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Harvesting Change: Innovative Strategies for Delivering Food Systems Adaptation Finance for Local-level Impact

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SUMMARY

Despite growing demand for food system adaptation at the local level, only a small fraction of adaptation finance effectively reaches local actors. This brief explores key principles to enhance the delivery and absorption of adaptation finance to food systems, including subsidiarity, flexible funding, patient and predictable funding, scalability and replicability, horizontal accountability, risk-taking, partnership-building and sustainability.

The brief also offers guidance on how development partners and funding agencies can enhance mechanisms for delivering finance to the local level in Africa. They must integrate best practices such as engaging existing local governance systems, supporting local intermediaries, co-creating with local actors, institutionalising accountability and feedback processes, and facilitating direct access to funding.

Developing local ecosystems conducive to food systems adaptation finance absorption is essential, requiring capacity-strengthening support for local actors and

improved local data availability. Partnership-building, including public-private collaborations, plays a crucial role in strengthening local financial and governance systems. Supporting microfinance institutions, cooperatives, producer organisations and small- and medium-size enterprises (SMEs) is key to enhancing financial access. Digital innovations like blockchain and artificial intelligence can streamline adaptation finance delivery to local communities.

However, meaningful localisation of finance demands structural shifts in how funders operate. It requires rebalancing power dynamics, reforming institutional frameworks, and adopting governance approaches that prioritise local ownership and agency.

By embedding these principles and strategies, donors and philanthropies can ensure that adaptation finance reaches the local level, fostering sustainable, inclusive and effective climate resilience within food systems.



INTRODUCTION

The impact of climate change on Africa's food systems is profound. Rising temperatures, extreme weather events and irregular rainfall patterns are reducing food production, raising food costs, increasing food and nutrition insecurity, and decreasing job opportunities across the continent. Small-scale farmers are particularly vulnerable to seasonal climate variability, including droughts and floods. This vulnerability is even more pronounced among rural women and girls due to gender-specific constraints and a lack of resources to adapt to climate change (Pirelli et al. 2024).

Given that the agrifood sector in Africa accounts for more than 50% of the total employment (World Bank 2024), and contributes about 17% to the overall continental GDP compared to a 4% global average (World Bank 2024), adapting to climate change impacts on food systems is imperative. However, the gap between adaptation finance for developing countries and their needs continues to widen, with Africa facing particularly low access to international climate finance. Africa received approximately 20% of global adaptation finance in 2021-2022, which is a disproportionately low share considering the projected impacts of climate change (GCA and CPI 2023). Africa is projected to receive USD195 billion by 2035 at the current pace of adaptation finance flows. However, the total adaptation financing needs could be as high as USD1.6 trillion, over eight times higher. The agriculture, forestry, and other land use (AFOLU) sector has the highest adaptation finance needs in Africa (GCA and CPI 2023).

In light of the importance and urgency of adapting to climate change, it is positive to see recent global initiatives, such as the COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems and Climate Action, underlining the need to scale up adaptation to support sustainable agriculture (COP28 2025).

However, the limited mobilisation of climate adaptation finance is only one of several pressing challenges: the limited funds are not sufficiently dedicated to and absorbed at the local level and have not sufficiently translated into better outcomes on the ground. Research conducted

over the years has put the portion of global adaptation finance intended for the local level and to enhance the agency of local actors at between 10 and 20%. Based on recent estimates, a meagre 17% of total adaptation finance allocated between 2017 and 2021 was reported for climate change adaptation projects specifically targeting local communities (UNEP 2023).

Amidst mounting pressure for equality, accountability and justice in climate finance, and the sluggish progress on food systems adaptation, there have been increasing calls for localisation of climate finance management and the need to effectively deliver impact to the local level. This call is supported by growing evidence of the success of locally led development beyond the food and agriculture sector (Devex 2024; OECD 2023). Yet little progress has been made, as the tendency to overlook local realities and contextual nuances in adaptation finance remains prevalent (OECD 2023). Externally driven agendas and initiatives lacking in appropriateness and local buy-in continue to dominate.

