance, as the project supported producers in asserting greater control over their land, production choices, and income streams.

Connectivity within the food system was enhanced through commercial partnerships and financial inclusion mechanisms such as Village Savings and Credit Associations, enabling producers to grow their businesses and access credit. By investing in local institutions and collective agency, the MMI project exemplifies the HLPE principle of connectivity, demonstrating how targeted support to the "missing middle" can catalyze inclusive rural transformation, empower women, and build resilient agroecological food systems.

Summary Discussion of the GAFSP Case Studies

While the three case studies presented here highlight opportunities for agroecological development by illustrating the interactions between the Producer Organization and GAFSP funding, our interview with a GAFSP representative emphasized the need to evaluate the entire portfolio of 30 producer organization projects using tools such as the Agroecology Finance Assessment Tool (AFAT) to more deeply assess agroecological alignment. The evidence provided in this report pertains only to these three cases, a small subset of the full portfolio. Interviewees also noted the critical role of PDBs as implementing partners, suggesting that insights from these cases could inform broader learning across the portfolio and partners.

Recommendations: Strategic Entry Points for PDB Reform to Support Agroecology

The following recommendations outline key actions PDBs and other actors can take to support just transformations in food systems.

1. Shifting the Paradigm: Adopt New Foundations for Financing Food System Transformation

Foregrounding Human Rights, Agroecological Approaches, and Confronting Inequities

Rights-based Approaches:

Grounded in international human rights law, PDBs can play a crucial role in helping governments sustain public investment, while also meeting their legal obligations to uphold human rights in development cooperation, international economic governance, and national policy. In the context of food systems, this commitment reinforces calls to center the right to food and to adopt rights-based approaches to guide investments (Roggenbuck, 2024; Fakhri, 2025; Sampson, 2021). The European Investment Bank (2023) report on their approach to rights-based approach is illustrative of movements in this direction, as is the UN Human Rights Council (2024, p.20) note on rights-based approaches to investment:

Investors have the responsibility to respect human rights by placing risks for people and the planet at the centre of their decision-making. This includes embedding human rights into their policies and strategies, undertaking ongoing human rights due diligence, and remediating adverse human rights impacts they cause or to which they contribute. (UN Human Rights Council, 2024, p.20)

A rights-based approach would provide robust guidance for safeguarding, due diligence, risk assessment, and monitoring. Such an approach would not only help prevent PDBs from engaging in harmful financial investments but also focus on providing sustained public investment in rights-fulfilling services. The UNDP's "Human Rights Toolkit for Financial Institutions" (UNDP, 2025) provides specific, actionable guidance on strengthening a human rights-based approach.

Momentum for this shift is already visible. At the 2022 Finance in Common Summit, four PDBs (IFAD, EIB, AFD, and CEB) endorsed a joint statement calling for more substantial commitments to Human Rights-Based Approaches (Finance in Common, 2022). The statement rec-

ognized the inextricable link between the SDGs and human rights, and affirmed the responsibility of PDBs to progressively integrate these principles across their operations. An outcome of the Fourth International Conference on Financing for Development (FfD4), The Commitment of Sevilla (2025, p. 3), included a pledge to the "pursuit and enjoyment of human rights and fundamental freedoms for all, encompassing civil, political, economic, social and cultural rights, which includes the right to development, must be respected, protected and promoted, without distinction or discrimination of any kind." Importantly, taking a rights-based approach not only entails strengthening safeguards to uphold the principle of "do no harm," but also actively maximizing positive impact and addressing inequalities, in coherence with the overarching objective of leaving no one behind.



Above: Farmers come together in the West African community of practice of the McKnight Foundation's Global Collaboration for Resilience Food Systems.

Agroecological Principles:

As discussed in this report, agroecological principles provide an evidence-based framework to advancing food system transformation, especially when connected to a rights-based approach. Climate and agriculture finance and development-bank lending should be "reoriented away from large-scale, capital-intensive projects and toward small-scale producers, cooperatives, and communities—the groups most affected by hunger and climate shocks, and the ones best posi-

tioned to build biodiverse and local and territorial food systems" (Chicoma & Reynolds, 2025, p. 54). This approach centers the role of small-scale producers and territorial food systems in meeting food needs and ensuring healthy diets for all. A growing global community, from grassroots organizations to national governments and international institutions, is developing tools and policies to integrate agroecology more fully. PDBs should engage with, learn from, and contribute to these efforts (see final recommendation on Building Internal Capacity and Expertise on Agroecology at PDBs).

Confronting Inequities and Economic Injustice:

PDBs have a critical opportunity and responsibility to align with contemporary calls to confront inequities in food systems (HLPE 2023) and with efforts for climate justice, economic justice, and historical reparations by rethinking their development models, financing priorities, and governance structures. This begins with acknowledging the ongoing role in financing extractive and industrial systems that have disproportionately harmed the Global South while enriching actors in the Global North (Hickel et al., 2022). To engage meaningfully with justice-based agendas, PDBs must move beyond a narrow focus on economic growth, and to contront growth as an economic dogma altogether (Gibson et al. 2025). This would challenge the assumptions that infinite growth is possible on a finite earth or the logic that growth = prosperity for all. Instead, PDBs could shift towards frameworks grounded in equity, accountability, and redistribution. This includes prioritizing investments in community-led climate adaptation and transformation, supporting reparative financing for historically marginalized populations, and restructuring debt in ways that address ecological and colonial legacies. PDBs should take a leadership role in efforts to achieve debt relief and cancellation (Zucker-Marques et al., 2023; Hilmi, 2019) as part of a broader effort towards global economic justice. PDBs should also democratize decision-making by giving greater voice and power to those most affected by climate change, inequality, and dispossession. By centering justice and redistribution, PDBs can begin to rebuild trust, share power more equitably, and support genuinely transformative pathways for sustainable development

From Scarcity to Abundance: Challenging the Myth of Limited Public Funds

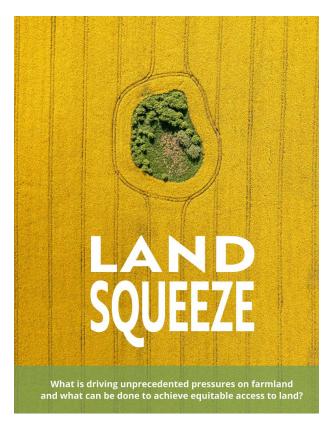
Many governments and global actors operate under the common assumption of public resource scarcity that is preventing public investment in the public good. This scarcity mindset has fueled a reliance on private investment and Public-Private Partnerships to fill gaps left by

shrinking public budgets, which are increasingly directed toward militarization and subsidies for the failing industrial food system. Michel Pimbert's recent article (2025) highlights how reforms such as taxing the super-rich and windfall profits, redirecting public spending from industrial agriculture and military expenditures, closing tax havens, and using debt cancellation and reparations to strengthen resilience in the Global South could unlock vast resources to meet the stated goals of PDBs. For example, global farm subsidies total about USD 842 billion annually. However, only 1% benefits the environment, while harmful subsidies exceed USD 2.6 trillion per year to all sectors, including fossil fuels and agriculture (ACB 2025). Pimbert highlights how a 2% global wealth tax on the world's wealthiest individuals could raise USD 250 billion annually, and closing corporate tax loopholes could raise another USD 250 billion, fully covering the estimated USD 500 billion needed anually for food system transformation. Instead of reinforcing the privatization of development and the financialization of food systems, PDBs could challenge the illusion of scarcity and help to redirect public resources toward agroecological and equitable development.

2. Phase Out Investments in Industrial Agriculture and Large-Scale Land Acquisitions

While agroecology does indeed need significant investments to grow, it is as important to focus on defunding development based on agricultural industrialization, resource extraction, and environmentally harmful industrial development, which push small-scale farmers off the land and degrade the ecological basis of agriculture and of life on earth.

PDBs should cease funding intensive livestock operations, large agribusiness companies with a history of human rights and ecological abuse, speculative investments, and large-scale land acquisitions. This shift involves actively excluding intensive livestock production and monocropping from PDB portfolios. Special attention should be given to imposing a moratorium on





Above: Cover of IPES Food report, "Land Squeeze". The report provides important insights into the pressures from large scale land investment on land, communities and nature.

investments that fund large-scale land acquisition, which often violate human rights and contradict states' extra-territorial human rights obligations (Boras, 2016). Rights to lands, seeds, and nature are critical prerequisites for strengthening agroecology (Anderson et al., 2021) and are significantly undermined when these elements of nature are enclosed by large corporations or governments, often prompted by foreign interests. However, PDBs have been found to fund these large-scale land acquisitions directly or through indirect investments in financial intermediaries that provide loans that are used for large-scale land acquisitions, and may have even less accountability than PDBs (Kingler et al., 2024; Borras et al., 2019; Oakland Institute, 2022). PDBS should align their investments with the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT), endorsed by the Committee on World Food Security (CFS) (FAO, 2012), and significantly strengthen safeguards, including their enforcement.

