Agro-ecology: What it is, what it has to offer, and how agro-ecological practices could be more widely adopted

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What is agroecology

“The application of ecological concepts and principles to the design and management of sustainable agro-ecosystems” (Altieri, 1995)

→ SCOPE: The agro-ecosystem

→ OBJECTIVE: Its sustainability

→ FOCUS: Design and management, as defined by a SET of PRINCIPLES
What are the core principles of agroecology?

1. Holistic approach to landscape design and management: the farming system should be harmonised with the productive potential and the physical limits of the agro-ecosystem
2. Diversification of species and genetic resources - including local breeds and varieties
3. Smart use of ecological functionalities and synergies within the agro-ecosystem
4. Recycling and efficiency in the use of nutrients, inputs and energy
5. Local sourcing of inputs and resources and minimum use of polluting, non-recyclable inputs
How do agroecological farming systems look like?

Different degrees of ‘optimisation’ or ‘ecological intensification’
What are the benefits of agroecology?

- High productivity in terms of: commodities, non-commodities outputs and ecosystem services
- Improved livelihoods and food security
- Environmental sustainability, climate adaptation and mitigation
How can agroecology be more widely adopted?

• Reorient and invest in research, extension and innovation systems

• Provide payments for ecosystem services and incentives for early adopters

• Secure rights and access to land and other natural resources
Towards the ecological intensification of agriculture

- Wide policy scope and long-term vision
- Cultural and philosophical shift: What do we mean by ‘productive’ and ‘efficient’?
- Everyone has a role to play!
Thank you!

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