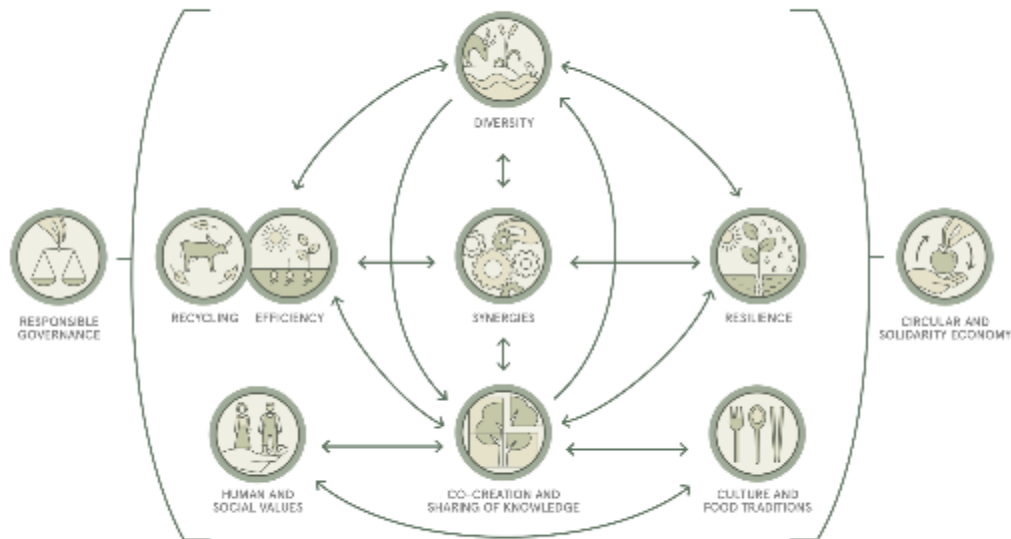




The 10 Elements of Agroecology: Guiding Transitions To Sustainable Food and Agricultural Systems





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Agroecology

A **polysemic concept** with over **30 definitions** adopted by government, Academia and CSOs (FAO website, AgroecologyLex)

Applies **ecological concepts & principles** to optimize interactions between plants, animals, humans and the environment while taking into consideration **social aspects** needed for a **sustainable and fair food system**

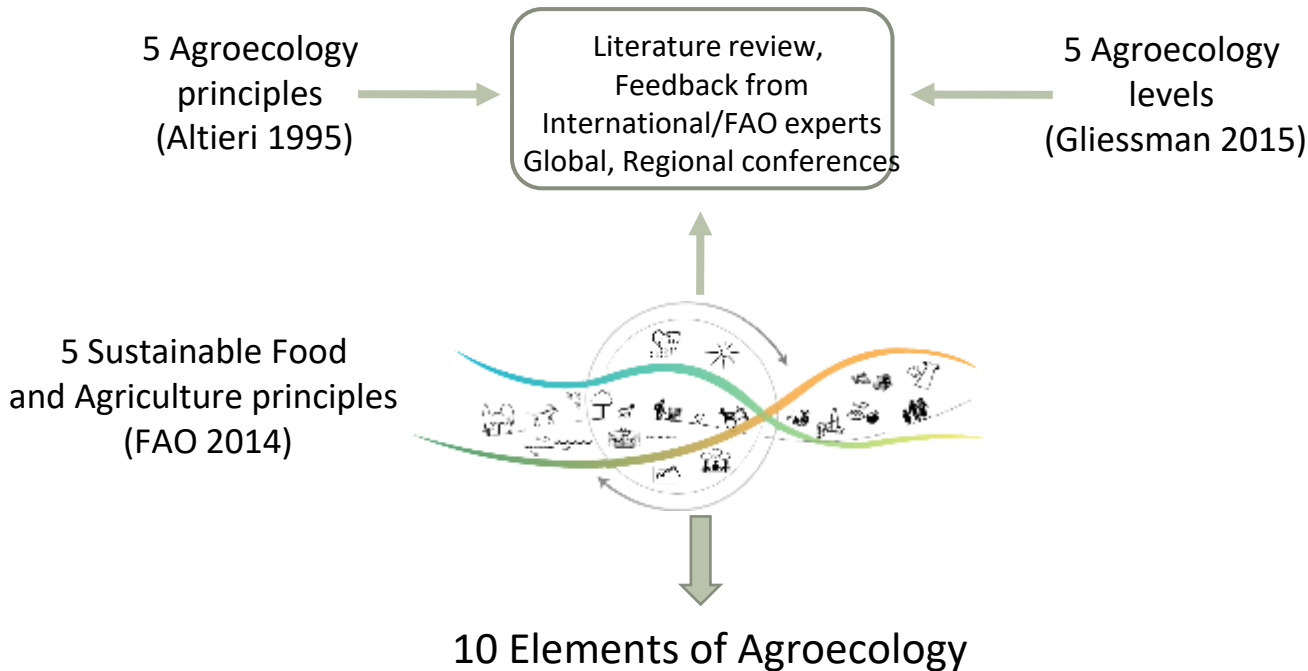
Highly **knowledge-intensive**, builds upon **farmers' collective knowledge & innovations** (attractive for rural youth)





