

## Concept Note Parallel Session 2:

### Improving Climate Resilience and Sustainability of Farming and Food Systems: Exploring the Contribution of Agroecology

Durban, South Africa  
6<sup>th</sup> June 2023, from 11:00 to 13:00  
Accra Room

#### Hybrid Session | Registration Link

<https://farafrica.zoom.us/meeting/register/tZEsc-CrrTotGdatgI99o9irKRI-FwxNyIY>

#### Context

Agriculture and food systems are highly exposed and vulnerable to climate change and variability. Increasing temperatures, increasing heat waves, dry spells and droughts, more frequent and intense rainfall events, and the unpredictability of rainfall intersect with socioeconomic, political, and environmental factors (Trisos et al., 2022). The effects of the climate crisis put pressure on domestic food systems and on ecosystems with social and environmental impacts including higher health risks and the emergence of new pests and diseases for plants, animals, and humans.

To achieve food security alongside other social, environmental, and economic outcomes, there is a need for a transition towards more climate-resilient, inclusive, nutrition-sensitive, and sustainable farming and food systems. There is widespread agreement on the need to improve and diversify production while respecting the environment, but not on how this may be achieved amongst stakeholders in the diverse farming and food systems of Africa. At the global level, there is increasing interest in agroecology (variously as a science, practice, and social/ political movement) in relation to sustainable farming and food systems (HLPE, 2019; Carlile and Garnett, 2021; Wezell et al, 2022). In the most recent set of IPCC reports, Trisos et al (2022) conclude that ecosystem-based adaptation can reduce climate risk while providing social, economic, and environmental benefits and that agroecological practices can increase the resilience and sustainability of food systems in the African region. The 15th Conference of Parties to the UN Convention on Biological Diversity target 10 states the need for a substantial increase in the application of biodiversity-friendly practices, such as sustainable intensification, agroecological, and other innovative approaches.

In line with agroecology, agro-biodiversity at the farm and landscape level, including agroforestry and mixed cropping and integration of neglected and underutilized species (NUS), has a critical role to play in better meeting the nutritional needs of rural and urban communities, to create income-generating opportunities for youth, farmers, and women and to help respond to climate change and its effects on agriculture. Mainstreaming NUS into local food production systems would increase the resilience of the livelihood system of rural and remote communities and strengthen their socio-economic development (Padulosi et al., 2013).

In order to be more productive, resilient, and sustainable, agricultural actors and systems must adapt to local socioeconomic, cultural, and environmental conditions. Some of the agricultural practices to consider to increase climate change resilience and adaptation include (i) Diversification of crop and livestock species and varieties; (ii) Use of climate-resilient and sustainable practices and technologies to improve the efficiency of farming systems and help to reduce greenhouse gas emissions (e.g. the use of traditional plant varieties and stress-tolerant NUS, precision irrigation, conservation tillage, the use of renewable energy sources, water conservation, etc.); (iii) Integrated pest and weed management strategies, including the use of biological controls, crop rotation and intercropping, cover cropping and the planting of pest-resistant crop varieties; (iv)

Agroforestry and livestock farming systems to contribute to improving soil health, reducing erosion and CO<sub>2</sub> emissions, and providing shade for crops and livestock.

Andrieu and Kebede Y (2020) suggest that agroecology supports climate change adaptation and mitigation outcomes most directly by promoting resilience, diversification, efficiency, synergies, circular economy, recycling, and co-learning. Significant evidence that agroecological approaches that involved the whole system support climate change adaptation was found in a systematic review of 110 studies. Among agroecological elements, biological diversification on farms consistently had strong positive climate change adaptation and mitigation impacts (impacts of diversification on pollination, pest control, nutrient cycling, water regulation, and soil fertility). Padulosi et al. (2015) and Adhikari et al. (2019) suggest that NUS hold great potential to address critical challenges, such as poverty, hunger, malnutrition, and climate change, due to their capacity to grow under marginal low input conditions and high nutritional values. In addition to this, these species tend to be managed with traditional indigenous knowledge, use informal seed sources, have a potential role in mitigating risk in agricultural production systems, and involve a strong gender element (Padulosi et al., 2013).

The European Union has developed several strategies that constitute the policy framework for supporting agroecology in third countries. Such a framework has three main pillars. The first is the [Farm to Fork Strategy](#), the heart of which aims to make it [environmentally](#) friendly. The second pillar is the [EU Biodiversity Strategy for 2030](#) which acknowledges the significant role that agroecology can play in underpinning food system transformation, biodiversity conservation, and sustainable agricultural practices. The third pillar is the [Comprehensive Strategy with Africa](#), which calls for the EU and Africa to join efforts to reach the Sustainable Development Goal of zero hunger and to address the challenges of nutrition and food security by boosting safe and sustainable agri-food systems.

