

Regenerative agriculture

-Innovation or greenwashing?



Agenda

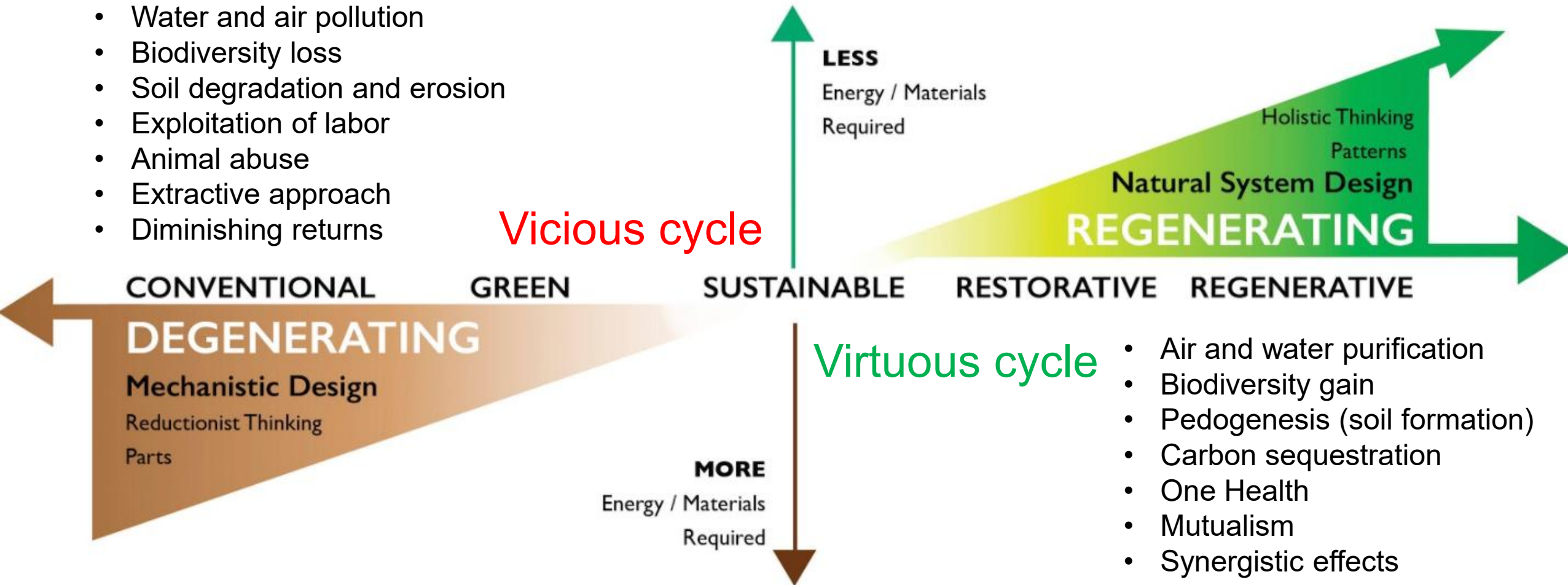
- What is Regen Ag?
- Why Regen Ag?
- Who promotes Regen Ag?
- Which practices are considered regenerative?
- Innovation or greenwashing?



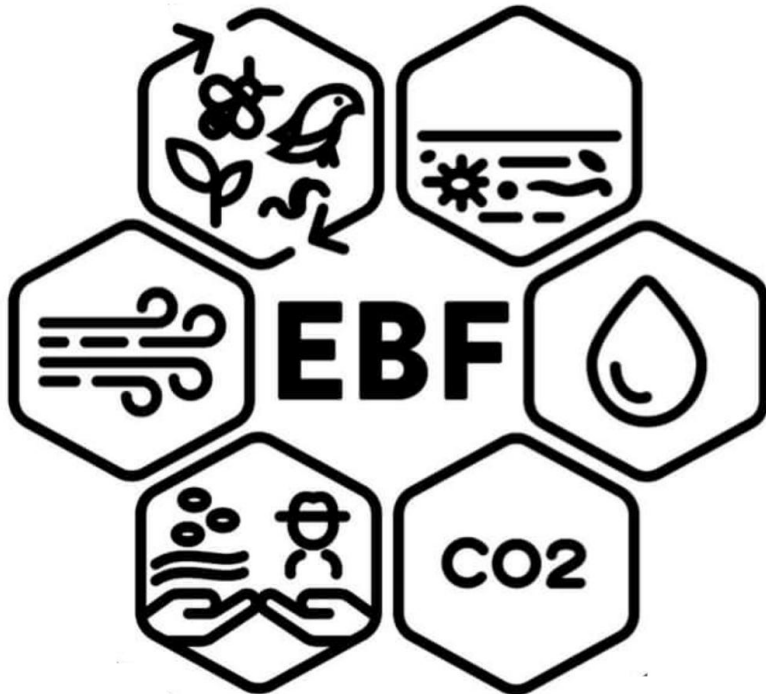
What is Regen Ag?

