



INITIATIVE ON
Agroecology



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CGIAR Initiative on Agroecology, Kenya, 2022-2024

End of initiative key messages

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Context

A redesign of food systems is urgently required to achieve ecological, economic and social sustainability. Agroecology offers a transformative pathway integrating sustainable and resilient agricultural practices with enhanced agency for farmers and food system actors, particularly women and youth. While agroecological solutions exist at the farm level, scaling them to broader food, land and water (FLW) systems remains challenging due to insufficient evidence, misaligned policies, inadequate capacities, and limited financial mechanisms.

The objective of the CGIAR Initiative on Agroecology (AE-I) was to address these barriers by generating evidence on the transformative potential of agroecology and identifying institutional innovations. By testing approaches in so-called agroecological living

landscapes (ALLs) in Burkina Faso, India, Kenya, Lao PDR, Peru, Senegal, Tunisia and Zimbabwe, the AE-I aimed to identify, test, and demonstrate replicable transition models for FLW systems in low and middle-income countries, driving large-scale transformation across the Global South.

In Kenya, the AE-I was implemented in collaboration with numerous stakeholders in two ALLs in Kiambu and Makueni Counties, including Community Sustainable Agriculture and Healthy Environment Program (CSHEP), Drylands Natural Resources Centre (DNRC), Participatory Ecological Land Use Management Association Kenya (PELUM-Kenya) and Intersectoral Forum on Agrobiodiversity and Agroecology (ISFAA).



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End of initiative key messages

Each AE-I work package formulated specific messages, detailed in the next few pages. In sum, our work in Kenya demonstrates that advancing agroecological transitions requires a multi-pronged approach rooted in collaboration, evidence and systemic transformation. Building robust partnerships through stakeholder engagement, physical research hubs and co-design processes fosters innovation and capacity building. Tailored interventions based on localized assessments and strengthened knowledge networks enhance resource efficiency, resilience and equity.

Scaling agroecological practices hinges on market development, consumer awareness, private sector investment and reallocation of financial aid toward sustainable practices. Creating enabling environments through policy coherence, subsidy reform, devolved governance, and participatory extension models is critical for long-term success. Finally, empowering communities through holistic capacity building, inclusive value chain integration and collective agency drives the adoption and sustainability of agroecological practices at scale.

Work package 1. Partner collaborations and co-designing of agroecological innovations

- 1. Structured and purposive engagement are key:** To ensure successful implementation, engage key stakeholders from the outset and maintain active collaboration. Leverage existing networks to identify strategic territorial and national scaling partners, and work within current systems, assessing their suitability and proposing mutually beneficial partnerships for collaborative value creation.
- 2. Establish and enhance physical hubs for research and development:** For science to drive impactful outcomes, it must be integrated into sustainable adoption and scaling models rooted in existing structures, such as farmer training centres with demonstration farms. These centres are hubs for co-design, experimentation, training and broader collaboration, fostering dynamic exchanges and independent partnerships among stakeholders.
- 3. Foster partnerships and embed capacity building and empowerment in research and development:** Establish formal, principle-driven partnerships with key stakeholders by championing their priorities, mobilizing funds to support their goals, and including these in their budgets with enough overheads. Focus on empowering partners by front-lining their efforts, fostering cross-collaboration, and building their capacity for long-term sustainability.
- 4. Co-design and co-creation need to be centred on both science and impact:** Leverage log frames and deliverables to align scientific efforts with societal needs, creating win-win outcomes for civil society actors. Implement structured vision-to-action processes to co-develop transition pathways with diverse stakeholders, aligning assets and opportunities for systemic transformation. Ensure scientific rigour and inclusivity in co-design, blending “scientific” and “participatory” research to produce robust evidence while cultivating networks of “farmer scientists”.
- 5. Properly managed, context-specific agroecological practices ensure stable production:** Co-designed agroecological practices, when well-managed, perform as effectively as conventional methods. Beyond agronomic assessments, holistic metrics are essential to highlight the multifaceted benefits of agroecological practices, including their positive impacts on long-term system health and productivity. Additionally, to promote uptake of agroecological practices, it is essential to differentiate between farmers who focus on self-reliance through resource efficiency and input reduction versus those who seek ready-made alternative input sources, ensuring both groups’ needs for supply and access are addressed.