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The 10 Elements of Agroecology: Harmonizing Principles and Levels





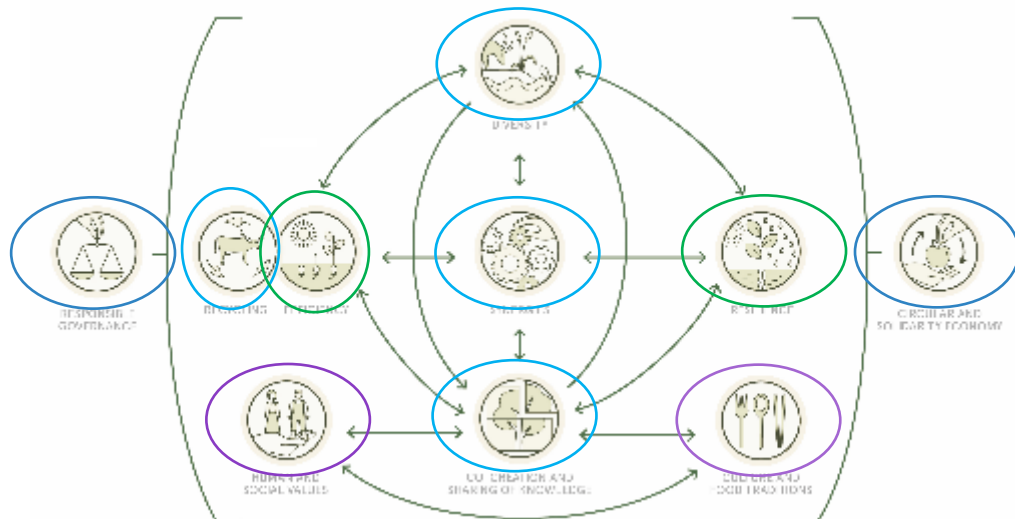
Purpose of the 10 Elements

- The 10 Elements seek to capture the most important agroecological principles/concepts to support countries to scale-up agroecology
- As a framework, the 10 Elements help to define FAO's work on agroecology in an inclusive way, without privileging one definition, stakeholder group, or region
- By highlighting important agroecological principles and properties at farm and agro-ecosystem level, and within wider food systems, the 10 Elements point to different entry points for the work of FAO and partners to strengthen agroecology



The 10 Elements of Agroecology

- Myriad of interactions and interdependencies
- Common characteristics, foundational practices and innovation approaches
- Emerging properties
- Context features
- Enabling environment





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DIVERSITY

Diversity

- Agroecological systems are highly diverse
- Optimize diversity (Crops, trees, animals)
 - Species
 - Varieties/Breeds
- Benefits
 - Production
 - Ecosystem services
 - Environmental
 - Socio-economic
 - Nutrition
 - Resilience



Diversification is key to agroecological transitions to ensure food security and nutrition while conserving, protecting and enhancing natural resources.



