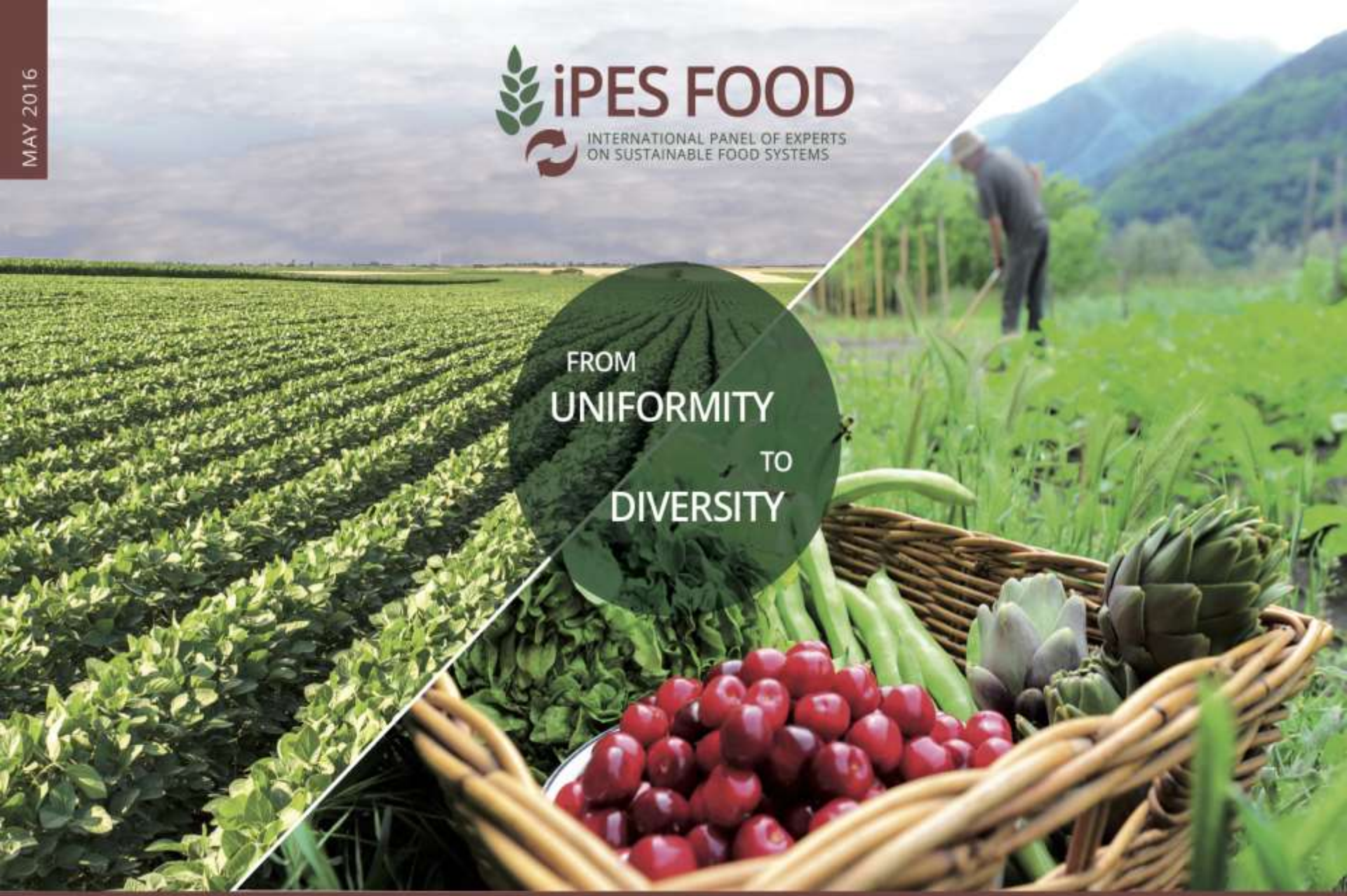
MAY 2016

iPES FOOD

INTERNATIONAL PANEL OF EXPERTS ON SUSTAINABLE FOOD SYSTEMS



A paradigm shift from industrial agriculture to diversified agroecological systems

