AFSA

ALLIANCE FOR FOOD SOVEREIGNTY IN AFRICA

# POLICY BRIEF

## ADAPTATION, RESILIENCE AND MITIGATION THROUGH AGROECOLOGY

# *Advancing agroecology as a central pathway for locally-led adaptation, resilient food systems, and just transitions in Africa*

## Introduction

African food systems are facing a multi-faceted web of crises shaped by climate change, biodiversity loss, land degradation, rising food prices, debt distress, and widening inequalities, but also by current geopolitical tensions that are reshaping global food, energy, fertilizer, and finance systems. Ongoing conflicts, trade disruptions, unfavorable policies, shrinking development finance, and the concentration of corporate power in global food and input markets have exposed the vulnerability of food systems that depend heavily on imported fertilizers and volatile international supply chains. This has been more challenging for Africa, where the majority of food is produced by small-scale farmers, pastoralists, fisherfolk, and indigenous communities. For such a continent vulnerable to the climate crisis, these pressures are deepening food insecurity, increasing production costs, weakening local markets, and threatening livelihoods.

The Sharm el-Sheikh Joint Work on the Implementation of Climate Action on Agriculture and Food Security (SJWA), the ongoing operationalisation of the United Arab Emirates Just Transition Work Programme (JTWP) and advancing work on adaptation under the Global Goal on Adaptation (GGA), including the emerging Belem Addis Vision, are collectively key thematic areas for discussing the future of agriculture and food systems within global climate action.

For Africa, these discussions are existential, as agriculture remains the backbone of livelihoods, local economies, ecological stewardship, and food provisioning across the continent. Yet African food systems remain among the most vulnerable globally to climate change despite the continent contributing only a small share of historical greenhouse gas emissions. Climate change has reduced agricultural productivity growth in Africa immensely and across many African countries, rising temperatures, erratic rainfall patterns, prolonged droughts, floods, and ecosystem degradation are disrupting agricultural calendars, reducing crop and livestock productivity, and threatening food security. Current projections indicate that yields of key staple crops such as maize, millet, and sorghum could decline by about 30% in several African countries by 2050 if adaptation measures remain inadequate. The climate crisis also is estimated to cost African economies up to 5% of GDP annually, while increasing food insecurity and vulnerability among millions of smallholder farmers who depend on rain-fed agriculture.

At the same time, dominant responses to climate change in agriculture continue to privilege industrial production systems, technological dependency, carbon-centric approaches, and corporate-led transitions that fail to address the structural and systemic causes of vulnerability, inequality, ecological degradation, and food insecurity. Such approaches risk reinforcing existing injustices while undermining local resilience, biodiversity, and food sovereignty.

> SB64 therefore presents a critical opportunity for Parties to move beyond procedural dialogue toward implementation oriented outcomes that advance sustainable food systems and agriculture within climate action.

The Alliance for Food Sovereignty in Africa (AFSA) presents agroecology as a holistic and people centered approach that offers a transformative, holistic, and justice-centered pathway for climate action in agriculture and food systems. Agroecology advances climate adaptation, resilience, biodiversity conservation, mitigation co-benefits, ecosystem restoration, dignified livelihoods, territorial markets, and democratic governance of food systems. As recognized by the High Level Panel of Experts (HLPE), the Food and Agriculture Organization (FAO), and the Intergovernmental Panel on Climate Change (IPCC), agroecology strengthens the capacity of farming systems to withstand shocks and adapt to changing environmental conditions while reducing dependence on synthetic inputs and strengthening biodiversity.

The 64th session of the UNFCCC subsidiary bodies (SB64) therefore presents a critical opportunity for parties to move beyond just talks, toward implementation oriented outcomes that advance sustainable food systems and agriculture within climate action. This requires not just continuity but clear actions and outcomes beyond the SJWA,

integrating sustainable agriculture and food systems approaches such as agroecology within just transition frameworks, strengthening locally led adaptation approaches, and expanding equitable access to climate finance and means of implementation for frontline communities.

## SJWA and the future of agriculture and food systems under the UNFCCC

The establishment of the four-year Sharm el-Sheikh Joint Work on the Implementation of Climate Action on Agriculture and Food Security (SJWA) at COP27 marked an important political milestone in recognizing the central role of agriculture and food systems in addressing the climate crisis. Decision 3/CP.27 expanded the scope of discussions to include food security and implementation, reflecting growing recognition that agriculture is not only highly vulnerable to climate change but also essential to achieving adaptation, resilience, and sustainable development objectives.