A meagre 17% of total adaptation finance allocated between 2017 and 2021 was reported for climate change adaptation projects specifically targeting local communities

While innovative finance mechanisms such as blended finance, and technological innovations such as artificial intelligence and blockchain, could help address the gap in local-level food system adaptation financing, creative strategies to reconfigure the role and approach of donors and philanthropic funding agencies are also required. Progress in channelling adaptation finance for food systems to the local level will not only be an issue of scaling up finance, but more about the careful design of the governance and administration mechanisms of such financing to allow for equitable allocation, subsidiarity and local ownership.

This brief discusses key principles and related strategies to improve the absorption of adaptation finance in food systems. It draws from a literature review complemented by a series of interviews and a workshop involving adaptation and food system actors.

The rest of the brief is structured as follows: The next section explains the motivation for the brief. Then the

challenges of financing food system adaptation at the local level are examined. Then, key principles for sufficiently and effectively financing food systems adaptation at the local level are outlined. This is followed by a discussion of strategies that donors and philanthropic organisations can implement to deliver food systems adaptation finance effectively to the local level based on the principles. The final section provides some concluding remarks.

Conceptual notes

A food system encompasses all activities and elements associated with food production, processing, distribution, preparation, consumption and waste. This includes the environment, people, inputs, processes, infrastructure and institutions that take food from farm to mouth to flush.

Food system adaptation to climate change comprises an array of actions and strategies targeted at modifying food production, distribution and consumption practices to minimise the adverse effects of climate change while improving the sustainability and resilience of these systems. The brief emphasises the production component (agriculture) of the food system, as this is where the majority of climate adaptation actions within the food system are required. However, this also includes investment in infrastructure and information to support agricultural production.

The brief does not primarily focus on specific adaptation finance mechanisms such as blended finance, climate risk insurance, bonds, loans and grants. Instead, it emphasises the governance and administration of these mechanisms, which are crucial in determining whether the finance reaches the local level effectively.

The local level is geographically determined by actors and actions below the national level. In this brief, 'local' actors refer to people and communities on the front lines of climate change, as well as formal and informal institutions below the national level that are made up of or directly accountable to local people.

Localisation entails empowering local actors to take the lead in designing and implementing initiatives that respond to their needs.

While local climate adaptation is about designing and executing solutions at the local level to minimise vulnerability and increase resilience to climate change, locally led adaptation (LLA) emphasises local people's individual and collective agency in defining, prioritising, developing, monitoring and evaluating adaptation initiatives, as well as collaborating with higher levels to execute and deliver adaptation solutions.

Some of the principles highlighted in this brief for delivering finance for food systems adaptation to the local level are consistent with the principles for LLA (see Soames et al. 2021)

MOTIVATION

Urgent adaptation to climate change in Africa's food systems is vital to ensure food security, economic stability and sustainable development. Climate change has already reduced productivity growth in African agriculture by 34% since 1961, more than in any other region (IPCC 2022). Lower agricultural output is directly impacting smallholder farmers' incomes, increasing poverty and economic vulnerability (Van Touch 2024).

Although adaptation should occur locally since climate change impacts are often experienced at local scales, local actors often have little say in how food system adaptation is funded, designed and implemented. Transformative approaches and actions are, thus, required to increase the

agency and influence of local actors in adaptation finance decision-making, as well as to improve the delivery of adaptation finance to the local level.

Delivering food systems adaptation finance to the local level arguably helps address a range of challenges, with benefits that include a direct impact on vulnerable populations, long-term and cost-effective solutions, promotion of social justice and equity, and alignment with the United Nations' Sustainable Development Goals (SDGs). The brief discusses this and how donors and philanthropies can more effectively deliver food systems adaptation finance to the local level, thereby achieving better results.



CHALLENGES TO FINANCING FOOD SYSTEMS ADAPTATION AT THE LOCAL LEVEL

Global adaptation finance intended for the local level and to empower local actors has remained between 10% and 20% of total adaptation funding. In Africa, the effective access and absorption of food systems adaptation finance at the local level face multiple constraints. These challenges reflect underlying weaknesses both locally and among funders, particularly in the strategies and mechanisms through which funds are channelled to the local level. Additionally, some constraints are linked to the very nature of the agrifood systems.

Information and power asymmetries between local actors and national, international and donor communities have contributed to the poor progress in delivering food systems adaptation finance to the local level (see Coger et al. 2022; Pinnington et al. 2024; Devex 2024). Top-down definitions of expertise and local capabilities, defined by donors, are often widespread (Westoby et al. 2021; Pinnington et al. 2024). The strategies or proposed solutions of development partners may not align with the on-the-ground realities of local actors. This misalignment can lead to time-consuming efforts in trying to adapt initiatives to fit the local contexts. The consequence of this is that a limited amount of adaptation finance often reaches the intended beneficiaries.

