

Agroecology Knowledge Hub Digest

April 2025



The FAO **Agroecology Digest** presents a collection of news, research publications, stories from the field, multimedia materials (and much more) from around the world.

Browse the [database](#) for up-to-date resources and share additional resources and feedback by writing to agroecology@fao.org

This digest is made possible thanks to
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MCKNIGHT FOUNDATION

In Focus

African Agroecology Journey

Caretakers of life: How the Ogiek forest people in Kenya are revitalising ancestral practices

The Ogiek forest people of Kenya are revitalizing ancestral practices to restore their land, culture, and sovereignty.

Farmers, stakeholders in Morogoro praise project for boosting sustainable agriculture

Farmers and stakeholders in Morogoro commend a new project to enhance sustainable agriculture through ecological farming practices that boost productivity, protect the environment, and build resilience against climate change.

Agroecology: A policy imperative for sustainable and resilient food systems in SADC

The sustainability and resilience of food systems are at the heart of food security discussions globally, and the Southern African Development Community (SADC) is no exception, blending traditional knowledge with modern science to enhance food security, biodiversity, and farmer livelihoods.

Compendium of forgotten foods in Africa: A companion publication for Integrating Africa's forgotten foods for better nutrition

This compendium spotlights underutilized indigenous crops, advocating for their reintegration into diets to enhance nutrition, biodiversity, and sustainable food systems across the continent.

In Focus

African Agroecology Journey

Verrous et leviers institutionnels de réduction de pesticides dans l'agriculture tropicale - Un éclairage par l'Afrique de l'Ouest et du Centre

Les résultats de cette étude montrent que, malgré de nouvelles régulations à l'échelle internationale, les politiques de soutien aux pesticides ne faiblissent pas.

Empowering women and youth for agroecology's success in East Africa

The future of East African agriculture hinges on empowering women and youth and ensuring their rightful place at the forefront of the agroecological revolution.

Eastern Africa Unites for Agroecological Transformation: Over 800 Delegates Chart Bold Path for a Greener Future

Over 800 delegates from 42 countries convened in Nairobi at the Second Eastern Africa Agroecology Conference, uniting policymakers, farmers, youth, and researchers to chart a bold path toward sustainable, climate-resilient food systems through agroecology.

2ND EASTERN AFRICA AGROECOLOGY CONFERENCE | DAY 2

This live-stream recording focuses on discussions and presentations related to sustainable agriculture practices, agroecological innovations, and regional collaboration efforts in Eastern Africa.

In Focus

African Agroecology Journey

Industrial scale farming is flawed: what ecologically-friendly farming practices could look like in Africa

The article reflects on the book 'African Perspective on Agroecology' outlining how agroecology, which brings ecological principles into farming practices and food systems, can solve food shortages and environmental damage caused by mass, commercial farming.

A review of organic inputs to inform soil health advice for African smallholder farmers: localization matters

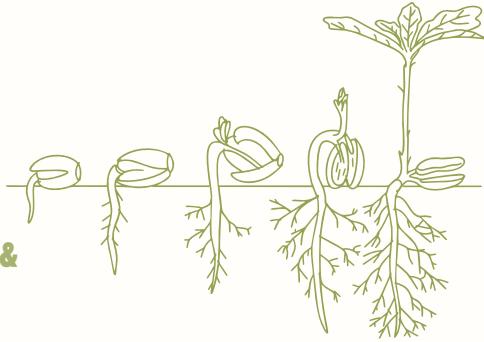
African smallholder farming systems are complex, diverse and locally adapted, but guidance is lacking on how farmers can make informed choices of the type of organic inputs to suit their farm conditions.

Integration of Agroecology in Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) in Africa

This report presents the findings of an assessment of agroecology's potential as a climate solution and assesses its integration into African Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs).

Germinate!

An exclusive column featuring the perspective, insights & innovations of leading agroecology & food systems experts & practitioners