3. Using Agroecological Principles to Reform Institutional Mandates and Approaches

Revisit and Transform Institutional Mandates and Policy Frameworks

PDBs currently lack clear mandates to support agroecology, contributing to a continued reliance on industrial, profit-driven agricultural models. Agroecology should be institutionalized as a core strategic priority across PDB charters, investment frameworks, and country partnership strategies in relation to their investments in agriculture and food systems. PDBs could adopt formal agroecology policies to guide funding toward smallholder farmers, Indigenous knowledge systems, and biodiversity-based farming. PDBs could look to existing examples, such as

Box 2 - Producer Organizations (PO) Mechanism of the Global Agriculture and Food Security Program (GAFSP)

Innovative new modes of providing funding through intermediaries are creating important financing infrastrucutre, including through producer organization (PO), cooperatives, associations, or NGO platforms, who then provide funding to the final beneficiaries (e.g., smallholder farmers). This is necessary as agroecological smallholders are often too small, too diverse, or too informal to access large-scale finance directly. Further, agroecology thrives through strong organizations, networks and coalitions (Anderson et al. 2021) and financing that strengthens this vital relational infrstructure is an important opportunity to strengthen agroecology. In an interview, a GAFSP executive described how intermediate-scale funding can support and Agroecological approach:

Several of the supported Producer Organizations explicitly align with agroecological principles and practices, while others do not. Examples include Producer Organizations involved in agroforestry, rural youth poultry and aquaculture projects, and family poultry farming. (GAFSP Executive, 2025)

The executive emphasized the importance of assessing the level of "agroecologicalness" via tools such as the Agroecology Finance Assessment Tool in current projects and recommended incorporating agroecological frameworks at the planning and budgeting stages to better inform future funding decisions.

AFD (2023) and the International Fund for Agricultural Development (IFAD, 2025), which have explicitly worked to orient their portfolios toward agroecology. Agroecology aligns well with PDB mandates to enable inclusive and sustainable agricultural transformation, such as IFAD's commitment to "invest in rural people". This language opens potential pathways for alignment with agroecological principles. Nevertheless, a more explicit engagement with agroecology could be embraced to harness its holistic development approach, while also pursuing economic, social, cultural, and ecological resilience and wellbeing.



Above: Producer organizations, such as Coordination Nationale des Organisations Paysannes (CNOP) in Mali, are critical players in agroecological transitions.

Develop Agroecology Focused Financial Instruments and Approaches

PDBs should establish and strengthen dedicated agroecology financing mechanisms to specifically support smallholder farmers and the development of agroecological landscapes and territories through grants, concessional loans, and guarantees. This would prioritize investments in agroecological farming practices; infrastructure for agroecological markets, such as public procurement of agroecological products; school meals programs; and storage and processing facilities scaled to smallholder agroecological farming. Effective agroecological transitions require strong, context-specific partnerships with local actors, research institutions, farmer organizations, Indigenous knowledge holders, and civil society. By embedding such partnerships in investment design and implementation, PDBs can enhance the legitimacy and effectiveness of their interventions and shift toward agroecological systems that prioritize environmental sustainability, social justice, and economic resilience. To support alignment and track progress, PDBs should adopt tools like the Agroecology Finance Assessment Tool (AFAT) to evaluate proposed projects for alignment with agroecological outcomes, guide exclusion policies for harmful practices, and monitor and evaluate progress.

To support agroecological transitions, investment in food systems in PDBs should move beyond capital-intensive, large-scale project models and develop intermediate and intermediated approaches to investing. These investments are better aligned with the participatory, context-specific, and iterative nature of agroecological initiatives. The landscape and territorial approaches to development, rooted in the agroecology principles, can help build the social and material infrastructure for agroecological practices to grow and strengthen. These investments should focus on strengthening territorial food systems (IPES-Food, 2025) and building what has been referred to as the 'infrastructure of the middle' (Stahlbrand, 2018) such as locally owned and scale-appropriate food processing, storage, community produced bio-inputs, and transportation that support smallholders to grow, harvest, process, and distribute their produce in local and regional nested markets (FAO, 2020). This vital 'intrinsic infrastructure' (Jonas, 2025) is critical to supporting agroecological farmers in practicing agriculture that delivers multifunctional benefits, or multiple returns on investment, as public goods.

Drawing on the experience of funds like GAFSP's Producer Organizations Mechanism (box 2), PDBs can champion funding for farmer organizations and territorial networks that enable endogenous development. By supporting these bottom-up efforts, actors can establish proof of concept, demonstrate impact, and secure long-term viability. The Agroecology Fund (2025) is

another example of a global effort to fund these endogenous agroecological development approaches. Indeed, PDBs could also collaborate with progressive philanthropies that have been developing innovative strategies to support agroecology (Schroeder et al. 2023; Global Alliance for the Future of Food, 2024).



Above: Cattle ranch in the Eastern Cape region of South Africa.

Reexamine Assumptions Around Risk and Return on Investment

PDBs should rethink the narrow measures of financial return and adopt a more holistic approach to integrate social, ecological, and cultural returns into investment planning tools and safeguard frameworks, moving beyond narrow "bankability" criteria. Frameworks such as Full Cost Accounting (FCA) and Community Economy Return on Investment (CEROI) can provide helpful tools to expand the imaginaries of profit, gain, and return (Global Alliance for the Future of Food, 2019; Petrescu, 2021; Gray, 2010; Nicholls et al., 2012). Full Cost Accounting aims to provide a much more holistic accounting of the diverse costs and benefits of an investment, including environmental degradation, social displacement, and long-term impacts that are often externalized or ignored in conventional analysis. The importance of a more thorough accounting is made evident through the 2023 SOFI report (FAO 2023) that estimates that the current food system has approximately USD 13 trillion in hidden costs. SROI adds another layer by monetizing social and environmental outcomes, capturing the value of improved health, education, or equity generated by an investment. These frameworks could help PDBs assess whether their financing contributes not only to economic growth but also to the well-being of communities and ecosystems over time, and put agroecology on much firmer ground.

Community Economy Return on Investment (CEROI) goes further by centering on community-defined values and forms of economic life that are often invisibilized in mainstream assessments, such as care work, reciprocity, and ecological stewardship. It offers a pluralistic and relational approach to evaluating return, rooted in the understanding that economies are embedded in social and ecological contexts. Together with other tools, such as well-being metrics and avoided-cost analyses, these approaches offer PDBs a pathway to align lending with the direct creation of social, economic, and cultural returns, rather than assuming this will happen

through economic growth alone. Similarly, the Lume method featured in Case Study 1 in this report on the Pró-Semiárido Project in Bahia, Brazil, provides a tool for analyzing the economic and ecological impacts of projects on agroecosystems and society. The method (Petersen, 2020) focuses on recognizing the labor of all people involved in the agroecosystem, including women, by using an analytical approach aligned with feminist economics to understand and increase the visibility of their essential role in generating social wealth. Lume offers an approach that accounts for a broader array of benefits to people and nature than conventional measurement methods.

Conventional notions of risk in development lending narrowly focus on financial risks such as creditworthiness, default probability, or short-term returns and opportunities, while largely ignoring the profound environmental, social, and cultural risks in growth-driven development. This limited perspective enables investments that may appear fiscally sound on paper but risk significant long-term consequences for communities and ecosystems. Industrial agriculture is a case in point: while often framed as a low-risk, productivity-enhancing sector, it contributes to soil degradation, biodiversity loss, water contamination, land dispossession, and the erosion of Indigenous and local knowledge systems. These harms are rarely reflected in financial assessments, often fail to be prevented through existing safeguards, and pose serious threats to long-term sustainability and equitable resilience. By ignoring these dimensions, financial institutions not only misprice risk but also actively perpetuate harm.