The administrative requirements for accessing donor funding are often too complex for local actors. Each funding source has different eligibility criteria, methods, and modalities (Le Houérou 2023). The misalignment and complexity of institutional and procedural requirements for disbursing funds make it challenging for local actors to consistently navigate these diverse requirements in order to access funding.

Evidently, there is also insufficient effort to develop local ecosystems that are conducive to absorbing finance for food system adaptation. These ecosystems include, among other things, data and information availability, capacity, and enabling policies, which are often limited. Local actors, such as SMEs and small-scale farmers, often lack the necessary skills to assess climate risks, conduct feasibility studies and identify investments that can withstand the

impact of climate change. Small-scale farmers are unable to participate effectively in climate-smart activities due to a lack of knowledge and financial means. Additionally, there is often a shortage of local expertise available to support these actors, which limits their ability to access funds for adapting to climate change. Even when expertise is available, it is often transient, lacking mechanisms to integrate knowledge and skills into permanent local structures, systems and processes (Adeniyi 2023).

Challenges to the effective access and absorption of food systems finance at the local level reflect weakness both locally and among funders

Reliable and comprehensive data on climate risks and vulnerability at the local level are limited, which can affect funding decisions. Enabling policies to support small enterprises and businesses' participation in local adaptation within food systems is often lacking. For instance, the potential to utilise microfinance to stimulate small businesses' investment in local adaptation remains largely unexplored.

Local investments are often seen as high-risk, and as a result, some donors are hesitant to allocate funding to local actors. Local actors face challenges related to perceived fiduciary risks, leading to the use of intermediary organisations that are believed to have the ability to understand and manage risks.¹ However, these intermediaries are often based in or connected to the Global North, and they implement their own rules and compliance procedures, which can worsen power imbalances (Pinnington et al. 2024).

The risk challenge in local adaptation finance is particularly pronounced in agriculture because of the seasonal fluctuations in cash flows and the impact of climate variability. This increases the risk of loan defaults. Additionally, there are often discrepancies between the

financial products offered on the market and the actual needs of farmers at the local level. For example, repayment schedules may not align with farmers' production cycles, which limits funding opportunities (CPI 2023).

In agriculture, seasonal fluctuations in cash flows and the impact of climate variability increase the risk of loan defaults

Investing in local food systems adaptation also incurs significant transaction costs. Donors may view locally led initiatives as more resource-intensive, requiring a large commitment of staff to meet funding criteria leading to a

reliance on intermediary organisations, but this approach also leads to higher transaction costs. Higher expenses are also associated with direct transfers to local food system actors, such as the cost of monitoring these actors who may lack sufficient accountability mechanisms in line with donor requirements (Adeniyi 2023).

Finally, concerns over the scalability of small, localised initiatives sometimes deter funders from financing food systems adaptation at the local level.² Local projects often focus on quick wins due to their fixed time horizons, sometimes overlooking transformative approaches that are crucial for scaling. Relying on external resources can restrict scaling, especially when those resources are temporary. Additionally, solutions that work in one local context may not be easily replicated in another due to contextual differences.



STRATEGIES FOR EFFECTIVE DELIVERY OF FOOD SYSTEMS ADAPTATION FINANCE AT THE LOCAL LEVEL

To address the above challenges, key strategies for effectively financing food systems adaptation at the local level in Africa need to be articulated and embraced.

One critical strategy is **engaging existing local governance systems, processes and structures for effective finance delivery and sustained impacts at the local level**. Financing mechanisms should leverage existing decentralised government systems to support food systems adaptation at the local level. For instance, the County Climate Change Fund in Kenya integrates adaptation actions into local government planning and establishes community planning institutions at county and ward levels. This approach ensures local inclusion and ownership in adaptation planning and implementation.

