



**African
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African Indigenous Foodways



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SUMMARY

- African Indigenous Foodways (AIFs)¹ offer a sustainable alternative to industrialised agriculture, promoting food sovereignty, biodiversity conservation and climate resilience. AIFs are rooted in traditional knowledge and practices, adapted to local environments with minimal external inputs.
- Knowledge co-creation and sharing are crucial for advancing AIFs. This involves collaboration between farmers, researchers and other stakeholders to develop and disseminate practical, locally relevant agroecological knowledge. Networks and platforms play a vital role in facilitating this exchange.
- AIFs align with agroecological principles, contributing to food and nutrition security (FNS) and cultural preservation. They empower local producers, including smallholder farmers, wild harvesters, fishers and pastoralists, while responding to the complex, interconnected polycrisis of food security and health, livelihoods poverty and inequality, and climate change and environment.
- Transitioning to AIFs requires policy support, funding mechanisms and regional collaboration. Initiatives like seed festivals, national dialogues and agroecological farm projects demonstrate the potential for scaling up AIFs across Africa.
- Philanthropy can play a significant role in supporting AIFs by funding knowledge co-creation initiatives, empowering local community-based organisations, and promoting policies that protect biodiversity and reduce corporate influence in food systems. This support is crucial for building resilient, equitable and sustainable food systems capable of feeding Africa's growing population while mitigating climate change impacts.



INTRODUCTION

Africa's food systems are at a critical juncture, facing a complex polycrisis driven by runaway climate change, biodiversity loss and growing inequality, and the ongoing devastation of war, hunger and human greed (Wynberg 2024). As this brief shows, Africa's food systems are caught in a web of converging dynamics, both contributing to and being made vulnerable by resource depletion and soil degradation, pollution, food loss and waste, population growth and rapid urbanisation, migration, and conflict and political instability, with profound impacts on FNS, health and livelihoods (AGRA 2022).

The dimensions of nature and culture that define a food system of an indigenous culture contribute to the whole health picture of the individual and the community

Acknowledging African food systems' contribution and vulnerabilities to these dynamics is essential for creating sustainable food systems. With this in mind, we describe the important and multiple roles that AIFs and knowledge systems play in preserving biodiversity, in promoting sustainability, in climate change adaptation and mitigation, in food security, nutrition and health, in supporting healthy, diversified and culturally appropriate diets, and in empowering local communities. We then make described and recommendations for the support of philanthropy.

Invariably, AIFs are attuned to local ecosystems and cultural contexts. Indigenous peoples' food systems contain treasures of knowledge from long-evolved cultures and patterns of living in local ecosystems. The dimensions of nature and culture that define a food system of an indigenous culture contribute to the whole health picture of the individual and the community (Kuhnlein & Chotiboriboon 2022). However, these food systems are intricately related to the complexities of social and economic circumstances and are increasingly affected by the forces of globalisation, such as the onslaught on seed and knowledge in Sub-Saharan Africa (Wynberg 2024). As a consequence, these

systems face several challenges, which include: being neglected and missing from food policy debates; limited knowledge of food harvesting, processing, preparation and nutritional value compromising food diversity and food security; exploitation of vulnerable communities, exclusion from food systems, and commodification of food; and ecological and social risks, among others (Willis et al. 2024; Pereira et al. 2022; Akinola et al. 2020).

The African consensus on agroecology suggests that, by recognising the value of indigenous knowledge and practices, and addressing the challenges they face, it is possible to create more sustainable, resilient and equitable food systems in Africa (Wynberg 2024). Current knowledge gaps can be addressed by leveraging the potential of AIFs to promote to integrate TEK (Traditional Ecological Knowledge) with scientific knowledge. Philanthropy can play a catalytic role in promoting knowledge co-production to create synergies that are likely to lead to better sustainable outcomes each knowledge system could contribute on its own (Pereira et al. 2022).

Philanthropy can also play a useful role in helping reimagine gene banks and their role and place in supporting African smallholders and the restoration of agrobiodiversity. Central to this rethinking is the role of community seed banks, and approaches such as farmer field schools and participatory plant breeding. These form vital components in an integrated strategy for agrobiodiversity conservation and use, in addition to their role in supporting food and nutrition security (Kozanayi & Van Niekerk 2024; Andersen et al. 2022).

The promotion of AIFs is crucial for feeding the projected population of 2.92 billion by 2050 (FAO et al. 2023). The shift to AIFs is a move away from industrialised, fossil-fuel-dependent food systems to agroecological-based food systems that prioritise food sovereignty, empowering local producers such as wild harvesters, smallholder farmers, artisanal fishers and pastoralists. This shift builds resilience and equity in African food systems, with networks and platforms playing a crucial role in sharing best practices and advocating agroecological methods.

The adaptation, transition and transformation of Africa's food systems towards ecosystem health, human health and social justice is not only good for Africa, but for the rest of the world. Networks and platforms dedicated to AIFs can drive this shift through knowledge co-creation and sharing, a collaborative process involving stakeholders from diverse epistemologies and capacities that aims to transform practice through ongoing engagement, dialogue, innovation and action. However, challenges such as power imbalances, transdisciplinary complexities and contextual realities often hinder these processes. Striking a balance between scientific rigor and local relevance remains a key challenge in knowledge co-creation, particularly in agroecology.

Knowledge co-creation is a collaborative process where stakeholders with differing perspectives exchange, create and apply knowledge to solve complex challenges (Cash et al. 2003; Edelenbos et al. 2011). For the shift towards agroecological food systems to happen, there is an urgent need for grounded, practical knowledge. Despite the growing recognition of its importance, significant gaps remain in our understanding of how to adapt indigenous food systems to rapidly changing conditions, particularly in relation to their potential for transformative change (Cartagena et al. 2024). Research and intervention are needed to bridge these gaps and build more accessible and locally tailored information dissemination mechanisms, enabling a more inclusive approach to knowledge-sharing.

As frameworks for conceptualising AIFs evolve (Jonsson et al. 2024), opportunities for broader participation in knowledge contributions are emerging, especially from marginalised groups (Agrawal 2004; Folke 2004; Hosken 2015). On a more practical level, peer-to-peer learning through local study groups, participatory research and community-to-community exchanges offer viable mechanisms for stakeholders to share knowledge (Oettlé et al. 2004; Sousa et al. 2024; Van Niekerk & Wynberg 2017). These grassroots approaches foster innovation and can significantly contribute to achieving Sustainable Development Goals, particularly in areas of food security, sovereignty and nutrition.

Networks and collaborative platforms, such as the Alliance for Food Sovereignty in Africa (AFSA) and Seed Knowledge Initiative (SKI), play pivotal roles in driving agroecological knowledge exchange and innovation. These platforms are central to advocating for seed sovereignty: the right of communities to produce healthy, culturally appropriate food through ecologically sustainable methods. They also ensure that knowledge of politics related to food sovereignty and agricultural practices are accessible to local farmers, policy-makers and stakeholders, promoting informed decision-making and strategic planning. Such platforms also safeguard traditional seeds and culinary practices, protecting them from the forces of globalisation and homogenisation.



By leveraging collective wisdom and community power, Africa can maintain its nutritional abundance, economic vitality and ecological harmony. However, the absence of centralised, accessible repositories for indigenous knowledge systems significantly hampers efforts towards food sovereignty and sustainable development. Establishing a comprehensive digital archive to document traditional farming practices, crop varieties and ecological wisdom would greatly enhance knowledge sharing and resilience within African food systems. Emphasising practical knowledge systems, networks and platforms underpins these systems and strengthens farmers and local communities. This approach adheres to agroecological principles and creates a dynamic repository of indigenous knowledge. Events and platforms facilitate knowledge exchange and foster innovation and collaboration, leading to climate-change mitigation and biodiversity conservation.

Events and platforms facilitate knowledge exchange and foster innovation and collaboration, leading to climate change mitigation and biodiversity conservation

This brief argues that prioritising co-creation and exchange of knowledge systems on AIFs is essential for tapping into connections and achieving sustainable food security and resilience in the face of global challenges. It highlights complementary knowledge systems, as well as divergent knowledge pathways. Complementary knowledge systems may include scientific, cultural, indigenous or place-based knowledge about food. In this way, and with emerging

technologies crossing barriers across language, time and space, opportunities are ripe for knowledge co-creation across different domains (Herrero et al. 2021). At the same time, reference to divergent knowledge pathways should be a deterrent to naïve ideas about AIF.