What does the term "regenerative" mean?

- Water and air pollution
- Biodiversity loss
- Soil degradation and erosion
- Exploitation of labor
- Animal abuse
- Extractive approach
- Diminishing returns



What is to be regenerated?



- Soil
- Biodiversity
- Air
- Water
- Equity
- Climate



Principles for regenerative organic farming in Denmark

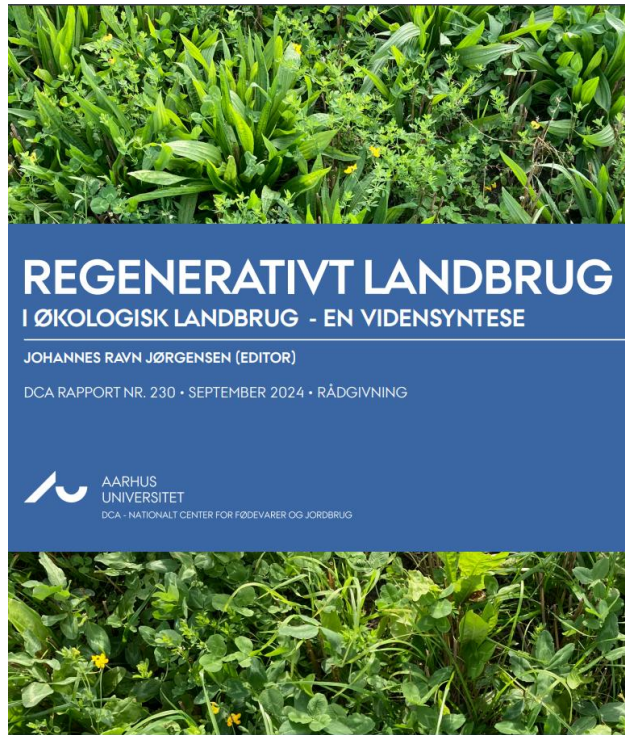


Figure source: Jørgensen JR, Enni JA, Dalgaard T, Horsted K, Ingvorsen B, Jakobsen M, Jensen EH, Kongsted AG, Thorsøe MH, Kristensen HL, Pedersen LJ, Pedersen TM, Rasmussen C, Trkulja I. 2024. Regenerativt landbrug i økologisk landbrug – en vidensyntese. 117 sider. Rådgivningsrapport fra DCA – Nationalt Center for Fødevarer og Jordbrug Aarhus Universitet, leveret: 31.08.2024. <https://dcapub.au.dk/djfpublikation/djfpdf/DCArapport230.pdf>

4 principper for økologisk landbrug

Sundhedsprincippet
(Health)

Kredsløbsprincippet
(Ecology)

Retfærdighedsprincippet
(Fairness)

Forsigtighedsprincippet
(Care)



5 principper for regenerativt økologisk landbrug

Minimal forstyrrelse af jorden Minimal soil disturbance

Levende plantedække året rundt Year-round vegetative cover

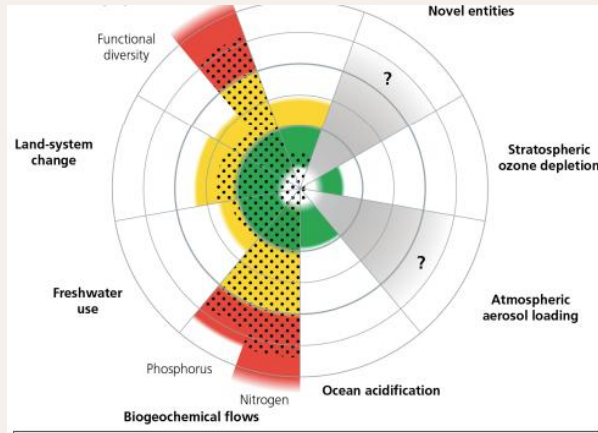
Maksimal artsdiversitet Maximum species diversity

Integration af husdyr og planteavl Integration of livestock and plant production

Recirkulering af ressourcer Recirculation of resources

Why Regen Ag?

