



# Equitable food systems: advancing food security and building resilience

Context: **why global food systems matter for climate change and biodiversity**

- Current commercial food systems are driving **one third** of global greenhouse gas emissions, serving as a primary cause of biodiversity loss and threatening food security due to their vulnerability to climate shocks.
- Industrial food systems are increasingly finalised as a **primary driver of biodiversity loss** globally, with agricultural expansion expected to account for **70% of the projected loss** of terrestrial biodiversity.
- Commercial food systems are also negatively **impacted by climatic shocks**, threatening **food security**.

## Global policy consensus: transform food systems

- The Kunming Global Biodiversity Framework (GBF) recognises the inextricable link between food security and biodiversity loss, calling for sustainably managed agriculture through biodiversity friendly practices such as agroecology, to contribute to resilience and food security ([Target 10](#)).
- [SDG 2](#) links the achievement of zero hunger to the promotion of sustainable agriculture and resilient food systems, noting that food insecurity is exacerbated by climate change. States have widely acknowledged the need to [scale up adaptation](#) to reduce the vulnerability of food producers and promote food security, focusing on women, children and youth, Indigenous peoples, smallholders, family farmers, local communities, and people with disabilities.
- Measures to strengthen the participation and position of small-scale producers and support their organising (such as through farmers’ and fishers’ cooperatives) are recognised as a crucial component of an effective rights-based approach for addressing food security in [NORAD’s food security strategy](#). Strengthening women’s land tenure is a pillar of [Global Affairs Canada’s approach](#) to food security, sustainable agriculture, and poverty reduction.
- The UNFCCC [Sharm el-Sheikh Joint Work on Implementation of Climate Action in Agriculture and Food Security](#) recognises the critical role of agriculture in climate change and the need for concrete action on adaptation and mitigation. It underlines the importance of context-specific, holistic approaches to agriculture and food systems within climate action.



African Women's Collaborative for Healthy Food Systems



**The financing gap:**  
commitments are not  
matched by investment

**Only 7% of global climate finance goes to food systems.**

**Only 1.5% of climate finance is channelled into sustainable, regenerative, and agroecological pathways.**



## High-impact opportunities for donors

Transforming food systems represents a high-impact opportunity to tackle food insecurity, biodiversity loss, and global emissions as well as to advance locally-led climate adaptation.

Closing the finance gap in sustainable and equitable food systems is therefore a strategic climate investment.

To address the impacts of rapidly intensifying climate change, feminist organisations are driving effective and transformative interventions to build equitable food systems and strengthen food security. They are doing this at lower cost and greater speed, rooted in the needs of their communities and advancing principles of locally-led adaptation (LLA) in practice, through devolved decision-making, local agency, and equitable participation. Mama Cash resources 24 feminist organisations driving food systems transformation across Africa, Asia, Latin America, the Pacific and Central Asia. This brief demonstrates the breadth and effectiveness of their work on food security, from agroecology, agriculture policy reform and seed exchange networks, to research and reform.

## Advancing climate adaptation through agroecological practices



Scalable feminist agroecological training models



IPCC-recognised climate adaptation practices



Enhanced resilience and climate risk reduction

### Innovative and scalable agroecological practices

CONAMURI operates in 23 districts across Paraguay to strengthen food sovereignty through agroecology, political education, and the protection of native seeds. CONAMURI's School of Agroecology has become a vibrant hub for political education and agroecological learning, with a large community membership across 10 indigenous communities and expanding participation in rural districts. Its initiative represents a scalable model of feminist agroecological training that both strengthens community resilience and deepens local leadership in food systems transformation.

Agroecological practices and principles, as taught in the school, are recognised by the [Intergovernmental Panel on Climate Change \(IPCC\)](#) as highly impactful and transformative climate adaptation measures, that include promoting intercropping using local seeds, organic fertilisers and reduced irrigation for improving soil health, water retention, and biodiversity. These measures lead to reduced risk, greater yield stability, reliance on seeds and food crops resistant to drought, extreme rainfall, disease outbreak, and greater adaptive capacities in the face of increasing extreme weather.