Knowledge co-creation is not a silver bullet to complex social-ecological challenges. To be impactful, the scope and application of knowledge co-creation must offer both scientific and knowledge-bearing communities' valuable insights and practical solutions (Berkes, 2008). While it brings together diverse perspectives and expertise, its effectiveness depends on several factors:

- inclusive participation
- power dynamics
- integration of knowledge systems
- adaptability
- long-term commitment
- sustaining engagement throughout the research and implementation phases
- practical applicability
- capacity building
- ethical considerations
- respecting cultural sensitivities
- protecting indigenous intellectual property rights.

By addressing these aspects, knowledge co-creation can contribute significantly to understanding and addressing complex social-ecological challenges, while fostering mutual learning and collaboration between scientific and knowledge-bearing communities.



MOTIVATION

The issues raised in this brief are of critical importance because of the urgent need for sustainable and resilient African food systems. The converging crises of climate change, biodiversity loss, soil erosion, population growth and rapid urbanisation not only threaten food security and environmental stability, but also underscore the necessity for a transition towards robust knowledge systems that prioritise indigenous foodways.

Traditional knowledge passed down through generations plays a vital role in preserving AIFs and inspiring innovation. Enhanced AIFs can be realised by recording and conserving relevant local indigenous knowledge *in situ* (Berkes 2008), curating and exchanging knowledge (including scientific innovations and findings) (van Ewijk & Ros-Tonen 2021), and co-creating knowledge across different actors at different scales (Sousa et al. 2024).

Philanthropy should prioritise knowledge co-creation and sharing in AIFs for several key reasons:

- **Food security** remains a pressing concern, with Africa's population projected to reach 2.92 billion by 2050. Supporting indigenous food systems can help feed this growing population while reducing reliance on food imports.
- **Sustainability** is another critical factor, as indigenous crops and livestock are naturally adapted to local environments, requiring minimal external inputs and offering a viable alternative to industrialised agriculture.
- Beyond food production, **cultural preservation** is at stake, as promoting indigenous foodways safeguards traditional knowledge and practices from the threats of globalisation and homogenisation.



- Additionally, **empowerment** is central to the sustainability of local food systems, as shifting to AIF strengthens the role of smallholder farmers, wild harvesters, artisanal fishers and pastoralists. The technical, tacit, socio-cultural and place-based knowledge of these stakeholders sustains and enhances local foodways (Berkes 2008; Coles 2013; Jonsson et al. 2024). Local decision-makers, extension service providers, policy implementers, policy-makers, researchers and aid workers also shape how AIF is valued and operationalised.
- Furthermore, **innovation** thrives when networks and platforms dedicated to indigenous foodways facilitate knowledge co-creation and sharing, fostering advancements in sustainable agriculture.

Failure to embrace knowledge co-creation in AIF as a foundational pathway will perpetuate three major challenges. First, it results in the forfeiture of sustainable solutions to food insecurity. Second, it leads to missed opportunities for enhancing knowledge through complementary co-creation among diverse food actors, including wild harvesters, small-scale food producers (subsistence and commercial) and those engaged in community-level food sharing and distribution, such as local traders and neighbours (Lukwa et al. 2024). Third, it perpetuates knowledge pathways that undermine the resilience and agency of local food actors (Jones et al. 2022; McKinley & Walters [Choctaw Nation of Oklahoma] 2023).

Addressing these challenges is particularly urgent in the context of climate change and environmental degradation. Resilience is an inherent trait of indigenous foodways, as they are better suited to adapting to diverse and changing environmental conditions. Biodiversity conservation is also critical, as indigenous crops and livestock help maintain genetic diversity, a crucial factor in climate adaptation, given that the erosion of local knowledge is closely tied to biodiversity loss (Aswani et al. 2018). Additionally, reducing environmental impact is essential, as indigenous farming practices often require fewer external inputs, contribute less to land degradation, and have a lower carbon footprint compared to industrialised agriculture. To strengthen these systems, knowledge sharing through participatory foodways research must be prioritised, ensuring that traditional ecological knowledge informs climate-smart agricultural practices. Academic training in participatory research methodologies, particularly in scientific disciplines related to climate change, should be promoted to enhance these efforts. Moreover, agroecological transformations that prioritise indigenous foodways align with climate change adaptation and mitigation strategies. Given the undeniable linkage between climate change and environmental degradation – where unsustainable agricultural practices exacerbate land degradation, deforestation and water scarcity – philanthropy has a crucial role to play. By investing in initiatives that strengthen indigenous African foodways, philanthropic efforts can contribute to building more resilient, equitable and sustainable food systems that are better equipped to address both food insecurity and environmental challenges.



CONTEXT (EASTERN, WEST AND SOUTHERN AFRICA)

What is the state of knowledge on AIFs?

The literature on this issue emphasises the significant role of AIFs and knowledge systems in fostering sustainable food systems, while also recognising gaps in knowledge co-creation, especially within the agroecology context (Wynberg 2024). Much of the high-stakes debates around seed and knowledge, for example, is contextualised and framed around agroecology where seeds are viewed as the source of life but also carry with them knowledge and culture (see the case study on the Seed and Knowledge Initiative on page 20).

Some of the key findings from literature review revolve around the **value of indigenous knowledge; agrobiodiversity conservation; agroecology practices; local adaptation; cultural and social values; local community empowerment; resilience; seed and food sovereignty;** and the role of **women and youth**. AIFs and knowledge systems are crucial for creating sustainable food systems, offering practices and insights attuned to local ecosystems and cultural contexts (Wynberg 2024). Agroecology, which is essential for fulfilling the right to food, adapting to climate change and increasing biodiversity, relies heavily on indigenous knowledge systems (IKS). These systems hold a wealth of experience and expertise in maintaining biodiversity, promoting resilience and ensuring FNS (AGRA 2023; Moyo et al. 2016; Kuhnlein et al. 2009).

Knowledge co-creation is imperative for agroecological development and plays a crucial role in deepening the understanding of diversity, complexity and cultural appreciation of AIFs. Yet, the extent to which agroecological knowledge co-creation processes balance scientific rigour, local relevance and legitimacy, and the extent to which they connect to transformative agroecological farming is poorly understood (Cartagena et al. 2024). Encouraging farmers to retain agrobiodiversity and use agroecological approaches is key to producing sufficient food and eliminating harmful inputs. This can involve scientific research but also traditional and local knowledge, and the sharing and co-creation of knowledge through collaboration and dialogue among diverse food system stakeholders.

AIFs prioritise a diverse range of foods and varieties, many of which are **climate-resilient** and nutritious. Encouraging farmers to retain agrobiodiversity and use **sustainable** agroecological approaches that are **locally adapted**, and **value culture and food traditions**, is key to producing healthy, diversified and culturally appropriate diets that can help in fighting the scourge of ultra-processed foods (UPFs) that is causing lifestyle diseases and pose a health risk to communities (Frank et al. 2024; Wynberg 2024; Kruger et al. 2023; HLPE 2019). **Empowering local communities**, especially women and youth, by recognising and supporting indigenous food systems, can strengthen their use of local foods and sustain knowledge of their local food systems, contributing to cultural protection, well-being and health.

The literature identifies the following gaps in knowledge co-creation:

- Limited documentation of local seed systems' resilience and small-scale farmers' innovative approaches to maintain agrobiodiversity and pursue agroecological methods (Wynberg 2024).
- Marginal inclusion of AIFs in agrifood systems and food policy discourse (Willis et al. 2024).
- Insufficient knowledge about food harvesting, processing, preparation and nutritional value, limiting food diversity for achieving food security (Pereira et al. 2022).
- Disruptions in generational knowledge transfer, contributing to knowledge deficiencies.
- Epistemicide of IKS due to the dominance of Western knowledge and education systems (Munoz-Araya et al. 2024; Hall & Tandon 2017).
- Historical exclusion of traditional ecological knowledge (TEK) from scientific endeavours, with research focusing primarily on commercially important food commodities, and lack of knowledge about ecological and agronomic parameters for wild harvesting and production (Pereira et al. 2022).

- Need for further research on the value of agroecology and its scaling potential in the African context (Wynberg 2024).
- Underdeveloped evidence base in the African context, particularly at the local level, regarding the costs and benefits of FNS interventions and their contextual factors (May 2021).

These gaps highlight the need for more inclusive, diverse and context-specific approaches to knowledge co-creation in agriculture, food systems, and related fields.

How does the issue of AIFs play out at different scales?