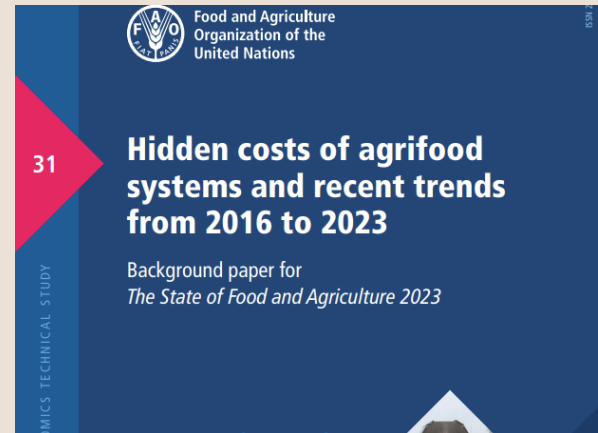
The need for systemic change in agriculture – DK ag as well



Environment

Ag sector accounting for **~37% of DK's climate footprint**

It is estimated that agriculture is responsible for **80% of biodiversity losses** globally (Campbell et al. (2017))



Economy

FAO: DK Ag generates DKK 1,78 kr. of **"externalities"** for every DKK 1 it contributes to the national economy

EU: Current climate related **losses in ag sector DKK 200-400 bn/year**



Public health

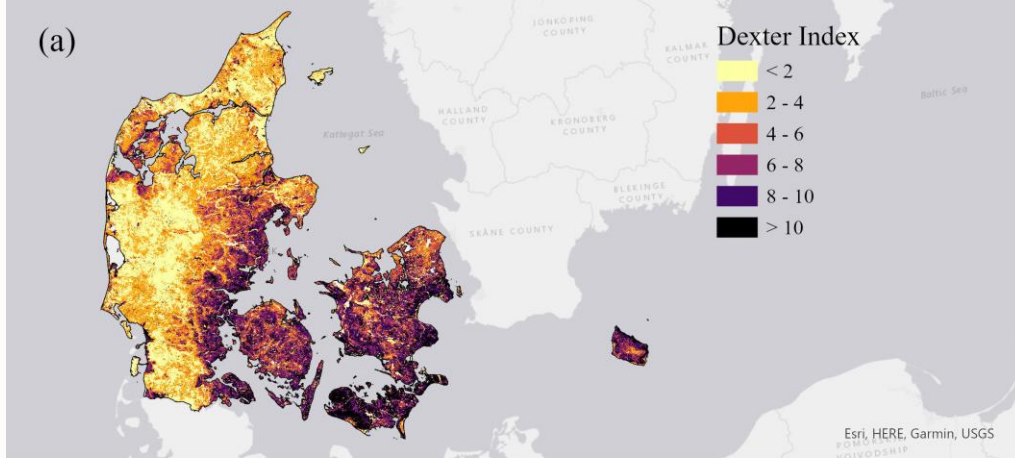
KU: **Society would save DKK 2 bn.** – in colon cancer treatment alone – if **maximum allowed nitrate concentration in drinking water was lowered**

Danish Council on Ethics: Current pig production is a major threat to public health, due to increasing antibiotics resistance



