
## Session 21:
## Advancing agroecology for Caribbean SMEs

*Tuesday 16 June 2026 – 14:00-16:00 UTC / 10:00-12:00 AST*

*Online (Zoom)*

*Live interpretation in English, French, Spanish and Portuguese*

### 1. Context

The agrifood sector plays an important role in food supply, rural livelihoods, and economic activity across the Caribbean, with a strong presence of small and medium-sized enterprises (SMEs) that drive production and value chains. Yet, agrifood systems face a combination of structural and environmental pressures, including uneven economic growth, high trade costs, food insecurity, and growing climate-related risks. The region remains highly dependent on food imports and is increasingly exposed to external shocks, highlighting the need to further strengthen local food systems[1].

In this context, agroecology is increasingly identified as a relevant approach to support more resilient and sustainable food systems. Agroecology refers to the application of ecological principles to agricultural systems, promoting diversification, the use of biological processes, and the integration of local knowledge in farm management[2]. It is commonly framed around ten elements: diversity, synergies, recycling, human and social values, responsible governance, resilience, efficiency, co-creation and sharing of knowledge, culture and food traditions, and circular and solidarity-based economic systems[3]. In practice, this may include combining crops and trees, improving soil cover, recycling nutrients, and strengthening on-farm ecological interactions.

Many Caribbean farming systems already incorporate elements consistent with agroecological principles, such as mixed cropping, use of organic amendments, and tree-based production. These practices often reflect adaptive responses to local constraints rather than the application of a formal model, highlighting the need for approaches that are adapted to specific agroecological and socio-economic conditions[4].

Agroecology is therefore best understood as a flexible and context-specific approach that brings together different practices and knowledge systems. Strengthening collaboration between scientific knowledge and farmer experience can help ensure its practical relevance, supporting more productive, resilient, and sustainable outcomes for Caribbean SMEs[5].

### 2. Objectives and expected outcomes

This webinar will explore how agroecology can support Caribbean agrifood SMEs in strengthening productivity, resilience, and sustainability through practical and context-appropriate approaches. It will bring together entrepreneurs, technical experts, and ecosystem actors engaged in sustainable agriculture and SME development.

By the end of the session, participants will be able to:

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[1] FAO and CDB. 2020. Study on the state of agriculture in the Caribbean.
[2] FAO. Agroecology Knowledge Hub : What is Agroecology?
[3] FAO. The 10 Elements of Agroecology framework process.
[4] Stark, F. & al. 2017. Crop-livestock integration determines the agroecological performance of mixed farming systems in Latino-Caribbean farms.
[5] Wordsell, L, S. 2025. Has agroecology lost the plot? The fracture between science, movement, and practice in the Insular Caribbean

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- Understand the relevance of agroecological practices for Caribbean SMEs and food systems.
- Identify practical agroecological approaches that can be applied at farm and enterprise level.
- Learn from SME experiences and real-world examples of transition trajectories.
- Recognise key enabling conditions for adopting agroecological approaches (knowledge, finance, and market access) and technology adoption.
- Connect with relevant technical and business support actors.

## 3. Opportunities of adopting agroecological practices and improved technologies

Advancing agroecological practices and technologies can offer Caribbean SMEs several practical and strategic benefits, particularly in the context of climate variability, high input costs, limited input availability, and increasing market pressure.

**Improved soil productivity and long-term farm performance:** Agroecological practices such as integrating organic amendments, crop rotation or intercropping can help maintain and restore soil fertility over time. Such practices can disrupt pest and disease cycles and support more stable yields across seasons. Combining organic manure with mineral fertilizer amendments improves nutrient use efficiency and may revert nutrient mining and soil degradation. Such practices contribute to more productive and resilient farming systems, especially where soils are already fragile[6].

**Reduced dependence on costly external inputs:** Practices such as composting, biological pest control, botanical treatments, and nutrient recycling can significantly improve use efficiency of fertilizers and reduce investment risks of mineral fertilizers and plant protection products, while reducing pesticide risks. These can help lower production costs while maintaining or improving farm productivity, which is particularly important for SMEs operating under tight financial margins[7].

**Greater resilience to climate variability and water stress:** Agroecological practices strengthen the ability of farming systems to cope with increasing erratic weather patterns. Improved soil structure increases water retention, while practices such as rainwater harvesting and efficient irrigation (e.g. drip systems) may help manage water scarcity. Together, these measures can reduce the risk of crop failure and production volatility[8].

**Access to differentiated and higher-value markets:** There is growing demand in domestic, tourism, and export markets for sustainably produced food. SMEs adopting agroecological practices may benefit from access to premium or niche markets where buyers value environmental sustainability, and responsible production methods. This can translate into improved income opportunities over time[9].

## 4. Key challenges for Caribbean SMEs

While agroecological practices combined with technology adoption may offer important opportunities for more resilient and sustainable farming systems, Caribbean SMEs face several structural and operational constraints in their adoption and scaling.