Sustainable food systems

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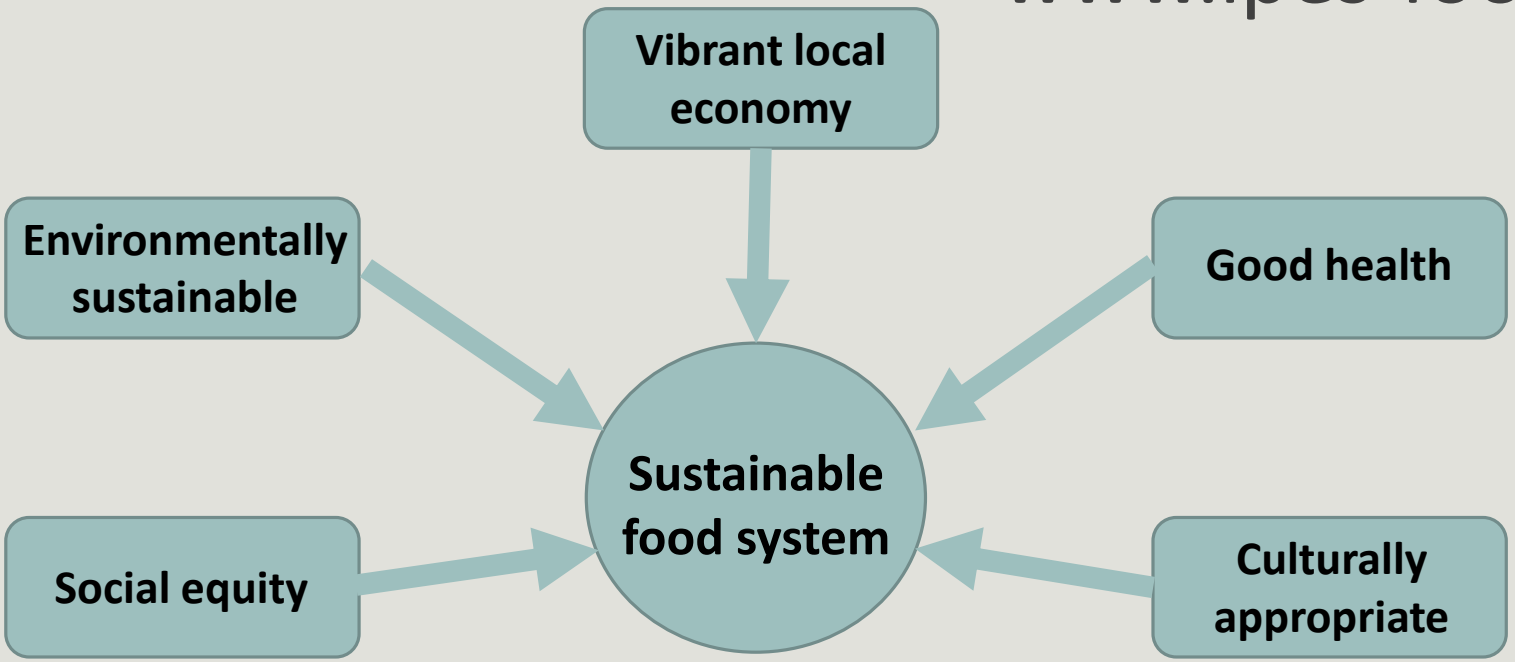


Transdisciplinary - Political economy

From Uniformity to Diversity

A paradigm shift from industrial agriculture to diversified agroecological systems

The report asks three key questions:

- What are the outcomes of industrial agriculture / diversified agroecological systems?
- What is keeping industrial agriculture in place?
- How can the balance be shifted?

What is wrong with our food systems?

Triple burden of malnutrition

- Hunger, micronutrient deficiencies, obesity &NCDs

Environmentally unsustainable

- Biodiversity losses, water pollution, soil degradation, GHG emissions, unsustainable use of natural resources, low resilience …