## Pilot farms and demonstration plots

SERUNI is a national women's network with regional and local chapters across 17 provinces and 14 villages in Indonesia. It has grown from working in six provinces in 2017 to seventeen provinces in 2025, building a national movement that shares resources and knowledge. It uses pilot farms to facilitate the transfer and wide adoption of agroecological technologies and innovative practices among rural women. Similarly, [Women Environs Zambia](#) use demonstration plots in six districts to train women farmers to make bio-fertiliser, natural pesticides, and grow and store indigenous seeds. It distributes seeds through a seed bank system, where participants grow new crops and return seeds, sustaining the cycle and ensuring a steady supply for the whole community. The plots also serve as spaces for skill development and strengthening women farmers' networks, building locally-owned climate information systems. Its work demonstrates knowledge- and technology transfer for climate adaptation and mitigation in action, in line with UNFCCC Technology Mechanism mandates and UNCCD knowledge-sharing requirements.

## Knowledge transfer: seed conservation and sovereignty

Through Semilla Róga (House of Seeds), a community-based seed governance model, CONAMURI documents, protects, and exchanges native seeds, ensuring the preservation of biodiversity and cultural knowledge. This horizontal learning model provides an adaptable and replicable framework for other rural movements advancing agroecological transitions. Women Environs Zambia's indigenous seed multiplication project engaged 600 rural women farmers across eight districts. With its national network and peer-learning structure, it succeeded in working effectively at scale. It provides affordable indigenous seeds to curtail the high costs of commercial, often genetically modified, seeds. It also ensures that food markets create a level playing field for rural women farmers to access seeds and sell their produce.

## Driving food security and ecosystem restoration in tandem



Rehabilitated ecosystems through conservation and customary use measures



IPCC-recognised climate adaptation practices



Strengthened gender equity, economic independence, and climate resilience

### Climate vulnerabilities and impacts on rural women

SERUNI's initiatives in Indonesia demonstrate how rural women are effectively restoring ecosystems, cultivating biodiversity, and scaling agroecological practices. Indonesia is an archipelagic nation of over 17,500 islands, nearly half of its land is controlled by plantations and mining companies. This industrial and extractive intervention has compounded serious climate vulnerabilities and heightened climate risks such as draining rivers, drying peatlands, and massive deforestation. The transformation of carbon-rich ecosystems that should function as protected sinks (under UNFCCC Article 4.1(d)) into significant emission sources has increased the likelihood of extreme events such as peat fires, flash floods, landslides, and prolonged droughts. This degradation simultaneously undermines CBD obligations on ecosystem resilience (Articles 8 and 10) and UNCCD commitments to prevent land and soil degradation, thus accelerating environmental instability. Reduced water availability, declining soil fertility, and livelihood insecurity reveal the profound vulnerability of ecosystems and humans to adapt to climate change, with disproportionate impacts for rural women, who bear much of the responsibility for household labour and local food production.

### Agriculture through biodiversity friendly practices

To build adaptive capacities and resilience, SERUNI is reviving native ecosystems and restoring biodiversity through agroecological practices. It is planting endemic fruit trees like duku, durian and matoa, measures related to conservation and customary use recognised and promoted under CBD Article 10(c) and GBF Target 10 on addressing agriculture through biodiversity friendly practices. It is rehabilitating former gold mining sites as fertile fishponds and organic vegetable gardens – in line with UNCCD targets on land restoration. At the same time, it is advancing food security and women's economic independence, creating a steady source of income for the community.

### Transformative and equitable approaches

SERUNI's work transcends a siloed approach to food security, adaptation, and biodiversity conservation, and leads to more equitable outcomes for communities at large. It is rooted in locally-led and gender-transformative approaches, with a focus on equitable access to land, information, and climate finance for women and girls in the community and therefore contributes to multiple global targets on climate action, development, and gender equality.

