

How to handle trade-offs and synergies in our search towards a sustainable food system?

Imke J.M. de Boer, Aart van der Linden and Evelien M. de Olde

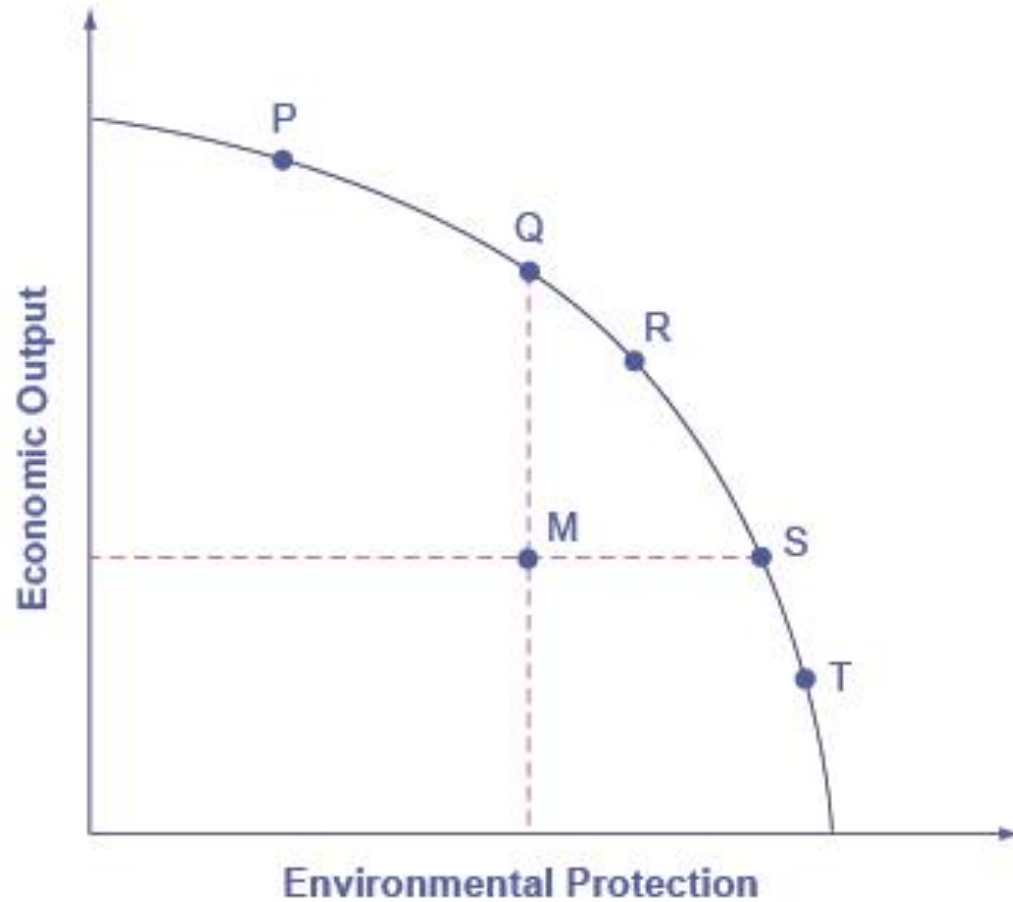
Animal Production Systems



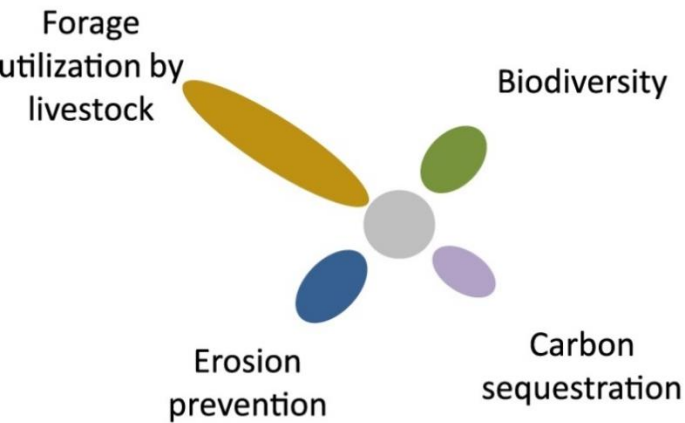
A sustainable food future



