



Food and Agriculture Organization
of the United Nations

FAO Support to the Government of the Republic of Zambia

Agroecology for Sustainable Agriculture

Presentation by: Zuba Mwanza, FAO Zambia



Presentation Outline

- 1. The Agroecology Framework**
- 2. 10 Key Elements of Agroecology**
- 3. What is FAO doing to promote Agroecology in Zambia**



The Concept of Agroecology

Definition of Agroecology:

The science of applying ecological concepts and principles in the management of interactions between plants, livestock, human beings and their natural environment, for enhanced food security and nutrition (FAO, 2015).



The FAO Agroecology Framework

- FAO hosted a 2-day International Symposium on Agroecology for Food Security and Nutrition, which culminated in a high-level round table, with agriculture ministers from several countries including Zambia.
- More than 50 experts, including academic professors, researchers, private sector, government officials and leaders of civil-society organizations, made presentations or speeches at the symposium, which was attended by more than 400 people.
- FAO developed an Agroecology Framework, with 10 Key Elements or Tenets, that countries can use in fostering sustainable transformative change in agrifood production systems.



The 10 Elements of Agroecology

- 1. Diversity:** Diversification is key to agroecological transitions to ensure food security and nutrition, while conserving, protecting and enhancing natural resources
- 2. Co-creation and sharing of knowledge:** agricultural innovations respond better to local challenges when they are co-created through participatory processes.
- 3. Synergies:** building synergies enhances key functions across food systems, supporting production and multiple ecosystem services.
- 4. Efficiency:** It is crucial to use resources efficiently.
- 5. Recycling:** Agroecology seeks to minimize waste and optimize resource use.



The 10 Elements of Agroecology

- 6. Resilience:** Agroecology seeks to create agri-food systems that are more resilient to environmental and economic shocks.
- 7. Human and social values:** Agroecology prioritizes human and social values.
- 8. Culture and food traditions:** Agroecology respects the cultural and food traditions of local communities.
- 9. Responsible governance:** Agroecology seeks to create systems of governance that are responsible and inclusive.
- 10. Circular and solidarity economy:** Agroecology seeks to create an economy that is more circular and solidarity-based.



FAO Work Promoting Agroecology

- 1. Sustainable Crop Intensification:** Through production systems and crop management technologies that increase productivity without adverse effect on natural resources, enhancing climate change resilience and input-use efficiency, while enabling farmers to competitively participate in markets.
- 2. Climate Resilient Agronomic Practices :** Promoting resilient agricultural livelihoods in the face of changing rainfall, increasing drought and occasional flooding
- 3. Sustainable Soil Management Practices:** enhancing technical and institutional capacities for data-driven and integrated soil information and fertility management at national and farm level



FAO Work Promoting Agroecology

- 4. Backyard Vegetable Gardening:** promoting the production and consumption of horticultural crops for improved nutrition
- 5. Efficient Water-use Management:** offers technical assistance to the govt. in the design and implementation of on-farm irrigation systems, water-saving techniques, and the identification and adaptation of irrigation techniques, as well as adoption of water-harvesting techniques.
- 6. Agroforestry:** can improve soil fertility, protect crops and livestock from wind, restore degraded lands, improve water conservation, limit pests and prevent soil erosion.



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- 7. Crop Diversification:** Enhancing agrobiodiversity because crop diversification increases productivity and stabilizes income of smallholders, due to reduced risk.
- 8. Integrated Pest Management:** Agroecological crop protection for sustainable agriculture [E.g. Integrated Pest Management and biological control of FAW]
- 9. Integrated Farming Systems:** Integrating crop and livestock production; integrated crop and fish production; as well as forest and crop production systems.
- 10. Policy Support:** the development and review of key policies and strategies [Eg. CATSP, Plant Health Strategies, Value Chain Development Strategies]



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11. Emergency Response:

- Drought Response: Response planning and resource mobilization



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Thank You