Financing mechanisms should provide support for local intermediaries, as this is instrumental in efficiently transferring adaptation finance to local food systems actors. Networks of local intermediaries, like the Local Coalition Accelerator operational in Nigeria and Uganda, build coalitions of local actors to co-design and implement locally owned solutions to systemic, multi-sectoral challenges (Share Trust 2025). Although not entirely dedicated to climate adaptation, the platform aims to improve systems so that more power and funding are delivered directly to local actors. When international intermediaries are necessary, they should work closely and long-term with local intermediaries to enhance their effectiveness.

Another vital strategy is **co-creation with local actors and partners**, including diverse gender groups, to develop food systems adaptation interventions, activities and outcomes. This process should go beyond consultation to empower all stakeholders in decision-making, covering not only the design and implementation phases but also the monitoring of initiatives. **Funding proposals need to demonstrate co-creation processes that ensure project ownership by local communities, transitioning from mere participation to genuine local ownership**.

Relatedly, **institutionalising accountability and feedback processes is important**. Local-level food systems adaptation initiatives should have detailed accountability and feedback plans involving open communication about fund usage and project progress. Establishing steering committees with diverse stakeholder representation, including local actors, ensures transparency and accountability.

Facilitating direct access to funding for local actors is another effective approach, as this can overcome challenges related to complex accreditation procedures. Creating a pre-qualification or registration process that pre-approves small local actors for grants, simplifying and streamlining requirements, can help increase fund availability. Donors must also simplify their own systems to make more funds accessible, particularly for smaller groups (Pinnington et al. 2024).

Financing mechanisms should be geared towards the development of local ecosystems for food systems adaptation finance. A local ecosystem for adaptation finance is defined as a community of well-equipped local actors, their interactions, and the structures, systems and processes that enable these actors to function and stimulate adaptation investments at the local level.

Developing such ecosystems will require capacity-strengthening for local actors in areas such as resilience assessment and planning, project preparation and implementation, monitoring and participatory approaches. Capacity development should not be episodic but continuous, comprehensive and dynamic in response to evolving local contexts.

Strengthening the local ecosystem for food systems adaptation financing also implies improving local data availability and information on local contexts. This enhancement reduces uncertainties associated with adaptation investment and increases demand for climate adaptation services and products (Micale et al. 2018).

Developing these local ecosystems also requires partnership-building, including forging public-private partnerships. Encouraging partnerships between local actors and organisations with on-the-ground presence and other stakeholders, including the private sector, multilateral development banks, development financial institutions, bilateral donors and project preparation facilities, can strengthen local financial and governance systems and the capacities of local actors.

Financing mechanisms should demonstrate support for microfinance institutions, cooperatives, producer organisations, and small- and medium-scale enterprises (SMEs), as they play a pivotal role in intermediated finance programmes³ for local-level food systems adaptation. Strengthening these entities can lead to greater market penetration for adaptation finance at the local level. Unlike traditional financial institutions, these organisations have the structural proximity and institutional intimacy needed to meet local needs effectively (OneWorld and Oxford Policy Management 2018). For instance, SMEs are also closely connected to local communities and include vulnerable populations in their business operations. Agricultural cooperatives and producer organisations, such as Forest Farm Producer Organisations (FFPOs) in Ghana

and Zambia, successfully mobilised and delivered finances to members, while also offering complementary non-financial services including literacy and business capacity development (Nuñez del Prado Nieto 2024).

Finally, financing mechanisms should **harness the potential of digital technology to significantly enhance the delivery of food systems adaptation finance to local communities.** For example, blockchain technology can provide verifiable evidence of smallholder farmers' production history and good farming practices, allowing credit scores to be analysed and developed for the farmers (Georgen 2020). In Kenya, blockchain was used to deliver weather index insurance solutions to farmers quickly and affordably (AcreAfrica 2025). Other use cases of blockchain also offer opportunities to disburse funds quickly to actors.⁴ Artificial intelligence can assist small-scale farmers in applying for subsidies by helping them understand and complete such applications.

By incorporating these best practices, donors and philanthropies can ensure their financing mechanisms not only reach the local level but also foster sustainable, inclusive, and effective adaptation to climate change within food systems.



CASE STUDY

The Forest and Farm Facility

The Forest and Farm Facility (FFF) is a multi-country and collaborative initiative involving the UN Food and Agriculture Organisation (FAO), the International Institute for Environment and Development (IIED), the International Union for Conservation of Nature (IUCN) and AgriCord. This partnership provides direct funding to local organisations, empowering them as vital agents of change in creating climate-resilient landscapes and improving livelihoods.

