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“Can agroecological farming feed the world?  
Farmers’ and academia’s views”

## Applying agroecological principles to transform food systems, while narrowing evidence gaps in the Global South

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### Abstract

Agroecology is increasingly gaining scientific and policy recognition as an approach with the potential to address the environmental and social issues within food systems that unevenly affect the two-thirds of the world who are poor and practice farming as their main source of income. As a dynamic concept that encompasses a scientific discipline, an array of sustainable agricultural practices and a social movement, agroecology embraces a set of universal principles, yet agroecological designs rely on context-specific knowledge and tailored practices that are oriented at offering contextually sensitive solutions. This flexibility challenges the robustness, contextual validity and comparability of the generic sustainability indicators with which agroecology’s performance is currently being measured and captured in the global evidence base that informs decision-makers. The gap between generic scientific knowledge and local knowledge in agroecology calls for a holistic, participatory and inclusive approach to producing evidence that integrates contextualized science and local (including indigenous) knowledge of all relevant food system actors (FSAs). As part of its 2030 research and innovation strategy, OneCGIAR and partners have started a new science-for-innovation initiative in agroecology that attempts at narrowing this gap by facilitating transdisciplinary interactions between researchers, small-scale farmers and other FSAs beyond the farm (e.g., extension services, NGOs, private sector, policymakers, funders and investors) in seven low-income countries, namely Burkina Faso, India, Kenya, Laos PDR, Peru, Tunisia and Zimbabwe. The initiative “Transformational Agroecology across food, land, and water systems” (AE-I) will, at its core, establish an international network of Agroecological Living Labs (ALLs) that will explore either of following three transition pathways, namely (i) agroecologically “intensifying” farming systems that currently exhibit low productivity due to low input use; (ii) “redesigning” small-scale farming with high external input use; and (iii) “converting” profitable medium-scale enterprises with high external input use. Agroecological innovations (i.e., technologies and practices, business models, and institutional arrangements) will thereby be equitably co-created and tested in the ALLs, thus addressing the questions of whether and under which circumstances these innovations work, are adopted and scaled in the specific environmental, socio-cultural, economic, and political contexts of the prioritised food systems.

**Keywords:** Agroecological principles, agroecological transitions, agroecology, Burkina Faso, co-creation, food systems transformation, India, Kenya, Laos PDR, Peru, Tunisia, Zimbabwe

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