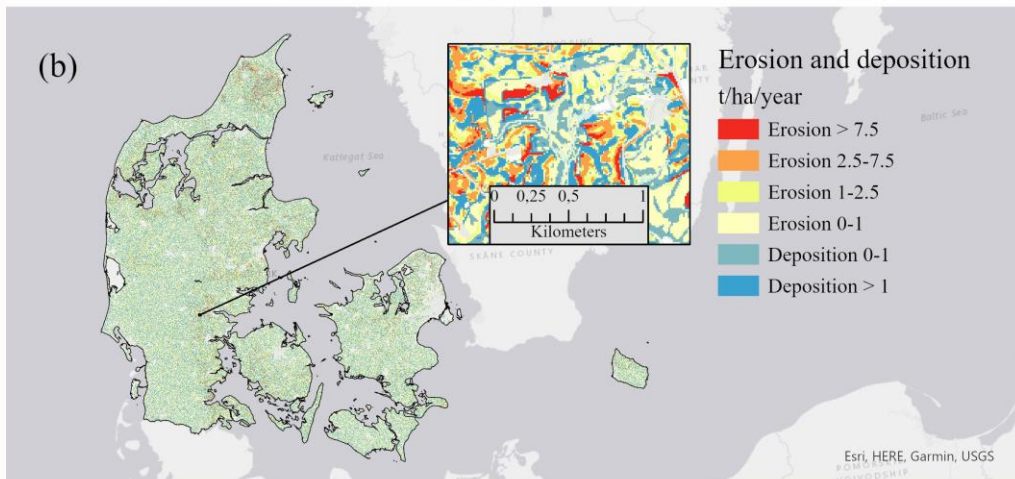
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Sources: Lord, S. 2023. Hidden costs of agrifood systems and recent trends from 2016 to 2023 – Background paper for The State of Food and Agriculture 2023. FAO Agricultural Development Economics Technical Study, No. 31. Rome, FAO. <https://doi.org/10.4060/cc8581en>; Nielsen, et al. 2024. Denmark's National Inventory Report 2024. Emission Inventories 1990-2022 - Submitted under the United Nations Framework Convention on Climate Change. Aarhus University, DCE – Danish Centre for Environment and Energy, 768 pp.; Jacobsen, B. H., Hansen, B., & Schullehner, J. (2024). Health-economic valuation of lowering nitrate standards in drinking water related to colorectal cancer in Denmark. Science of the Total Environment, 906, 167368. Campbell, B. M., D. J. Beare, E. M. Bennett, J. M. Hall-Spencer, J. S. I. Ingram, F. Jaramillo, R. Ortiz, N. Ramankutty, J. A. Sayer, and D. Shindell. 2017. Agriculture production as a major driver of the Earth system exceeding planetary boundaries. Ecology and Society 22 (4):8. <https://doi.org/10.5751/ES-09595-220408>; fi-compass, 2025, <https://www.fi-compass.eu/library/market-analysis/insurance-and-risk-management-tools-agriculture-eu>

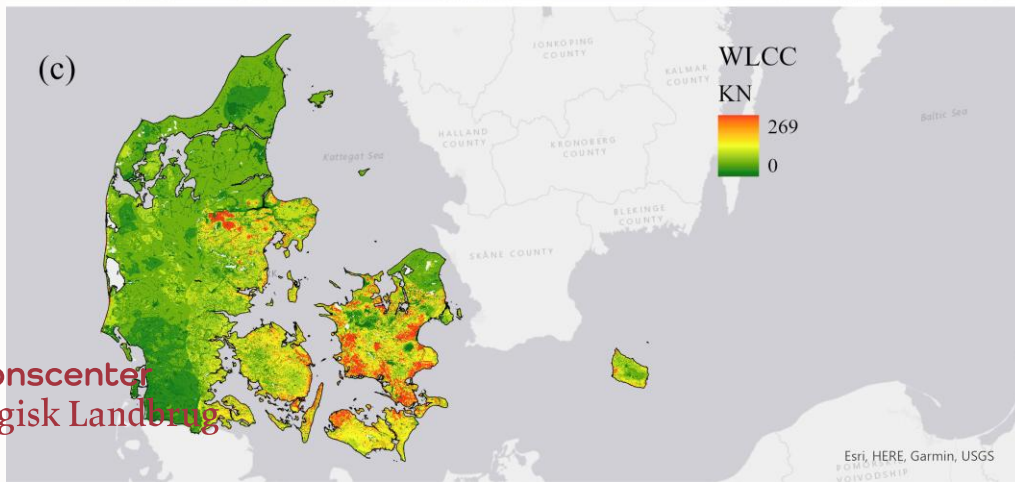


The three biggest threats to soil health in DK

(a) Loss of soil organic matter (SOM)



(b) Erosion



(c) Soil compaction

Men

The Potential of

isory fil

Forenet
Kredit



Agrovi'
Den bedste løsning på jorden

frej

Fo

Velkommen til lanceringen af vores nye

Partnerskab for Regenerativt Landbrug



BCG

+

FOOD
NATION

Solutions of tomorrow
by Jørgen K.