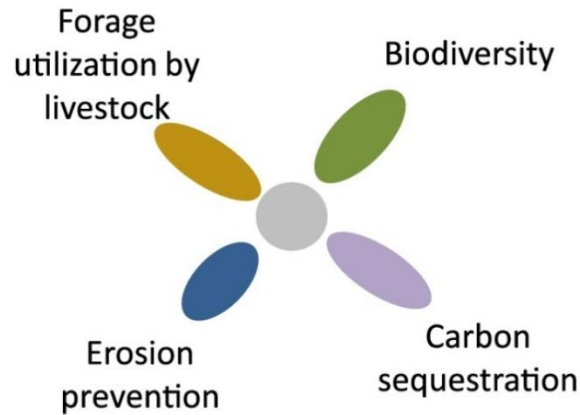
Trade-offs



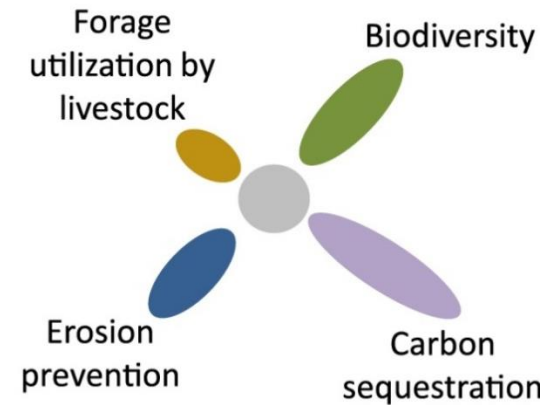
Example – grazing intensity



High grazing intensity



Moderate grazing intensity



Low grazing intensity

Yes, we can

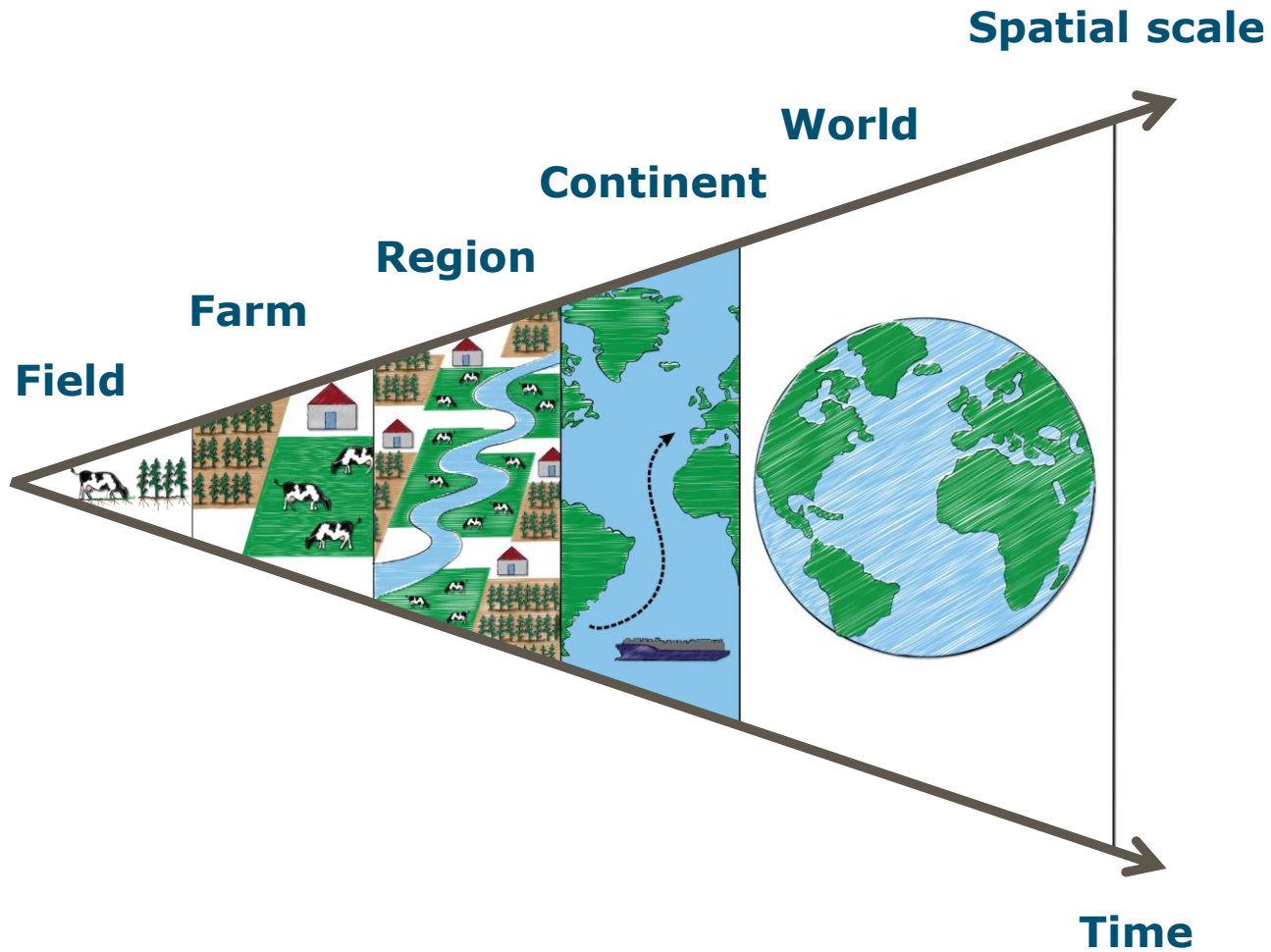
build on synergies and overcome trade-offs