Social inequities

- Poverty, disempowerment …

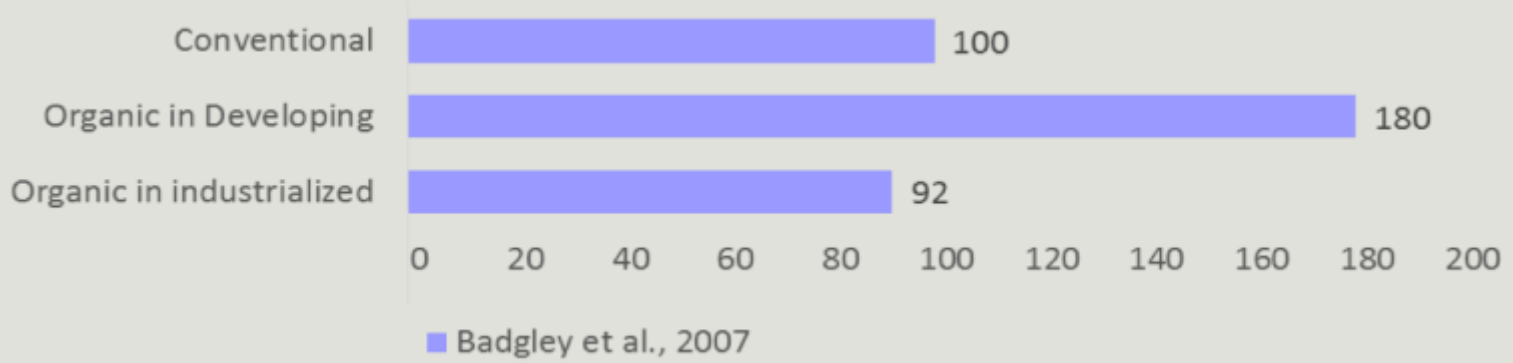
Neglect of cultural values

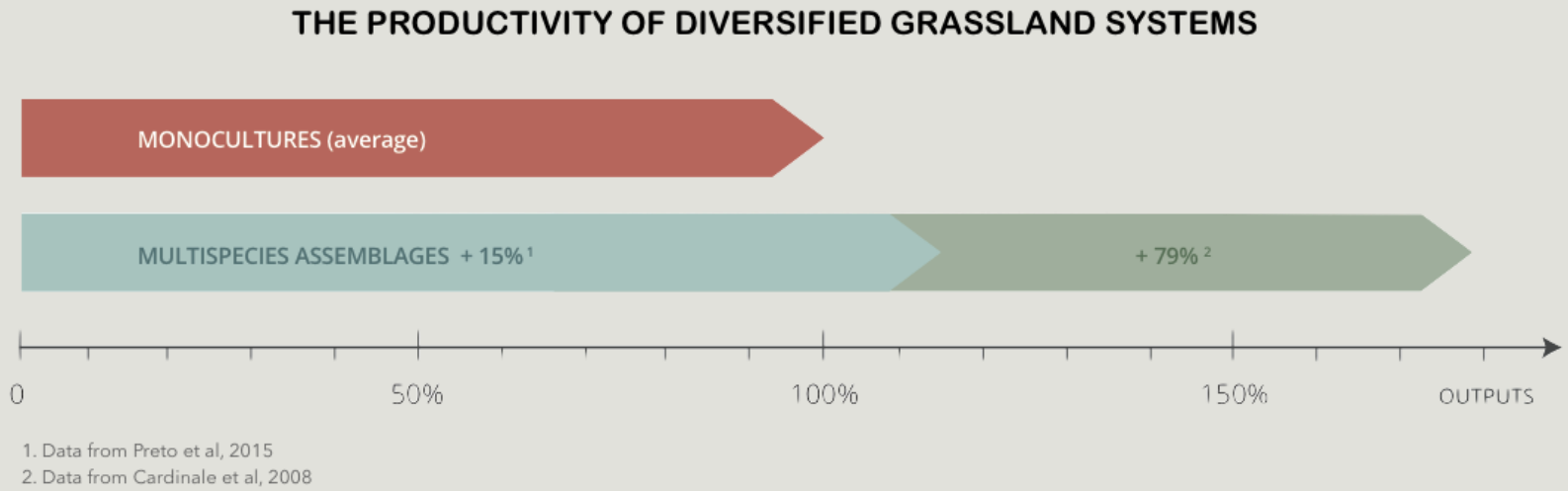
What diversified agrocecological systems can bring

- Productivity
- Environmental
  - Ecosystem services
  - Biodiversity
- Health

… (more in the report)