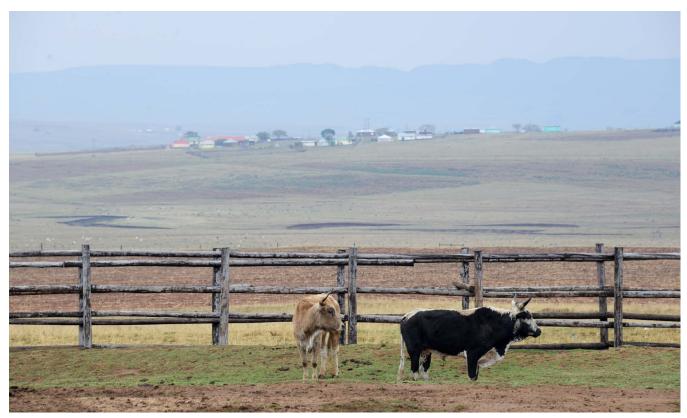
To correct this, PDBs should explore broader, more integrated notions of risk, especially by adopting stronger safeguards and precautionary principles that prevent funding projects that risk violating human rights. Ecological risks include the vulnerability of ecosystems to harm or degradation from extractive or high-input interventions. Social risk would capture the potential for displacement, inequality, or conflict arising from development projects that exclude or exploit local communities. Cultural risk refers to the threats to language, identity, and livelihoods that arise when traditional economies are disrupted or replaced. Climate risk accounts for both the exposure of projects to climate-related shocks and their contributions to long-term planetary instability.

4. Strengthening Safeguards, Accountability, and Governance

Develop and Invest in Partnerships for Safeguarding PDB Investments

PDBs should institutionalize formal partnerships with farmers' organizations, Indigenous groups, and agroecology networks. They should especially focus on including the voices of women, youth, and other people who are disproportionately affected by development. These partnerships should go beyond consultation to enable the co-creation of policies and approaches grounded in local knowledge, ecological sustainability, and social equity.

PDBs have historically excluded social movements, Indigenous communities, and grassroots farmer organizations from project design and decision-making processes, resulting in development interventions that often overlook local realities and reinforce top-down, technocratic models. This exclusion has contributed to a persistent lack of accountability in PDB operations, leaving affected communities with limited avenues to influence decisions or seek redress for harm.



Above: Cattle on pasture in the Eastern Cape region of South Africa.

PDBs should also allocate dedicated funding to strengthen civil society capacity and oversight, including support for independent monitoring bodies and advocacy organizations pushing for transparency and institutional reform. Efforts such as the Early Warning System (International

Accountability Project, 2025) are playing an important role in ensuring that local communities and their allies gain timely access to details about proposed projects, including the governments, companies, and investors involved. It also equips these stakeholders with advocacy tools before final funding decisions are made. Existing grievance mechanisms also need to be fully resourced, transparent, and accessible to ensure meaningful accountability when projects cause environmental or social harm or violate rights.

An interesting effort to formally bring civil society into decision-making is the GAFSP (Global Agriculture and Food Security Program), a multilateral partnership and financing platform dedicated to improving food and nutrition security worldwide. Civil society organizations have been instrumental in shaping GAFSP's direction, helping to secure dedicated funding for farmers' and producer organizations, guiding the inclusion of climate principles such as agroecology, and ensuring that smallholder perspectives are reflected in decision-making. Through regular regional consultations, civil society and farmer organizations bring field-level realities of agriculture, food security, and resilience into global policy and financing discussions, strengthening both the relevance and the impact of GAFSP's work. Civil society is formally represented in GAFSP's Steering Committee.

These partnerships are essential for overcoming cultural, technical, and institutional barriers that constrain the scale and sustainability of agroecological practices. For PDBs, collaborating with grassroots advocacy networks and social movements also offers a strategic opportunity to reform Environmental and Social Safeguard (ESS) frameworks and recognize agroecology as a transformative approach to food systems governance.

Strengthen Environmental & Social Safeguards

Existing safeguards are insufficient and often poorly enforced, putting biodiversity, food sover-eignty, and community rights at risk. PDBs should adopt robust, enforceable standards; prohibit high-risk pesticides; enforce land-use regulations; and institutionalize Free, Prior, and Informed Consent (FPIC) for Indigenous and rural communities. To truly align with agroecological principles, safeguards will be required to go beyond risk mitigation and become proactive tools for transformation.

Additionally, PDBs should invest in accessible, well-resourced grievance and redress mechanisms that enable affected communities to seek remedies and ensure ongoing oversight grounded in the principles of human rights and agroecology. Partnering with grassroots and

producer organizations can further strengthen accountability, democratize monitoring, and embed local knowledge into decision-making processes. Ultimately, transforming safeguard systems requires reimagining them as pathways for participatory governance, ecological accountability, and justice, anchoring finance in the lived realities of those who steward the land and embody agroecological values. This transformation also calls for enhancing the legitimacy of PDBs through transparent, relational, and non-extractive financial practices that rebuild trust and align development finance with the collective well-being of communities and ecosystems.

Enhance Monitoring & Evaluation (M&E), Reporting and Accountability Systems

Current monitoring and evaluation (M&E) systems used by PDBs emphasize short-term outputs, such as yields and profitability, while neglecting long-term sustainability and equity outcomes. This narrow approach systematically disadvantages agroecological initiatives, which deliver a broader array of benefits over time, including environmental regeneration, community resilience, and farmer well-being. Currently, PDB transparency tools classify Financial Intermediary (FI) investments at two levels: the disclosed FI level (e.g., the bank receiving funds) and the obscured sub-investment level (the end-borrower). These sub-investments are routinely deemed untraceable, creating a significant accountability blind spot. To ensure true accountability for how public funds are used, PDBs should adopt mandatory disclosure, including sub-F1-level investments.

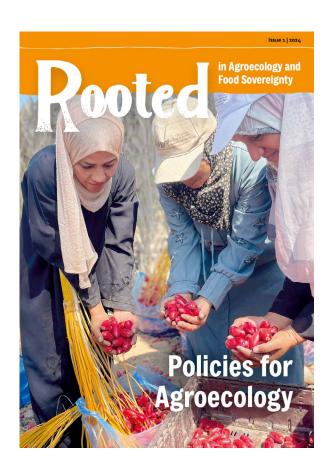
To realign M&E systems with the goals of sustainable development, PDBs should adopt agroecological performance metrics that capture ecological, social, and economic dimensions. These should include indicators such as biodiversity enhancement, soil carbon sequestration, water retention, and improvements in farmer livelihoods and autonomy. Instruments such as the Tool for Agroecology Performance Evaluation (TAPE), developed by the Food and Agriculture Organization (FAO), and the Agroecology Finance Assessment Tool (AFAT) provide frameworks for evaluating agricultural investments in line with the 13 agroecological principles. Moreover, they can be used alongside the IFC's eight sustainability principles or resource evaluation frameworks, such as the 'Good Life Frameworks' for livestock agroecosystems. The integration of Agroecology Finance Assessment Tool (AFAT) into PDB project design and reporting could help ensure that investments contribute meaningfully to long-term food system transformation.

PDBs should also commit to transparent reporting on agricultural spending, disaggregating allo-

cations toward agroecology versus industrial agriculture. Public audits and annual reporting on alignment with all of the relevant SDGs would strengthen accountability and policy coherence across development portfolios. Adopting such reforms would not only enhance the credibility and effectiveness of PDB-funded agricultural programs but also accelerate progress toward climate resilience, food security, and inclusive rural development.

5. Actively Support the Alignment of Trade and Agricultural Policy with Agroecology

MDBs influence national policies by providing financial assistance, technical expertise, and policy advice, often tied to loan and project conditions. They can influence policy through project design, technical assistance to help draft legislation, and the promotion of specific economic and social development agendas they have policy research units and convening power (Prizzon et al. 2022). There are many ways that MDBs can strategically redirect their efforts in this area (for example, supporting fiscal policy reforms that reallocate agricultural subsidies from agrochemical inputs to agroecological practices). Another approach would be to prioritize technical and policy assistance programs that strengthen land tenure security for smallholders, agricultural cooperatives, and Indigenous communities. Banks could earmark funds to implement restorative justice mechanisms for agroecological recovery in regions adversely affected by previous development policies.



Above: There is a growing emphasis on developing policies to support agroecology, highlighted in this special issue of the Rooted Magazine (https://rooted-magazine.org/)

By working to reorient trade and agricultural policy to support agroecological transitions, PDBs and governments can help build resilient food systems, reduce structural inequities, and fulfill global commitments to the SDGs, climate adaptation and mitigation, and biodiversity conservation. In the past, conditionality has been used to promote trade liberalization and agricultural

modernization, which, while intended to stimulate growth, have often undermined the livelihoods of smallholder farmers. PDBs could instead work with national governments to support trade and agricultural policies that align with agroecological principles. This includes embedding food sovereignty and territorial market protections into trade agreements to shield domestic producers and promote locally rooted, inclusive, sustainable food systems.