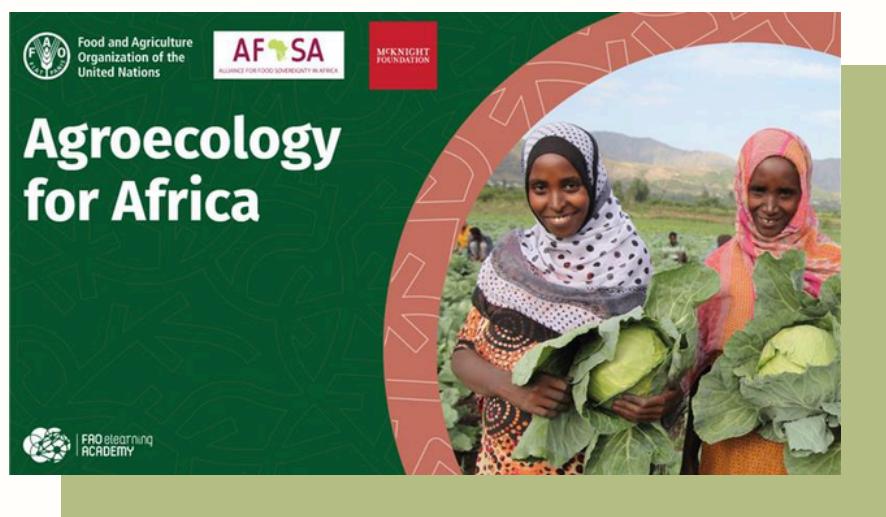
AFRICA'S FOOD SYSTEMS ARE BEING DIGITALISED WITHOUT US, IT'S TIME TO PUSH BACK

A stealthy revolution is taking place across African food systems. Not in the soil or on the farm, but in computers, platforms, and satellite systems that we do not own or manage. From AI-powered agricultural apps to blockchain-based supply networks, digital technologies are fast changing the way we raise, sell, and consume food. While this transition is frequently portrayed as "progress," we must ask: 'progress for whom?'.

Across the continent, digital agriculture is being implemented with dazzling promises –higher yields, better market access, and more climate resilience. But beneath the smooth veneer is a worrisome trend: 'digital colonisation of African agriculture'.

Foreign donors, technology companies, and development agencies promote tools and platforms that rarely represent the realities of African farmers. Instead, they integrate a logic of extraction, converting data into profit, farmers into users, and communities into test sites. Local wisdom is overlooked. Agroecology is overlooked. Again, decision-making authority is concentrated in the hands of organisations located far from the land.

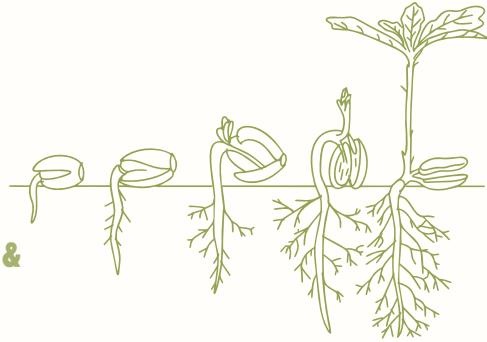
Digitalisation is not the same as democratisation. The ability to collect data is not synonymous with empowering farmers. High-tech solutions cannot replace political will, farmer sovereignty, or environmental sustainability.



Author: Million Belay, General Coordinator, AFSA

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If we allow digital agriculture to take the same top-down, corporate-led approach as the Green Revolution, we risk making the same mistakes—this time with code.

It does not have to be this way.

Throughout Africa, communities are innovating on their terms. Grassroots organisations are reclaiming the digital sphere, with seed-saving networks and mobile agroecological teaching tools. However, they are underfunded, underappreciated, and frequently excluded from national and continental technology debates.

That must change.

What we need now is a concerted effort to build capacity from below, allowing African farmers, youth, researchers, and civil society actors to critically evaluate, adapt, and influence the technologies being introduced into local food systems.

To create open-source, community-led tools that serve people rather than platforms, it's important to distinguish between liberating and exploitative technology. Centre agroecology, not as an "add-on" but as a paradigm for digital justice and food sovereignty.

And demand that African governments stop rubber-stamping technology agendas set by external parties.

Digital technologies aren't neutral. They represent ideals, philosophies, and interests. If we are not at the table shaping them, we will undoubtedly appear on the menu.

This is a defining moment. Either Africa will remain a laboratory for corporate experimentation—or we will choose our own path. Let us choose sovereignty. Let us choose justice. Let us choose a food future that is not only intelligent, but also grounded, equitable, and free.

A potential example of integrating digital tools in a co-created, locally grounded approach is the recent launch of an '[agroecology e-learning course](#)' jointly developed by the [Food and Agriculture Organisation \(FAO\)](#) and the [Alliance for Food Sovereignty in Africa \(AFSA\)](#). This collaborative endeavour, launched during the East African Agroecology Conference in Nairobi, illustrates the continent's rising acknowledgement of agroecology. While the conference should have addressed the social movement side of agroecology, it did demonstrate how digital platforms can be utilised to amplify agroecological knowledge, promote farmer-led innovation, and develop alternative food system narratives. It's a tiny but significant step towards a future in which digital technologies benefit the public good, and African actors co-author the tools that shape local food systems.

