

NEXT GENERATION AGRICULTURE

Harnessing alternative solutions for the SUR

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Why is the Sustainable Use of Pesticides Regulation (SUR) important for Agroecology Europe?

- Our members : farmers, as well as scientists and engaged citizens from all over Europe are clear: **it is feasible, desirable and urgent to reduce pesticides use in Europe**
- **The SUR is an opportunity to recognise agroecology as a systemic response to the various challenges facing our food systems and as an alternative to the use of pesticides**
 - ◆ Maintaining or improving agricultural productivity
 - ◆ Producing healthy food
 - ◆ Reducing the negative impacts of agriculture on ecosystem and human health
 - ◆ Ensuring the economic viability of farms
 - ◆ Adapting agriculture to climate change reverting the trend of biodiversity loss
- **An opportunity to bring political decision-making in Europe into line with scientific evidence to improve food safety in Europe and worldwide:** The drastic loss of biodiversity, and in particular of insect and bird biodiversity on farmlands due to the extensive use of pesticides, represents a major risk to food security

13 principles of Agroecology : High Level Panel of Experts on World Food Security (2019)



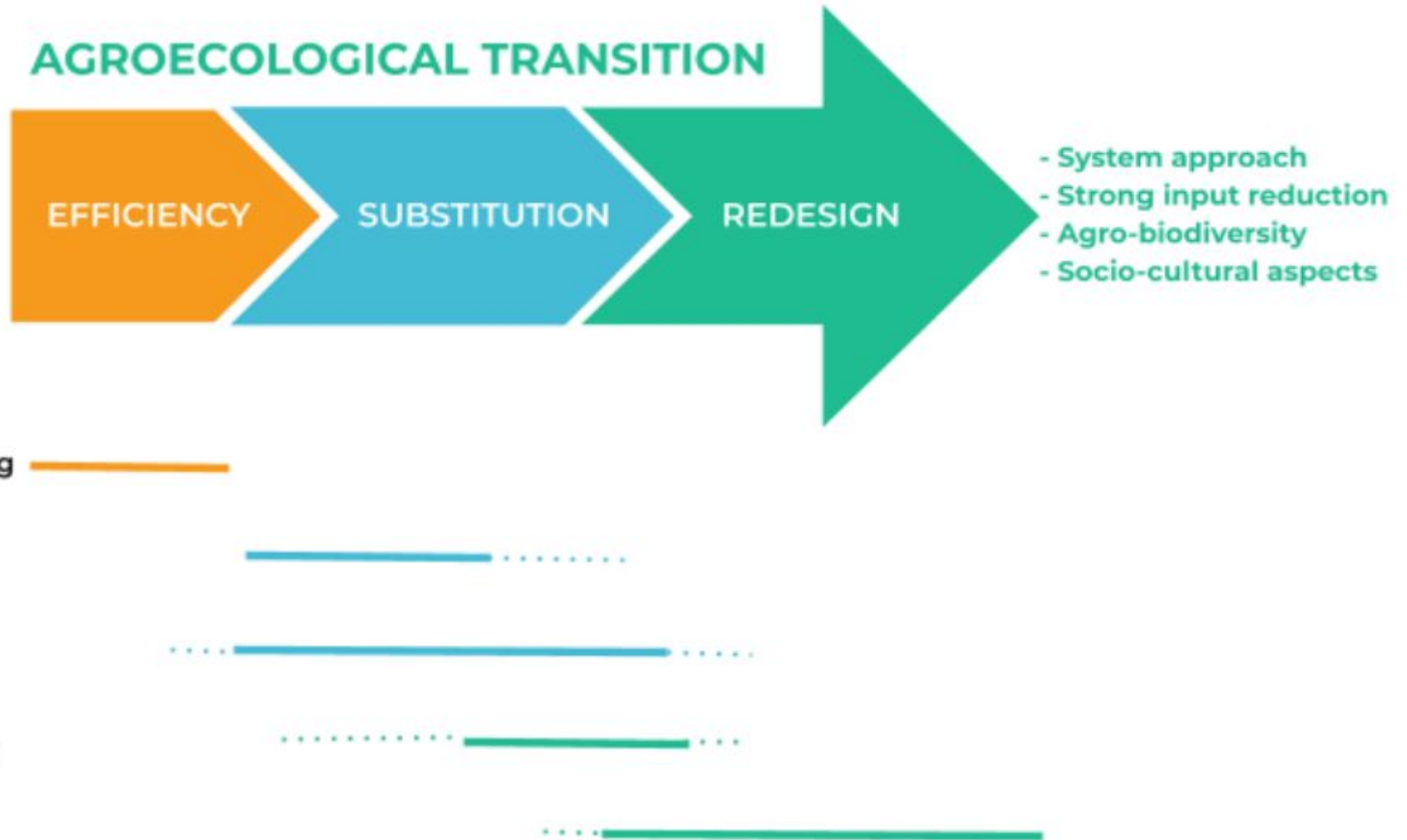


Figure 1. The three stages of agroecological transition.
 Source: Adapted from Bàrberi (2021) and based on Hill and MacRae (1995).



How does agroecology offer solutions that promote resilience, sustainability, and equity in the agriculture sector?

What are some concrete examples of successful agroecological practices and their benefits to farmers and the environment?

Farming with nature: Functional agrobiodiversity is farmers' best ally



- **Reduction of pest impacts through the reorganization of cropping practices**
- **Improving ecosystem services through diversification**
 - ◆ greater resilience of agro-ecosystems to disturbances, reducing pest outbreaks and conserving biodiversity
 - ◆ Insects play an essential role in farming systems through pollination, decomposition of organic matter, regulation of pests
 - ◆ develop a dense ecological network on farm, especially through the adoption of landscape structures and (semi-)natural features
- **Harnessing natural processes and creating beneficial biological interactions and synergies**
 - ◆ between plant, animal and microbial communities
 - ◆ below and above ground
 - ◆ within and around agroecosystems

Agroecological cropping practices

Scale of application



Landscape

development of a dense ecological network, Integration of semi-natural landscape elements (hedges, grass strips)