The SJWA has also helped create political space for more holistic discussions on food systems transformation for example during this 4-year programme, parties and observers have increasingly highlighted the need for systemic approaches that simultaneously address climate adaptation, mitigation, biodiversity loss, food security, livelihoods, and social equity. Agroecology has emerged as one of the most prominent and widely recognized approaches and its popularity was particularly evident during the first in-session workshop on holistic and systemic approaches to achieving climate action on agriculture and food security held at SB62 in Bonn in June 2025. During the workshop, agroecology was highlighted by the African Group of Negotiators, the European Union, the Least Developed Countries (LDC) Group, and observer constituencies including Environmental NGOs, Indigenous Peoples Organisations, and Youth NGOs as a holistic approach capable of simultaneously advancing adaptation, resilience, biodiversity conservation, food security, and sustainable livelihoods. The increasing convergence around agroecology reflects a growing understanding that addressing climate change in agriculture requires approaches that work with ecological systems rather than against them. Also, during COP30, agroecology was stated as a stand alone paragraph within the draft decision of the agriculture negotiations, which will be negotiated at the SB64.

Agroecology is supported by scientific evidence and international policy processes. The High Level Panel of Experts on Food Security and Nutrition (HLPE), the Food and Agriculture Organization of the United Nations (FAO), and the Intergovernmental Panel on Climate Change (IPCC) have all recognized the contribution of agroecological approaches to climate resilience, biodiversity conservation, soil restoration, and sustainable food systems. Agroecology strengthens ecological integrity while reducing dependence on external inputs, strengthening local seed systems, supporting territorial markets, and enhancing the adaptive capacity of farming communities.

As the SJWA approaches its conclusion, the joint work programme should provide the foundation for a strengthened implementation oriented framework that places agroecology at the centre of future climate action in agriculture and food systems.

Delays in operationalizing implementation mechanisms directly translate into worsening vulnerability for millions of small-scale food producers already facing escalating climate shocks.

The second in-session workshop under the SJWA, to be held at SB64 and focused on identifying needs and improving access to means of implementation for climate action in agriculture and food security, will also be an important opportunity to advance agroecology and lobby for its support. Discussions on finance, capacity building and technology development and transfer should focus on how these means of implementation can support agroecological transition led by frontline communities including small-scale food producers, indigenous people and pastoralists, women, and youth.

AFSA therefore encourages parties to ensure that future work on agriculture and food systems under the UNFCCC explicitly recognizes agroecology as a holistic and systemic approach to climate action. Future agriculture processes should support the scaling up of agroecological transitions through enhanced finance, strengthened capacity-building systems, technology development and transfer that builds on local knowledge and innovation, and policies that protect biodiversity, seed sovereignty, land rights, and community resilience.

## Agriculture and food systems within just transition

The United Arab Emirates Just Transition Work Programme (JTWP) was established at COP28 through Decision 3/CMA.5 as a platform for parties and stakeholders to discuss pathways for achieving the goals of the Paris Agreement in a manner that is equitable, inclusive, and supportive of sustainable development. The programme recognizes that climate action has important social and economic dimensions and that transitions must contribute to poverty eradication, decent work, and sustainable livelihoods while ensuring that no one is left behind. Since its establishment, parties have engaged in a series of dialogues exploring how just transitions can support climate action while addressing national development priorities and differing national circumstances.

Discussions under the programme have increasingly focused on practical actions, means of implementation, and approaches for translating just transition principles into national policies and sectoral transformation pathways. The Belem Action Mechanism that emerged out of COP30 discussions in Brazil has been rendered as space to support implementation and strengthen cooperation around just transition priorities, particularly in developing countries where climate action and development objectives are deeply interconnected.

Despite these important developments, global just transition discussions remain heavily centered on energy systems, industrial decarbonization, and labour transitions, while agriculture and food systems continue to receive insufficient political attention. For continents like Africa, where agriculture remains the foundation of livelihoods, employment, food security, and rural economies, just transition can be determined as much by the transformation of food systems to sustainability.

Agroecology provides one of the most comprehensive pathways for realizing just transitions in agriculture and food systems because it simultaneously addresses the environmental, social, economic, and cultural dimensions of transformation. Unlike conventional approaches that focus narrowly on increasing productivity or reducing emissions, agroecology seeks to transform the underlying structures that render current food systems vulnerable and inequitable. Agroecology also enables agricultural systems to adapt to climate change while maintaining their productive capacity and at the same time reduce dependence on costly external inputs while strengthening local community resilience.

Also, most importantly agroecology aligns closely with the core principles of a just

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transition because it places people, rather than commodities, at the centre of transformation. It strengthens dignified rural livelihoods, supports local employment, and reinforces territorial food markets that connect producers and consumers within local and regional economies. AFSA therefore encourages parties at the SB64 to put agriculture and food systems as central pillars of the JTWP and the emerging Belem Action Mechanism while embracing agroecology as a pathway to achieving these just transitions. A just transition in agriculture should not simply refer to technological modernization or emissions reductions within production systems but rather, it should be understood as a transformative process through which food systems move toward ecological sustainability, social justice, climate resilience, democratic governance, and dignified livelihoods while ensuring that no community or food producer is left behind.

