EcoFoodSystems: Climate-resilient agroecological transitions of food systems



In Vietnam's urban food systems, cassava is an important staple crop. Throughout Asia, cassava has been transformed into a wide variety of products, including noodles and sweeteners. In Hanoi, it is a commonly used ingredient in the popular urban street food. Credit: ©2015CIAT/GeorginaSmith

Objectives of the project

The EcoFoodSystems project aims to enhance the health and climate resilience of urban and periurban food systems by adopting a systems-based approach for agroecological transitions. The project's specific objectives are twofold:

- 1. To develop a systems and evidence-based approach for prioritizing and targeting agroecological intensification interventions and innovations at the landscape, value chain, community and farm scale. The approach should enable socially inclusive food system and nutrition transformations.
- 2. To co-create scaling strategies with relevant stakeholders for agroecological innovations that promote sustainability, nutritional security, and climate resilience in each country. These strategies should facilitate city-regional food systems transitions.

Background

Agroecological transitions towards climate-resilient food systems are essential for achieving sustainable environmental, food security and livelihood outcomes. However, major barriers at multiple levels (farm, landscape, national, and global value chains) prevent the scaling up of resilient and environmentally sustainable agroecological production models. Overcoming these barriers requires a focus on connectivity between rural and urban areas. Given that more than two-thirds of the world's population will live in cities by 2050, a transition of rural and urban food systems is needed to ensure sustainable rural development and healthy dietary outcomes in urban areas.

To achieve these goals, research and innovation activities are needed to enable scaling of agroecological innovations and evidence-based transitions to climate-resilience food systems across interlinked urban, peri-urban and rural communities. There has been significant progress on food systems data at the national level (e.g. Food System Dashboards), but substantial gaps remain in how to translate data into actionable information for decision makers, especially at the subnational level. The EcoFoodSystems project will address these gaps by linking national to subnational food systems (including data systems for decision support) in each of the three study countries (Vietnam, Ethiopia, and Colombia) to demonstrate how to generate sustainable data streams for decision-making that are relevant and actionable at both scales.

The theory of change

The EcoFoodSystems project is built on the hypothesis that in order to improve health and nutrition through sustainable agroecological transitions of food systems, it is crucial to implement systematic and coordinated interventions at the landscape and city-region level. These interventions need to be, evidence-based and involve all actors in value chains connected to city-regions. Disparate and disconnected development programmes will not promote the agroecological transitions needed to achieve the intended development outcomes.

More systemic approaches are required to integrate, to the extent possible, both synergistic and antagonistic effects of different levers influencing agroecological transformations of food systems. The theory of change of the EcoFoodSystem project is that improved connectivity combined with context-specific agroecological innovations shared among subnational food system actors can lead to improved identification, assessment, adoption, and scaling of agroecological innovations for more climate-resilient and nutritious food systems. Overall, such an approach can help transform food systems to improve environmental sustainability, nutrition, and food security outcomes.

EcoFoodSystems' theory of change also envisions that its research activities on use and innovation activities will scale up and mainstream agroecological transitions in climate-resilient food systems. There will be further development and refinement of the theory of change in collaboration EcoFoodSystems multi-stakeholder groups and modifications, including the starting points for each EcoFoodSystems activity, informed by previous activities. Monitoring, learning and evaluation of each action will be continuous and systemic throughout the entire lifespan of the project.

The analysis and mapping activities under EcoFoodSystems will fill knowledge gaps and provide a stronger evidence base for identifying the types of innovations that are most likely to rapidly and effectively deliver agroecological transitions in city-region food systems and diets for development outcomes that balance sustainability, health and livelihoods needs. Business cases will be developed in collaboration with key partners in each city-region and will serve as the basis for scaling up agroecological innovations, which are ready for investment. In addition, EcoFoodSystems has a strong component of identifying key decision makers in each city-region, their interrelationships and the identification of consensual pathways for food systems transformation that have strong multi-stakeholder support and investment. A key element of EcoFoodSystems's capacity building is to help decision-makers make more informed and impactful decisions about the forms and types of agroecological scaling up of products or processes that are most likely to have the most beneficial outcomes for the most marginalised consumers in each city-region's food system.