design a farm system that produces food with
respect for the animal, the planet and the
farmers

Example Kipster



Scale & time



Trade-offs are inherent in complex decision-making

Transparency is key

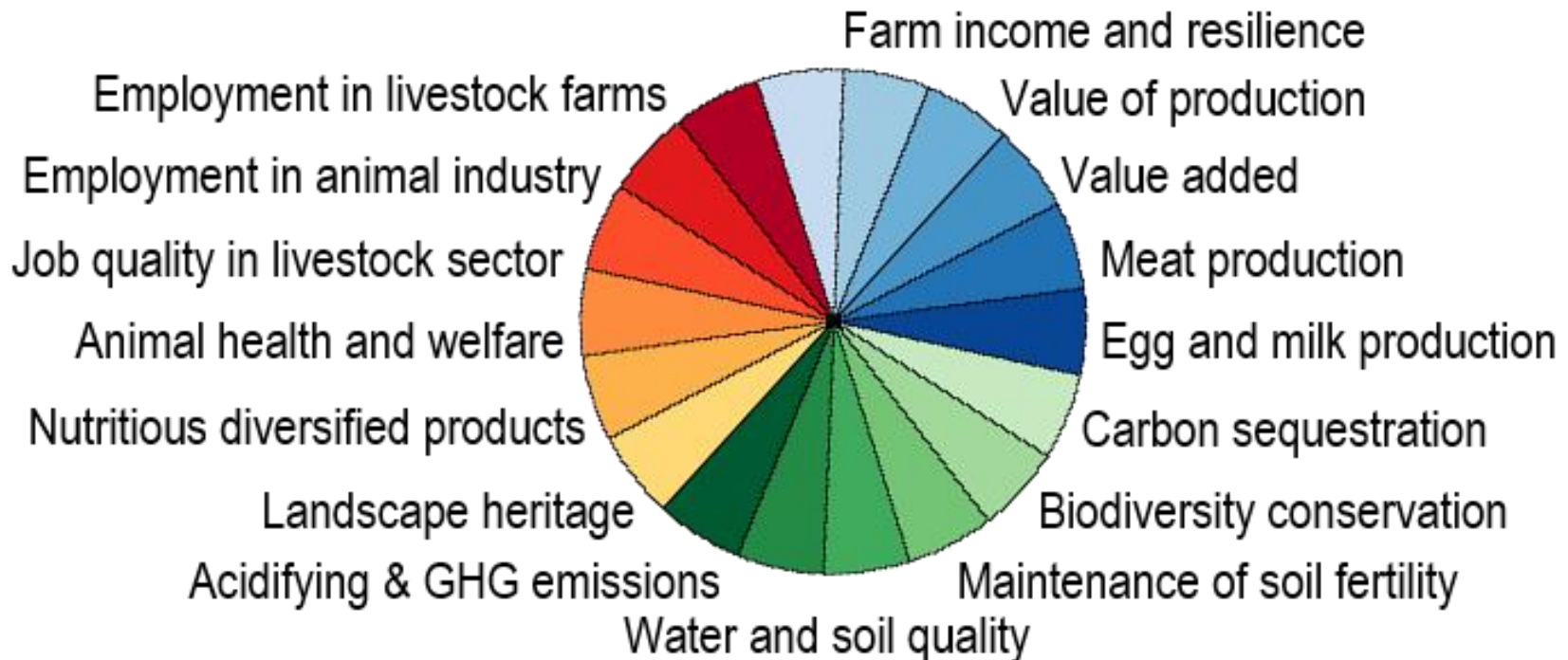
Who gets what, who loses what, how, when & why