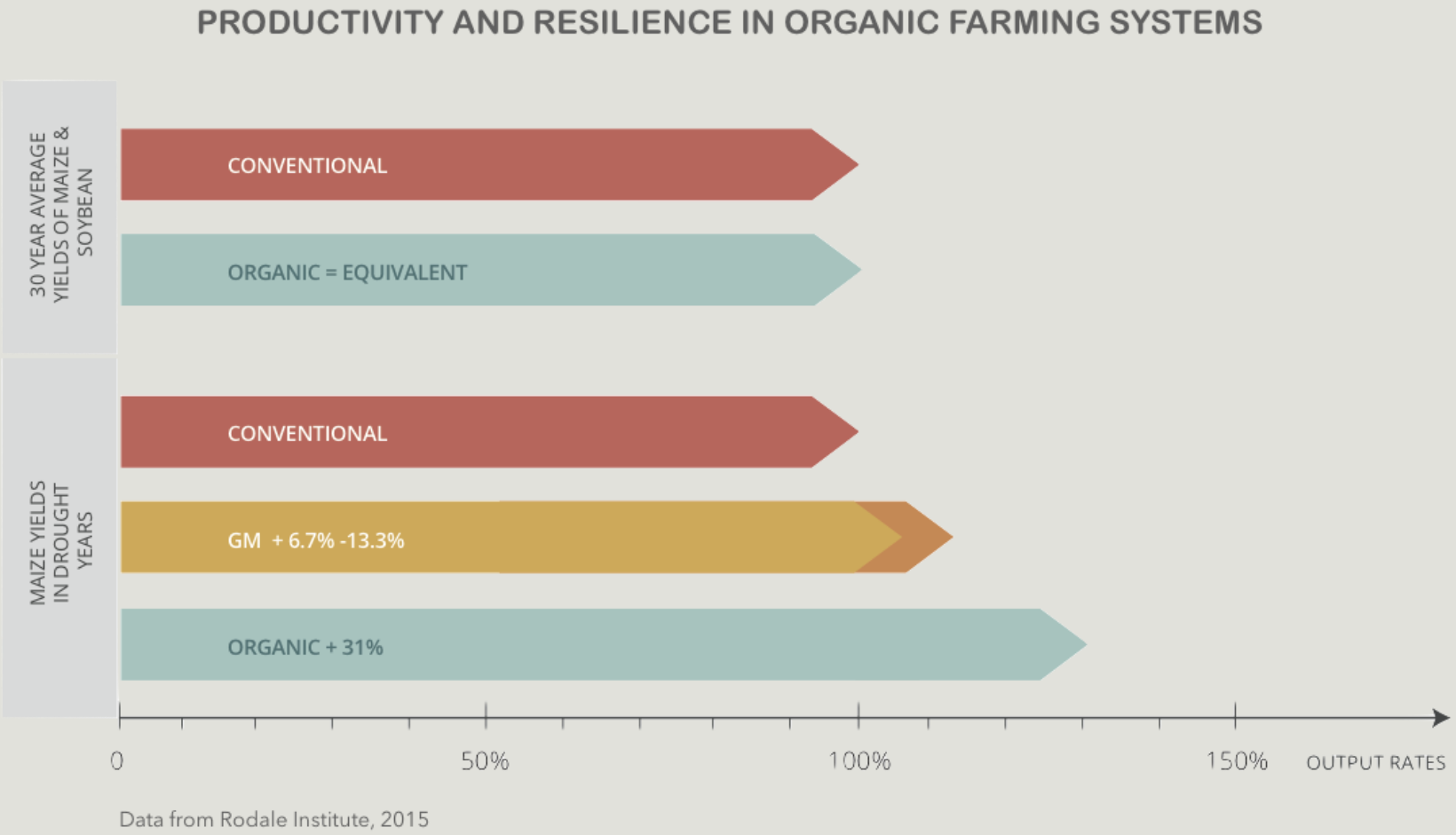
Outcomes of diversified agroecological systems: productivity