A core assumption within agroecology is that there are no one-size-fits-all solutions, since different localities will differ in their physical and societal context. This calls for locally specific approaches that allow for learning ‘on-the-ground’ (Vermunt et al. 2020). Therefore, localised knowledge co-creation is a key element of agroecology (Barrios et al. 2020) and is thus vital for supporting farmers to implement and enhance agroecological practices. Thus, creating collaborative knowledge processes that enhance relevance, reliability and validity is crucial for developing information that is applicable to farmers’ specific situations, meets scientific and technical standards, respects diverse stakeholder perspectives, and ultimately contributes to sustainable development (e.g. Cartagena et al. 2024; Barrios et al. 2020). These processes should focus on generating knowledge that is salient, credible and legitimate, ensuring its usefulness in local contexts while maintaining scientific rigour and acknowledging the various values and beliefs of involved parties.

Scholarly research (e.g. Cartagena 2024) and practical observations indicate that the outcomes of knowledge co-creation processes are influenced by both organisational structure and content. The formation of a diverse stakeholder coalition, incorporating participants from various levels ranging from local to regional, contributes to enhanced outcomes. Successful knowledge co-creation organisation relies on iterative processes, adaptability and well-defined roles and responsibilities. The optimisation of resources, including boundary objects, facilities and organisational frameworks, promotes knowledge exchange and interaction. A potential relationship may exist between autonomous decision-making and the implementation of agroecological practices. Effective knowledge co-creation necessitates the integration of diverse stakeholder viewpoints through horizontal dialogue. The achievement of successful knowledge co-creation is facilitated by a collective understanding of problem definition and objectives. It is crucial to elucidate the function(s) of researchers and their expertise within the process.

In the context of AIFs, the displacement of local cuisines and denigration of knowledge about their value are concerns at all levels, from the local (homestead) to the national and regional level that the transition must address. Such concerns inform individual and collective action, as demonstrated in the cookout competition described in Figure 1. #MyFoodsAfrican, an active Pan-African campaign curated by AFSA to revive Africa’s culinary heritage, points to a rising consciousness among Africans to reconnect with and embrace their traditional foods, dishes and cuisines that is informed by the desire to consume healthy, culturally appropriate food. #MyFoodsAfrican is rooted in the principles of agroecology and food sovereignty.

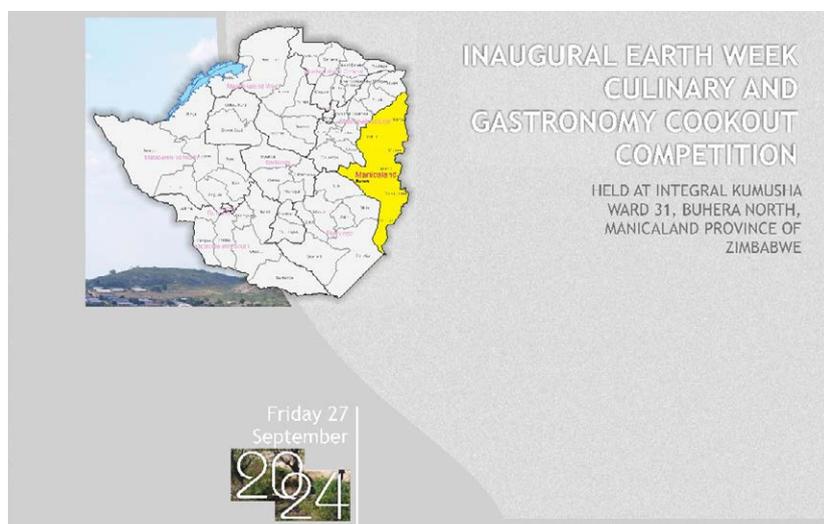


FIGURE 1: COOKOUT COMPETITION



FIGURES 2-5: COOKOUT COMPETITION

During the course of co-developing this brief, one of the cluster researchers participated in the Inaugural Earth Week culinary and gastronomy Cookout Competition held at Integral Kumusha Ward 31, Buhera North, Manicaland Province of Zimbabwe on Friday 27 September 2024 under the theme 'Creating Regenerative Local Economies for the Well-being of Humanity in Harmony with Nature' More than 50 women from Buhera shared local indigenous wisdom, creativity and innovation through conscious food practices, offering nutritious and healing traditional cuisine (Figures 2-9).

This innovative and groundbreaking experience brought out the profound wisdom and knowledge rural women have.

The goal of the competition was to foster the growth and consumption of traditional crops in Buhera District, which is vulnerable to frequent droughts.

The Inaugural Earth Week was co-organised by Integral Kumusha, Catholic University of Zimbabwe, Great Zimbabwe University, and Home for Humanity, signifying a partnership between a communal integral enterprise, a public and a private university, and a global movement to co-create an inclusive, equitable, just and peaceful 'new civilization' across cultures that resonate with the African spirit of Ubuntu, which emphasises interconnectedness of peoples.



FIGURES 6-9: COOKOUT COMPETITION

For the success of knowledge co-creation and sharing, and to improve farmers' resilience, it is important to revisit AIFs, retrieve indigenous knowledge and strengthen indigenous peoples' rights to manage their territories (Tutundjian et al. 2020). An example to this is the case of Nhakanomics, a homegrown approach to co-create a heritage, Ubuntu-based economic system that promotes prosperity and a great legacy for future generations. This is being implemented in Mutoko Village in Zimbabwe. In Eastern Africa, efforts to integrate indigenous practices and climate-smart technologies with modern agriculture are enhancing resilience. The focus in West Africa is on preserving traditional crops for rural economies and livelihoods. Southern Africa emphasises drought-resistant crops due to aridity. Such regional peculiarities notwithstanding, the key levers for transitioning these food systems include strengthening indigenous knowledge, gender inclusivity, policy reform, youth engagement and waste reduction. These approaches drive economic diversification and input reduction, tailored to regional needs and opportunities across the continent (Chanza & Musakwa 2022).

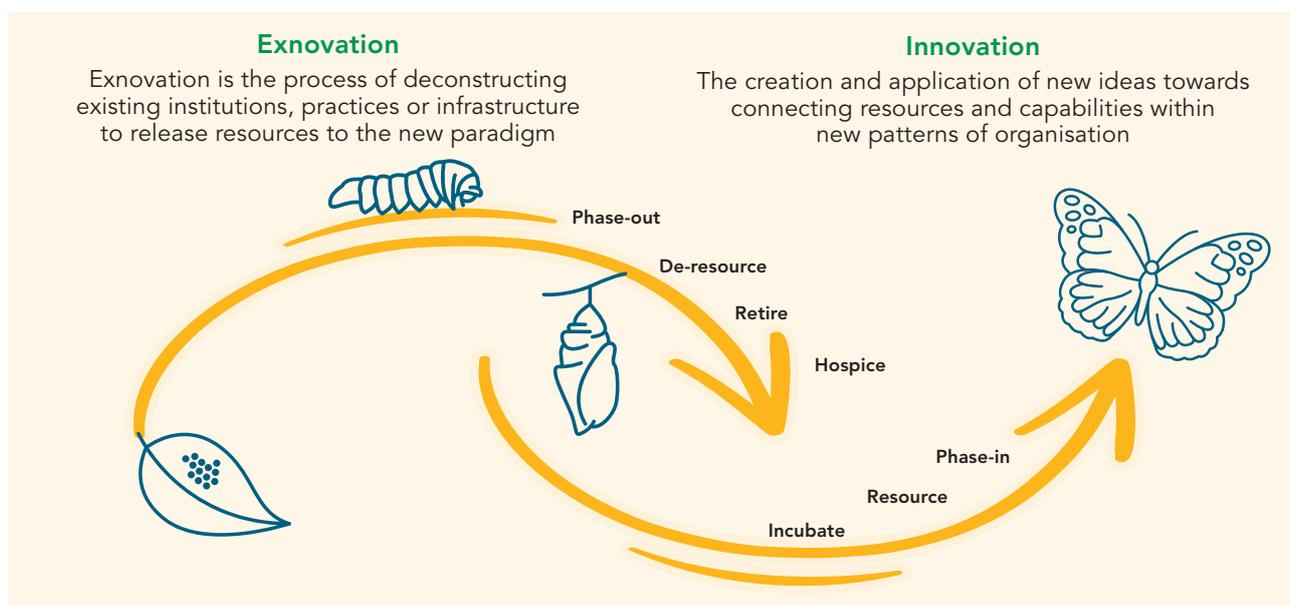
Conceptualising African food systems transition as a dichotomy of systems change (Figure 1 below) elucidates how agroecological AIFs (the innovation) interface with other food system activities, particularly those associated with industrial agriculture. The latter should be systematically deconstructed or phased out by platforms advocating for agroecology and AIFs due to the polycrisis confronting African food systems in terms of human

unwellness, poverty, food insecurity, climate change, biodiversity loss, resource depletion, pollution, population growth, rapid urbanisation, migration and conflict. This will enable reallocation of resources and capabilities for transformation. The phasing in or strengthening of agroecologically led AIFs is deliberate and necessitates transforming our relationship with food, localising food systems for resilience, addressing food injustice and reconceptualising food policies and governance.