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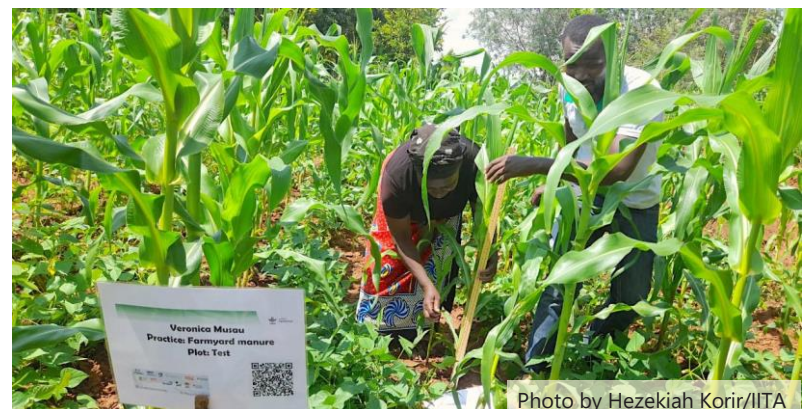


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Work package 2. Evidence-based agroecology assessments

1. **Localized assessments to inform agroecological transitions:** Conduct comprehensive, context-specific assessments of smallholder farmers, including their cropping systems, soil health, market linkages and socioeconomic conditions (e.g., income and land tenure), to identify tailored pathways for agroecological transitions.
2. **Diverse adherence levels call for targeted interventions:** Results reveal varying degrees of adherence to agroecological principles among smallholder farmers in Kiambu and Makueni counties. Context-specific strategies are essential to enhance resource use efficiency, resilience and social equity addressing the needs of both strong adopters and those with moderate or weak adoption.
3. **Build on existing strengths to enhance performance:** Farms adhering strongly to agroecological principles perform well across indicators such as soil health, climate resilience, crop diversity and income stability. Even farms with weaker adherence show potential in specific areas, highlighting opportunities for targeted capacity building to elevate performance.
4. **Strengthen farmer linkages and knowledge networks:** Farmers engaged with organizations promoting agroecological practices demonstrate reduced pesticide use and increased biofertilizer adoption. However, limited interactions with extension services, traders and researchers present a critical gap, requiring investment in capacity building and improved knowledge sharing networks.
5. **Prioritize holistic and inclusive approaches:** Transition pathways must focus on strengthening the broader farming ecosystem by addressing social, economic and environmental dimensions to support equitable, resilient and scalable agroecological transitions.



Work package 3. Creating market opportunities through the development of inclusive business models and financing strategies

1. **Cost-effective, multiple benefits:** Agroecological interventions offer cost-effective, profitable solutions with significant social, economic, environmental and health benefits, necessitating scaling across food systems.
2. **Systems approach:** While emphasis often lies on farm-level practices, off-farm interventions and the inclusion of all food system actors are crucial for broader systemic impacts.
3. **Consumer demand for agroecological products:** Current consumer research often focuses on organic products rather than agroecological ones. Greater clarity and awareness of agroecological products are needed to create strong demand pull.
4. **Private sector involvement:** The private sector plays a critical role in advancing agroecological transitions. Increasing incentives for private investment can unlock significant system-wide impacts.
5. **Redirecting aid, prioritizing agroecological investments:** Despite global calls for food systems transformation, a large share of ODA continues to support conventional farming, underscoring the need for a paradigm shift. This calls for greater alignment of agricultural aid with agroecological principles to transition from conventional to sustainable practices effectively.