+

Danmarks
Naturfredningsforening

novo nordisk
fonden

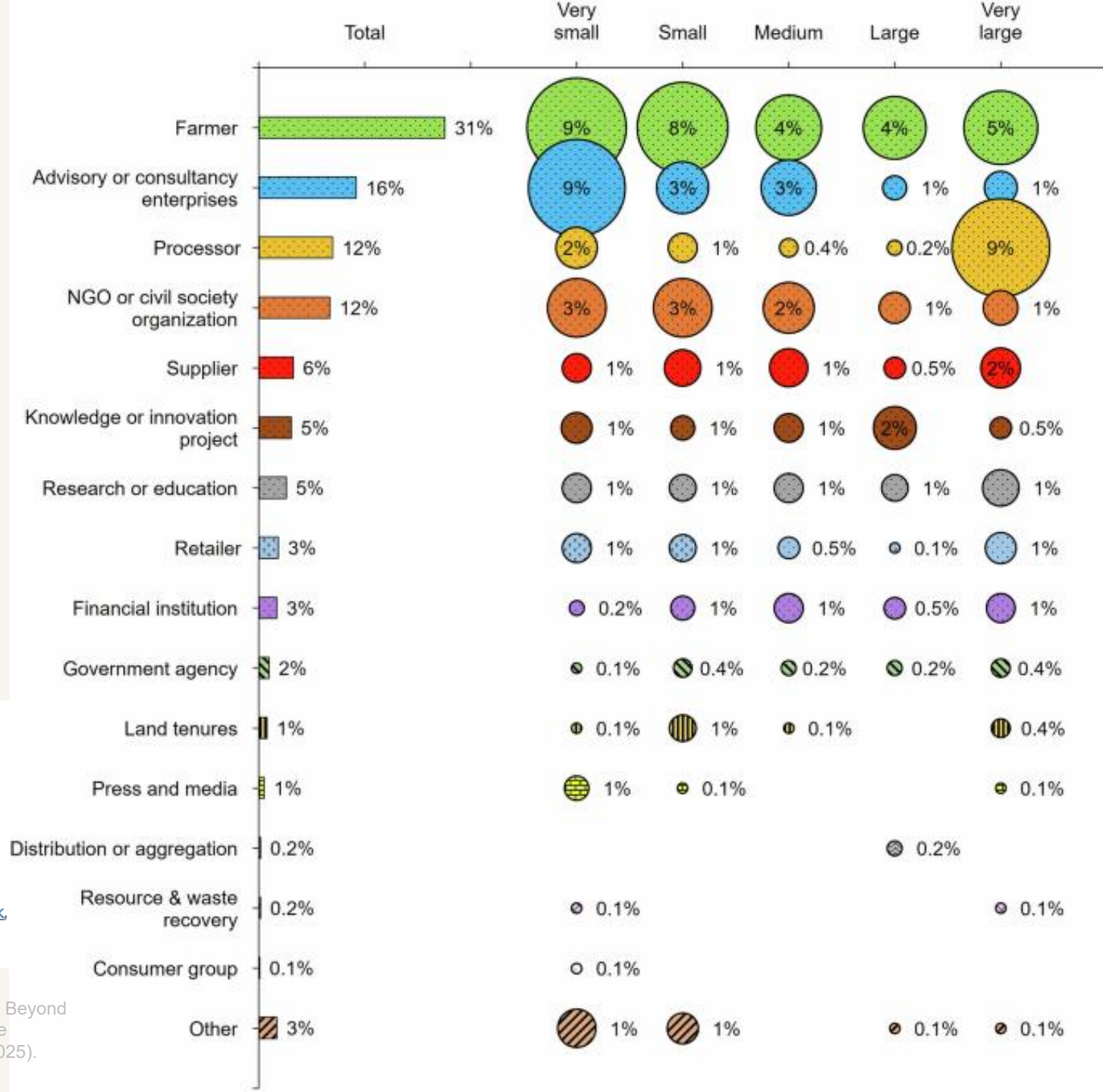
frej

de

brug

EU

- 849 actors/stakeholders from ES, FR, NL og DE
- 31% farmers (smaller operations most visible)
- 12% "processors"/food producers (very large operations dominate)