A growing number of countries, including Tanzania, Kenya, and most recently Burkina Faso, are advancing national agroecology strategies. Burkina Faso is finalizing its National Strategy for Agroecology and action plan, designed to embed agroecology within national agricultural policies and guided by an inter-ministerial coordination platform. PDBs should play a pivotal role in supporting and scaling such initiatives by aligning investment portfolios with agroecological priorities. This will require revising financing frameworks to ensure PDB lending fosters agroecological transitions, particularly by strengthening smallholder farmers, Indigenous food systems, and diversified territorial markets.

Furthermore, PDB's approach to agroecology should be integrated across national planning instruments, such as National Development Plans (NDPs), the World Bank's Country Climate and Development Reports, Nationally Determined Contributions (NDCs), National Biodiversity Strategies and Action Plans (NBSAPs), UNFCCC, and the Paris Agreement. This will ensure policy coherence across climate, agriculture, and development agendas.

6. Building Internal Capacity and Expertise on Agroecology at PDBs Join Communities of Practice Focusing on Agroecology and PDBs

PDBs should invest in learning about agroecology by engaging with peers and other key networks and groups working in this field. We will share two examples here that explicitly engage in agroecology. The Agroecology Coalition (2025) serves as a key platform for collaboration, bringing together over 400 members—including more than 50 governments, international organizations, research institutions, and civil society groups—to support the scaling of agroecology. This includes a Finance and Investments Working Group, which provides a rich platform for funders, including PDBs, to learn about agroecology and develop collaborations.

The Agri-PDB Platform for "Green and Inclusive Food Systems" of the global networks Finance in Common and UN Food Systems, hosted by IFAD, connects around 150 national and regional PDBs investing in agriculture across over 95 countries in the global South. The platform aims to support PDBs in scaling up their investments while aligning more closely with global develop-

ment and climate goals. It serves as a hub for knowledge sharing, capacity building, peer learning, and technical assistance. It has a specific workstream on agroecology.

Invest in Internal Capacity Building & Expertise

PDBs need to invest in building technical expertise and institutional capacity to design, implement, and evaluate agroecological approaches. They should build capacity to support agroecology, which requires unique know-how across the diversity of food systems (beyond the typical expertise on commodity-based global value chains) and multiple forms of agricultural production, from sustainable intensification to agroecology (Ferrando et al., 2022). This skills gap contributes to a continued reliance on technocratic, one-size-fits-all models that are poorly suited to the locally grounded and system-based nature of agroecology. As one PDB executive observed,

We urgently need agroecology specialists: in-house professionals who can depoliticize agroecology and navigate its trade-offs, particularly around perceived yield gaps and the amplification of agroecological investments. (PDB executive interviewee, 2025)

Building internal capacity would enhance the legitimacy and credibility of agroecological proposals and improve PDBs' ability to support countries and projects. To close this gap, PDBs should prioritize internal capacity-building through targeted recruitment of agroecology specialists across agricultural, environmental, and social portfolios. PDBs should not rely solely on internal capacity, but should pair this with a strong program of engagement with small-farmers' cooperatives, Indigenous communities involved in farming activities, and local CSOs. Embedding this expertise into project pipelines will ensure that agroecological principles are systematically integrated into program design, implementation, and monitoring.



Above: Meeting of the Agroecology Coalition's Finance and Investment Working Group.

Leverage PDBs' Technical Services

PDBs can recalibrate their existing technical assistance (TA) programs which already deliver sustainability strategies, biodiversity analysis, and gender inclusion to accelerate agroecological transitions through three key upgrades: (1) capacity-building for farmers, policymakers and financial intermediaries using participatory agroecological methods; (2) integration of ethical digital tools and guidelines that ensure community benefit and ownership of data; and (3) systematic integration of Indigenous and local knowledge systems into development practice, building on milestones such as the Inter-American Development Bank's 2006 Indigenous Peoples Policy, which emphasized respect for Indigenous rights, cultural heritage, and participation in development planning.

PDBs will need to shift away from supporting top-down extension models and invest in farmer-centered approaches, such as peer-to-peer learning networks and participatory action research, drawing on a rich history of practices in farmer-led innovation (Chambers, 2014) and contemporary calls for agroecological approaches to technical assistance (FAO, 2022). These approaches can align with the provisions enshrined in the Declaration on the Right to Development of 1986 and build on existing policies such as the Inter-American Development Bank's 2006 Indigenous Peoples Policy, which emphasized respect for Indigenous rights, cultural heritage, and participation in development planning. Collectively, these interventions will enable PDBs to support context-specific, inclusive, and effective agroecological transitions.

Support Research on Agroecology-Aligned Approaches to Financing and Development

To advance agroecological transformation, PDBs should reorient their research priorities to focus on agroecological principles and rights-based approaches. This includes expanding research on alternative economic approaches and models, ways to shift risk and ROI frameworks, innovative financing strategies, mechanisms to mobilize public funds for agroecological development, and funding modalities that uphold human rights while transforming food systems.

PDBs should complement this macro-level focus with participatory and transdisciplinary approaches that center farmers' knowledge, experience, and agency. Agroecology is inherently place-based and justice-oriented, thriving on collaborative research, farmer-led innovation, and knowledge co-creation.

Conclusion

To confront the interconnected planetary crises of climate change, biodiversity loss, and food insecurity, it will be vital to fundamentally reexamine the architecture of global food systems, including how they are financed. Efforts to advance sustainability and equity within PDBs need to go much further and avoid greenwashing industrial agriculture. Agroecology offers both a framework and a pathway for food systems transformation. It can guide the integration of equity, resilience, and ecological regeneration across financing for food systems, while also supporting the redirection of billions of dollars away from environmentally and socially destructive agribusiness models and toward smallholder farmers, Indigenous communities, and the realization of the SDGs.



Above: Indigenous farmers look out across terraced agriculture landscape in Sikkim, India.

Internally, PDBs will also need to build their internal institutional capacity and accountability by adopting robust monitoring and evaluation systems grounded in the HLPE's 13 principles of agroecology, and by investing in accessible, transparent, and responsive grievance and conflict-resolution mechanisms. Without these structural reforms, PDBs risk locking in unsus-

tainable food systems and intensifying the climate, hunger, and inequality crises. Although the challenges are substantial, the growing recognition of industrial agriculture's limitations, combined with mounting civil society advocacy and the emergence of alternative financing models, is a critical opportunity for transformation. The increasing visibility of agroecology in international policy dialogues demonstrates that PDBs can evolve, but doing so will demand sustained political will and a fundamental shift in the frameworks, tools, and narratives that currently shape agricultural development finance.

Further empirical studies are needed to critically examine the projects that PDBs currently support in order to better understand and refine specific instruments and approaches. Applying tools such as the Agroecology Finance Assessment Tool (AFAT) to assess PDB portfolios could not only reveal the extent to which current funding aligns with agroecological principles, but also identify areas where banks can improve and deepen good practices. Moreover, PDBs must move beyond offering isolated opportunities for agroecological investment and instead take substantive positions by actively shifting their portfolios away from environmentally and socially destructive industrial agriculture. Achieving this will require internal institutional transformations, including recalibrating risk frameworks, redefining success metrics, and fostering the political will to challenge entrenched interests and institutional inertia. Only through such intentional and courageous repositioning can PDBs transition into genuine enablers of agroecological and socially just food systems.

References

- ACB (African Centre for Biodiversity). (2024). Harmful subsidies, debt and financing for biodiversity in Africa: Just transition pathways for CBD's COP 16 and beyond. The African Centre for Biodiversity. https://acbio.org.za/wp-content/uploads/2024/10/Harmful-subsidies-biodiversity-Africa-just-transitions-COP-16 EN fin.pdf
- Agence Française de Développement. (2023). Improving the integration of agroecological transition within projects financed by the AFD Group. https://www.afd.fr/en/ressou-rces/position-paper-improving-integration-agroecological-transition-within-projects-financed-afd-group
- Agricultural Public Development Banks Platform (Agri-PDB). (2023). Concept note for the PDB working group on agroecology. https://www.agri-pdb.org/wp-content/up-loads/2024/04/agroecology-note.pdf
- Agroecology Coalition. (2024). Strategy 2024-2030: Accelerating food systems transformation through agroecology. https://agroecology-coalition.org/2024-2030-strategy/
- Agroecology Fund. (2023). Donor and investor convening: Boosting food systems transformation through agroecology. https://agroecologyfund.org/wp-content/uploads/2024/01/Final_DonorConvening_Rome2023pdf.pdf
- Agroecology Fund. (2025). Strategic plan 2022-2026. https://agroecologyfund.org/wp-content/uploads/2024/02/Strategicplan-Mediumresolution-1.pdf
- Alliance for Food Sovereignty in Africa (AFSA). (2025). The agro-capital nexus: Understanding the role of DFIs in the African Green Revolution. https://afsafrica.org/wp-content/up-loads/2025/07/agro-capital-nexus-report-final-en.pdf
- Altieri, M. A., & Nicholls, C. I. (2012). Agroecology scaling up for food sovereignty and resiliency. In *Sustainable agriculture reviews*, 11, 1-29. Dordrecht: Springer Netherlands.
- Anderson, C. R., & Bruil, J. (2021). Shifting funding to agroecology for people, climate and nature. *Action Aid.* https://www.actionaidusa.org/wp-content/uploads/2021/12/Shift-ing-Funding-to-Agroecology.pdf
- Anderson, C. R., Bruil, J., Chappell, M. J., Kiss, C., & Pimbert, M. P. (2019). From transition to domains of transformation: Getting to sustainable and just food systems through agroecology. *Sustainability*, 11(19), 5272. https://doi.org/10.3390/su11195272
- Anderson, C. R., Bruil, J., Chappell, M. J., Kiss, C., & Pimbert, M. P. (2021). Agroecology Now!

