Capacity-Strengthening Pathways Enabling Agroecological Transition in Vietnam's Rice Sector

Thai Thi Minh, Tran Thi Dinh, Mark Dubois, Nadia Bergamini, and Jonathan Mockshell

Key messages

- Agroecological transition (AET) in Vietnam's rice sector requires enabling individuals' and institutions' capabilities to drive translational research and deliver innovative business, effective governance, and supportive policy.

- Partnering with public and private sector entities in Vietnam's rice sector is crucial for knowledge exchange, technical and business skill development, and innovations. This strengthens public and private actors' innovation scaling capacity and enhances farmers' technical and business capabilities to produce safe, high-quality, agroecological rice products.

- Leveraging ongoing capacity-strengthening interventions by multistakeholder platforms, civil society organizations, and donors is essential to strengthen inclusive stakeholder engagement, joint efforts, and collaborations to foster the successful adoption of agroecological practices, showcase their benefits, and support AT-related policy advocacy.

- Integrating practical modules into the mandates of universities and research organizations is a critical way to develop capacity pipelines for open innovation, policy influence, and market incentivization to facilitate transformative changes.

Capacity Strengthening Toward Achieving Agroecological Transition

Agroecological approaches are increasingly promoted for food systems transformation by applying ecological principles, regeneratively using natural resources and ecosystem services, and addressing the need for socially equitable food systems. Yet, despite widespread support from social movements, agroecological transition (AET) is still constrained by a lack of holistic performance metrics, top-down incentives and investments, and limited capacity to engage with private-public finance models, businesses, and policy processes. Large-scale AET requires empowering diverse actors and organizations to exercise their choices and roles to develop individual and institutional capability pipelines to create and harness opportunities for new businesses to capture more value from agriculture and food systems.

Opportunities: Social movements and diverse capabilities are needed

In dynamic food systems, consumers demand greater clarity and transparency about their food, from safety and nutrition quality to sustainability. Their concerns about climate change and nature and their sense of feeling personally impacted are increasing. These social movements are essential drivers of public policies and private-sector efforts, which must be attuned to AET to reduce information asymmetry on food attributes and improve food safety.

Agroecology has evolved over decades to expand from a limited focus on fields and farms to a holistic scope encompassing whole agriculture and food systems. Demand for capacity strengthening is highly diverse at individual and institutional levels; a demand that creates opportunities for developing innovative and interactive ways to induce a large-scale change in food-system actors' behaviors and choices.

Moreover, the availability of digital innovations has contributed significantly to advancing new agroecological production systems and reshaping how food system actors interact with agricultural and market systems. Digital innovations support AET by sharing data, information, and knowledge, enabling the co-design of innovative agricultural equipment and agroecosystems, and creating knowledge to support systemic capacity strengthening.

Challenges: Dominant conventional practices versus transformative change are key

For decades, agroecology has been knowledge-intensive rather than resource-intensive. Bolstering knowledge has been posited as a critical element of any strategy to amplify AET. Consequently, AET capacity strengthening has been limited primarily to bolstering individuals' knowledge and skills, with limited impact at the organizational and whole system level.

AET is a complex and context-dependent process, embedding social, economic, and political issues and the food systems' ecosystem, collective, and global dimensions. Interactive learning among food-system actors is challenging when building horizontal processes, whatever the context. Strengthening AET capacity requires adaptive approaches considering the food system scale and stakeholder diversity.

Large-scale AET increasingly involves the engagement and investment of the private sector and civil society in scaling AET-related innovations. Win-win partnerships are needed to tackle the systemic barriers and dynamic contextual changes. This interactive and proactive scaling is also sensitive to a complex enabling environment encompassing context-specific elements such as people, value chains, markets, financing mechanisms, policies and regulations, professional knowledge, power relations, incentives, and a historical lens. This highlights how capacity is about skills and procedures, incentives, governance, and broader-context vision to transform policies and practices.

Best-fit Capacity Strengthening for Agroecological Transition

What is best-fit capacity strengthening?

Best-fit capacity strengthening (BCS) is rooted in and builds up individual, organizational, and institutional capacities at multiple levels and settings. It aims to enable the capabilities of individuals and institutions to drive translational research and deliver innovative business, inclusive governance, and supportive policy to AET. Therefore, BCS optimizes existing abilities and linkages between actors, their networks, and their operations in the food-systems context. It is also sensitive to external factors such as multi-actor partnerships and collaboration and adverse socio-political and economic conditions like political instability or lack of public sector investment. BCS focuses on three essential capabilities to enable large-scale AET:

- ◉ **Adaptive innovation scaling** to develop value-chain actors' capacity to identify and bundle innovations, business models, and incentive structures to bring innovations to the business and investment forefront.

- ◉ **Engagement and participation capabilities** for grassroots institutions, the private sector, farmers, and consumers to create incentives for agroecological businesses and contribute to evidence-based policies.