Voice from the ground



Resilient and Equitable Nature-based Pathways in Southern African Rangelands

Across Southern Africa, communally governed rangelands and grasslands support wildlife, vast informal economies and millions of people.

Helping Communities Thrive with Resilient Food Systems

The Amana Project in Brazil's Amazon is said to be transforming food systems by financing smallholder farmers to restore degraded land, enhance biodiversity, and provide nutritious meals to local schools.

Participatory Action Research: Deepening Community Learning to Create Climate-Resilient Food Systems

This Agroecology Fund's initiative empowers grassroots communities through participatory action research, fostering climate-resilient food systems by integrating local knowledge, science, and policy advocacy.

Editorial: Cultivating health and healing

The articles in this issue illustrate how good health is about more than simply the absence of disease.



Voice from the ground



Social Pickle: Building new micro and macro communities in the UK

Healthy and thriving agroecosystems require regenerative networks of human, animal and plant life that support each other.

Opinion: The tackling of structural obstacles must accompany 'Zero Hunger' policies in Brazil

This article suggests that addressing hunger in Brazil may require not only zero hunger policies but also tackling deeper structural issues like land inequality, agribusiness dominance, and the marginalization of smallholder farmers.

Short stories: How traditional seeds and foods are improving health

In a garden at Montana University in the US, caretakers are promoting biodiversity, social justice, and the growing of good, nutrient-dense foods as they follow the agricultural traditions and cultural protocol of the Indigenous Mandan, Hidatsa and Arikara people.



In the News



How agroecology is quietly formulating food ingredients of the future

Agroecology is sparking a quiet food revolution across Africa, as indigenous ingredients and traditional knowledge reshape diets and inspire a new wave of sustainable, locally rooted food innovation

Agroecology Conference to propel push for sustainable agriculture

Kenya's second Eastern Africa Agroecology Conference unites over 700 stakeholders to champion sustainable farming practices, aligning with national and continental strategies for resilient agri-food systems.

Comment l'ingéniosité des « plantes de service » peut aider à réduire les pesticides

L'ingéniosité des plantes de service offre une alternative naturelle aux pesticides, en renforçant la santé des cultures tout en préservant l'environnement.

Sowing the seeds of greater food diversity in Africa

Diversifying food sources and developing underused, nutrient-rich crops could help combat malnutrition and enhance food security in Africa.



In the News



Les déchets organiques, sources de minéraux pour lutter contre la malnutrition

En transformant les déchets organiques en fertilisants naturels, le projet OR4FOOD montre comment l'agroécologie peut enrichir les cultures en micronutriments essentiels, apportant une solution durable à la malnutrition au Sahel.

Des graminées aux grands effets

En Éthiopie du Sud, la culture du brachiaria renforce l'autonomisation des femmes, améliore la santé des sols et protège les cultures grâce à une agriculture durable en push-pull.

Dear EU: A fairer, greener food system is within Europe's reach

IPES-Food calls for bold reforms to benefit farmers, consumers, and the planet in a letter to EU Commission President Ursula von der Leyen and new Agriculture Commissioner Christophe Hansen.

The future of Swiss food is agroecological

Biovision advocates for an agroecological approach to transform Switzerland's food system, addressing climate change, biodiversity loss, and social inequalities through sustainable policies and practices.

Nutrition and agroecology in Vietnam

Vietnam is transforming its food system by shifting from monoculture to diversified agroecological practices, aiming to improve nutrition, reduce malnutrition, and enhance food security, particularly in rural and marginalized communities.



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From the Research World

Crop pest responses to global changes in climate and land management

This review paper synthesizes evidence on how tropical, temperate, migratory, and soil crop pests respond to changes in climate, land use and agricultural practices.

Soil organic carbon thresholds control fertilizer effects on carbon accrual in croplands worldwide

A global study shows that soil response to nitrogen fertilization varies based on initial organic carbon levels, affecting carbon sequestration and fertility.

Ecological networks reveal resilience of agro-ecosystems to changes in farming management

A large-scale network analysis of invertebrate communities across 502 UK farm sites revealed that while crop type significantly influenced ecological network properties, genetically modified herbicide-tolerant (GMHT) management had minimal impact on network structure and robustness, suggesting limited systemic effects on agro-ecosystem resilience.

Multicriteria assessment of recently implemented conservation agriculture cropping systems across farmers' plots in northwestern Cambodia

This study evaluates the agronomic performance of cover crops and maize, alongside intermediate consumption, over the 2021 and 2022 growing seasons.

Constructing an Indigenous knowledge approach to agroecology and regenerative agriculture: The case of Yucatec Maya

This research article discusses the development of a culturally sensitive framework for integrating indigenous knowledge systems into environmental science, aiming to bridge traditional ecological understanding with contemporary scientific practices.