A sound sustainability assessment is the basis

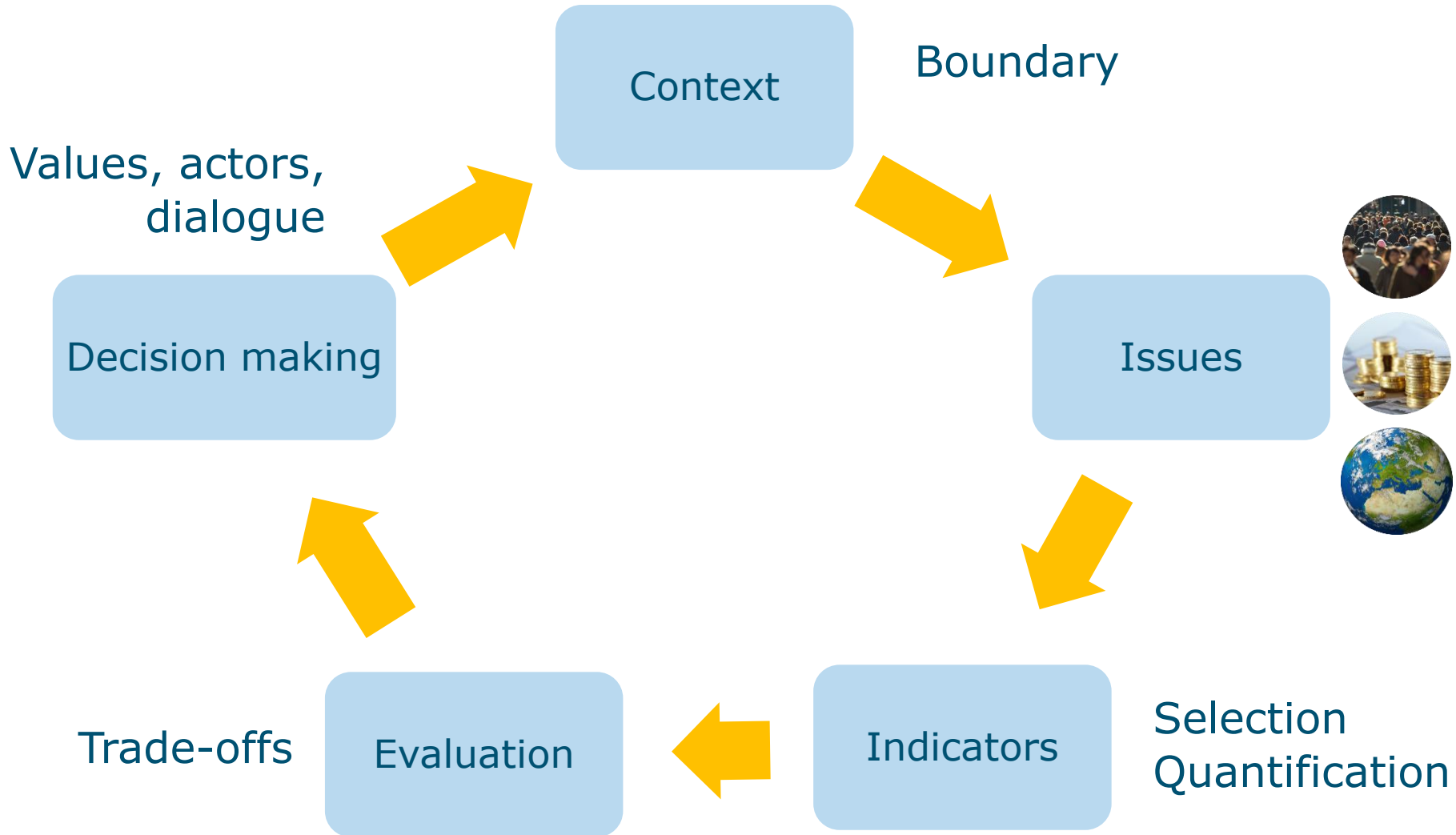
Animal Future



Understand benefits and costs of livestock farming systems across scales



Sustainability assessment



Handling benefits and costs

Utilitarianism

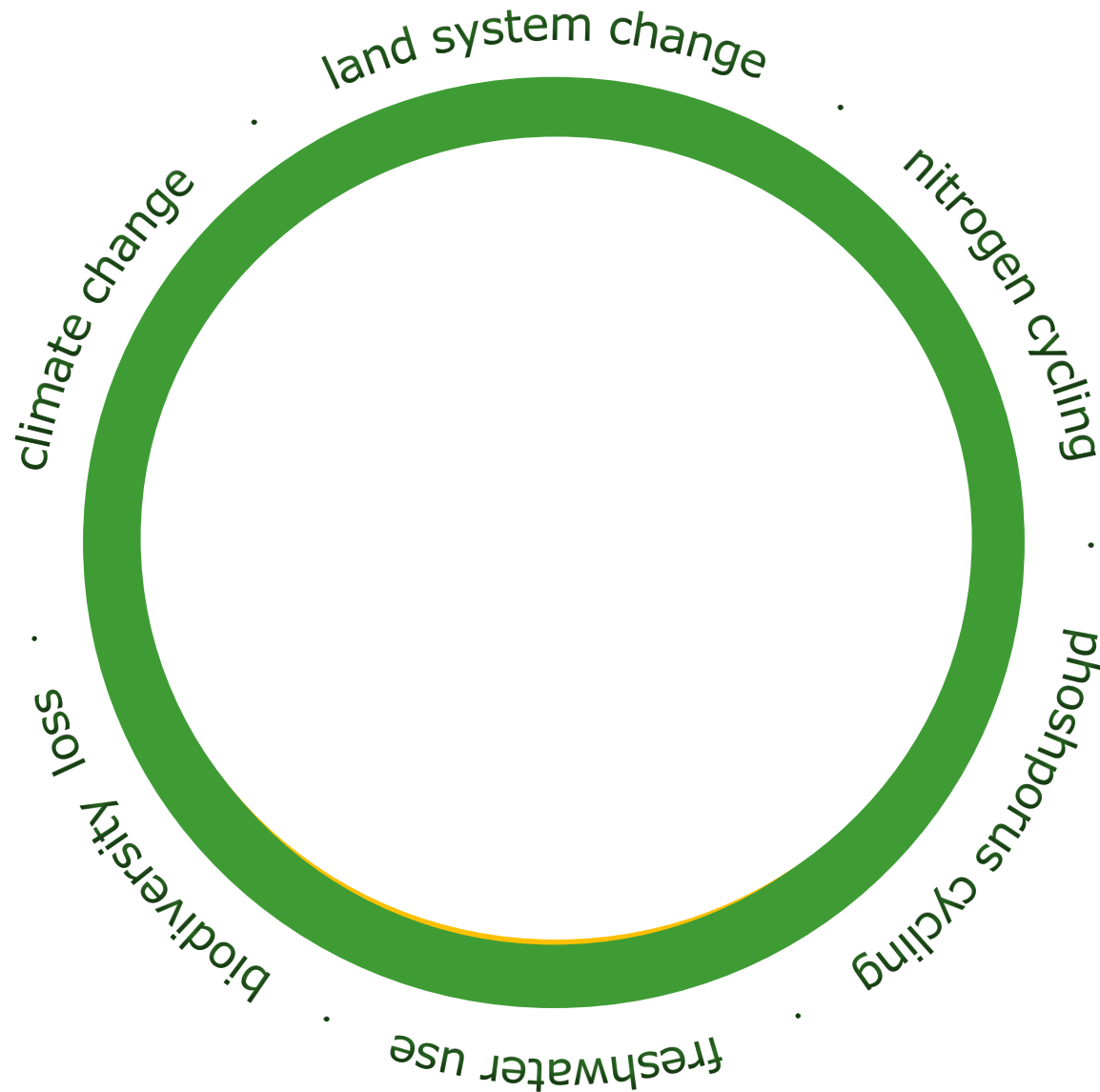
- the greatest balance of benefits and costs -

System	Milk yield per ha	Welfare score	CO ₂ -e per liter	Average
A	2	3	2	2
B	4	1	4	3
C	2	3	2	2.67

Scores vary from 1-5, the higher the value the better for sustainability

First define our safe and just operating space,
then balance benefits and costs

Safe and just operating space



THE LANCET

Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems



"Food in the Anthropocene represents one of the greatest health and environmental challenges of the 21st century."

Safe and just operating space

- Zero CO₂ emissions from fossil fuel burning
- 5 Gt CO₂-e per yr from CH₄ and N₂O
- Carbon sequestration on agricultural land (?)
- Zero future land conversion of natural ecosystems
- Half Earth Strategy – 50% intact ecosystems
- 10 extinctions per million species per yr
- etc.

