ALLIANCE FOR FOOD SOVEREIGNTY IN AFRICA

BRIEFING PAPER

WHY AGROECOLOGY IS CRITICAL AND SYSTEMIC IN BUILDING RESILIENCE TO AFRICAN AGRICULTURE AGAINST CLIMATE CHANGE

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Introduction

This paper explicitly exhibits the viability of agroecology in building resilience of African agriculture to the climate crisis. The Sharm El Sheikh Joint Work on Implementation of Climate Action on Agriculture and Food Security (SJWA) provides a strategic platform to embed holistic and inclusive approaches to achieving climate resilient agriculture. Africa, being the region most affected by climate variability, must prioritize transformative approaches that go beyond normal declarations, especially **agroecology**, which offers a systemic, evidence based solution tailored to Africa's agricultural landscape.

Over 60% of Africa's population depends on agriculture for their livelihood, making it the continent's largest source of employment and income, particularly in rural areas (World Bank, 2021). In many African countries, agriculture contributes between 20% to 40% of national GDP, underscoring its critical role in economic development and food security. In Ethiopia for example, agriculture accounts for approximately 33% of GDP, while in countries like Sierra Leone and Chad, agriculture accounts for over 50% (FAO, 2023; World Bank Data, 2024). Given this heavy reliance, any disruption to agricultural productivity including challenges caused by climate change, poses severe socio-economic risks.

Africa's agriculture is predominantly reliant on rain fed farming systems, making it vulnerable to the impacts of climate change (IPCC, 2022). Unlike wealthier, industrialized nations that benefit from climate buffers such as irrigation infrastructure, insurance schemes, and advanced technology, hundreds of millions of African farmers lack comparable safety nets (GCA, 2023). Climate change has already slashed agricultural productivity growth in Africa by 34% since 1961, more than any other region globally (Ray et al., 2019).

Projections indicate that future warming will further jeopardize African food systems by shortening growing seasons, intensifying water scarcity, and escalating the frequency of extreme weather events (IPCC, 2022). If global temperatures rise beyond 2°C, yields of staple crops such as maize, millet, and sorghum are expected to decline significantly across most of the continent, deepening food insecurity and rural poverty (Parkes et al., 2018).

Why Agroecology

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.

During the SB62 in Bonn, Germany in June 2025, Agroecology was presented on as a vital holistic approach towards building climate action on agriculture and food systems, by the African Group of Negotiators, the European Union, the Least Developed Countries (LDCs) group and observer organisations including Environmental Non-Governmental Organisations (ENGO), Youth Non-Governmental Organisations (YOUNGO), indigenous peoples organisations (IPOs) during the first in session workshop on holistic and systemic approaches to achieving climate action on agriculture and food security, during the SB62.

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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