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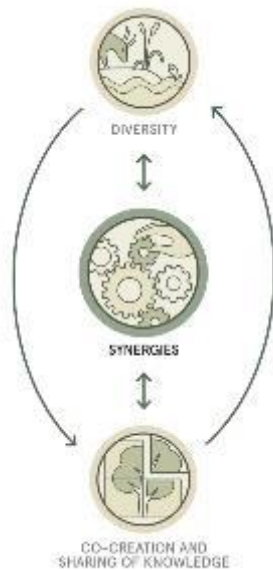
Co-creation and sharing of knowledge



- Knowledge intensive
- Context-specific knowledge
- Participatory processes
 - Traditional/indigenous knowledge
 - Practical knowledge
 - Scientific knowledge
- Education (formal and non-formal)



Agricultural innovations respond better to local challenges when they are co-created through participatory processes.

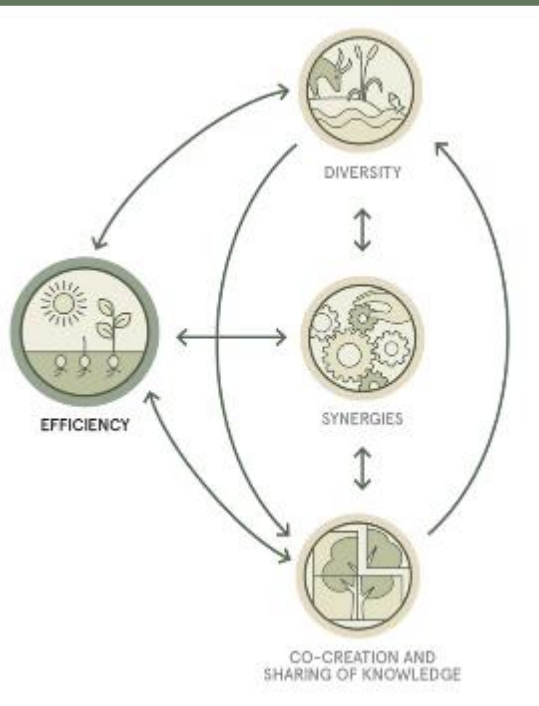


Synergies

- Selectively combine:
 - Annual crops
 - Trees and perennial crops
 - Livestock
 - Aquatic animals
 - Soils
 - Water, etc.
- Synchronization in time and space
- Minimize trade-offs



Building synergies enhances key functions across food systems, supporting production and multiple ecosystem services.

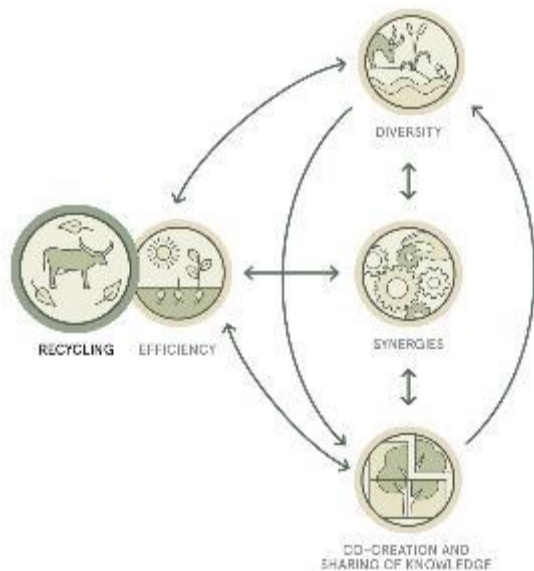


Efficiency

- Output/Input
- Free/abundant natural resources
 - Solar radiation
 - Atmospheric carbon
 - Atmospheric nitrogen
- Recycling
- Use of external inputs ↓
 - Costs ↓
 - Environmental impacts ↓
 - Ecosystem services ↑
 - Resilience ↑



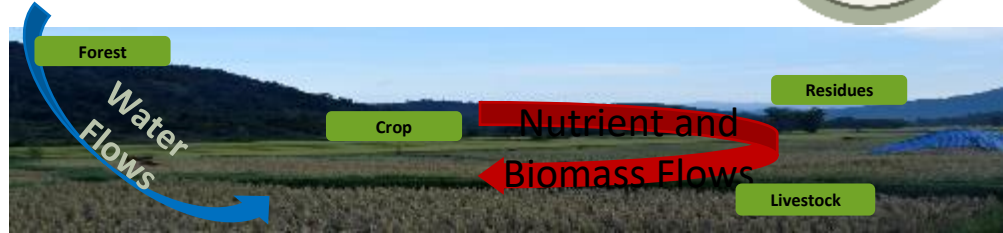
**Innovative agroecological practices produce more
using less external resources.**