[nature](#) > [npj sustainable agriculture](#) > [articles](#) > [article](#)

Article | [Open access](#) | Published: 05 November 2025

Beyond the buzz: analyzing actors promoting regenerative agriculture in Europe

[Loekie Schreefel](#) , [Emile Steenman](#), [Fabian Adler](#), [Ricardo Buffara](#), [Stephan Freundt](#), [Fabrice DeClerck](#),

[Jessica Duncan](#), [Ken E. Giller](#), [Howard Koster](#) & [Hannah H. E. van Zanten](#)

EU Innovation

European Association for
Regenerative Agriculture (EARA)



Figure 1: Overview of regenerating forms of agriculture

Regenerating Full Productivity Index Europe					
	Category	Indicator	Weighing	Relative Difference to Benchmark	Benchmarked Category Results
Economical	Yield and Income	Kcal	x1	-2%	6%
		Protein	x1	-2%	
		Gross Margin	x1	20%	
	Inputs	Fuel	x1	- %	69%
		Nitrogen	x1	61%	
		Phosphor	x1	51%	
		Pesticides	x1	75%	
Feed		x1	87%		
Ecological	Water	Evapotranspiration	x1	1%	1%**
		Avg Surface Temp	x1	1%	
	Climate	Fuel	x1	- %	37%
		Nitrogen	x1	61%	
		Photosynthesis	x1	25%	
		Soil Cover	x1	24%	
		LSU	x1	- %	
	Biodiversity	Pesticides	x1	75%	35%
		Photosynthesis	x1	25%	
		Soil Cover	x1	24%	
		Plant Diversity	x1	16%	
Regenerating Full Productivity Performance				33%*	
*Presenting here the average of all single country RFP scores assessed					
**Insufficient technological resolutions in Phase 1. Details can be found in the Discussions chapter at the end of the report.					

Globally

“Regenerative agriculture is an outcome-based farming approach that protects and improves soil health, biodiversity, climate, and water resources while supporting farmer livelihoods.”



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B GROUPE
BONDUELLE
La nature, notre futur

Cargill

THE
Coca-Cola
COMPANY

DFA
Dairy Farmers of America

DANONE
DE LAIT - LA VIE

DIAGEO

DÖHLER
AGRICULTURE & NUTRITION BUSINESS

FrieslandCampina

Griffith
FOODS

Ingredion

Kellanova

KEPAK

KraftHeinz

MARS

McCain

McCormick

McDonald's

Nestlé

Nordzucker

Ocean Spray

PEPSICO

Starbucks

SÜDZUCKER

Syngenta
Group

TREATT

Unilever

YARA

Globally

“Regenerative systems improve the environment, soil, plants, animal welfare, health, and communities.

*The opposite of Regenerative is Degenerative
This is an essential distinction in determining practices that are not regenerative.*

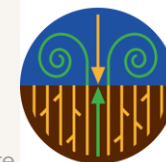
Agricultural systems that use Degenerative Practices and inputs that damage the environment, soil, health, genes, and communities and involve animal cruelty are not regenerative. The use of synthetic toxic pesticides, synthetic water-soluble fertilizers, genetically modified organisms, confined animal feeding operations, exploitive marketing and wage systems, destructive tillage systems, and the clearing of high-value ecosystems are examples of degenerative practices.

Such systems must be called degenerative agriculture to stop greenwashing and hijacking.

Regeneration International asserts that to heal our planet, all agricultural systems should be regenerative, organic, and based on the science of agroecology.”