FFF strategically maps and collaborates with pre-existing groups (mostly FFPOs), providing a mix of grant funding tailored to various organisational scales. The primary goal is to enhance the capacity of these groups to become key change agents. A steering committee, predominantly composed of members from local forest or farmer organisations, guides and approves work plans, ensuring local ownership and relevance. Additionally, the facility collaborates with focal points within relevant government ministries to align efforts with national priorities and ensure sustained impacts. A key strength of FFF's approach is its alignment with the aspirations and available resources of millions of local people. FFF also champions the co-production of knowledge to address the needs of its core stakeholders.

In Zambia, FFF has been instrumental in delivering finance to the local level and contributing to climate adaptation efforts. It promoted and supported innovative financial mechanisms such as community savings and loan groups, cooperatives and microfinance institutions. FFF has successfully linked grassroots organisations with banks, encouraged the development of village savings and loan associations (VSLAs), and helped producers strengthen their businesses to present bankable proposals.

FFF's impact has extended to the design of large-scale programs like the Dryland Sustainable Landscapes Impact Program by the Global Environment Facility (GEF). This programme supports forest and farm producer organisations in delivering climate-resilient landscapes and improved livelihoods.

Overall, FFF has effectively delivered finance to the local level in Zambia through community microfinance, territorial funds and large-scale program support. It has significantly contributed to climate adaptation by promoting integrated land-use planning, building resilient landscapes and helping farmers to adopt climate-smart agriculture techniques, improve crop yields and diversify their income sources through activities (see Macqueen 2022 and Nuñez del Prado 2024).

PRINCIPLES FOR LOCAL-LEVEL FOOD SYSTEMS ADAPTATION FINANCING

The strategies outlined above are essential for enhancing the delivery of food systems adaptation finance to the local level. However, achieving this in a systemic and comprehensive manner requires donors and philanthropies to embrace and integrate key principles of local-level adaptation financing into their funding mechanisms.

These principles, drawn from relevant literature and closely aligned with the principles for locally led adaptation (Soanes et al. 2021), emphasise context-specific solutions, inclusion and equitable resource distribution. Many of these principles also intersect with agroecological approaches, which advocate for locally adapted solutions, active participation, co-creation and gender equality to enhance the resilience of food systems.

Funder approaches and funding proposals aiming to deliver finance effectively for local-level food systems adaptation should demonstrate these principles:

1. **Subsidiarity:** Decision-making regarding finance for food systems adaptation should be made at the lowest appropriate level. Local actors are given more power and agency to define their priorities and design actions. This ensures that funding mechanisms or proposals are tailored to local needs and have local relevance.
2. **Flexible funding:** Finance should be provided flexibly at the local level, with a focus on, and sufficient support for monitoring and iterative learning. Given constantly evolving contexts and the unpredictability of climate change, adaptive programming is vital. A good example is LoCAL, a UNCDF mechanism that adjusts fund flows and relies on minimum conditions and performance measures to accommodate increasing decentralisation (Coger et al. 2021). In this way, LoCAL works with local authorities to integrate climate adaptation into local government planning and budgeting systems.
3. **Patient and predictable funding:** To achieve sustainable investments in food systems adaptation at the local level, funding mechanisms should incorporate extended timelines for achieving the desired results.⁵ They should also be predictable so that local actors can rely on ongoing or future funding. Patient finance allows for iterative learning and action modification, while predictable funding is necessary to develop and sustain the broader ecosystem of local support processes, and partnerships for food systems adaptation (Pertaub et al. 2024).
4. **Scalability and replicability:** Funding proposals for local-level food system adaptation should show that their outlined benefits are scalable and replicable. Priority should be given to 'scaling up', which involves integrating approaches to local-level adaptation into long-term structures beyond a project's lifespan, and 'scaling out', which entails horizontally expanding successful adaptation practices to various locations. This leads to the replication of local-level best practices on a larger scale (Manuamorn and Biesbrook 2020).
5. **Horizontal accountability:** Financing should be provided so that accountability is maintained at all levels, from funders to intermediaries to local actors at the forefront of climate change, and vice versa. Horizontal accountability, unlike downward or upward accountability, does not prioritise or empower one actor over another; the 'accountee' is not hierarchically superior to the 'accounter.' Funding proposals should include detailed accountability and feedback plans.
6. **Risk-taking:** Risk-taking should be viewed as an integral part of a broader strategy to finance the adaptation of food systems at the local level. This approach necessitates re-evaluating risk in a manner that prioritises effectiveness and acknowledges that the failure to take calculated risks could be more detrimental in the long run. Localising food system

adaptation finance should involve taking certain risks to promote effectiveness and build a robust local ecosystem of support. At the same time, risk-sharing and de-risking approaches⁶ could be incorporated to mitigate the risks of investing in certain local adaptation actions.