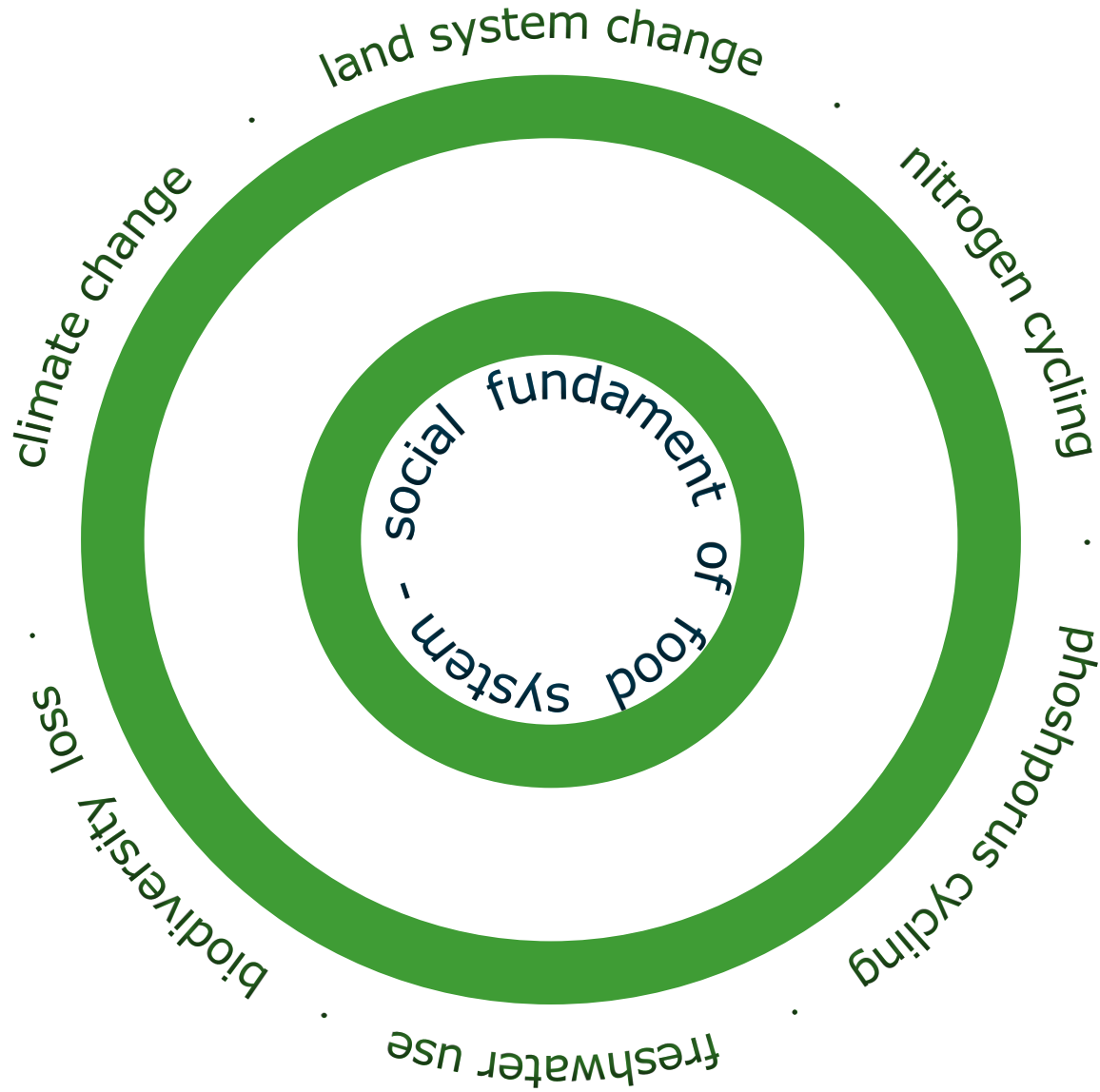
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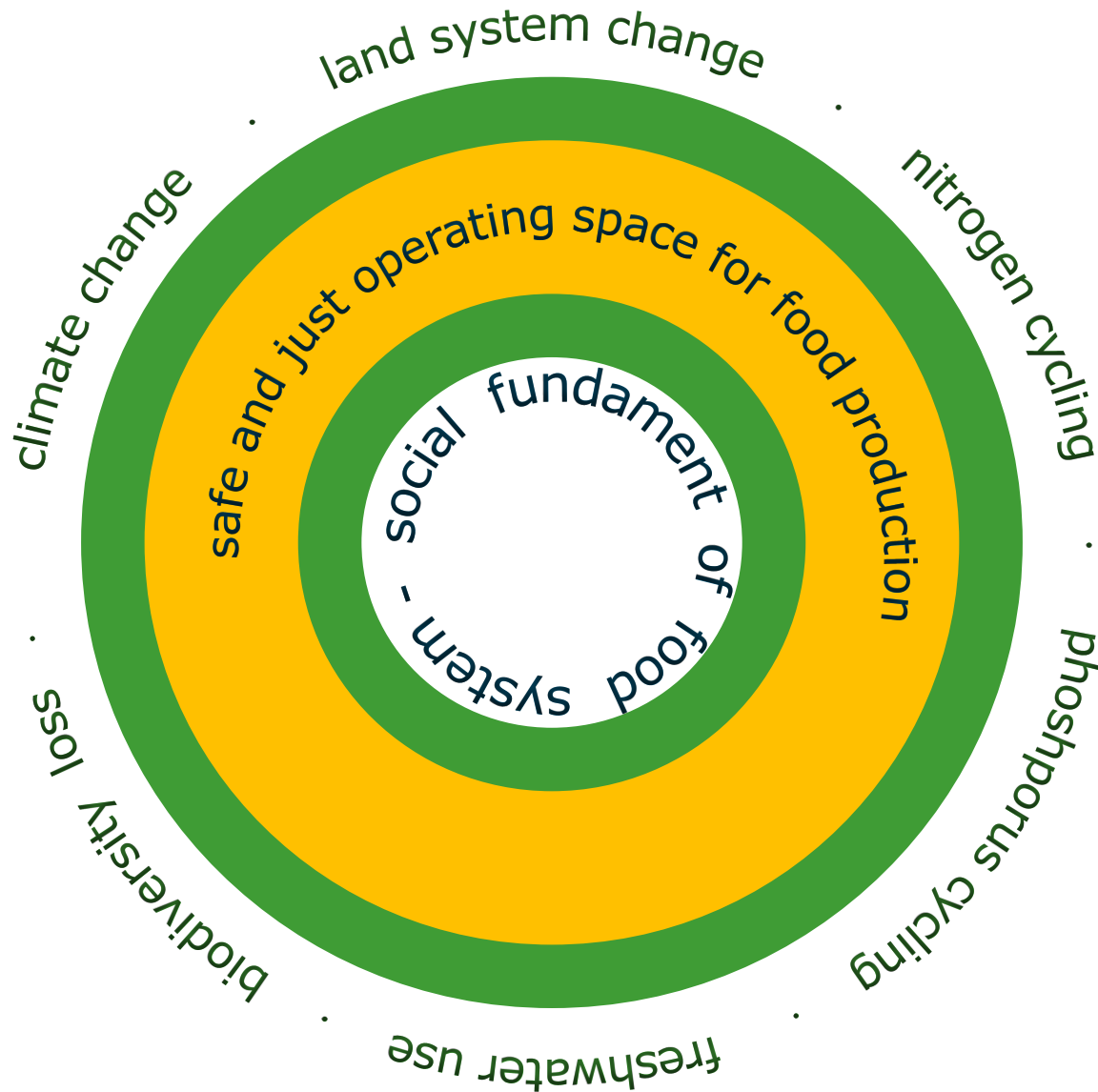