Water and aquatic foods in revised principles of agroecology can accelerate food systems transformation

This article examines the principles and frameworks presented in agroecological literature and suggests rephrasing of six of the principles to incorporate water, aquatic foods and land- to seascapes.

Advancing Agroecology through Policy Dialogue and Advocacy: Learning from Three FAO Supported Initiatives

This article delves into the limitations of current systems, the promise of agroecology, and its growing recognition globally and implementation in different parts of the world.



Policy Brief & Studies

What is the Missing Ingredient? The German Agriculture and Food Strategy for Africa 2025

This brief critically assesses Germany's 2025 Agriculture and Food Strategy for Africa, emphasizing the need for deeper structural reforms

Seeds at risk: Global struggles for control over food

This dossier grapples with the potential and significance of seeds and their foundational role in our food systems. If we want to transform food systems,

Glossary: Carbon Brief's guide to 24 'climate-friendly' farming methods

This glossary outlines 25 climate-friendly farming methods aimed at reducing agriculture's environmental impact through practices like reduced meat consumption, lower synthetic fertiliser use, and integrating nature into farming systems .

Water and aquatic foods in the 13 agroecological principles

This publication explores how integrating water and aquatic food systems into agroecological frameworks can enhance food security, nutrition, and ecosystem resilience.

Rapport final de l'initiative « Pesticide Reduction for Tropical Agricultures » (Pretag)

The final report of the PRETAG initiative (2023-2024) outlines a comprehensive approach to reducing pesticide use in tropical agriculture, emphasizing the adoption of 20 agroecological practices across five key value chains: banana, cocoa, coffee, market gardening, and rice



Policy Brief & Studies

Supporting Food Systems Transformation Towards Sustainability and Resilience: Background Briefing - Why agroecology is a cornerstone for food systems

In this recently published white Paper, agroecology is considered a fundamental and essential strategy for building resilience and transforming food systems.

Agroecology: Our Roots of Change

From community-led digital innovations to public policy strategies, this dossier explores how agroecology redefines food systems and promotes people's agency.

POLICIES: Beyond Fertilisers

Kenya's worsening soil degradation poses a serious threat to its agricultural future. Redefining soil health through policies that support site-specific solutions is essential for meaningful change in soil management.

Policies to support organic agriculture and agroecology in the framework of the United Nations Decade of Family Farming 2019–2028

This document offers guidance to governments on how to support family farmers by promoting and implementing agroecology and organic agriculture approaches.

Multimedia & Learning



Youtube Video | "Family farming policy innovation: a pathway to sustainable agrifood systems"

Around the world, enough food is produced daily to feed everyone, yet millions go hungry. A third of all food ends up in landfills, and diet-related diseases are on the rise. One way to tackle this dire situation is to work with family farmers.

Youtube Video | "Residuos a riqueza: Mejorando la salud del suelo con Bocashi en la Transición Agroecológica Ucayali"

Este video, producido por el proyecto Agroecological TRANSITIONS-PSII en Perú, muestra los pasos prácticos para la elaboración del Bokashi y subraya la importancia de una gestión integrada de la fertilidad del suelo como base para lograr prácticas agrícolas sostenibles.

Conference recording| Agroecology, feminism and intersectionality

This seminar recording discusses the interconnectedness of farmers, policy maker and the researcher.

Youtube Video | "Participatory research: Weaving a Latin American path towards agroecology"

This video presents participatory research initiatives in agroecology that are being developed by collaboratives from Mexico, Guatemala, Nicaragua, Cuba, Colombia, Ecuador, and Peru.



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Upcoming Event

02 May 2025, 15:00 CEST, online

BRS COPs side event | Accelerating the transition from HHPs to biopesticides and agroecological alternatives

This side event to the COPs will explore the impacts of Highly Hazardous Pesticides (HHPs) on environmental and public health and pathways to advancing biopesticide initiatives and agroecology-based solutions.

6 May 2025, Belgium

Agroecological transition of food systems in Africa: Evidence for research and development policies in Africa-EU collaboration

This event will provide state-of-the-art scientific evidence on agroecological approaches for improved resilience of African smallholder farmers.

7-9 May 2025, Portugal

Agroecology Summer School | "Conservation Agriculture in Mediterranean Systems"

This Summer School offers an immersive experience combining expert-led lectures, practice-focused discussions, and hands-on farm visits.

20-22 May 2025, Spain

2nd International Symposium | Agrobiodiversity along the value chain, Spain

The symposium will discuss the general topic of agrobiodiversity along the value chain.



Behind the Scenes

Key contributors of this issue of the AK Digest

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