- ◉ **Institutional capacity** to boost the application of agroecological principles, ensure the regenerative use of natural resources and ecosystem services, address the need for socially equitable food systems, and facilitate transformational changes in the sector.

Implementing BCS must build on existing system structures, functions, and available capabilities to mobilize the current initiatives, resources, and partnerships for AET capacity strengthening. Engaging with the sectoral stakeholders is critical to success. It will mobilize multi-sector actors joining, contributing to, and buy-in, resulting in sustainable financing, operational sustainability, and impacts.

Operationalizing BCS in Vietnam's Rice Sector

Implementing BCS for AET in Vietnam's rice sector uses sectoral analysis and engagement to map the sectoral actors, analyze necessary capabilities, co-identify pathways, and mobilize the existing initiatives, resources, and partnerships for AET capacity strengthening (Figure 1).
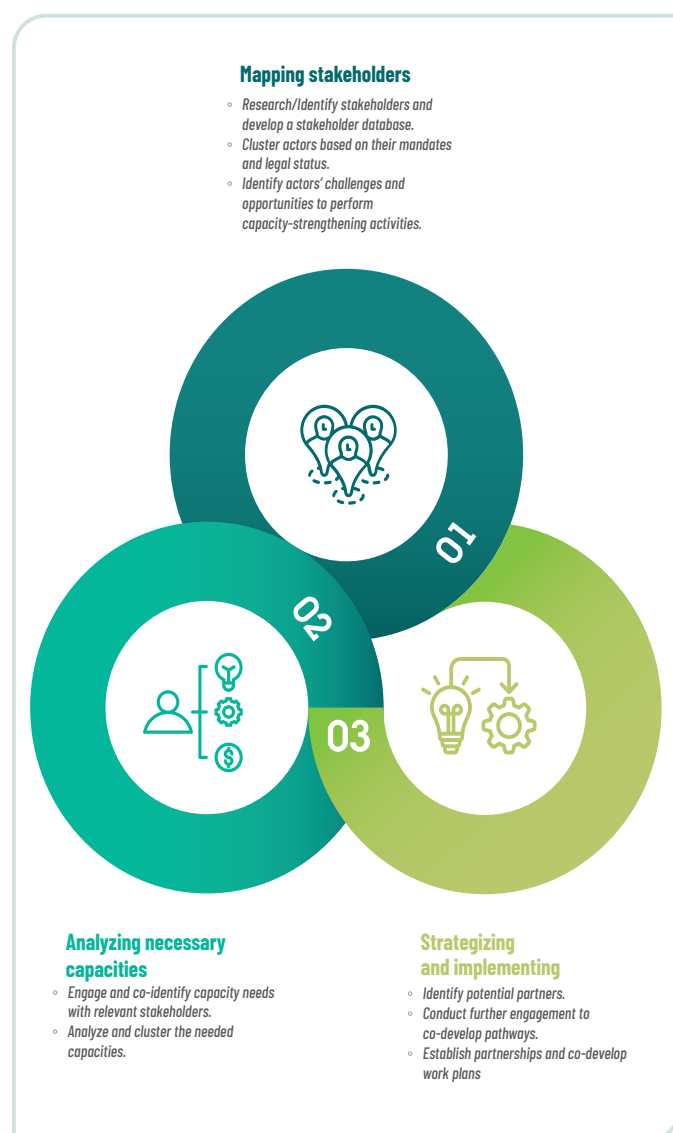

Mapping stakeholders
- ◦ Research/Identify stakeholders and develop a stakeholder database.
- ◦ Cluster actors based on their mandates and legal status.
- ◦ Identify actors' challenges and opportunities to perform capacity-strengthening activities.

Analyzing necessary capacities
- ◦ Engage and co-identify capacity needs with relevant stakeholders.
- ◦ Analyze and cluster the needed capacities.

Strategizing and implementing
- ◦ Identify potential partners.
- ◦ Conduct further engagement to co-develop pathways.
- ◦ Establish partnerships and co-develop work plans

Figure 1. Implementing the best-fit capacity strengthening for agroecological transition with Vietnam's rice sector

Mapping stakeholders provides an overview of the actors in the education and capacity-strengthening sector, identifying and categorizing them into typologies based on their mandates, structure, and legal status. These typologies create a clear picture of the various actor groups and the ongoing and related activities they can undertake to strengthen AET capacity. As a result of this exercise, three groups of key players were identified: 1) Private sector entities, 2) Agroecological multi-stakeholder platforms, processes, and networks (AMSPs), and 3) Academic and research organizations.

Analyzing necessary capacity identifies and classifies critical capacities of the rice sector's actors and stakeholders for enabling AET. It maps the target groups requiring capacity strengthening and analyzes their needs, as indicated in Figure 2.