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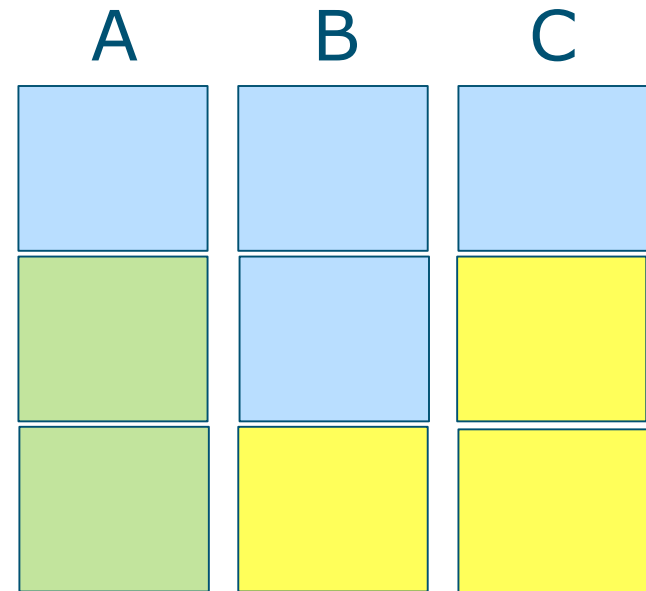
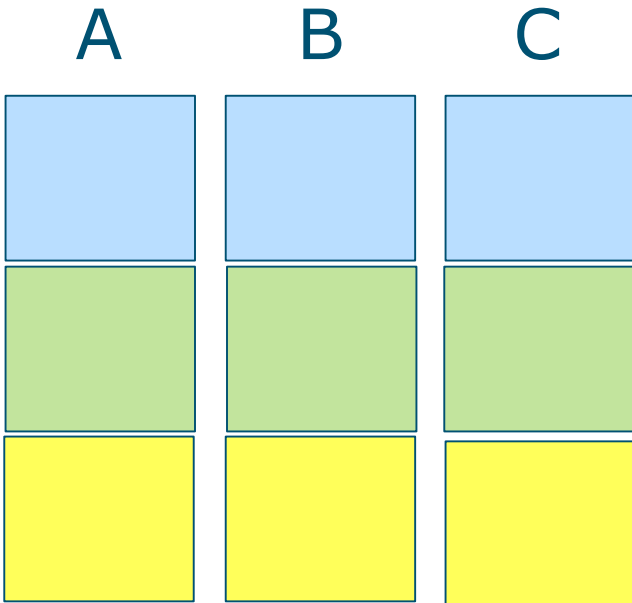
Safe and just operating space