Events and platforms facilitate knowledge exchange and foster innovation and collaboration, leading to climate change mitigation and biodiversity conservation

AIFs have the potential to achieve food security, establish alternative food systems and promote food tourism in Africa (Fisher & Du Rand 2024). Across Africa, a diversity of indigenous foods are deeply rooted in local cultures and offer significant opportunities for resilient farming systems, but also for economic diversification. These include teff, sorghum and African leafy vegetables in Eastern Africa (Abukutsa-Onyango 2007; Basson et al. 2021), fonio, root and tubers in West Africa (Yilmaz 2023) and indigenous vegetables, legumes and grains in Southern and Eastern Africa (Kodzwa et al. 2023; Abukutsa-Onyango 2007). This is besides the suite of wild-harvested foods such as insects

FIGURE 1: TWO SIDES OF THE FOOD SYSTEM CHANGE



Source: Two Loops (2020). Two Loops - Great Transition Stories. Great Transition Stories. Available at: <https://greattransitionstories.org/patterns-of-change/two-loops/>; Accessed 2 May 2024

(e.g. mopane worms in Southern Africa), bushmeat (e.g. mammals and rodents in West Africa), salt and freshwater fish (e.g. in East Africa) and their derived products. The fact that these species are suited to local climates and require fewer inputs makes them crucial for smallholder farmers (Orr et al. 2016).

Developing resilient food systems requires enabling policy interventions, such as positive incentives to farmers to help them overcome the transition period required to transform their systems and make them sustainable and profitable (Upadhyay 2024). After decades of misplaced political and economic support for industrial production over long-term sustainability concerns, African countries are finally

integrating agroecology into their mainstream agricultural frameworks. This will enhance food security, wealth creation, poverty reduction, and meet global commitments focusing on climate change adaptation, biodiversity conservation and gender equality (Greenberg 2024).

However, the proportion of agricultural investment directed towards supporting agroecology remains unclear. Gliessman (2020) states that in Africa only a small portion of agricultural research funding is being utilised to bring about transformative changes in the food and farming systems. This support seems weak in reducing farmers' reliance on external inputs, recycling and animal health improvement (Greenberg 2024).



HURDLES TO TRANSITION

The transition of knowledge pathways in AIFs faces multiple challenges that hinder effective knowledge co-production and dissemination. One key issue is the misalignment between donor objectives and local aspirations, often resulting in externally driven initiatives that fail to reflect community priorities. Additionally, power imbalances among knowledge holders create barriers to equitable participation in knowledge-sharing processes. The scalability and sustainability of knowledge dissemination remain constrained, limiting the long-term impact of AIF transitions. Further complications arise from conflicting values and goals among AIF stakeholders, obstructing collective decision-making and implementation. Moreover, the erosion of thought leadership, agency and institutions among AIF actors weakens their ability to drive transitions from within. Another significant challenge is the lack of scenario development for African food security futures, which limits proactive planning and resilience-building efforts. The absence of business models that integrate social, ecological and governance integrity further impedes sustainable transitions.

Structural and academic barriers also play a role. There is a shortage of transdisciplinary training for research graduates, particularly in the natural sciences, restricting the development of holistic and context-specific solutions. Additionally, the underrepresentation of informal economy knowledge systems in published research on African foodways leads to gaps in understanding and valuing traditional food networks. Compounding these issues is the inadequate reflection on emerging foodways that are replacing AIFs, making it difficult to develop appropriate responses and safeguards.

One key issue is the misalignment between donor objectives and local aspirations, often resulting in externally driven initiatives that fail to reflect community priorities



Despite policy frameworks such as the African Union Malabo Declaration and the Comprehensive African Agricultural Development Programme (CAADP), transition funding remains a major obstacle. The Southern African Development Community (SADC)'s Regional Agricultural Investment Plan (RAIP), intended to support agroecological transitions, falls short of its allocated budget, further stalling progress. Without addressing these systemic and financial challenges, the transition of knowledge pathways in AIFs will continue to face significant roadblocks, ultimately impacting Africa's food sovereignty and sustainability.

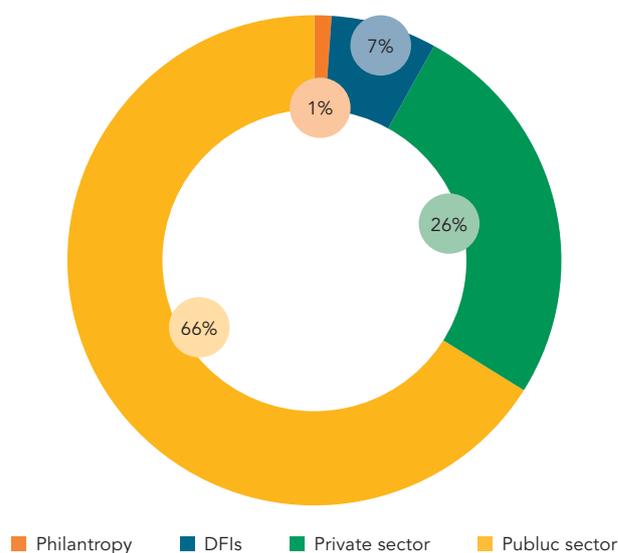
Many funding mechanisms channel resources through corporations and standalone organisations rather than networks and platforms, fostering dependency on unsustainable practices instead of empowering AIF transitions

International philanthropic organisations play a crucial role in supporting food systems research and practice across Africa. Their efforts include cross-country and regional knowledge exchanges, university research incorporating IKS, scientific skill development, investments in indigenous crop agronomy and livestock breeding, value-chain analysis of informal market economies, and community-led food sovereignty campaigns. However, current philanthropic funding strategies may inadvertently reinforce problematic trends. Many funding mechanisms channel resources through corporations and standalone organisations rather than networks and platforms, fostering dependency on unsustainable practices instead of empowering AIF transitions (Mottet et al. 2020). Additionally, funding structures often misalign with knowledge co-creation processes necessary for AIF transitions, prioritising short-term, high-return objectives over stakeholder aspirations and time cycles. Given that AIF transitions require adaptive learning and long-term investment, short funding horizons hinder meaningful progress. Furthermore, existing funding models frequently mirror industrial agriculture frameworks that contradict AIFs' cultural and location-specific needs (Akinola et al. 2020). This is exacerbated by the persistent dominance of global corporatist interests in philanthropic agendas, which often overshadow localised, community-driven solutions.

Given these systemic and financial barriers, a more nuanced approach to funding AIF transitions is necessary – one that emphasises local priorities, knowledge co-creation, and agroecological sustainability. Despite increasing recognition of agroecological transitions, philanthropic investment remains inadequate, often favouring isolated, high-impact technological interventions over integrated approaches that support smallholder farmers and indigenous food producers (El Bilali et al. 2023). Without shifts in funding priorities, the opportunity to foster resilient, community-led food systems in Africa may be lost.

Figure 2 below represents a partial picture of the global annual funding flows to agroecology. Out of the total annual US\$3.3 billion philanthropic food and agriculture funding, only US\$0.7 billion goes to support agroecological transition. Given the annual cost of agroecological transformation is estimated to be US\$1.3 trillion, the US\$0.7 billion contribution by philanthropy to the current estimated funding flows, representing less than 1%, is very low (Global Alliance for the Future of Food 2024). The share of philanthropic funding going to support agroecological transformation of foodways remains marginal, even among big funders.