Strategizing and implementing identifies potential partners to engage and establish partnerships to co-develop capacity-strengthening pathways and jointly deliver activities. Three pathways were identified for capacity strengthening to enable AET in Vietnam's rice sector (Figure 2).

○ *Private sector entities, farmers, and consumers:* Capabilities to drive problem-solving, develop innovations and business models, and enhance sustainability and equitability.
○ *National government and development organizations:* Skills to facilitate interactive learning, enable partnerships to mobilize resources, and materialize opportunities for AET.
○ *Research organizations, academia, and multi-stakeholder platforms:* Capacities to facilitate multistakeholder engagement with AET processes.

○ *Farmers, businesses, and investors:* Knowledge and abilities to co-develop and catalyze context-relevant bundles of innovations and services.
○ *Young entrepreneurs and innovators:* Competence to develop and commercialize demand-driven innovations.
○ *National academic and research organizations:* Ability to develop knowledge, approaches, and tools to support the adoption of AET-related innovations and facilitate win-win partnerships and engagement.
○ *Consumers and government agencies:* Knowledge and capacity to enable evidence-based AET and facilitate the AET integration.

Strengthening the large-scale adoption of agroecological practices

○ *Young entrepreneurs and professionals:* Experience, business skills, and competencies to form, grow, and increase their chances of business success.
○ *National universities and research organizations:* Skills and competencies to engage the private sector in developing demand-driven AET education, creating scientific evidence, and forming multi-sectoral partnerships.
○ *National and local government organizations:* Ability to empower locally adapted decisions and investments.

Enhancing inclusive stakeholder engagement to foster knowledge creation, sharing, and learning

Building institutional and individual capacity pipelines to facilitate transformative changes

Figure 2. Pathways to capacity strengthening to enable agroecological transition in Vietnam's rice sector

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Pathways for AET Capacity Strengthening in Vietnam's Rice Sector

Strengthening adaptive innovation scaling capabilities for the large-scale adoption of agroecological practices

Catalyzing contextually relevant innovations to support AET requires essential capacities such as open innovation development, entrepreneurship, and partnership to co-create long-term inclusive incentives, business models, and private-public investments. This pathway enhances farmers' and their communities' capacities to sustainably produce and supply safe, high-quality, agroecological rice to the domestic and global markets. Partnering with the extension system and private sector companies in Vietnam's rice value chain is crucial for knowledge exchange, technical and business skills development, and innovations. The partnership can integrate agroecological metrics into the private sector's digital traceability and trade promotion. Key activities include:

- **Organizing technical training and farmer field schools** on sustainable farming techniques, ecological pest management, and soil health in group-based learning and experimentation.

- **Establishing on-farm demonstrations and field visits** to provide hands-on experiences and foster knowledge-sharing and interactive learning.

- **Engaging partnerships** to leverage resources, expertise, and networks to develop training programs, materials, and extension services for applying digital traceability and agroecology metrics in the rice value chain.

Enhancing inclusive stakeholder engagement to foster knowledge creation, sharing, and learning

Inclusive stakeholder engagement requires building trust, fostering sustainable networks across sectors, and stimulating multistakeholder joint efforts and investments to enable their ownership and commitment to the transition processes. This pathway encourages knowledge creation, sharing, and cross-sectoral learning to promote successful rice agroecological practices, showcases these practices' benefits, and supports AET-related policy advocacy. Coordinating ongoing AET capacity-strengthening activities of the existing capacity-strengthening agenda of the AMSPs is essential. Key activities include:

- **Enhancing knowledge sharing and collaboration** among private-sector actors, farmers, researchers, and other stakeholders by creating digital platforms and fora to host webinars, discussions, and information repositories to disseminate best practices, case studies, and research findings.

CIAT / Georgina Smith

- **Raising AET awareness** by organizing food safety campaigns and promoting transparent production and market access for agroecological products by connecting farmers with buyers who value sustainable and agroecological products.

- **Influencing policies and regulations incentivizing agroecological adoption** by facilitating policy dialogues, generating evidence, and providing practical examples for policymakers and relevant stakeholders.

Building institutional and individual capacity pipelines to facilitate transformative changes

Institutional and individual capacity pipelines require developing abilities to create and facilitate AET-related transformative changes. This pathway develops capacities for demand-driven innovation development, policy influence, and market incentivization. Integrating demand-driven knowledge, innovations, and skills into the mandates of the universities and research organizations working on agroecology, environmental sustainability, and natural resources are essential pathways. Key activities include:

- **Integrating and enhancing AET-related content and topics** into training curricula and research agendas.

- **Conducting demand-driven research and open innovation hackathons** to develop human resources to facilitate AET processes.

- **Creating and sharing scientific evidence** to support public and private sector decision-making toward AET investments and to influence supportive policies and regulations.

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Acknowledgments

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