 Transformations Towards More Just and Sustainable Food Systems. Palgrave MacMillan.

- Anderson, C. R., Lamine, C., & Caswell, M. (2025). Agroecology. In *Elgar encyclopedia of food and society*. Elgar.
- Andhra Pradesh Community-managed Natural Farming Team (APCNF Team). (2022). Agroecology and sustainable smallholder agriculture: Experience of natural farming in Andhra Pradesh [Report]. Andhra Pradesh Community-managed Natural Farming. https://apcnf.in/agroecology-and-sustainable-smallholder-agriculture-experience-of-natural-farming-in-andhra-pradesh
- Bader, C. L., Moeller, N. I., Grard, B., Wezel, A., Féret, S., Andreotti, F., & Vandenbroucke, P. (2025). Philanthropic funding for agroecology in Europe: Opening the (black) box of sustainable food system actors. *Agroecology and Sustainable Food Systems*, 49(1), 1-30. https://doi.org/10.1080/21683565.2025.2489416
- Bazbauers, A. R. (2025). The multilateral development banks and rural climate finance: Adaptation, mitigation, and resilience. *The Journal of Environment & Development*, 34(2), 437-466.
- Bellwood-Howard, I., & Ripoll, S. (2020). Divergent understandings of agroecology in the era of the African Green Revolution. *Outlook on Agriculture*, 49(2), 103-110.
- Benton, T. G., Bieg, C., Harwatt, H., Pudasaini, R., & Wellesley, L. (2021). Food system impacts on biodiversity loss: Three levers for food system transformation in support of nature. Chatham House. https://www.chathamhouse.org/2021/09/food-system-impacts-biodiversity-loss
- Bezner Kerr, R., Postigo, J. C., Smith, P., Cowie, A., Singh, P. K., Rivera-Ferre, M., Tirado-von der Pahlen, M. C., Campbell, D., & Neufeldt, H. (2023). Agroecology as a transformative approach to tackle climatic, food, and ecosystemic crises. *Current Opinion in Environmental Sustainability*, 62, 101275. https://doi.org/https://doi.org/10.1016/j.cos-ust.2023.101275
- Bezner-Kerr, R., Postigo, J. C., Smith, P., Cowie, A., Singh, P. K., Rivera-Ferre, M., ... & Neufeldt, H. (2023). Agroecology as a transformative approach to tackle climatic, food, and ecosystemic crises. *Current Opinion in Environmental Sustainability*, 62, 101275.
- Bezner-Kerr, R., Snapp, S. S., Chirwa, M., Shumba, L., & Msachi, R. (2021). Can agroecology improve food security and nutrition? A review. *Global Food Security*, 29, 100540.
- Big Shift Global. (2021). Still funding fossils: An assessment of PDBs' energy finance since Paris and in COVID-19 recovery. https://bigshiftglobal.org/research-papers
- Biovision. (2025). Bringing agroecology to scale in Eastern and Southern Africa: Update on countries' national agroecology strategies. https://agroecology-coalition.org/wp-content/

uploads/2025/09/NAS update brief 2025 online.pdf

- Bissell, R. E., & Nanwani, S. (2009). Multilateral development bank accountability mechanisms: Developments and challenges. *Manchester Journal of International Economic Law*, 6(2), 155-197.
- Boehm, S., Jeffery, L., Hecke, J., Schumer, C., Jaeger, J., Fyson, C., ... Masterson, M. (2023). State of Climate Action 2023. World Resources Institute. https://doi.org/10.46830/wrirpt.23.00010
- Borras Jr., S. M., Mills, E. N., Seufert, P., Backes, S., Fyfe, D., Herre, R., & Michéle, L. (2019). Transnational land investment web: land grabs, TNCs, and the challenge of global governance. *Globalizations*, 17(4), 608-628. https://doi.org/10.1080/14747731.2019.1669384
- Borras, S., jr., Seufert, P., Backes, S., Fyfe, D., Herre, R., Michele, L., & Mills, E. (2016). Land grabbing and human rights: The involvement of European corporate and financial entities in land grabbing outside the European Union. European Parliament, Policy Department, Directorate-General for External Policies. doi:10.2861/26
- Bretton Woods Project. (2025). *IFC sustainability framework review*. Accessed October 13, 2025. https://www.brettonwoodsproject.org/2025/10/ifc-sustainability-framework-review/
- Caswell, M., Egerer, M., & Cohen, H. (2020). Agroecological transformations in urban contexts: Transdisciplinary research frameworks and participatory approaches in Burlington, Vermont. In M. Egerer & H. Cohen (Eds.), *Urban agroecology* (pp. 299-320). CRC Press.
- Ceddia, M. G., Boillat, S., & Jacobi, J. (2024). Transforming food systems through agroecology: enhancing farmers' autonomy for a safe and just transition. *The Lancet Planetary Health*, 8(11), e958-e965. https://doi.org/10.1016/S2542-5196(24)00234-1
- Chambers, R. (2014). Rural development: Putting the last first. Routledge.
- Chandrasekhar, C. P. (2022). Public Development Banks and the SDGs: A global architecture for global good. https://financeincommon.org/public-development-banks-and-the-sdgs-a-global-architecture-for-global-good
- Chicoma, J., & Reynolds, K. (Eds.). (2025). The elephant at the table: Policy pathways to confront power in food systems. The New Institute. https://thenew.institute/en/media/the-elephant-at-the-table-policy-pathways-to-confront-power-in-food-systems
- Clapp, J., Moseley, W. G., Burlingame, B., & Termine, P. (2022). Viewpoint: The case for a six-dimensional food security framework. *Food Policy*, 106, 102164. https://doi.org/10.1016/j.foodpol.2021.102164
- Coalition for Human Rights in Development (2023). Demystifying development finance: How

- public development banks impact peoples and the planet. https://rightsindevelopment.org/wp-content/uploads/securepdfs/Safeguards.pdf
- Commitment of Sevilla, (2025). Outcome document of the fourth international conference on financing for Development. https://financing.desa.un.org/sites/default/files/ffd4-documents/2025/Compromiso%20de%20Sevilla%20for%20action%2016%20June.pdf
- Crippa, L. A. (2010). Multilateral development banks and the human right responsibility. *American University International Law Review*, 25(3), 4.
- Crippa, M., Solazzo, E., Guizzardi, D., Monforti-Ferrario, F., Tubiello, F. N., & Leip, A. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. *Nature Food*, 2(3), 198-209. https://doi.org/10.1038/s43016-021-00225-9
- D'Annolfo, R., Gemmill-Herren, B., Graeub, B., & Garibaldi, L. A. (2017). A review of social and economic performance of agroecology. *International Journal of Agricultural Sustainability*, 15(6), 632-644.
- Davis, B., de la O Campos, A. P., Farrae, M., & Winters, P. (2024). Whither the agricultural productivity-led model? Reconsidering resilient and inclusive rural transformation in the context of agrifood systems. *Global Food Security*, 43, 100812. https://doi.org/10.1016/j.gfs.2024.100812
- Dittmer, K. M., Rose, S., Snapp, S. S., Kebede, Y., Brickman, S., Shelton, S., ... & Wollenberg, E. (2023). Agroecology can promote climate change adaptation outcomes without compromising yield in smallholder systems. *Environmental Management*, 72(2), 333-342.
- Ducastel, A., Bourblanc, M., & Adelle, C. (2023). Why development finance institutions are reluctant to invest in agriculture... And why they keep trying. In Chiapello, E., Engels, A., & Gresse, E. G. (Eds.). Financializations of development: global games and local experiments. Taylor & Francis.
- Duval, J., Cournut, S., & Hostiou, N. (2021). Livestock farmers' working conditions in agroecological farming systems: A review. *Agronomy for Sustainable Development*, 41(2), 22.
- Erdem Türkelli, G. (2020). The best of both worlds or the worst of both worlds? Multilateral development banks, immunities and accountability to rights-holders. *Hague Journal on the Rule of Law*, 12(2), 251-281. https://doi.org/10.1007/s40803-020-00143-1
- European Investment Bank's approach to human rights. (2023). The European Investment Bank's approach to human rights. Information Note. Luxembourg.
- Factory Farming Finance Tracker. (2025). https://stopfinancingfactoryfarming.com/publications/factory-farming-finance-tracker