FIGURE 2: ANNUAL FUNDING FLOWS TO AGROECOLOGICAL APPROACHES FROM PHILANTHROPY, PRIVATE & PUBLIC SECTOR



Source: Adapted from Donor & Investor Convening Report (2023)

The Regional Agroecology Funds in Eastern and West Africa exemplify current philanthropic efforts aimed at strengthening agroecology and AIFs. By creating a participatory process that entrusts funding recommendations to those closest to frontline change

networks, the fund has fostered deep connections with social movements capable of driving transformational change. Additionally, it prioritises collaborative networks over individual organisations, reinforcing collective action. However, to further support AIFs and agroecology, more strategic investment is needed in key areas. Food sovereignty and nutritional security must be upheld by defending the right to food and promoting the culturally appropriate production and consumption of nutritious foods. Rights to land, territory and natural resources are critical in protecting indigenous community access to land and strengthening community-led resource stewardship. Climate resilience and biodiversity conservation efforts should focus on preserving biodiversity, maintaining soil and water health, and regenerating climate-resilient food systems. Gender equity

must be advanced through the promotion of women's and girls' rights and leadership. Economic inclusion and equity can be strengthened by supporting dignified livelihoods and social enterprises that reduce inequality and contribute to resilient local economies. Recognising the value of indigenous, traditional and local knowledge, along with participatory action research and knowledge co-creation, is essential in preserving cultural values and informing agroecological transitions. Lastly, participatory advocacy and governance should be reinforced by amplifying diverse civil society voices and strengthening community leadership in grassroots movements that hold governance systems accountable. Addressing these priorities through targeted philanthropic investment will ensure more sustainable and equitable food systems in Africa.



RECOMMENDATIONS TO PROMOTE TRANSITIONS

To promote effective philanthropic investment in AIFs and ensure that funding supports sustainable and equitable transitions in agroecology, the following recommendations and mechanisms are proposed.

Recommendations for philanthropic investment

- 1. Shape donor funding priorities based on the aspirations of local AIFs stakeholders.** This ensures alignment with community needs and values indigenous knowledge.
 - Engage in participatory processes with AIFs stakeholders to identify priorities and needs.
 - Assess local traditional and indigenous knowledge relevant to agriculture.
 - Develop funding criteria that explicitly value and incorporate indigenous knowledge.
 - Support projects that combine traditional practices with modern scientific approaches.
 - Encourage knowledge-sharing platforms that facilitate the exchange of traditional and scientific insights.
- 2. Cultivate trust relationships with target beneficiary communities,** recognising that food systems change and agroecological transitions require long-term investment.
 - Invest in organisations working to build trust and capacity in their region with flexible funding.
 - Incorporate holistic measurements and goals for success.
 - Centre measures of success on displacement prevention.
- 3. Support AIF stakeholders in co-designing innovative investment models** that are community-led, consistent, flexible and build capacity.
 - Promote community-led initiatives and participatory grant-making.
 - Adopt a trust-based model that supports long-term capacity building.
 - Leverage a variety of resources (financial, influence, networks).
- 4. Significantly increase support for participatory research initiatives** and incentivise research that develops methodologies that foster knowledge co-creation and sharing in AIFs.
 - Re-centre indigenous knowledge and lived experiences.
 - Support cross-cutting policies that favour indigenous foodways at all levels, especially in urban settlements.

5. **Increase funding for African scholarship on African indigenous foodways** through platforms like FSNet Africa.

- Advance knowledge co-creation and sharing pathways.
- Transform relationships with food, localise food systems, address food injustice, and reimagine food policies and governance.

6. **Facilitate science innovation through exchanges** that espouse relational, interactive, and enabling values implicit in indigenous knowledge systems.

- Utilise transformation labs (T-Labs) as tools for knowledge co-production.
- Support transformational or 'living' labs that facilitate learning exchange and joint development of policies and innovations.

7. **Invest in extension services for small-scale food procurement methods**, such as wild harvesting and cultivation, with the same commitment as large-scale commercial agriculture.

- Provide knowledge transfer programmes.
- Offer ongoing support systems.
- Ensure access to up-to-date information.

8. **Amplify opportunities for change through policy incentives for diversification and agroecology**, joined-up food policies, integrated landscape thinking and sustainable sourcing.

- Repurpose technologies and infrastructures of mass food chains to facilitate the agroecological transition.
- Reframe debates through multi-stakeholder agencies and platforms.



Appropriate partners

See examples below in the section Current initiatives, networks and platforms that require greater recognition and support on page 20.

Role of philanthropy

- **Fund knowledge co-creation initiatives:** Support initiatives that promote the co-creation of knowledge, integrating traditional ecological knowledge with scientific knowledge.
- **Empower local community-based organisations:** Provide resources and support to community-based organisations that are working to promote AIFs and agroecology.
- **Promote policies:** Advocate for policies that protect biodiversity and reduce corporate influence in food systems.
- **Play a catalytic role:** Play a catalytic role in promoting knowledge co-production to create synergies that lead to sustainable outcomes.
- **Reimagine gene banks:** Help reimagine gene banks and their role in supporting African smallholders and restoration of agrobiodiversity.
- **Promote networks and platforms:** Support networks and platforms that drive knowledge co-creation and sharing, fostering advancements in sustainable agriculture.
- **Prioritise participatory foodways research:** Strengthen systems by prioritising knowledge sharing through participatory foodways research.
- **Invest in initiatives:** Contribute to building more resilient, equitable and sustainable food systems by investing in initiatives that strengthen indigenous African foodways.

Mechanisms to ensure sustainable and equitable transitions

- **Participatory processes:** Involve AIF stakeholders in participatory processes to identify priorities and needs.
- **Value indigenous knowledge:** Develop funding criteria that explicitly value and incorporate indigenous knowledge.
- **Long-term commitment:** Commit to steady, long-term investment to enable impactful change.
- **Community-led investment models:** Support African indigenous foodways stakeholders in co-designing innovative investment models that are community-led and capacity-building.
- **Policy support:** Advocate for policies that protect biodiversity and reduce corporate influence in food systems.
- **Agroecological principles:** Adhere to agroecological principles and create a dynamic repository of indigenous knowledge.
- **Gender equity:** Advance gender equity through the promotion of women's and girls' rights and leadership.
- **Economic inclusion:** Strengthen economic inclusion and equity by supporting dignified livelihoods and social enterprises that reduce inequality.
- **Climate resilience:** Focus on preserving biodiversity, maintaining soil and water health, and regenerating climate-resilient food systems.
- **Defend the right to food:** Uphold food sovereignty and nutritional security by defending the right to food and promoting the culturally appropriate production and consumption of nutritious foods.

By implementing these recommendations and working with appropriate partners, philanthropy can play a crucial role in supporting sustainable and equitable transitions in agroecology, fostering resilient and thriving African food systems.

Current initiatives, networks and platforms that require greater recognition and support

Alliance for Food Sovereignty in Africa (AFSA) is a broad alliance of different civil society actors that are part of the struggle for food sovereignty and agroecology in Africa. These include African farmers' organisations, African NGO networks, specialist African NGOs, consumer movements in Africa, international organisations that support the stance of AFSA, and individuals. Its members represent smallholder farmers, pastoralists, hunter/gatherers, indigenous peoples, faith-based institutions and environmentalists from across Africa. It is a network of networks and currently with 30 active members.

The Agroecology Coalition brings together diverse forces and sectors to support a bold proposition put forward by a wide range of actors: transforming food systems through agroecology. Farmers' associations, research institutions, indigenous peoples' community-based organisations, civil society/non-governmental organisations and small- and medium enterprises are affiliated to Agroecology Coalition. The coalition's work is guided by the 13 principles of Agroecology defined by the High-Level Panel of Experts for Food Security and Nutrition (HLPE-FSN) of the Committee on World Food Security (CFS); these are aligned with the 10 Elements of Agroecology adopted by the Food and Agriculture Organization of the United Nations (FAO)'s Council in December 2019.

Southern Africa Food Lab was set up in 2009 to 'foster more creative responses to the situation of hunger in South(ern) Africa'. SAFL acts as a transformative space for diverse stakeholders from across the food system to engage in dialogue, paying particular attention to the relationship between dialogue and action.

Knowledge Hub for Organic Agriculture in Southern Africa (KHSA) is a collaborative country-led partnership forming part of the Knowledge Centre for Organic Agriculture and Agroecology in Africa (KCOA) project. Since 2019, the KHSA project has been scaling up adoption of organic farming practices in the Southern African region. The KCOA comprises four other regional hubs: the North African knowledge hub, West African knowledge hub, East African knowledge hub and Central Africa knowledge hub.

The Transformative Partnership Platform on Agroecological Approaches to Building Resilience of Livelihoods and Landscapes (Agroecology TPP Communities) was launched in 2021 with the scope to address key knowledge and implementation gaps to support agroecological transitions. It aims to provide clear evidence to underpin advocacy and inform policy-makers and donors about the environmental and social benefits of agroecological approaches. The Agroecology TPP hosts a number of agroecological communities aiming at building fully inclusive and diverse communities reflecting these aims.

The National Food and Seed Festival is held annually in Harare, supported by Participatory Ecology Land Use Management (PELUM, Zimbabwe).