In recent years, IFAD deepened its interest in agroecology and nature-based solutions as witnessed by the participation in the Agroecology Coalition and the ongoing development of technical guidance and how-to-do-note on agrobiodiversity and agroecology. The Fund performed a review of its portfolio aimed at developing a framework to assess how IFAD operations are investing in agroecology and at identifying good practices, gaps, and opportunities to leverage agroecology for strengthening resilience, income generation, nutrition, and food systems sustainability. This stock take was conducted at the farm, landscape, market, and policy levels and revealed that 60% of IFAD projects are supporting agroecology practices.

CAADP-XP4 organizations – namely FARA, AFAAS, ASARECA, CCARDESA, and CORAF – are active in researching and promoting the adoption of climate smart agriculture, as well as specific agroecological approaches contributing to more resilient and sustainable agricultural systems. This will require evidence-based multi-stakeholder partnerships, dialogue and co-learning around agroecology to inform strategies and policy processes at national, regional and continental level. In its role of facilitating agency, The European Commission (DG INTPA) through DeSIRA-LIFT contributed to the 2022 Biennial Africa Climate-Smart Agriculture Stakeholder Conference, organized by FARA and held in Ghana on 14-16 September 2022 organizing [two events](#) highlighting the key contribution of agroecology to climate change adaptation and mitigation and with multi-stakeholder perspectives. Farmer organizations, private-sector operators, including micro, small, and medium-sized enterprises and smallholders, financial institutions, and African and European policymakers presented agroecological innovations and solutions in Africa, highlighting the drivers of the agroecological transition supporting economic, social, and environmental dimensions of sustainability.

Transitioning towards climate-resilient, inclusive, nutrition-sensitive, and sustainable farming and food systems requires the engagement of all stakeholders in a particular context. A clear process is needed to enable governments, farmers, other citizens, researchers, the private sector, civil society, development partners, and others to engage and learn together to co-design and support (including with appropriate financial resources) the transitions. To explore the potential for climate-resilient solutions in a particular context, stakeholders need to engage in a safe environment where different world views, experiences, and evidence bases can be shared through a structured learning process involving dialogue and deliberation around agroecology, climate resilience, and sustainable farming and food systems. This can help to inform decisions throughout society and the economy.

This dialogue will engage in learning amongst various actors to explore how agroecological practices may contribute to climate resilience and sustainable farming and food systems in Africa.

## Objectives

This session will bring together diverse stakeholders to:

1. Share experiences and evidence of how and to what extent agroecology contributes to climate change resilience and sustainability of farming and food systems in Africa.
2. Discuss how attention to agroecology and agrobiodiversity could inform the transition to a more sustainable and resilient food system in Africa; including how policy processes may need to change.
3. Explore how to take forward agroecology as a way to support the transition to more climate-resilient and sustainable farming and food systems in Africa, including specific actions and policies.

## Programme

### Facilitation

Wole Fatunbi, Researcher and Senior Technical Cluster Leader/Innovation Systems Specialist, FARA  
Isolina Boto and Richard Lamboll, DeSIRA-LIFT

Sr	Time	Activity
<b>A</b>	11:00 – 11:15	<b>Introductory Remarks</b> FARA Christophe Larose, DG INTPA, European Commission
	11:15 -11:40	<b>Keynote Presentations</b> 1. <b>Sara Namirembe</b> , STEPUP Standard Limited, Uganda 2. <b>Sara Savastano</b> , Director, Research & Impact Assessment Division, IFAD
<b>B</b>	11:40 – 12:30	<b>High-level Panel Discussion</b> Theme: Options for leveraging Agroecology and Agrobiodiversity for climate resilience and food systems transition Panellists 1. <b>Carlo Fadda</b> (Alliance of Bioversity and CIAT), Kenya 2. <b>Mamadou Goïta</b> , (IRPAD), Mali 3. <b>Million Belay</b> (AFSA), Uganda 4. <b>Noel Oettle</b> , (ASA), South Africa 5. <b>Samuel Rigu</b> , SAFI Organics Ltd, Kenya 6. <b>Afantchawo Koudasse</b> , President, Youth College ROPPA, Togo
<b>C</b>	12:30-12:55	<b>Audience interactions (Q&amp;A)</b>
<b>D</b>	12:55 -13:00	<b>Wrap-up</b> Key issues Way forward