7. **Partnership-building:** The approach to financing local-level food systems adaptation should recognise that no single actor can drive significant change alone. Achieving meaningful progress in local-level food systems adaptation requires sustained partnerships and coordinated efforts among diverse stakeholders. Funding proposals should thus demonstrate strategies to foster and maintain these vital partnerships.
8. **Sustainability:** Project sustainability implies a project's potential to continue attracting interest, influencing developments and sustaining the lessons

and results long after project activities are over. Financing approaches must emphasise sustainability in projects, ensuring that the outcomes of local-level food systems adaptation initiatives endure beyond the project's lifespan. Funding proposals should therefore include a comprehensive sustainability plan that outlines strategies for maintaining the benefits and impacts of the initiatives over the long term.

9. **Gender responsiveness:** Gender responsiveness in climate adaptation goes beyond simply acknowledging gender; it aims to achieve gender equity by promoting structural changes that support equitable decision-making, resource allocation and policy implementation. It ensures that climate initiatives are designed to meet the diverse needs of all genders, with a particular focus on women and marginalised groups.



CONCLUSION

Africa's food systems urgently need to adapt to the impacts of climate change, especially at the local level, where actors are on the front lines. However, finance dedicated to the adaptation of Africa's food systems is severely limited, and even less of this finance reaches the local level. This brief has highlighted essential principles that must guide the delivery of food systems adaptation finance to the local level. It is crucial that any financing mechanisms employed embody these principles.

The brief also outlines approaches to enhancing the delivery and absorption of food systems adaptation finance at the local level. These guidelines provide development partners and philanthropies with strategies to improve their mechanisms for delivering finance locally. However, these approaches will only achieve the desired impact if there is a fundamental shift in the governance of financing mechanisms to value local ownership and the agency of

local actors. This shift will require institutional and systemic changes in the ways in which many funders and international intermediaries operate.

Funders' and external actors' ability or willingness to undergo mindset and systemic shifts in their operation will be critical in determining the success of ambitious localisation initiatives for adaptation. Without re-balancing power relations and fundamentally changing ways of working, localisation efforts will merely perpetuate the existing control funders and external actors have over financial resources and the direction of adaptation initiatives. Achieving meaningful localisation requires not just a redistribution of financial resources, but a transformation in how these resources are governed and delivered, ensuring that local actors have the autonomy to lead adaptation efforts.





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ENDNOTES

- 1 Intermediaries act as a bridge between different actors. When an adaptation project cannot directly engage with local actors, intermediaries act as a connection between funders and local actors. These intermediaries may include non-governmental organisations, consultants, and others, and are classified as either local or international intermediaries.
- 2 Scaling approaches include scaling out, which involves replicating local adaptation actions in similar contexts with minor adjustments, and scaling up, which involves substantially adapting the actions and processes to higher levels, including regional and national levels.
- 3 Intermediated finance initiatives work by leveraging financial institutions and community organisations as intermediaries.
- 4 Smart contracts on platforms like Ethereum could be used to quickly and seamlessly disburse funds based on the completion of particular milestones. Also, blockchain could be valuable in disbursing funds directly and quickly to local actors without needing to engage with banks and forex processes.
- 5 **Adeniyi (2023)** suggests that short-term adaptation projects should typically last five years, medium-term projects seven years, and long-term projects ten years.
- 6 Government support (such as guarantees) is needed to de-risk finance provided by the private sector for food system actors, including farmers.



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This network of researchers and food systems development experts collaborates to inform philanthropies, governments and development finance organisations on funding strategies to promote transitions to sustainable, equitable and resilient food systems across Africa.

To ensure a high standard of evidence-informed recommendations, briefs in this series were rigorously reviewed by peers within the AFSTC, including fellow researchers and members of the advisory committee.

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