1. Data from Preto et al, 2015
2. Data from Cardinale et al, 2008

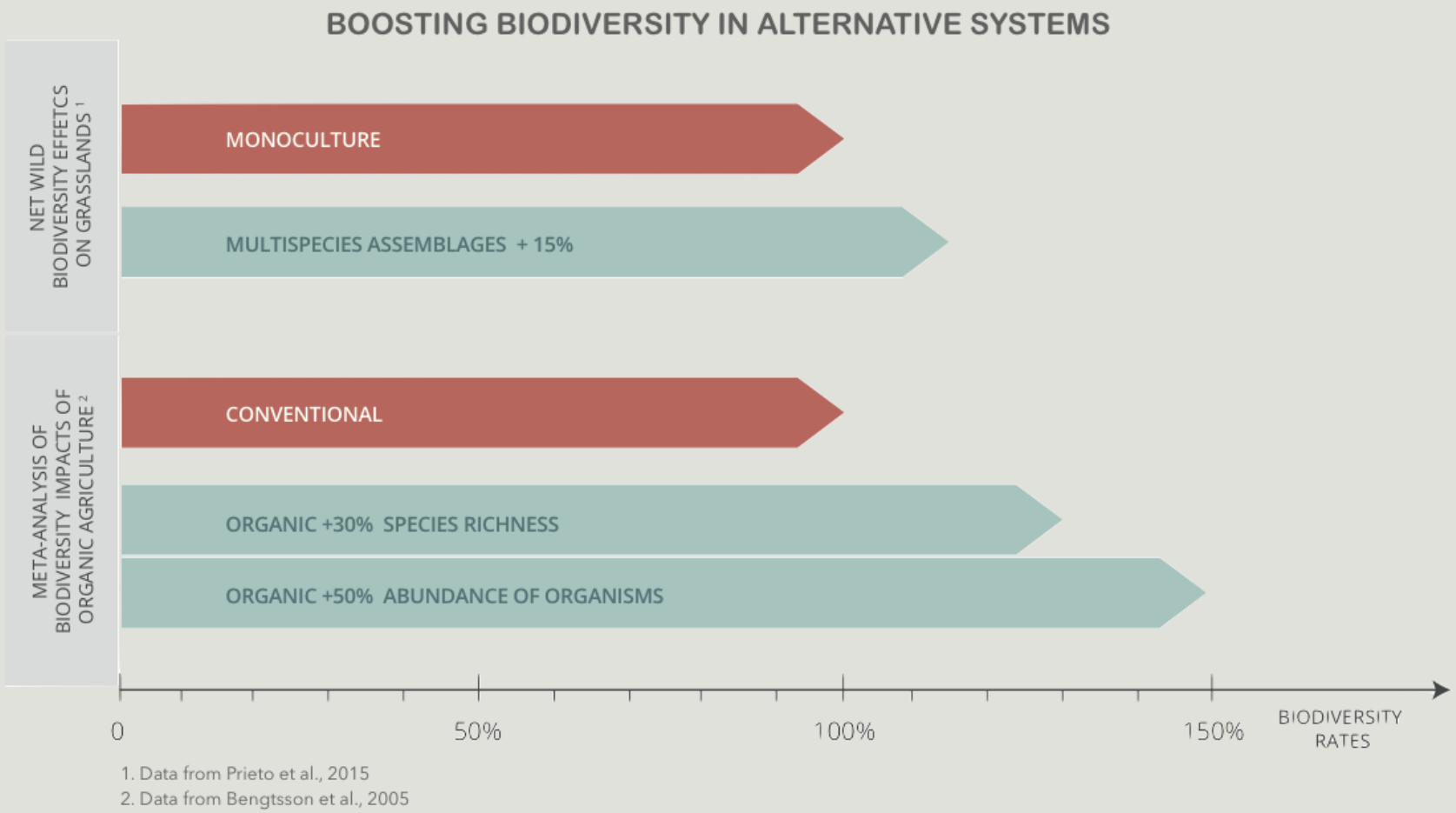
Outcomes of diversified agroecological systems: productivity & resilience