Access Agriculture is a non-profit that supports organic farming and agroecology whose mission is to 'enable co-creation and exchange of agroecological knowledge through quality learning videos in local languages using digital tools and innovative scaling models'.

Ecological Organic Agriculture is an Africa Union Commission-led initiative that aims to streamline ecological organic agriculture (EOA) into national, regional and continental food production systems in Africa. The initiative is currently implemented in nine African countries.

The Seed and Knowledge Initiative (SKI) is a dynamic partnership of diverse Southern African organisations committed to securing food sovereignty in the region. It works with smallholder farmers to become more seed, food and nutritionally secure through farmer-led seed systems, improved crop diversity, and the revival of local knowledge systems.

The Shashe Agroecology School in Zimbabwe is part of La Via Campesina's network of over 40 agroecological schools worldwide that promote exchange of experience through horizontal learning to disseminate agroecological AIFs.

CASE STUDIES

Le Jardin d'Eden (Benin)

Jardin d'Eden is an initiative of the NGO Solidarité Entraide Libéralité (SEL) in the Republic of Benin, which advocates a return to natural agriculture to safeguard environmental resources and the health of the population. The three-hectare farm, built according to permaculture principles in the commune of Allada, includes an orchard of 41 fruit trees, two dedicated forests, a medicinal plant garden, livestock and fish farming units, a beekeeping hive, and plantations. The 'Garden of Eden' offers local populations farmer seeds, natural agricultural products and training in agroecology. Through the production and sale of farmers' seeds, this farm contributes to a territorialisation of seeds that are better adapted to the local environment. In 2024, the NGO organised open days and a mini-fair for farmers' seeds for Benin's agricultural stakeholders. This case study, and the next, play a critical role of spotlighting an

issue (i.e., seed sovereignty) of "preciousness in informing natural regenerative food systems, and ultimately, holistic/collective well-being" (Huambachano, 2023). Since colonialism, indigenous traditions and access to traditional foods and foodways have been disrupted, imperilling people's health and well-being. The relationships between culture, sustainability and territorialisation points to dynamics nature in its interplay with culture, and the culturally varied ways in which people shape their territories. This cultural repertoire provides hands and feet to a configuration that works in the daily practice of farming. The drive for empowering agroecological entrepreneurs and strengthening territorial markets for a resilient future is more fully covered in another brief and deserves support from catalytic philanthropy to secure farmers' rights and seed sovereignty.

The Seed and Knowledge Initiative (Southern Africa)

The Seed and Knowledge Initiative (SKI) is a collaborative effort involving various organisations across Southern Africa, including South Africa, Zimbabwe, Zambia and Malawi. Its primary focus is on promoting food sovereignty in the region by working closely with smallholder farmers. SKI's approach centres on strengthening farmer-led seed systems, enhancing crop diversity and revitalising local knowledge systems. These efforts aim to improve seed, food and nutritional security for smallholder farmers.

Recently, SKI has made significant strides in documenting and analysing its work over the past decade. The initiative has released four case studies that examine the main approaches used by SKI partners to bolster farmer-led seed systems in Southern Africa. Additionally, SKI has contributed to two notable publications: *African Perspectives on Agroecology*, edited by scholar-activist Rachael Wynberg, and *Healthy Soil Healthy Food*, which is part of the Healthy Soil Healthy Food (HSHF) Initiative jointly implemented by SKI and its partners. These publications provide in-depth insights into SKI's methodologies and the impact of their work in the region.

The National Traditional Seed & Food Festival (Zimbabwe)

The idea of a festival started in the early 2000s as the ‘Seed Fair’, when a number of civil society organisations decided to create a platform to showcase indigenous seeds of Zimbabwe that had been neglected by the Agricultural Show. Since 2013, the National Traditional Seeds and Food Fair has been organised by a loose network of agroecology-leaning organisations to showcase good and healthy food and revive indigenous seed diversity and traditional technology.

In 2024, the festival was christened Zimbabwe Good Seed and Food Festival. According to one of the organisers, ‘Zimbabwe’s traditional foods and farmer-managed seed systems hold the key to building resilient, sustainable food systems that benefit both people and the environment. The Good Seed and Food Festival offers a unique platform for farmers to connect with buyers, learn from each other, and

celebrate the incredible diversity of Zimbabwe’s local foods.’

The festival gives an opportunity for seed savers, farmers, organisations, businesses and individuals to share knowledge on how to farm and produce food in harmony with nature. They sold and exchanged seed varieties and explored topics such as resilient indigenous and local crop varieties. The festival has helped strengthen networks of agroecological farmers and entrepreneurs within and across national borders in Africa to promote learning, exchange and enhance our ability to influence policies.

Such festivals help raise much-needed awareness among farmers and citizens about the threats posed by industrial agriculture and the benefits of agroecology that helps sustain the transition based on indigenous foodways.

National Dialogue on Indigenous Foods for Healthier Diets (Kenya)

The National Dialogue on the role of the private sector in increasing consumption of affordable and safe indigenous foods for healthier diets in Kenya was held on 13–14 September 2023. This National Dialogue was organised by the State Department for Crop Development in the Ministry of Agriculture and Livestock Development in partnership with private sector stakeholders and development partners. This event normally brings together a diverse group of participants, including representatives from the private sector, government, civil society, academia and

international organisations. Together, they seek to develop actionable strategies to address the challenges facing the Kenyan food system. The focus of the Dialogue is to explore strategies and collaborations aimed at increasing the availability, access, affordability and consumption of safe indigenous foods for healthier diets. The main objective is to improve nutrition, enhance food security, boost smallholder farmer incomes and preserve our rich cultural heritage.



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FURTHER READING

Moeller NI, Geck M, Anderson C, Barahona C, Broudic C, Cluset R et al. (2023) Measuring agroecology: Introducing a methodological framework and a community of practice approach. *Elementa: Science of the Anthropocene* 11(1)

Wynberg R (ed.) (2024) *African Perspectives on Agroecology: Why farmer-led seed and knowledge systems matter*. Rugby, UK: Practical Action Publishing

Anderson CR & Bruil J (2021) Shifting funding to agroecology for people, climate and nature. ActionAid

Anderson CR, Bruil J, Chappell MJ, Kiss C & Pimbert MP (2021) *Agroecology Now! Transformations Towards More Just and Sustainable Food Systems*. Palgrave MacMillan. Available at: https://library.oapen.org/bitstream/handle/20.500.12657/46819/1/2021_Book_AgroecologyNow.pdf

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*. Available at: https://cgspace.cgiar.org/bitstream/10568/75659/1/UniformityToDiversity_FullReport.pdf

Biovision Foundation (2024) *National Agroecology Strategies in Eastern and Southern Africa: Lighthouses for food system transformation*. Available at: <https://www.agroecology-pool.org/national-agroecology-strategies>