**Innovationscenter
for Økologisk Landbrug**



**REGENERATION
INTERNATIONAL**

Source: <https://regenerationinternational.org/2023/12/22/the-definition-of-regenerative-agriculture>

Globally

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PEPSICO



SÜDZUCKER



TREATT

Unilever



Example: Bayer

"Potential to *shape* regenerative agriculture on >160 mio. ha"

Estimate up to **30 bn** in "**peak sales potential**", mentioning the following products:

- Novel (GMO-) "Smart Corn System"
- **A novel herbicide**
- **Two new fungicides**



The screenshot shows the Bayer Global website. The header includes the Bayer logo, the text "Bayer // Global", and navigation links for "This is Bayer", "Health", "Agriculture", "Products", "Innovation", and "Sustainability". There are also dropdown menus for "English (EN)", "Locations", and "Contact Us". Below the header, a breadcrumb trail reads "Home > Media > News". The main content area is titled "PRESS KIT" and features a sidebar with links to "Overview", "News", "Stories", "Speeches", "Visual Assets", "Social Media", "Events", and "Media Contacts". The main text area displays a press release dated "June 20, 2023" titled "Crop Science Innovation Summit 2023: Bayer sees more than doubling of accessible markets and potential to shape regenerative agriculture on more than 400 million acres". The press release text states: "Expectation to tap into more than 100 billion euros of value in accessible and ag-adjacent markets / Unparalleled pipeline with estimated peak sales potential of more than 30 billion euros to promote regenerative agricultural practices and enable farmers to support both global food security and mitigation of climate change / Includes transformative technologies like the Preceon Smart Corn System, next-generation insect and weed control traits in corn and soybeans, hybrid wheat, direct-seeded rice, a new first-of-its-kind herbicide molecule, as well as two new fungicides / Industry-leading technologies such as alternatives to synthetic fertilizer, specialized cover crops and tools for carbon farming create upside potential and allow for productivity increases while preserving the soil and helping reduce the environmental impact of farming".

Priority 2

REGENERATE SOIL AND NATURE

Enable the adoption of regenerative agriculture practices to help farmers improve productivity, soil health, biodiversity and climate

By adopting regenerative agriculture practices such as **cover crops, no-till techniques and precision application of chemical and biological inputs**, farmers can help to mitigate the impact of climate change on their land.



Example 2: Syngenta

Regenerative ag listed as "sustainability priority 2".

Aim to improve:

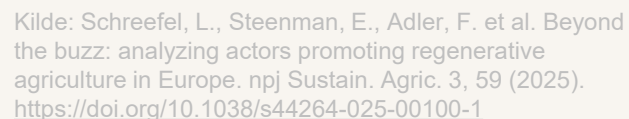
- Productivity
- Soil Health
- Biodiversity
- Climate

Regen practices mentioned:

- Cover crops
- No-Till
- **Precision application of chemical and biological inputs**

**Which practices are
considered regenerative?**

1. Cover crops
2. Crop diversity
3. Agroforestry and permaculture
4. Reduction of external inputs
5. Habitat provision(ing)