EcoFoodSystems' theory of change addresses the key challenges facing agroecological transitions in city-region food systems to more sustainable and healthy diets that support decent livelihoods for all those engaged in value chains and systems. Each of EcoFoodSystems's activities is designed to be

conducted in partnership with multiple stakeholder entities across the food system, to deliver codesigned and co-owned outputs for the next users defined in each food system, with a strong focus on achieving nutritional margins within food systems. The process of co-designing and coimplementing research and innovation activities with stakeholders ensures that subsequent users can translate research results based on priority needs into research outputs that, in turn, will have a concrete impact on the five interlinked impact areas (Figure 1).



Figure 1: EcoFoodSystems' Theory of Change

Main activities:

The project has 4 components (excluding the programme management component) and 20 related activities, outlined below:

Component		Activities
1.	Toolkit for decision-makers	1.1 Methods & tools to identify and map the most marginalised in city region.
	and stakeholders within food	1.2 Methods & tools to enable affordable transitions for the undernourished.
	systems to support	1.3 Methods & tools to enable affordable transitions for the overnourished.
	agroecological transitions with	1.4 Methods & tools to enable behaviour change for most marginalised transitions.
	marginalized food systems	1.5 Consolidated toolkit to map marginalised, policy and enable next-user capacity
	consumers	building.
2.	Overcoming labour	2.1 Map labour productivity challenges limiting agroecological transition scaling.
	productivity barriers to	2.2 Map post-farm gate opportunities for agroecological transitions for socially
	agroecological scaling for	inclusive decent jobs in rural areas.
	socially inclusive jobs in	2.3 Business cases for agroecological transitions considering economic,
	climate-resilient value chains	social/nutrition environmental ROIs.
	& food systems	
3.	Environmental foot printing of	3.1 Life Cycle Analysis for scaling of agroecological practices to deliver improved
	agroecological transition	nutrition outcomes.
	pathways for climate-resilient	3.2 Cost Benefit Analysis for scaling of agroecological practices to deliver improved
	and nutrition-sensitive food	nutrition outcomes.
	systems	3.3. City regional food systems sustainability metrics and decision-support tools

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		3.4 Analysis of city regional food systems and supply chains for resilience to biophysical and economic shocks
		3.5 Consolidate toolkit for participatory evaluation of the environmental, economic
		and climate resilience of agroecological option.
		3.6 Participatory portfolio analysis of agroecological options for scaling of
		agroecological transitions to generate value for both rural and urban communities.
4.	Consolidating capacities for	4.1 Fostering stakeholder-owned agroecological transition processes connected to
	agroecological transitions in	positive and socially inclusive nutritional outcomes.
	city region food systems	4.2 Capacity development to enable ownership and embedded capabilities to
		sustainably implement the transition process beyond the project lifecycle.
		4.3 Establishment of city-region specific food systems dashboard and decision
		support tools integrated into stakeholders institutional and planning systems.
		4.4 Scaling of interactive voice response (IVR) to facilitate information exchange
		between food system actors at all income levels.
		4.5 Professionalising/strengthening SMEs, producer organisations. local business
		development services & new financing for agroecological food value chains.
		4.6 Identify policy barriers & policy options for the adoption and scaling of nutritious
		foods with lower environmental footprint in city region food systems.

Organization

The EcoFoodSystems programme is managed by a dedicated programme manager who operates under the supervision of the lead principal investigator (PIs), with support from the co-PIs, to conduct the day-to-day operations management. The core management team consists of the lead PI and co-PIs, the EFS Programme Manager, the EFS Resource Mobilisation and Communications Officer, and the EFS Chief Administrator. The Executive Management Committee consists of the lead PI and co-PIs, and will be supported by the EcoFoodSystems Core Operations team, which manages day-to-day operations, including financial and technical reporting. The programme holds an Annual EcoFoodSystems Project meeting and a Stakeholder Dissemination Workshop, which rotate annually across each of the city regions. In each city-regional food system, multi-stakeholder platform groups will be facilitated to co-create and guide the EcoFoodSystems research and innovation activities.

Implementing organizations

Ryan Institute, University of Galway, Ireland

Partners of the project: actors included in the contract, with access to funding.

- Alliance of Bioversity-CIA
- Wageningen University & Research (WUR)
- Rikolto

Other main stakeholders

Location

- Ethiopia: Bahir Dar
- Vietnam: Hanoi
- Colombia: Cali

Funding and co-funding

EcoFoodSystems has received funding through IFAD as part of the EU's DeSIRA programme, with a budget amounting to EUR 3 512 213.

Duration

4 years (08.08.2022 - 30.09.2026)