REFERENCES

- Abukutsa-Onyango MO (2007). The Diversity of Cultivated African Leafy Vegetables in Three Communities in Western Kenya. *African Journal of Food Agriculture, Nutrition and Development* 7(3): 1648–5374. Available at: <https://www.ajfand.net/Volume7/No3/editorial.html#gsc.tab=0>
- AGRA (2022) Empowering Africa's Food Systems for the Future (Issue 11). Nairobi, Kenya: AGRA
- Agrawal A (2004) Indigenous and Scientific Knowledge: Some Critical comments. *Indigenous Knowledge Monitor* 3: 1–9
- Alliance for Food Sovereignty in Africa (AFSA) (2016) Agroecology: The Bold Future of Farming in Africa. *Alliance for Food Sovereignty in Africa and Tanzania Organic Agriculture Movement*. Available at: <https://afsafrika.org/wp-content/uploads/2019/05/agroecology-the-bold-future-of-farming-in-africa-ebook1.pdf>
- Akinola R, Pereira LM, Mabhaudhi T, De Bruin FM & Rusch L (2020) A review of indigenous food crops in Africa and the implications for more sustainable and healthy food systems. *Sustainability* 12(8): 3493
- Andersen R, Vasquez VM & Wynberg R (2022) Improving Seed and Food Security in Malawi: The Role of Community Seed Banks. *FNI Policy Brief 1/2022*. Lysaker, Norway: Fridtjof Nansen Institute
- Anderson CR & Bruil J (2021) *Shifting funding to agroecology for people, climate and nature*. ActionAid
- Anderson J (1971) The Study of Contemporary Foodways in American Folklife Research. *Keystone Folklore Quarterly* 16: 155–163
- Andrews-Swann J (2023) Formulating Sustainable Foodways for the Future: Tradition and Innovation. In: *The Palgrave Encyclopaedia of Urban and Regional Futures* pp. 569–572. Cham: Springer International Publishing
- Aswani S, Lemahieu A & Sauer WHH (2018) Global trends of local ecological knowledge and future implications. *PLoS ONE* 13:e0195440. Available at: <https://www.doi.org/10.1371/journal.pone.0195440>
- Barrios E, Gemmill-Herren B, Bicksler A, Siliprandi E, Brathwaite R, Moller S et al. (2020) The 10 Elements of Agroecology: enabling transitions towards sustainable agriculture and food systems through visual narratives. *Ecosystems and People* 16(1): 230–247. Available at: <https://doi.org/10.1080/26395916.2020.1808705>
- Basson G, Ali AEE & Ludidi N (2021) Indigenous African cereal crops can contribute to mitigation of the impact of climate change on food security. *Journal of Oasis Agriculture and Sustainable Development* 3(3): 36–44
- Berkes F (2008) *Sacred Ecology* (Second ed.) Routledge
- Brellas D & Martinez V (2024) Foodways. In: *Shared Voices: An Introduction to Cultural Anthropology [Revised Edition]*. pp. 129–182
- Cartagena LB, Hegger D, Tittonell P & Runhaar H (2024) How transformative is agroecological knowledge co-creation? Insights from a systematic literature review. *Agroecology and Sustainable Food Systems* 1–27. Available at: <https://doi.org/10.1080/21683565.2024.2405885>
- Cash DW, Clark WC, Alcock F, Dickson NM, Eckley N, Guston DH et al. (2003) Knowledge systems for sustainable development. *Proceedings of the National Academy of Sciences of the United States of America* 100(14): 8086–809. Available at: <https://doi.org/10.1073/pnas.1231332100>
- Chanza N & Musakwa W (2022) Revitalizing indigenous ways of maintaining food security in a changing climate: review of the evidence base from Africa. *International Journal of Climate Change Strategies and Management* 14(3): 252–271
- Colby S (2023). Understanding Foodways and a New Way to Conference. *Journal of Nutrition Education and Behavior* 55(10): 697
- Coles B (2016) Ingesting places: Embodied geographies of coffee. In: *Why We Eat, How We Eat* pp. 255–270. Routledge
- Donor & Investor Convening (2023) Boosting Food Systems Transformation through Agroecology. Rome, Italy, 20–21 October 2023
- Edelenbos J, Van Buuren A & Van Schie N (2011) Co-producing knowledge: Joint knowledge production between experts, bureaucrats and stakeholders in Dutch water management projects. *Environmental Science & Policy* 14(6): 675–84. Available at : <https://doi.org/10.1016/j.envsci.2011.04.004>
- El Bilali H, Cardone G, Rokka S, De Falcis E, Naino Jika AK, Diawara AB et al. (2023) Sustainability transitions in West African agriculture and food systems. *Journal of Survey and Fishery Sciences* 10(4S): 1847–1865. Available at: <https://cgspace.cgiar.org/items/0b5e6992-0646-4879-90a0-5952bab2e296>
- Ewert F, Baatz R & Finger R (2023) Agroecology for a sustainable agriculture and food system: from local solutions to large-scale adoption. *Annual Review of Resource Economics* 15(1): 351–381
- Fakhri M (2024) Foreword. In: Wynberg R (ed.) (2024) *African Perspectives on Agroecology: Why farmer-led seed and knowledge systems matter*. p. xxix-xxx

- FAO, Biovision Foundation, Food Policy Forum for Change & Agroecology Coalition (2023) *Agroecology dialogue series: Outcome brief no. 3*, January 2023 – Agroecology as a response to agri-input scarcity. Rome: FAO. Available at: <https://doi.org/10.4060/cc4107en>
- Fisher H & Du Rand G (2024) A Western Cape Food Tour: Examining Indigenous Foods in Eateries Through the Lived Experience Model. In: *International Conference on Tourism Research* 7(1): 100–111
- Folke C (2004) Traditional Knowledge in Social–Ecological Systems. *Ecology and Society* 9(3). Available at: <https://doi.org/10.5751/ES-01237-090307>
- Frank T, Ng SW, Lowery CM, Thow AM & Swart EC (2024) Dietary intake of low-income adults in South Africa: ultra-processed food consumption a cause for concern. *Public Health Nutrition* 27(1): E41. Available at: <https://www.cambridge.org/core/journals/public-health-nutrition/article/dietary-intake-of-low-income-adults-in-south-africa-ultraprocessed-food-consumption-a-cause-for-concern/CFB01CC949D18022B0FC1582C3EC63C9>
- Graddy-Lovelace G, Krikorian J, Jewett A, Vivekanandan A, Stahl K, Singh IS et al. (2023) Parity as radical pragmatism: Centering farm justice and agrarian expertise in agricultural policy. *Frontiers in Sustainable Food Systems* 7. Available at: <https://www.frontiersin.org/journals/sustainable-food-systems/articles/10.3389/fsufs.2023.1066465/full>
- Gliessman S (2020) Investing in agroecology in Africa. *Agroecology and Sustainable Food Systems* 44(10): 1253–1254. Available at: <https://doi.org/10.1080/21683565.2020.1791486>
- Gliessman S (2021) Agroecology and the transition to sustainability in West African food systems. *Agroecology and Sustainable Food Systems* 45(2): 157–158. Available at: <https://doi.org/10.1080/21683565.2021.1842302>
- Global Alliance for the Future of Food (2024) Cultivating Change: A Collaborative Philanthropic Initiative to Accelerate and Scale Agroecology and Regenerative Approaches. *Global Alliance for the Future of Food*
- Greenberg S (2024) Corporate expansion in Africa seed systems: implications for agricultural biodiversity and food sovereignty. In: Wynberg R (ed.) (2024) *African Perspectives on Agroecology: Why farmer-led seed and knowledge systems matter*. pp. 165–182
- Hall BL & Tandon R (2017) Decolonization of knowledge, epistemicide, participatory research and higher education. *Research for All* 1(1): 6–19
- Herrero M, Thornton PK, Mason-D’Croz D, Palmer J, Bodirsky BL, Pradhan P et al. (2021) Articulating the effect of food systems innovation on the Sustainable Development Goals. *The Lancet Planetary Health* 5(1): E50–E62. Available at: [https://doi.org/10.1016/S2542-5196\(20\)30277-1](https://doi.org/10.1016/S2542-5196(20)30277-1)
- HLPE (2019) Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. Rome
- Hosken L (2015) Celebrating African Rural Women: Custodians of Seed, Food and Traditional Knowledge for Climate Change Resilience. *African Biodiversity Network and The Gaia Foundation*
- Huambachano M (2023) Seeding a movement: indigenous food sovereignty. *University of Miami Law Review* 78(2)
- IPCC (2019) *Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security and greenhouse gas fluxes in terrestrial ecosystems*. Geneva, Switzerland: IPCC. p. 906
- Jonsson A, Haider LJ, Pereira L, Fremier A, Folke C, Tengö M et al. (2024) Nurturing gastronomic landscapes for biosphere stewardship. *Global Food Security* 42. Available at: <https://doi.org/10.1016/j.gfs.2024.100789>
- Kerr RB, Postigo JC, Smith P, Cowie A, Singh PK, Rivera-Ferre M et al. (2023) Agroecology as a transformative approach to tackle climatic, food, and ecosystemic crises. *Current Opinion in Environmental Sustainability* 62. Available at: <https://doi.org/10.1016/j.cosust.2023.101275>
- Kozanayi W & Van Niekerk J (2024) In the wake of Cyclone Idai: a holistic look at its impact and an exploration of the resilience-enhancing potential of landscape agroecology. In: Wynberg R (ed.) (2024) *African Perspectives on Agroecology: Why farmer-led seed and knowledge systems matter*. pp. 49–67
- Kodzwa JJ, Madamombe G, Masvaya EN & Nyamangara J (2023) Optimization of African indigenous vegetables production in Sub-Saharan Africa: a review. *CABI Agriculture and Bioscience* 4(1): 44
- Kramer MR (2009) Catalytic philanthropy. *FSG*
- Kruger P, Wynberg R, Mafuyeka M, Laar A, Mialon M, Lake L et al. (2023) The ultra-processed food industry in Africa. *Nature Food* 4(7): 534–536
- Kuhnlein HV, Erasmus B & Spigelski D (2019) *Indigenous Peoples’ Food Systems: the many dimensions of culture, diversity and environment for nutrition and health*. Rome: FAO
- Kuhnlein HV & Chotiboriboon S (2022) Why and how to strengthen indigenous peoples’ food systems with examples from two unique indigenous communities. *Frontiers in Sustainable Food Systems* 6
- Lukwa AT, Wayas FA, Lambert EV, ‘Savings for Health’ IDRC collaborators, Alaba O, Foley L et al. (2024) Stakeholder mapping to explore social and economic capital of Rotating Savings and Credit Associations (ROSCAs) to increase demand for and access to healthy food. *Frontiers in Sustainable Food Systems* 8. Available at: <https://doi.org/10.3389/fsufs.2024.1301578>
- Lum CMK & Le Vayer MDF (eds) (2016) *Urban foodways and communication: Ethnographic studies in intangible cultural food heritages around the world*. Rowman & Littlefield
- Marchetti L, Cattivelli V, Coccozza C, Salbitano F & Marchetti M (2020) Beyond sustainability in food systems: Perspectives from agroecology and social innovation. *Sustainability* 12(18): 7524