Recycling

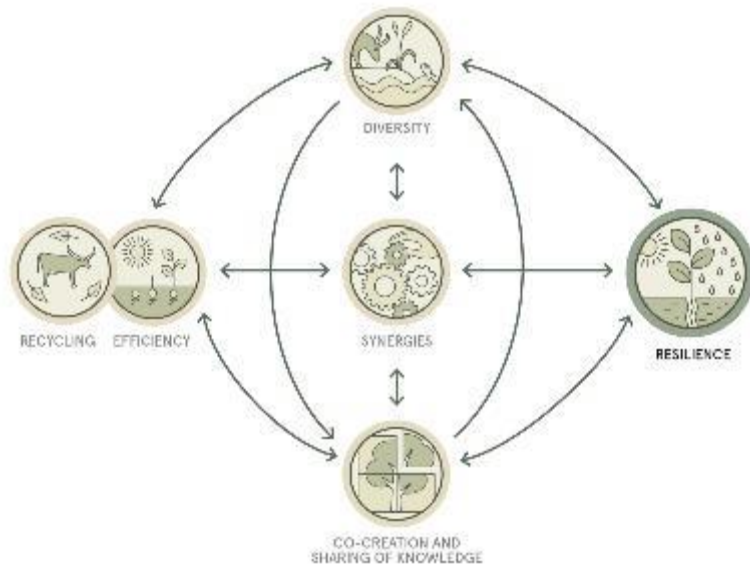


- Biological processes recycling
 - Nutrients
 - Biomass
 - Water
- Efficiency ↑
- Pollution ↓
- Farm and landscape scale



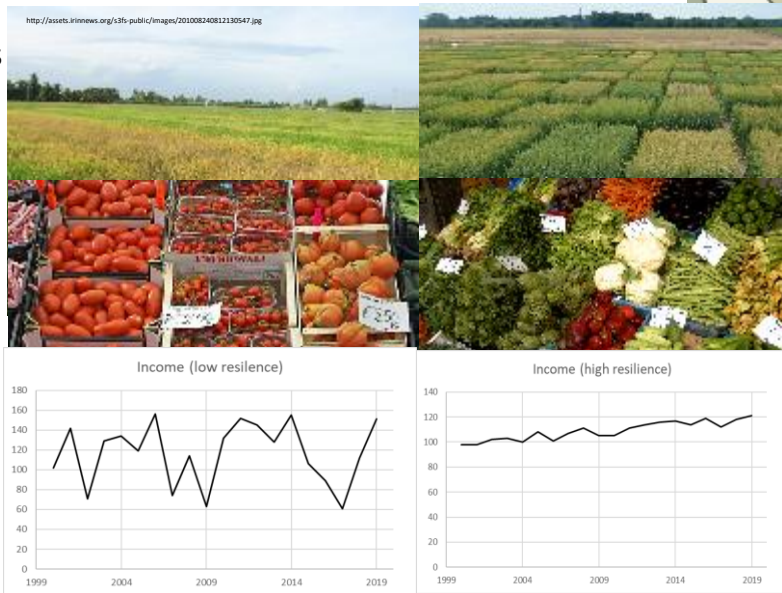
https://twitter.com/Garrett_Lab/status/1052847148553162752/photo/1

More recycling means agricultural production with lower economic and environmental costs.