## Adaptation, the Global Goal on Adaptation, and the Belem Addis Vision

Adaptation is a central climate action pillar particularly for developing countries that are already experiencing severe climate impacts despite contributing least to global greenhouse gas emissions. Since the establishment of the Global Goal on Adaptation (GGA) at COP26 and the subsequent adoption of the UAE Framework for Global Climate Resilience at COP28, Parties have worked to operationalize the Global Goal on Adaptation by defining targets, developing indicators, and strengthening mechanisms for tracking progress and implementation.

At the recently concluded COP30, progress was made in recent negotiations through the UAE - Belem Work Programme, which advanced the technical work required to support the implementation of the GGA and a new roadmap Belem – Addis Vision was agreed upon to end at COP32. Discussions have increasingly focused on how adaptation commitments can be translated into action at national and local levels, how adaptation finance can be scaled up, and how developing countries can be supported in addressing growing adaptation needs. These discussions are expected to continue under the Belem – Addis Vision until COP32.

As Parties gather at SB64, the focus is increasingly shifting from the development of frameworks and indicators towards implementation and the key question is no longer whether adaptation is important, but how adaptation support can reach communities on the frontlines of climate change and how global commitments can be

translated into tangible outcomes on the ground. For Africa, where agriculture remains highly vulnerable to climate impacts and supports the livelihoods of millions of people, the effectiveness of adaptation efforts will largely determine future food security, rural livelihoods, and resilience.

As implementation under the GGA and the Belem - Addis Vision advances, AFSA calls for greater recognition of agroecology as a key adaptation pathway for agriculture and food systems. This includes increasing support for locally led adaptation initiatives, strengthening community institutions, expanding access to adaptation finance for small-scale food producers, and ensuring that adaptation investments contribute simultaneously to resilience, biodiversity conservation, food sovereignty, and sustainable livelihoods. Adaptation efforts will only succeed if they are rooted in the knowledge, priorities, and leadership of the communities most affected by climate change.

## Means of implementation and climate finance

Across all three thematic areas under discussion at SB64 including agriculture, just transition, and adaptation, the question of means of implementation remains central. Without equitable access to finance, technology, and capacity building, implementation gaps will continue to undermine climate action across Africa.

Frontline communities, especially small holder farmers, pastoralist communities face persistent barriers in accessing climate finance due to complex procedures, institutional fragmentation, weak direct access mechanisms, and financing approaches that privilege large-scale actors and externally driven projects.

Despite increasing global commitments on climate finance, adaptation remains significantly underfunded. Existing flows continue to fall far below estimated adaptation needs for developing countries, while much of the available finance remains inaccessible to local communities. The United Nations Environment Programme estimates that developing countries could require between USD 215 – 387 billion USD annually for adaptation by 2030. Furthermore, climate finance is too often delivered through loans rather than grants, increasing debt burdens for already vulnerable countries and communities.

Means of implementation must support transformative, community-led approaches rather than reinforcing industrial agricultural pathways or carbon driven interventions that risk exacerbating inequalities and ecological harm. This requires simplified and enhanced direct access modalities, long-term and programmatic financing approaches, transparent tracking of financial flows to local actors, and safeguards protecting land rights, biodiversity, water resources, and seed sovereignty.

Capacity building must similarly move beyond short-term technical trainings toward strengthening farmer to farmer learning systems, participatory research, community-led extension systems, and local institutions capable of supporting long term resilience and adaptation. Technology development and transfer should also prioritize locally adapted, accessible, and non-dependent technologies grounded in local innovation systems and traditional knowledge.

SB64 represents a defining political moment for the future of agriculture and food systems within global climate governance. For Africa, the stakes could not be higher as the climate crisis is already intensifying food insecurity, ecological instability, and livelihood vulnerability across the continent.

## AFSA therefore urges parties at SB64 to;

1. Recognize agroecology not as a marginal alternative, but as a central pathway for equitable adaptation, just transitions, biodiversity restoration, and sustainable food systems transformation.

2. Ensure that agriculture and food systems remain firmly embedded within implementation-oriented climate processes that prioritize locally led adaptation, equitable access to finance, protection of community rights, democratic governance of food systems, and the leadership of small-scale food producers, women, youth, pastoralists, fisherfolk, and indigenous peoples in future work.

3. Establish accountability and transparency mechanisms in climate finance and adaptation implementation to ensure that resources reach those that need them the most to deliver real impact on the ground.