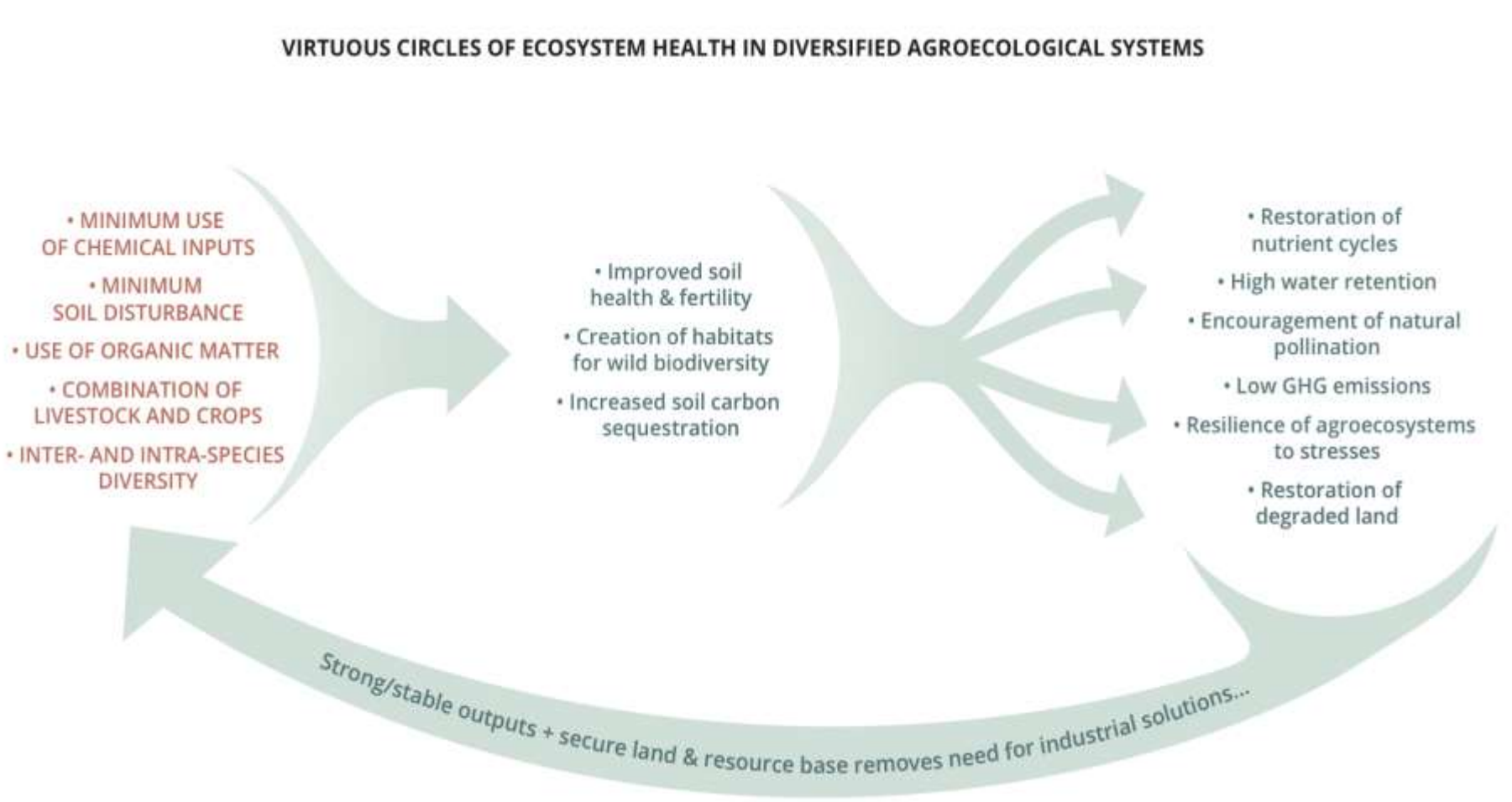
Environmental outcomes

- Keep/put carbon in the soil: turns agriculture into a solution rather than a problem
- Restore degraded land
- Improve ecosystem services
  - Water and nutrient cycling
  - Pollination
  - Pest and disease management