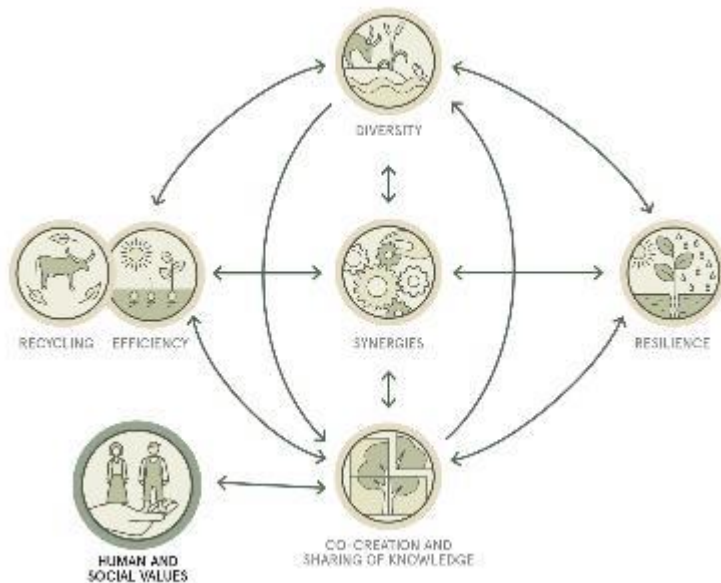


Resilience

- Capacity to recover from disturbances
- Ecological resilience
 - Self-regulate pest outbreaks
 - Resistance to extreme weather
- Socio-economic resilience
- Diversification
- Integration
- External inputs ↓



Enhanced resilience of people, communities and ecosystems is key to sustainable food and agricultural systems.



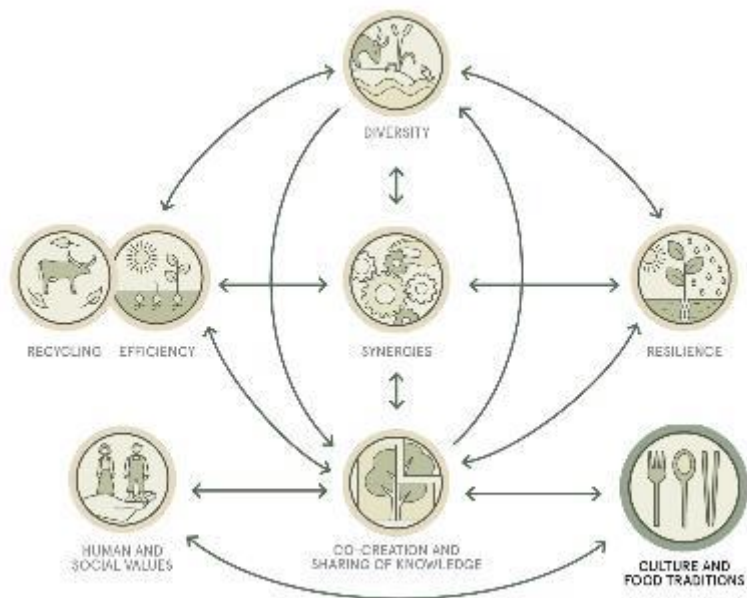
Human and social values



- Core values
 - Dignity
 - Equality
 - Inclusion
 - Justice
- Producers/communities
 - Autonomy, adaptive capacities
 - Empowerment
 - Agents of change
- Gender equality
 - Decision making
 - Access to resources
- Rural youth
 - Decent agricultural jobs
 - Labor and knowledge intensive

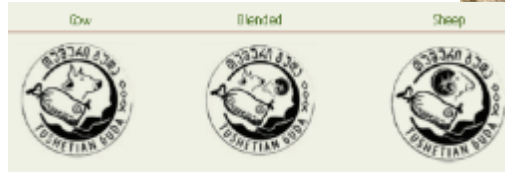


**Protecting and improving rural livelihoods,
equity and social well-being
is essential for sustainable food and
agricultural systems.**