- Fakhri, M. (2025). The right to food, finance and national action plans. Report of the UN Special Rapporteur on the Right to Food. A/HRC/58/48. https://docs.un.org/en/A/HRC/58/48
- FAO (2018). The 10 elements of agroecology: Guiding the transition to sustainable food and agricultural systems. Rome: FAO. https://www.fao.org/agroecology/knowledge/10-elements
- FAO (Food and Agriculture Organization). (2012). Voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security. FAO. Rome.
- FAO, IFAD, UNICEF, WFP, & WHO. (2023). The state of food security and nutrition in the world 2023: Addressing high food price inflation for food security and nutrition. FAO.
- FAO, IFAD, UNICEF, WFP, & WHO. (2025). The state of food security and nutrition in the world 2025: Addressing high food price inflation for food security and nutrition. FAO.
- FAO. (2022). Enabling extension and advisory services to promote agroecology. FAO. Rome.
- Faure, R., Prizzon, A., & Rogerson, A. (2015). A Guide to multilateral development banks. Overseas Development Institute.
- FERN (2017). European development finance institutions and land grabs The need for further independent scrutiny. Moreton in Marsh, UK https://curtisresearch.org/wp-content/up-loads/DFI-final-report.pdf
- Ferrando, T., Jokubauskaite, G., Rossati, D. and K. De Feyter. (2022). The Belgian Investment Company for Developing Countries (BIO) as a sustainable development actor. Antwerp: University of Antwerp.
- Finance in Common. (2022). Public development banks statement on human rights and human rights based approach. IFAD, EIB, AFD and CEB. Abidjan. https://financeincommon.org/sites/default/files/2022-10/FICS%202022%20Human%20Rights%20and%20Human%20Rights-Based%20Approach%20Statement.pdf
- Friends of the Earth. (2023). Climate misalignment: How development bank investments in industrial livestock are at odds with their Paris Agreement commitments. https://foe.org/wp-content/uploads/2023/06/SFFF_ClimateMisalignment_ExecutiveSummary-2.pdf.
- GAFSP (Global Agriculture and Food Security Program). (2024). GAFSP commits approximately \$180 million to the global alliance against hunger and poverty. https://global-alliance-against-hunger-and-poverty/
- GAFSP. (2025). Report on Producer Organization-led Grants. https://www.gafspfund.org/

- Gebel, A. C., Kachi, A., & Sidner, L. (2022). Aligning finance flows with the Paris Agreement: The role of multilateral development banks. In Michaelowa, A. &, Sacherer, A. (eds). *Handbook of International Climate Finance* (pp. 256-292). Edward Elgar Publishing.
- Germanwatch. (2022, October 20). Climate Transparency Report 2022: Comparing G20 climate action towards net zero The highlights. https://www.germanwatch.org/en/87541
- Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013). Take back the economy: An ethical guide for transforming our communities. University of Minnesota Press.
- Gliessman, S. (2025). Agroecology and the UN Sustainable Development Goals (SDGs). Agroecology and Sustainable Food Systems, 49(7), 989-993.
- Global Alliance for the Future of Food. (2019). On true cost accounting & the future of food. https://futureoffood.org/wp-content/uploads/2025/05/GA_TCA_Booklet_Digital_2019.
 pdf
- Global Alliance for the Future of Food. (2024). Cultivating change: A collaborative philanthropic initiative to accelerate and scale agroecology and regenerative approaches. https://story.futureoffood.org/cultivating-change/index.html
- Global Initiative for Economic, Social and Cultural Rights. (2014). Extraterritorial obligations in the context of international financial institutions. FIAN International for the ETO Consortium.
- Golay, C., Jensen, S. L., & Lyons, A. (2022). Building back better with the rights to health, food and social security. Geneva Academy. https://www.humanrights.dk/files/media/document/Building%20Back%20Better%20with%20the%20Rights%20to%20Health%2C%20Food%20and%20Social%20Security%20-%20Final%20Version%20put%20on%20GA%20Website.pdf
- Good Food Institute. (2022, October). *COP27 case paper: Addressing meat's climate footprint*. Good Food Institute. https://gfi.org/wp-content/uploads/2022/10/GFI22004_COP27-case-paper_web-compressed.pdf
- Goyal, M., Hickel, J., & Jha, P. (2025). Increasing inequality in agri-food value chains: global trends from 1995-2020. *Global Food Security*, 46, 100883. https://doi.org/https://doi.org/10.1016/j.gfs.2025.100883
- Gržinić G., et. al. (2023). Intensive poultry farming: A review of the impact on the environment and human health. *Science of The Total Environment*, Volume 858, Part 3. https://doi.org/10.1016/j.scitotenv.2022.160014
- Guibrunet, L., Rubio, M., & Flores Abreu, I. N. (2023). Reclaiming traditional food systems in

- alternative food networks: Insights from Mexico City peri-urban agriculture. Local Environment, 28(9), 1153-1172.
- Gupta, S. (2025). A review on the role of agroecology in achieving Sustainable Development Goals. *British Journal of Agroecology and Environmental Studies*, 2(1), 38-48. https://doi.org/10.61424/bjaes.v2i1.433
- Hickel, J., Dorninger, C., Wieland, H., & Suwandi, I. (2022). Imperialist appropriation in the world economy: Drain from the global South through unequal exchange, 1990-2015. Global Environmental Change, 73. https://doi.org/10.1016/j.gloenvcha.2022.102467
- Hilmi, A. (2019). The Alfredo Namitete Agroecology Credit System: A New Business Model
 That Supports Small-Scale Lending. *Sustainability*, 11(15), 4062. https://doi.org/10.3390/su11154062
- HLPE (High Level Panel of Experts on Food Security and Nutrition). (2019). Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. FAO. http://www.fao.org/3/ca5602en/ca5602en.pdf
- HLPE. (2020). Food security and nutrition: building a global narrative towards 2030. FAO. https://openknowledge.fao.org/server/api/core/bitstreams/8357b6eb-8010-4254-814a-1493faaf4a93/content
- HLPE. (2023). Reducing inequalities for food security and nutrition. FAO. https://openknowl-edge.fao.org/server/api/core/bitstreams/3b32bc6c-b4e8-46b3-bdae-acc32afe222f/content
- HLPE. (2025). Building resilient food systems. FAO. https://www.fao.org/cfs/cfs-hlpe/publications/hlpe-20
- Huang, Y. (2024). Criticism of multilateral development banks operating reflections during Covid-19 pandemic: From the perspective of the sovereign debt. Advances in Economics, Management and Political Sciences, 67(1), 18-25. https://doi.org/10.54254/2754-1169/67/20241254
- Human Rights Council (2023). Development finance institutions and human rights Report of the Working Group on the issue of human rights and transnational corporations and other business enterprises. A/HRC/53/24/Add.4. https://docs.un.org/en/A/HRC/53/24/Add.4. https://docs.un.org/en/A/HRC/53
- Hussain, Z., Boppana, B., Anisetti, H., Soma, R., & Gangisetty, S. (2022). Do birds return to agricultural landscapes through adoption of natural farming practices? A comparison of natural farming vs. chemical farming in Andhra Pradesh. *Agricultural Sciences*, 13(3), 358-377.