Work package 4. Creating enabling policy and institutional environments and policies towards agroecological transitions

- 1. Strengthen policy coherence and implementation:** Kenya's agroecological principles are embedded across various sectors, but a lack of harmonization undermines their effectiveness. A cohesive policy framework, in addition to the National Agroecology Strategy, is needed to ensure alignment, consistency and accountability across national and county levels.
- 2. Repurpose agricultural subsidies to enable agroecological transitions:** Current agricultural policies favour high-input industrial agriculture, limiting agroecological adoption. Redirecting subsidies toward outcome-based systems that reward ecosystem services and sustainable practices can catalyse agroecological transitions.
- 3. Leverage devolved governance for localized agroecological strategies:** Kenya's devolved system is a unique opportunity to develop context-

specific agroecological policies, but inconsistent county frameworks and poor national coordination require mechanisms for harmonization and capacity building for county-level officials.

- 4. Redesign extension services for farmer-centric knowledge systems:** Extension services must shift to participatory, farmer-driven models that prioritize co-learning and innovation. Utilizing digital tools, including generative AI, can deliver localized, real-time agroecological advice in accessible formats.
- 5. Enhance horizontal and vertical integration:** Weak coordination across sectors and between national and county governments hinders agroecological policy implementation. Strengthening multistakeholder platforms and co-designing strategies with diverse actors can foster more effective governance and collaboration.



Work package 5. Advancing agroecological transitions by harnessing agency and driving behavioural change

- 1. Strengthen collective action through holistic and inclusive capacity building:** Develop comprehensive and inclusive trainings that integrates practical approaches such as demonstration farms, peer-to-peer learning, and affordable access to essential resources like seeds and seedlings. Inclusive training builds individual capacity while fostering collective action through collaborative co-creation of knowledge and the development of robust and supportive community networks.
- 2. Promote inclusive engagement across the agri-food system:** Adopt a holistic approach that considers every actor in the agri-food system and not only the producers to ensure that no group feels marginalized or left behind in the agroecological transition.
- 3. Tailor support for youth and gender-specific needs:** Develop targeted programs that address the distinct challenges faced by young women and men in agriculture. Focus on improving

access to critical resources such as land, training, and finance, while challenging restrictive norms to enhance women's engagement and representation across the value chain. Advocate for policies backed by a clear implementation framework and an allocated budget to support youth inclusion and gender-responsive initiatives effectively.

- 4. Align agroecological initiatives with consumer behaviour and health priorities:** Recognize the critical role of consumer preferences and health concerns as key drivers of agroecological transitions. Future initiatives should actively incorporate strategies to align and strengthen co-benefits of agroecological practices with consumer demand for healthier, sustainably produced food., This will also require the fostering of supportive and accessible markets support and accelerating the adoption of agroecological systems.

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Work package 6. Unlocking nature's potential by mapping and utilizing organic resources to build resilient agroecological systems

1. Diversity and variability of organic resources:

The types, quantities, and utilization of organic resources differ substantially across sub-counties within each county. This variation underscores the importance of designing resource management strategies that are customized to optimize the efficient use of organic resources.

2. Resource diversification: Promoting resource diversity is essential to balance competing uses, optimize synergies, and ensure the sustained availability of seasonal organic resources like manure, compost, and crop residues, thereby supporting productivity and environmental sustainability.

3. Better markets and resource management drive sustainability and opportunity: Significant

quantities of diverse resources are being produced, with many respondents utilizing organic resources not only for crop production but also as a source of income generation.

4. Building awareness and capacity can maximize the use of organic resources:

Organic resources are produced in significant quantities but remain underutilized in many sub-counties.

5. Unlocking organic resource potential through collaboration: Building partnerships and enabling collaboration among stakeholders—private sector, policymakers, and community organizations—can help overcome current challenges while leveraging emerging opportunities to expand production and utilization of organic resources.

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