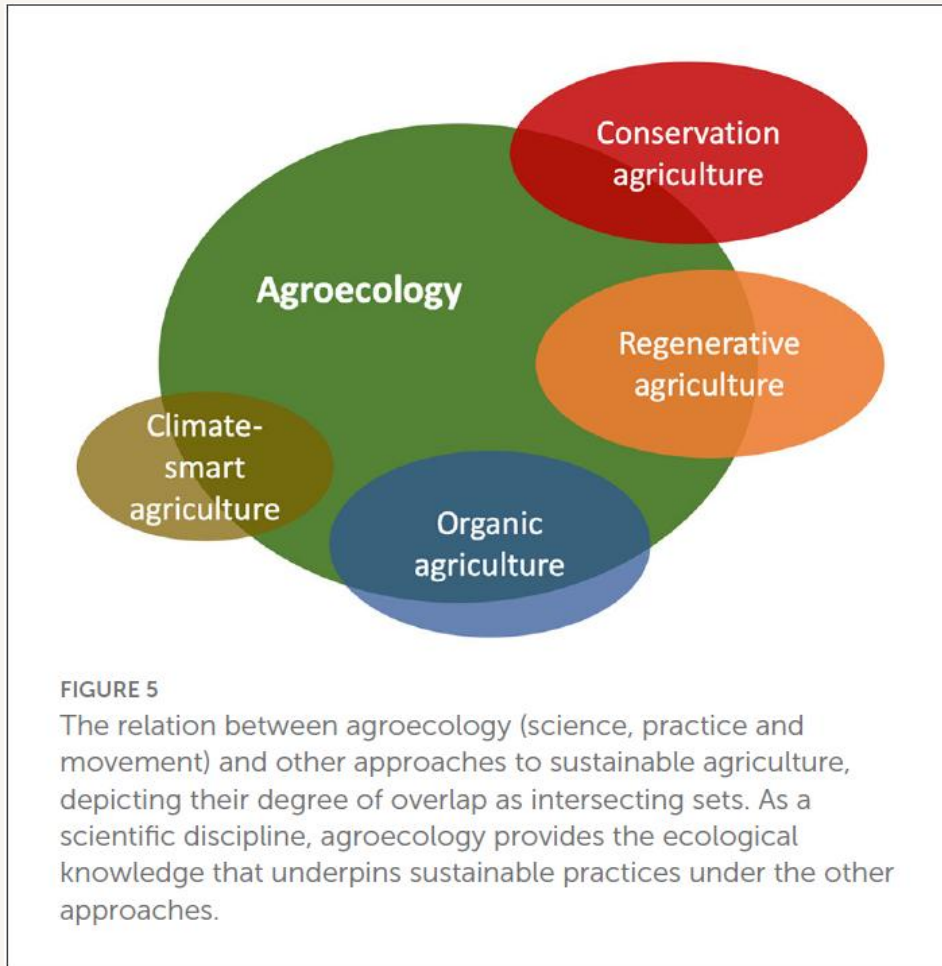


Is it Agroecology?

1. Cover crops
2. Crop diversity
3. Agroforestry and permaculture
4. Reduction of external inputs
5. Habitat provision(ing)



Yes, perhaps...



Regenerative agriculture—agroecology without politics?

 Pablo Tittone^{1,2,3*}  Veronica El Mujtar¹  Georges Felix⁴
 Yodit Kebede⁵  Luciana Laborda¹  Raquel Luján Soto^{6,7}
 Joris de Vente⁶

1. Agroecology, Environment and Systems Group, Instituto de Investigaciones Forestales y Agropecuarias de Bariloche (IFAB), INTA-CONICET, San Carlos de Bariloche, Argentina
2. Agroécologie et Intensification Durable (AiDA), Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), Université de Montpellier, Montpellier, France
3. Groningen Institute of Evolutionary Life Sciences, Groningen University, Groningen, Netherlands
4. Centre for Agroecology, Water and Resilience, Coventry University, Coventry, United Kingdom
5. Eco&Sols, Université de Montpellier, IRD, CIRAD, INRAE, Institut Agro, Montpellier, France
6. Soil and Water Conservation Research Group, Spanish Research Council (CEBAS-CSIC), Murcia, Spain
7. Agroecology, Food Sovereignty and Commons Research Team, University of Córdoba, Córdoba, Spain

[View less](#)

...but similarities decrease downstream

TABLE 1 A comparison between agroecology and three different types of regenerative agriculture (RA), using the 10 elements that define agroecology (FAO, 2019).

Agroecology	Philosophy RA	Development RA	Corporate RA
Science, practice, movement: social and ecological principles, landscape approaches, bottom-up, different sources of knowledge	RA as adopted by individuals or networks, based on philosophical principles, close to permaculture or biodynamic approaches	RA as promoted by development organizations, social and ecological principles, landscape approaches, often top-down, close to organic and low input farming	RA as proclaimed by enterprises, based on practical agronomic principles and corporate sustainability approaches, close to conservation agriculture
Diversity			
Efficiency*			
Recycling			
Resilience			
Synergy			
Human and social values			
Co-creation and sharing of knowledge			
Food culture and traditions			
Circular and solidarity economy			
Responsible governance			

*Efficient use of solar radiation, water, nutrients, energy and labor, based on primary productivity.

Green = close match; Yellow = partial match; Red = no match (for the color blind, respectively: 75% light dotted; 100% even; 25% light dotted).

1. Individual farmers and grassroots
2. NGO's and development organisations
3. Enterprises

Innovation or greenwashing?

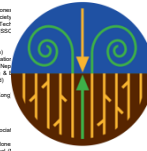
A spectrum

Reductionism

Holism

Business as usual

Agroecological utopia



REGENERATION INTERNATIONAL



SOIL CARBON INITIATIVE



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Regen Ag as a greenwashing tool

What's being sold



How it's packaged



Thank you for paying attention!



Følg podcasten ØKO-LYD
for mere information om
regenerativt landbrug i en
dansk, økologisk kontekst.