- IFAD, (2025). *People-centred development*. https://www.ifad.org/en/people-centred-development. <a href="http
- Ingram, J., & Thornton, P. (2022). What does transforming food systems actually mean? *Nature Food*, 3(11), 881-882.
- International Accountability Project. (2025). Early Warning System (EWS) database. https://ews.rightsindevelopment.org/
- IPCC. (2019). Revisiting the IPCC 2019 refinement guidelines. *Environmental Challenges*, 8, 100557.
- IPES-Food. (2016). From uniformity to diversity: A paradigm shift from industrial agriculture to diversified agroecological systems. International Panel of Experts on Sustainable Food Systems.
- IPES-Food., (2024). Food from somewhere: Building food security and resilience through territorial markets. International Panel of Experts on Sustainable Food Systems.
- Islamic Development Bank et al. (2020). Financing the Sustainable Development Goals. (2020). The contributions of the multilateral development banks. https://www.isdb.org/publications/financing-the-sustainable-development-goals-the-contributions-of-the-multilater-al-development-banks
- Jassogne, L., van Asten, P. J., Wanyama, I., & Baret, P. V. (2013). Perceptions and outlook on intercropping coffee with banana as an opportunity for smallholder coffee farmers in Uganda. *International Journal of Agricultural Sustainability*, 11(2), 144-158.
- Johansson, E., Martin, R., & Mapunda, K. M. (2023). Participatory future visions of collaborative agroecological farmer-pastoralist systems in Tanzania. *Agroecology and Sustainable Food Systems*, 47(4), 548-578. https://doi.org/10.1080/21683565.2023.2165592
- Kafle, K., Omotilewa, O., Leh, M., & Schmitter, P. (2021). Who is likely to benefit from public and private sector investments in farmer-led irrigation development? Evidence from Ethiopia. The Journal of Development Studies, 58(1), 55-75. https://doi.org/10.1080/00220388.2021.1939866
- Kamninga, T. M. (2025). Climate finance for climate-smart agriculture: An analysis of Green Climate Fund and World Bank project portfolios (Working Paper). ODI Global.
- Kose, M. A., Nagle, P., Ohnsorge, F., & Sugawara, N. (2021). *Global waves of debt: Causes and consequences*. World Bank Publications.
- Kremen, C. (2015). Reframing the land-sparing/land-sharing debate for biodiversity conservation. Annals of the new York Academy of Sciences, 1355(1), 52-76.
- Lähde, V., Vadén, T., Toivanen, T., Järvensivu, P., & Eronen, J. T. (2023). The crises inherent in

- the success of the global food system. *Ecology and Society*, 28(4), Article 16. https://doi.org/10.5751/ES-14624-280416
- Lahn, G. and P. Schröder. (2023). *If the SDGs are to survive, multilateral development banks must embrace reform*. https://www.chathamhouse.org/2023/09/if-sdgs-are-survive-multilateral-development-banks-must-embrace-reform
- Leach, M., Raworth, K., & Rockström, J. (2013). Between social and planetary boundaries: Navigating pathways in the safe and just space for humanity. *World Social Science Report*, 2013, 84-89.
- Leippert, F., Darmaun, M., Bernoux, M., Mpheshea, M., Müller, A., Geck, M., ... & Termote, C. (2020). The potential of agroecology to build climate-resilient livelihoods and food systems.
- Lipper, L., Cavatassi, R., Symons, R., Gordes, A., & Page, O. (2021). Financing adaptation for resilient livelihoods under food system transformation: The role of multilateral development banks. *Food Security*, 13(6), 1525-1540.
- López-García, D., & González de Molina, M. (2021). An operational approach to agroecology-based local agri-food systems. *Sustainability*, 13(15), 8443.
- López-García, D., Cuéllar-Padilla, M., de Azevedo Olival, A., Laranjeira, N. P., Méndez, V. E., Parada, S. P., ... & Tendero-Acín, G. (2021). Building agroecology with people: Challenges of participatory methods to deepen the agroecological transition in different contexts. *Journal of Rural Studies*, 83, 257-267.
- Madsen, S. (2022). Farm-level pathways to food security: beyond missing markets and irrational peasants. *Agriculture and Human Values*, *39*(1), 135-150.
- Madsen, S., Kerr, R. B., Kamilia, K., Cevallos, M. F., Bazille, C., Paracchini, M. L., & Wezel, A. (2025). Agroecology supports sustainable development in Africa: A review. Agronomy for Sustainable Development, 45(4), 1-13.
- Mausch, K., Hall, A., & Hambloch, C. (2020). Colliding paradigms and trade-offs: Agri-food systems and value chain interventions. *Global Food Security*, 26, 100439. https://doi.org/10.1016/j.gfs.2020.100439
- McNamara, K., & Narain, D. (2025). Unsustainable investment: International Finance Corporation's failures to address GHG emissions in industrial livestock operations. Stop Financing Factory Farming. https://stopfinancingfactoryfarming.com/app/uploads/2025/04/ unsustainable-investment-ifc-ghg-report-april-2025-final-1.pdf
- Mechri, A., Hanisch, M., & Hänke, H. (2023). The transformative value chain: Rethinking food system interventions. *Frontiers in Sustainable Food Systems*, 7:1149054. https://doi.

org/10.3389/fsufs.2023.1149054

- Mendez, A., & Houghton, D. P. (2020). Sustainable banking: The role of multilateral development banks as norm entrepreneurs. *Sustainability*, 12, 972. https://doi.org/10.3390/su12030972
- Méndez, V. E., Bacon, C. M., & Cohen, R. (2013). Agroecology as a transdisciplinary, participatory, and action-oriented approach. *Agroecology and Sustainable Food Systems*, 37(1), 3-18.
- Mhlanga, D. (2024). Multilateral development banks and sustainable finance. In Mhlanga, D. & Dzingirai, M. (eds.), Sustainable Finance and Business in Sub-Saharan Africa, (pp. 227-243). Springer
- Milhorance, C., Lazarotto de Andrade, M., le Coq, J.-F., & Sabourin, E. (2022). Democratic public action in times of crises: Examining the resilience of Brazil's food and water policies [Conference presentation]. 3rd International Workshop on Public Policy, Budapest, Hungary.
- Mishra, B. (2024). Assessing farm income and input efficiency under zero-budget natural farming in India. *The Indian Economic Journal*, *O*(0). https://doi.org/10.1177/00194662241265469
- Moeller, N. I., Geck, M., Anderson, C., Barahona, C., Broudic, C., Cluset, R., ... & Frison, E. (2023). Measuring agroecology: Introducing a methodological framework and a community of practice approach. *Elementa: Science of the Anthropocene*, 11(1), 00042.
- Mouratiadou, I., Wezel, A., Kamilia, K., Marchetti, A., Paracchini, M. L., & Bàrberi, P. (2024). The socio-economic performance of agroecology: A review. *Agronomy for Sustainable Development*, 44(2), 19.
- Nature Finance (2021). How development finance can damage nature. https://www.naturefi-nance.net/how-development-finance-can-damage-nature/
- Nelson, R., Coe, R., & Haussmann, B. I. (2019). Farmer research networks as a strategy for matching diverse options and contexts in smallholder agriculture. *Experimental Agriculture*, *55*(S1), 125-144.
- Nyantakyi-Frimpong, H., LaVanchy, G. T., & Kelley, M. M. (2023). Human and physical dilemmas in small-scale irrigation development: Evidence from climate-sensitive northern Ghana. *The Professional Geographer*, 75(4), 591-603.
- Nyantakyi-Frimpong, H., Mambulu, F. N., Bezner Kerr, R., Luginaah, I., & Lupafya, E. (2016).

 Agroecology and sustainable food systems: Participatory research to improve food security among HIV-affected households in northern Malawi. *Social Science & Medicine*,

- 164, 89-99. https://doi.org/10.1016/j.socscimed.2016.07.020
- Oakland Institute. (2016). The unholy alliance: Five western donors shape a pro-corporate agenda for African agriculture. https://www.oaklandinstitute.org/sites/default/files/files-archive/unholy_alliance_web.pdf
- Oakland Institute. (2022). The World Bank's private sector arm—the IFC—must stop financing industrial agriculture. https://www.oaklandinstitute.org/public-statement/world-banks-private-sector-arm-ifc-must-stop-financing-industrial-agriculture
- Oxfam (2020) Une pincée d'agroécologie, pour une louche d'agro-industrie [online]. https://www.oxfamfrance.org/app/uploads/2020/11/oxfam_rapport_une-pincee-dagroecologie-pour-une-louche-dagroindustrie novembre-2020.pdf
- Park, A. (2025). How Kenya's grocery stores might be hurting local farmers. https://conversationalist.org/2025/07/10/kenya-global-south-african-supermarkets-quikmart-private-equity-fund-development-banks-food-groceries/
- Petersen, P., Silveira, L., Fernandes, G. B., & de Almeida, S. G. (2020). Lume: A method for the economic-ecological analysis of agroecosystems. Centre for Agroecology, Water and Resilience (CAWR), Coventry University.
- Petrescu, D., Petcou, C., Safri, M., & Gibson, K. (2021). Calculating the value of the commons: Generating resilient urban futures. *Environmental Policy and Governance*, 31(3), 159-174.
- Pimbert, M. P. (2025). Financing agroecological transformations for territorial agri-food systems: Beyond the myth of financial scarcity. *Elementa: Science of the Anthropocene*, 13(1), 00026.
- Ponisio, L. C., M'Gonigle, L. K., Mace, K. C., Palomino, J., De Valpine, P., & Kremen, C. (2015). Diversification practices reduce organic to conventional yield gap. *Proceedings of the Royal Society B: Biological Sciences*, 282(1799), 20141396.
- Pretty, J. N., Morison, J. I., & Hine, R. E. (2003). Reducing food poverty by increasing agricultural sustainability in developing countries. *Agriculture, ecosystems & environment, 95*(1), 217-234.
- Prizzon, A., Josten, M. & H. Gyuzalyan. (2022). Country perspectives on multilateral development banks: a survey analysis. ODI report. www.odi.org/en/publications/countryperspectives-on-multilateral-development-banks-a-survey-analysis
- Richardson, M., Vanek, S., Ghezzi-Kopel, K., Remington, T., & Snapp, S. (2019). Farmer research networks as an approach to inclusive agricultural research and extension. *Outlook on Agriculture*, 48(4), 309-317. https://doi.org/10.1177/0030727019870744