## Making gains on women's land rights



Accessed state land-use certificates and permits



Gender norms on women's land rights transformed



Investing in skill strengthening and rural women-led advocacy



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Improving access, ownership, and control of land by women is critical for adaptive capacity and for meeting global biodiversity targets on equitable governance (CBD GBF Target 22). According to the UNCCD, enhancing women's access to and control over land and productive resources **contributes directly to land degradation neutrality and climate resilience**. Secure land rights for women increase **agricultural productivity, reduce food insecurity, slow environmental degradation, and reduce poverty** contributing to UNCCD LDN targets and advancing SDGs 1.4, 2.3, 5.a, and 15.3.

Rural women employed in agriculture often lack written contracts and are sometimes paid in agricultural products rather than wages, leaving them excluded from social protection systems, maternity benefits, pensions, and labour rights. Such exclusion poses a barrier to adaptive capacity in a context of growing climate risks and weak rural infrastructure, while patriarchal inheritance practices further constrain women's control over land and property, limiting their ability to make decisions around their livelihoods, climate resilience, and food security.

Through field trainings and door-to-door outreach, Bonuvoni Fardo in Tajikistan trained 1,038 rural women and girls (and 68 men) on labour rights, land-use laws, inheritance practices, and climate risks. As a direct outcome, 287 women secured state land-use certificates, gaining access to homestead plots, dehkan farms, expanded gardens, and land for micro-enterprises. The Zimbabwe Land and Agrarian Network (ZiLAN) trains women to acquire advocacy skills and directly engage with local authorities and other relevant duty bearers in pursuit of outstanding land permits to strengthen their land tenure security. It has also trained traditional leaders who act as barriers to women's land rights, working to increase understanding and challenge gender norms on land rights.

## Leading advocacy on climate policy-making and finance



Agroecology in national policies and adaptation plans



Gender mainstreamed in national land policies and governance



Budget allocations to agroecology

ZiLAN participated in the national review process of the Agroecology Promotion Policy and Strategy, a policy framework aimed at promoting agroecology practices as a strategy to address food insecurity in the wake of climate change. Its work has also advanced progress on the Koronivia Joint Work on Agriculture (KJWA) and successfully promoted the inclusion of agroecology in the country's UNFCCC Nationally Determined Contributions and National Adaptation Plans. Currently, ZiLAN is also advocating for the finalisation of the National Gender Sensitive Land Policy and is engaged in national advocacy on gender-responsive land governance. Women Environs Zambia, an organisation that advocates for rural women's rights and environmental conservation, is pushing for gender-responsive national budget allocations and at least 20% of the state's subsidies for community development funds to be allocated to agroecology. The organisation has also engaged with district and national legislators to have a clear gender and agroecological centred agricultural policy and to leverage the work of the network and its members.

## Conducting research and documentation on resilient food systems



Women farmers trained in protecting local crops and climate resilient practices



Integrating technology use, scientific partnerships, and traditional knowledge



Understanding nutritional value of local seeds and foods

The African Women's Collaborative for Healthy Food Systems is leading the Nutritional African Foods Initiative (NAFI) in Burkina Faso, Senegal, Uganda, Zambia, and Zimbabwe, a study of nutritional value of seeds and food and seed laws. The Initiative includes participatory documentation of regenerative agricultural practices by training women farmers in the use of technology, ensuring the protection of vital local crops, and stronger knowledge and practice on climate resilience at the community level. This initiative directly contributes to global biodiversity objectives GBF Target 13 on genetic diversity. The Collaborative is expanding NAFI's research, advocacy, and technical rigour by strengthening scientific partnerships and developing new advocacy tools – promoting states' commitments on learning in line with UNFCCC Article 6 (education & awareness), CBD Article 12 (research & training), and UNCCD Articles 16–19 (knowledge exchange & technology transfer). Its collaborative and multi-stakeholder approach linking rural women farmers with researchers, NGOs, policy-makers, and international partners, broadens the initiative's influence and strengthens the quality of its research.