- Masinde M (2015) An effective drought early warning system for Sub-Saharan Africa: integrating modern and indigenous approaches. *African Journal of Science, Technology, Innovation and Development* 7: 8–25
- Materechera SA (2021) Relevance of Indigenous Knowledge Systems in Sustaining Agriculture Under Smallholder Farming in Sub-Saharan Africa. In: Leal Filho W, Pretorius R, De Sousa LO (eds) *Sustainable Development in Africa. World Sustainability Series*. Springer, Cham. Available at: https://doi.org/10.1007/978-3-030-74693-3_3
- McKinley CE & Walters KL (2023) 'It's Always About Sharing, and Caring, and Loving, and Giving': Decolonized and Transcendent Indigenist Foodways Fostering Health and Resilience. *Adversity and Resilience Science* 4: 89–103. Available at: <https://doi.org/10.1007/s42844-022-00086-6>
- Mottet A, Bicksler A, Lucantoni D, De Rosa F, Scherf B, Scopel E et al. (2020) Assessing Transitions to Sustainable Agricultural and Food Systems: A Tool for Agroecology Performance Evaluation (TAPE). *Frontiers in Sustainable Food Systems* 4. Available at: <https://www.frontiersin.org/articles/10.3389/fsufs.2020.579154/full>
- Moyo C, Ngulube P & Kazembe C (2016) Preserving knowledge about indigenous cuisine for posterity in Zimbabwe. *Indilinga African journal of indigenous knowledge systems* 15(1): 136–152
- Mugwe J & Otieno EO (2020) Integrated soil fertility management approaches for climate change adaptation, mitigation, and enhanced crop productivity. *Handbook of Climate Change Management: Research, Leadership, Transformation*. pp. 1–22
- Munoz-Araya M, Williams SR, Geoghan P, Ortiz-Gonzalo D, Marshall KN, Brewer KM et al. (2024) A knowledge creation framework for academia toward agroecological transformations of food systems. *Frontiers in Sustainable Food Systems* 8
- Nxusani ZN, Zuma MK & Mbhenyane XG (2023) A systematic review of indigenous food plant usage in Southern Africa. *Sustainability* 15(11): 8799
- Oettlé N, Arendse A, Koelle B & Van der Poll A (2004) Community Exchange and Training in the Suid Bokkeveld: A UNCCD Pilot Project to Enhance Livelihoods and Natural Resource Management. *Environmental Monitoring Assessment* 99: 115–125. Available at: <https://doi.org/10.1007/s10661-004-4011-9>
- Oritsejafor EO (2022) Indigenous Knowledge: An Alternative for Food Security and Wellness in Africa. *Rowman & Littlefield*
- Orr A, Mwema C, Gierend A & Nedumaran S (2016) *Sorghum and Millets in Eastern and Southern Africa: Facts, Trends and Outlook*. Working Paper Series No. 62. ICRISAT Research Program, Markets, Institutions and Policies. Patancheru 502 324, Telangana, India: International Crops Research Institute for the Semi-Arid Tropics. p. 76
- Owusu-Kwarteng J, Kehinde B, Ohomeng-Boahen G, Kojo Aduampong Mantey J, Decardi-Nelson T & Agyei D (2024) The role of indigenous and traditional foods in achieving food security in Africa: A bibliometric snapshot and farm-to-fork perspective. *CABI Reviews*
- Pereira LM, Kushitor SB, Cramer C, Drimie S, Isaacs M, Malgas R et al. (2022) Leveraging the potential of wild food for healthy, sustainable, and equitable local food systems: learning from a transformation lab in the Western Cape region. *Sustainability Science*. pp. 1–20
- Sousa F, Zingerli C & Pomalegni SCB (2024) Knowledge sharing to improve the sustainability of food systems in West Africa: Lessons learned from the Food Systems Caravan. *Knowledge Management for Development Journal* 18: 13–30
- Tutundjian S, Clarke M, Egal F, Dixon-Decleve S, Candotti SW, Schmitter P et al. (2020) Future food systems: challenges and consequences of the current food system. *The Palgrave Handbook of Climate Resilient Societies*. pp. 1–29
- Two Loops (2020) Two Loops. *Great Transition Stories*. Available at: <https://greattransitionstories.org/patterns-of-change/two-loops/>
- Upadhyay K (2024) Agriculture's Interconnectedness: Nourishing Food, Protecting the Environment, and Cultivating Culture. *Journal of Advanced Research in Agriculture Science and Technology* 7(1): 1–5
- Van Ewijk E & Ros-Tonen MAF (2021) The fruits of knowledge co-creation in agriculture and food-related multi-stakeholder platforms in Sub-Saharan Africa – A systematic literature review. *Agricultural Systems* 186. Available at: <https://doi.org/10.1016/j.agsy.2020.102949>
- Van Niekerk J & Wynberg R (2017) Traditional seed and exchange systems cement social relations and provide a safety net: A case study from KwaZulu-Natal, South Africa. *Agroecology and Sustainable Food Systems* 41: 1099–1123. Available at: <https://doi.org/10.1080/21683565.2017.1359738>
- Vermunt DA, Negro SO, Van Laerhoven FSJ, Verweij PA & Hekkert MP (2020) Sustainability transitions in the agri-food sector: How ecology affects transition dynamics. *Environmental Innovation and Societal Transitions* 36: 236–249. Available at: <https://doi.org/10.1016/j.eist.2020.06.003>
- Willis J, Losch B & Pereira LM (2024) NUS so fast: the social and ecological implications of a rapidly developing indigenous food economy in the Cape Town area. *Sustainability Science* 19(5): 1595–1607
- Wezel A, Herren BG, Kerr RB, Barrios E, Gonçalves ALR & Sinclair F (2020) Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review. *Agronomy for Sustainable Development* 40: 1–13
- Whittingham J, Marshak M & Swanby H (2024) Unsettling modernist scientific ontologies in the regulation of genetically modified crops in South Africa. In: Wynberg R (ed.) (2024) *African Perspectives on Agroecology: Why farmer-led seed and knowledge systems matter*. pp. 237–253
- Wynberg R (ed.) (2024) *African Perspectives on Agroecology: Why farmer-led seed and knowledge systems matter*. Rugby, UK: Practical Action Publishing
- Yilmaz MS (2023) Fonio (*Digitaria* Spp.) and Its Potential for Use in Foods. *Some Novel Applications in The Food Industry*. pp. 105–124

ENDNOTES

1 The term 'foodways' is used by anthropologists to describe the role of food in culture. Foodways encompass a wide range of cultural practices, norms, and attitudes surrounding food and eating. These include: (1) social, economic, and ritual practices related to food acquisition, preparation, sharing, and consumption (Brellas & Martinez 2024); (2) influences from culture, religion, tradition, geographic location, climate, time periods, politics, and socio-demographic power differentials (Lum & Le Vayer 2016); (3) Jay Anderson's 1971 definition: 'the whole interrelated system of food conceptualization and evaluation, procurement, preservation, preparation, consumption

and nutrition shared by all the members of a particular society'(Anderson 1971); (4) additional constructs such as attitudes, beliefs, knowledge transfer, activism, justice, folklore, symbolism, and tradition (Colby,2024); (5) food production aspects, including gathering, presentation, distribution, marketing, and food waste (Colby 2024); and (6) complex interactions of factors affecting food access and experiences at various levels, from global to hyper-local (Andrews-Swann 2023). Understanding foodways provides insights into the intricate relationships between food and cultural identity, social structures, and environmental factors within a society.



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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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