- Rockström, J., Thilsted, S. H., Willett, W. C., Gordon, L. J., Herrero, M., Hicks, C. C., Mason-D'Croz, D., Rao, N., Springmann, M., Wright, E. C., Agustina, R., Bajaj, S., Bunge, A. C., Carducci, B., Conti, C., Covic, N., Fanzo, J., Forouhi, N. G., Gibson, M. F.,...DeClerck, F. (2025). The EAT Lancet Commission on healthy, sustainable, and just food systems. *The Lancet*. https://doi.org/10.1016/S0140-6736(25)01201-2
- Roggenbuck, A. (2024). Development banks must strengthen human rights safeguards. Bankwatch, fidh, Agence Française de Développement. https://bankwatch.org/wp-content/uploads/2024/05/2024-04-More-than-money-Development-banks-must-strength-en-human-rights-safeguards-1.pdf
- Romero Antonio, M. E., Faye, A., Betancur-Corredor, B., Baumüller, H., & von Braun, J. (2025). Productivity effects of agroecological practices in Africa: Insights from a systematic review and meta-analysis. *Food Security*, 17(1), 207-229.
- Rowden, R. (2019). From the Washington consensus to the wall street consensus The financialization initiative of the World Bank and multilateral development banks. Heinrich Böll Stiftung. Washington.
- Sampson, D., Cely-Santos, M., Gemmill-Herren, B., Babin, N., Bernhart, A., Bezner Kerr, R., Blesh, J., Bowness, E., Feldman, M., Gonçalves, A. L., James, D., Kerssen, T., Klassen, S., Wezel, A., & Wittman, H. (2021). Food sovereignty and rights-based approaches strengthen food security and nutrition across the globe: A systematic review. *Frontiers in Sustainable Food Systems*, *5*. https://doi.org/10.3389/fsufs.2021.686492
- Sanial, E., & Ruf, F. (2018). Is kola tree the enemy of cocoa? A critical analysis of agroforestry recommendations made to Ivorian cocoa farmers. *Human Ecology*, 46(2), 159-170.
- Schmitt-Filho, A. L., & Farley, J. (2020). A transdisciplinary case study approaches the ecological restoration of rainforest ecosystems. In F. Fuders (Ed.), *Ecological, economic, and so-cio-ecological strategies for forest conservation—with special focus on Chile and Brazil.* Springer.
- Schmitt, C. J., Porto, S. I., Lopes, H. R., Neto, P., Petersen, P., Almeida, A., Almeida, N., et al. 2020. Redes de agroecologia para o desenvolvimento dos territórios: aprendizados do Programa Ecoforte [Agroecology networks for territorial development: lessons learned from the Ecoforte Program]. Articulação Nacional de Agroecologia ANA. https://agroecologia.org.br/wp-content/uploads/2020/05/Livro-Ecoforte-Web.pdf
- Schroeder, F., Martinez, J., Smallridge, D., van Gaal, C., Garcia Moritan, J., Suarez, C., Lozano, J., Piazzon, R., Buchner, B. and N. Dias. (2023). *Public development banks and philanthropies: No longer strangers*. Centro Brasileiro de Relações Internacionais. https://financein-

common.org/sites/default/files/2023-08/Whitepaper_PDBs_ago23_varios.pdf

- Shandra, J. M., Shircliff, E., & London, B. (2011). World Bank lending and deforestation: A cross-national analysis. *International Sociology*, 26(3), 292-314.
- Si, Z., Dai, D. N., Chen, M. L., & Scott, S. (2024). Embedding global Sustainable Development Goals in local agroecology initiatives: Experiences from China. *Agroecology and Sustainable Food Systems*, 48(6), 821-847.
- Sibhatu, K. T., & Qaim, M. (2018). Meta-analysis of the association between production diversity, diets, and nutrition in smallholder farm households. *Food Policy*, 77, 1-18.
- Snapp, S., Kebede, Y., Wollenberg, E., Dittmer, K. M., Brickman, S., Egler, C., & Shelton, S. (2021). Agroecology and climate change rapid evidence review: Performance of agroecological approaches in low- and middle-income countries. CGIAR.
- Sorensen, T., Si, Z., Scott, S., & Sridharan, T. (2025). The implications of agroecology for meeting the Sustainable Development Goals (SDGs): A scoping review. *Agroecology and Sustainable Food Systems*, 49(7), 994–1026. https://doi.org/10.1080/21683565.2025.2466428.
- Stop Financing Factory Farming. (2025). The detrimental impacts of factory farming on sustainable development and public health. https://stopfinancingfactoryfarming.com/
 https://stopfinancingfactoryfarming.com/
 https://stopfinancingfactoryfarming.com/
 https://stopfinancingfactoryfarming.com/
 https://stopfinancingfactoryfarming-on-sustainable-develop-ment-and-public-health
- UN Human Rights Council. (2024). A/HRC/56/55. *Investors, environmental, social and governance approaches and human rights.* Report of the Working Group on the issue of human rights and transnational corporations and other business enterprises.
- UNDP. (2024). Food and power initiative scoping phase. https://www.undp.org/sites/g/files/
 zskgke326/files/2025-03/undp-brief-power-and-food.pdf
- UNDP. (2025). The human rights-based approach to development programming: HRBA toolkit.

 Available at: https://www.undp.org/publications/human-rights-based-approach-devel-opment-programming-hrba-toolkit
- United Nations Framework Convention on Climate Change (UNFCCC). (2024). *NDC synthesis report*. https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/2024-ndc-synthesis-report
- United Nations Press (2024). UN General Assembly adopted the resolution "Eradicating Rural Poverty to Implement the 2030 Agenda for Sustainable Development" (A/C.2/79/L.24/Rev.1).
- Wasley, A., & Heal, A. (2020, July 2). Revealed: Development banks funding industrial livestock farms around the world. The Guardian. https://www.theguardian.com/

- environment/2020/jul/02/revealed-development-banks-funding-industrial-live-stock-farms-around-the-world
- Wezel, A., Goette, J., Lagneaux, E., Passuello, G., Reisman, E., Rodier, C., & Turpin, G. (2018).

 Agroecology in Europe: Research, education, collective action networks, and alternative food systems. *Sustainability*, 10(4), 1214. https://doi.org/10.3390/su10041214
- World Animal Protection. (2023). The hidden cost of factory farming: Environmental, public health, and animal welfare impacts. https://www.worldanimalprotection.org/latest/blogs/hidden-cost-factory-farming
- World Bank. (2023). Detox development: Repurposing environmentally harmful subsidies. https://www.worldbank.org/en/topic/climatechange/publication/detox-development
- World Bank. (2024). *International debt report 2024*. World Bank. https://doi.org/10.1596/978-1-4648-2148-6
- Zaicev, L., & Knobel, A. (2024). The role of multilateral development banks in financing infrastructure in Central Asian countries: Do they contribute to inequality and poverty reduction? The case of the World Bank Group. https://papers.ssrn.com/sol3/Delivery.cfm?abstractid=4967465
- Zucker-Marques, M., Volz, U. and Gallagher, K.P. (2023). Debt Relief by Multilateral Lenders Why, How and How Much? Boston, London, Berlin: Boston University Global Development Policy Center; Centre for Sustainable Finance, SOAS, University of London; Heinrich-Böll-Stiftung.
- Zurek, M., Hebinck, A., & Selomane, O. (2022). Climate change and the urgency to transform food systems. *Science*, 376(6600), 1416-1421.





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