4. Strengthen technology development and transfer by prioritizing locally adapted, accessible, and non-dependent technologies that build on indigenous and traditional knowledge systems.

5. Invest in long-term capacity-building systems that strengthen cross learning, participatory action research, community-led extension services, territorial market development, and local institutions capable of supporting sustainable and locally led adaptation.

# ANNEX 1

## Why agroecology is holistic and systemic in building resilience to African agriculture against climate change

Agroecology is a science , a practice and a social movement that draws on ecological principles such as diversity, synergy, recycling, and many others to establish sustainable and resilient agriculture and food systems. According to the High Level Panel of Experts (HLPE, 2019), agroecology which is endorsed by international bodies including the FAO through its Scaling up Agroecology Initiative (FAO, 2018) and acknowledged by the International Panel of experts on Climate Change (IPCC) enhances the capacity of farming systems to withstand shocks and adapt to changing environmental conditions and has potential to mitigate emissions and enhance climate resilience. Unlike industrial agricultural systems, it regenerates soil health, boosts agricultural biodiversity, strengthens community and grassroots movements, and reduces dependence on synthetic inputs.

### Policy momentum

A growing number of African governments are slowly but steadily recognising agroecology as a vital approach to climate change adaptation and mitigation, which has seen countries like Kenya, Botswana, Benin, Burkina Faso Togo develop and launch National Agroecology Strategies, where as Senegal, Mali, Togo, Zimbabwe, and Uganda are in advanced stages of developing their national agroecology strategies.

AFSA has played a catalytic role in facilitating multi-stakeholder consultations that have informed these strategies for example, the Agroecology for Climate Action (A4CA) campaign, involving over 10 African countries, has seen the continued engagement of and collaboration between non state actors and governments to adopt and institutionalise Agroecology as a vehicle for climate change adaptation and mitigation in agriculture policies across Africa.

### Strong social movements and community resilience

Agroecology fosters strong community networks among farmers, enhancing their collective resilience and cohesion in the face of climate shocks. Agroecology strengthens the cohesiveness of farmer groups by fostering community-based knowledge sharing, reciprocal practices, and mutual support systems in the face of climate shocks. After Cyclone Idai hit Zimbabwe in 2019, agroecological farmers in eastern and southern regions quickly mobilized and demonstrated remarkable solidarity by engaging in widespread seed exchanges. Through these relationships, communities exchanged local seeds and knowledge, enabling rapid restoration of food production and demonstrating the social resilience embedded in agroecological systems (Chikukwa et al., 2023).

### Practical evidence on ground

Drawing on comprehensive research conducted across more than ten African countries, national-level consultations with diverse stakeholders, and over 100 documented case studies on agroecology, it is critical to recognize the transformative potential of agroecology in addressing the continent's escalating climate vulnerabilities. These findings are reinforced by global scientific consensus, including reports from the Intergovernmental Panel on Climate Change (IPCC) which show that extreme weather events will increase food insecurity risks, food price rises, reduced food diversity, and reduced income for agricultural and fishers' livelihoods

Agroecological practices such as composting, mulching, crop rotation, and the use of green manure significantly enhance soil fertility. Studies from Malawi show that agroecological techniques like legume intercropping restore nitrogen levels in the soil, reducing the need for expensive synthetic fertilizers (Snapp et al., 2010). In Tanzania, farmers reported access to more than 30 different food crops annually, enhancing nutrition and food sovereignty (Biovision Foundation, 2022).

Agroecology minimizes dependence on external inputs like synthetic fertilizers and pesticides. In Senegal, farmers reduced their production costs by up to 60% after switching to agroecological practices, allowing them to reinvest in local savings and cooperatives.

As the climate crisis continues to threaten pollinators, reducing agricultural production, agroecological landscapes support pollinators, pest predators, and microbial biodiversity. A study in Burkina Faso recorded a 25% increase in bee populations and native flora after farmers integrated agroforestry and organic farming techniques (IFOAM, 2020).

Agroecology emphasizes inclusive, community-led development where African women play a central role in seed saving, local food markets, and household nutrition. In Uganda, female-led agroecology groups documented improved access to land and decision-making at village level (PELUM Uganda, 2021).

With Africa being a continent with the highest unemployment rates, agroecology provides economic viability and accessibility to markets for the youthful continent through agroecological entrepreneurship. In Zimbabwe, farmers practicing agroecology have better access to territorial markets that favour organic, indigenous, and healthy agricultural and food products. This ensures minimal food miles, waste reduction, and shorter value chains (AFSA, 2023).

Knowledge sharing is critical for Africa and agroecology integrates traditional agricultural knowledge that has sustained communities for generations. In Sahelian countries, knowledge of drought-resistant crops and soil restoration techniques has been successfully integrated into agroecological programs (Practical Action, 2019).

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