**Knowledge and technical capacity**: Agroecological approaches are system-based and often require more complex farm management skills, including diversification, soil management, and ecological integration. In many contexts, SMEs have limited access to practical, locally adapted technical support and extension services, which can slow adoption and limit effective implementation[10].

**Financial constraints and risk exposure**: Agroecological transitions may require upfront investments in new practices, inputs, or equipment, while benefits may only accumulate gradually over time. For SMEs operating with limited financial buffers, this can increase perceived risk, particularly where short-

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[6] Suwilanji, S. 2023. Opportunities and Challenges for the Promotion of Transitions to Agroecological Practices for Sustainable Food Production in Sub-Sahara Africa.
[7] AgriFocus. 2025. Sustainable Farming for Caribbean Smallholders.
[8] *ibid*
[9] IFAD. Markets and value chains.
[10] FAO. 2022. Transforming public agricultural extension and advisory service systems in smallholder farming.

term productivity or cash flow is critical. Access to appropriate financing mechanisms that support transition periods remains uneven[11].

**Market and value chain limitations:** Although demand for sustainably produced food is growing, SMEs may face barriers related to certification requirements, documentation capacity, and the costs of compliance[12]. In addition, linkages between producers and premium or differentiated markets are not always well developed in the Caribbean, limiting the ability to fully capture potential value.

**Context-specific performance of agroecological approaches:** While agroecology can improve resilience, biodiversity, and input efficiency, outcomes are highly dependent on local conditions. In some systems, particularly where land is already fragmented, resources are limited, or soils are highly degraded, agroecological transitions may need to be carefully combined with complementary approaches, including improved varieties or judicious use of external inputs, to restore or maintain productivity and avoid unintended trade-offs[13].

## 5. Enabling the transition: pathways for Caribbean SMEs

Supporting Caribbean SMEs in adopting agroecological practices requires a combination of financial, knowledge, market, and policy enablers.

**Access to appropriate financing**: Instruments that support transition periods are important, where benefits are gradual and financial risks are high. Blended finance, climate-related funds, and tailored agricultural credit can help SMEs invest in agroecological practices while managing short-term risks[14].

**Strengthening knowledge and advisory systems**: Peer learning, farmer field schools, and adapted extension services are particularly important for supporting practical adoption and adaptation of practices and technologies at farm level. Digital tools and platforms can also complement in-person support, improving access to practical guidance[15].

**Collective action:** Producer organisations and cooperatives can help SMEs reduce costs, improve access to markets, and strengthen their position in value chains, including those linked to tourism and sustainability-oriented buyers[16].

**Policy and institutional support**: They play a facilitating role by creating enabling conditions for transition, including incentives for agroecological practices, investment in soil monitoring systems, and support for inclusive value chain development.

## 6. The way forward

Adopting locally sound agroecological practices combined with technology adoption may offer a relevant pathway to reduce risks and strengthen the resilience, productivity, and sustainability of Caribbean agrifood SMEs. Through more diversified farming systems, improved ecological functions, and more efficient use of resources, it can support more stable and adaptive production in the face of climate and market uncertainty. Its effectiveness, however, depends on local conditions and on the capacity of SMEs to progressively adapt practices over time. Realising its potential will require sustained support in terms of knowledge, finance, and market development, tailored to the specific agroecological and socio-economic realities of the SME in particular. With the right enabling environment, advancing agroecological practices can contribute to more resilient, viable, and SME-led agrifood systems in the Caribbean.

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[11] IDB. 2025. Agricultural productivity in Latin America and the Caribbean.
[12] UNCTAD. 2018. Standards keep people and planet healthy but cost small firms.
[13] Mudombi-Rusinamhodzi, G. & Rusinamhodzi, L. 2022. Food sovereignty in sub-Saharan Africa: Reality, relevance, and practicality.
[14] IMF. 2021. Fintech and Financial Inclusion in Latin America and the Caribbean.
[15] FAO. 2020. Supporting climate adaptation in smallholder agriculture.
[16] FAO. 2013. Smallholder integration in changing food markets

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**Caribbean Agrifood Business Series**

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**Moderation**: *Allister Reynold Glean, Representative in Barbados, IICA*

14:00-14:10 Introduction remarks
- *Ines Bastos, Head of Networks and Alliances, COLEAD*

14:10-14:50 Panel 1: Experiences from Caribbean SMEs in agroecological practices
- *Anja Fernand, Founder and Director, Food Harmony Incorporated, Saint Lucia*
- *Rashonda Stuart, Tour Guide, Coco Hill Forest, Barbados*
- *Damian Adjodha, Founder and Director, New Flower Regenerative Garden, Saint Lucia*

**Moderation**: *Nina Desanlis-Perrin, Project Officer, COLEAD*

14:50-15:30 Panel 2: Insights from experts in agroecology
- *Margarita Fernandez, Executive Director, Caribbean Agroecology Institute*
- *Erle Rahaman-Noronha, Director, Caribbean Permaculture Research Institute & Wa Samaki Ecosystems*
- *Pieterjan De Bauw, Senior Project Manager, COLEAD*

15:30-15:50 Q&A session

15:50-16:00 Conclusion and way forward

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