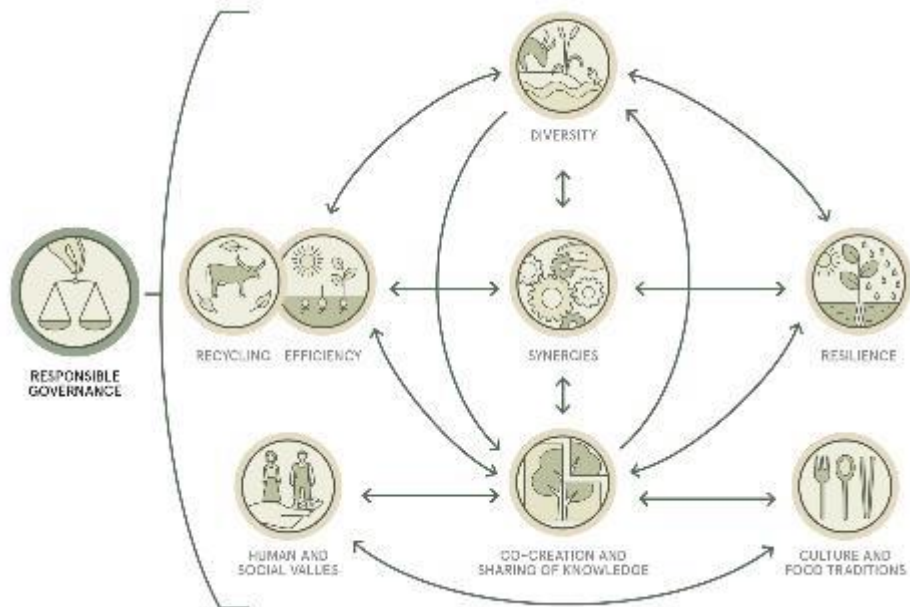


Culture and food traditions

- Agriculture and food are core to human heritage
- Disconnection between food habits and culture
 - Obesity
 - Malnutrition
 - Hunger
- Re-balance tradition and modern food habits
- Source of inspiration for AE solutions



By supporting healthy, diversified and culturally appropriate diets, agroecology contributes to food security and nutrition while maintaining the health of ecosystems.



Responsible governance

Transparent, accountable, inclusive

- Enabling environment
- Producer's empowerment

Examples:

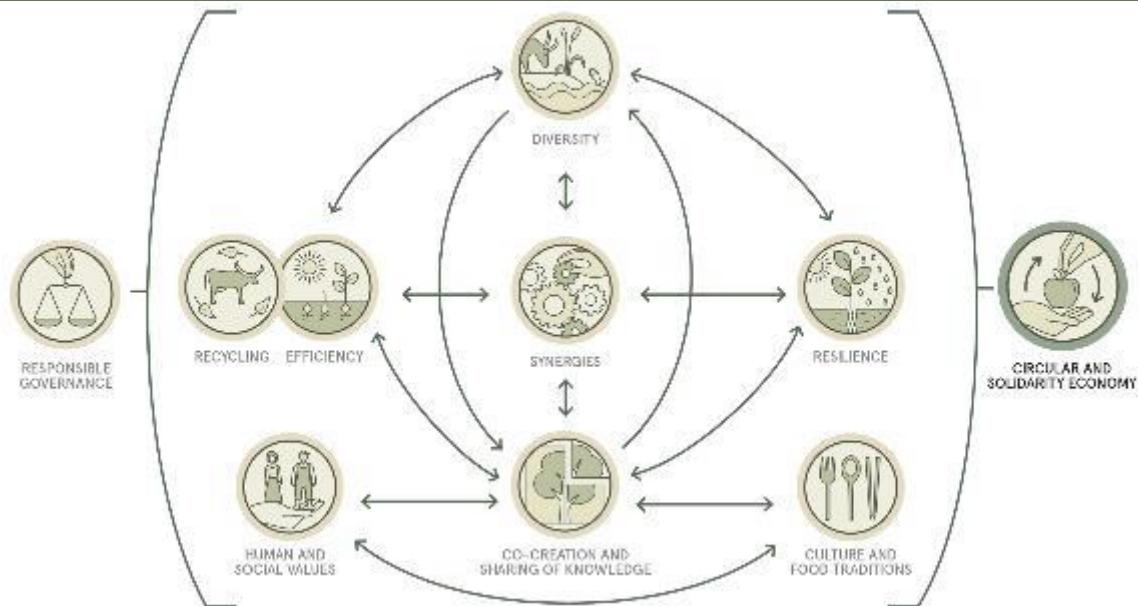
- School feeding
- Procurement programs
- Subsidies/payments for ESS
- Branding agroecological produce
- Access to land and natural resources
 - Justice
 - Long-term investments



Sustainable food and agriculture requires responsible and effective governance



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Circular and solidarity economies that reconnect producers and consumers provide innovative solutions for living within our planetary boundaries while ensuring the social foundation for inclusive and sustainable development.



The 10 Elements of Agroecology