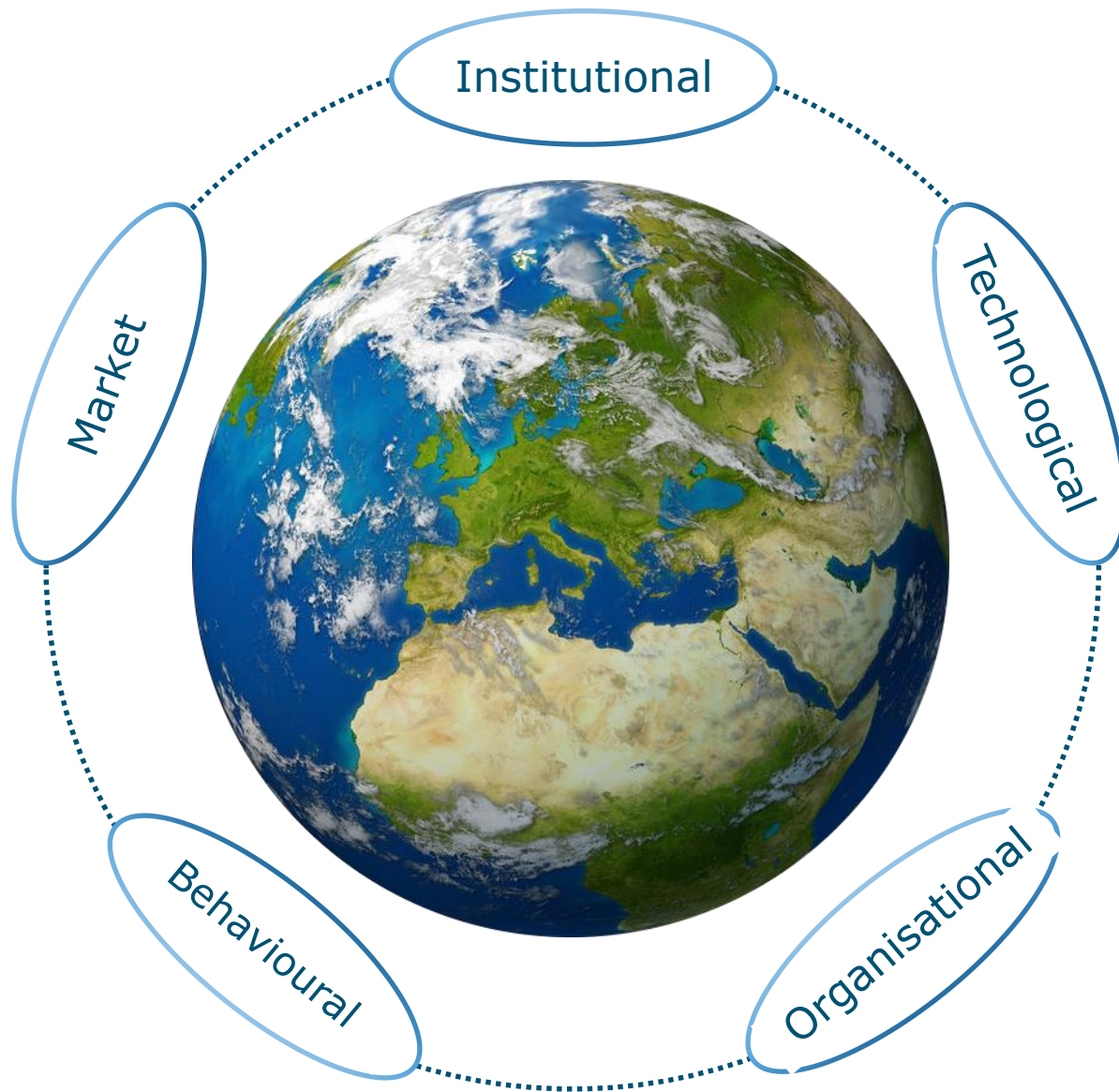
Safe and just operating space



Embrace diversity



Systemic change



Thank you for
your attention



Example – organic vs conventional