Cropping system

Intercropping, cover crops, diversified crop rotations, cultivar mixtures, agroforestry



Biological pest control
Natural pesticides



Field

Direct seeding into living cover crops, Reduced tillage to restore soil life



Organic fertilisation, Continuous soil cover



(Wezel et al. 2014, Agronomy for Sustainable Development, modified)

Etienne Allard farm : a virtuous and sustainable example of agroecological transition



agroecological farm visit with MEPs in March 2023

“There are and will continue to be many sustainability initiatives. We're 100% committed to them, because it's the only way to get by and ensure a future on the farm for our children.”

- soil health restoration with no-tillage practices
- drastic reduction of pesticides use
- long and diversified crop rotations
- intercropping
- hedges and semi-natural landscape features
- feed autonomy on the farm
- organic fertilisation based on manure and digestate from biomethanisation
- energetic autonomy thanks to a biomethan plan
- Generational renewal is insured

Agroecological systems are fit for the “Next Generation Agriculture”

→ **CARBON SEQUESTRATION**

agroecological systems can sequester in average about 1 t Carbon per ha and per year

→ **BIODIVERSITY MAINTENANCE AND RESTORATION**

After conversion to a well-developed agroecological system that includes an ecological network of grass strips and hedges, complex mixtures of cover crops, reduced tillage techniques

→ **JOB CREATION AND GENERATION RENEWAL**

Agroecological farms have almost always one, two or three successors who are willing to take over the farm of their parents. This contrasts with the situation of conventional farms which usually don't have successor in their vast majority.

→ **IMPROVE FARM WORKING CONDITIONS**

Shift from input-intensive to knowledge-intensive farming systems improves the importance of farmers, their social recognition and working conditions



The way forward is scaling up Agroecology together

- **Waiting any longer and delaying the transition towards agroecology is leading us always closer to points of no return**
 - ◆ **climate change**
 - ◆ **biodiversity loss**
 - ◆ **collapse of family farming in Europe**

- **Funding the agroecological transition : Farmers must be supported in the necessary transition towards agroecology and deserve to be paid and properly supported for the ecosystem services they contribute to restore and maintain**
 - ◆ **independent Farm Advisory Services**
 - ◆ **public money for public goods**

THANK YOU FOR YOUR ATTENTION



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Additional references



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