Outcomes of diversified agroecological systems: boosting biodiversity



Outcomes of diversified agroecological systems: Virtuous cycles



Nutrition and health

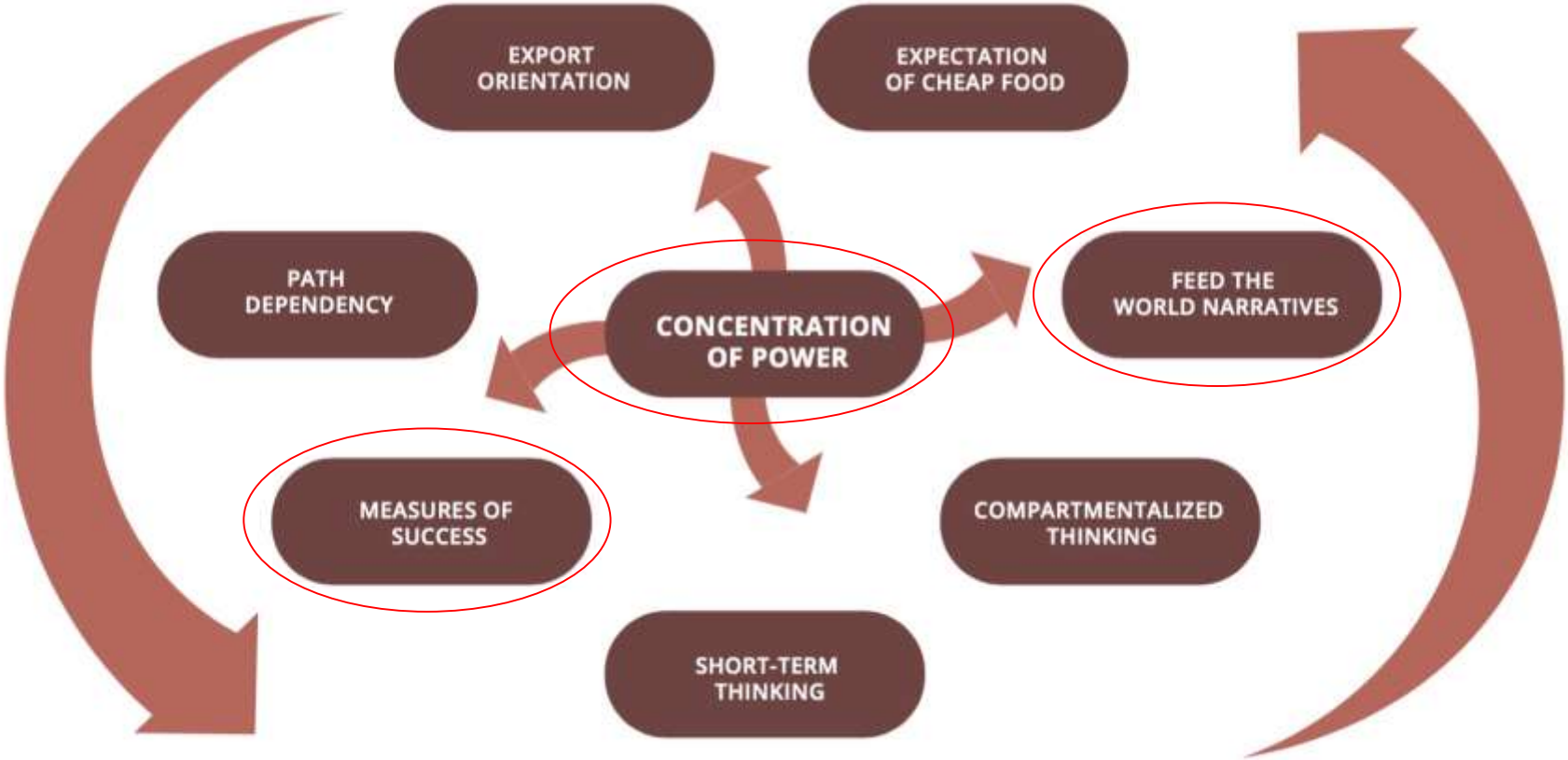
- No negative health outcomes of industrial agriculture: pesticides/antibiotics
- Diverse, healthy diets
- Increased levels of beneficial nutrients, such as omega 3 fatty acids, and antioxidants such as polyphenols…

A major question

Why do we not see a major transition towards diversified agroecological systems, given the expanding evidence that they can deliver on all dimensions of sustainable food systems?

→ The political economy of food systems

What prevents change: 8 Lock-ins



Market concentration in multiple sectors

- 3 companies control 50% of commercial seed market.
- 7 companies control nearly 100% of fertilizer sales.
- 5 companies share 68% of agrochemical market.
- 4 firms account for 97% of private R&D in poultry.
- 4 firms control up to 90% of the global grain trade.


Coca-Cola
PEPSICO
Kellogg's
MARS
Kraft
Spin-off
Mondelēz International
Nestlé
P&G
Johnson & Johnson
Unilever
Yum!
Spin-off
L'OREAL
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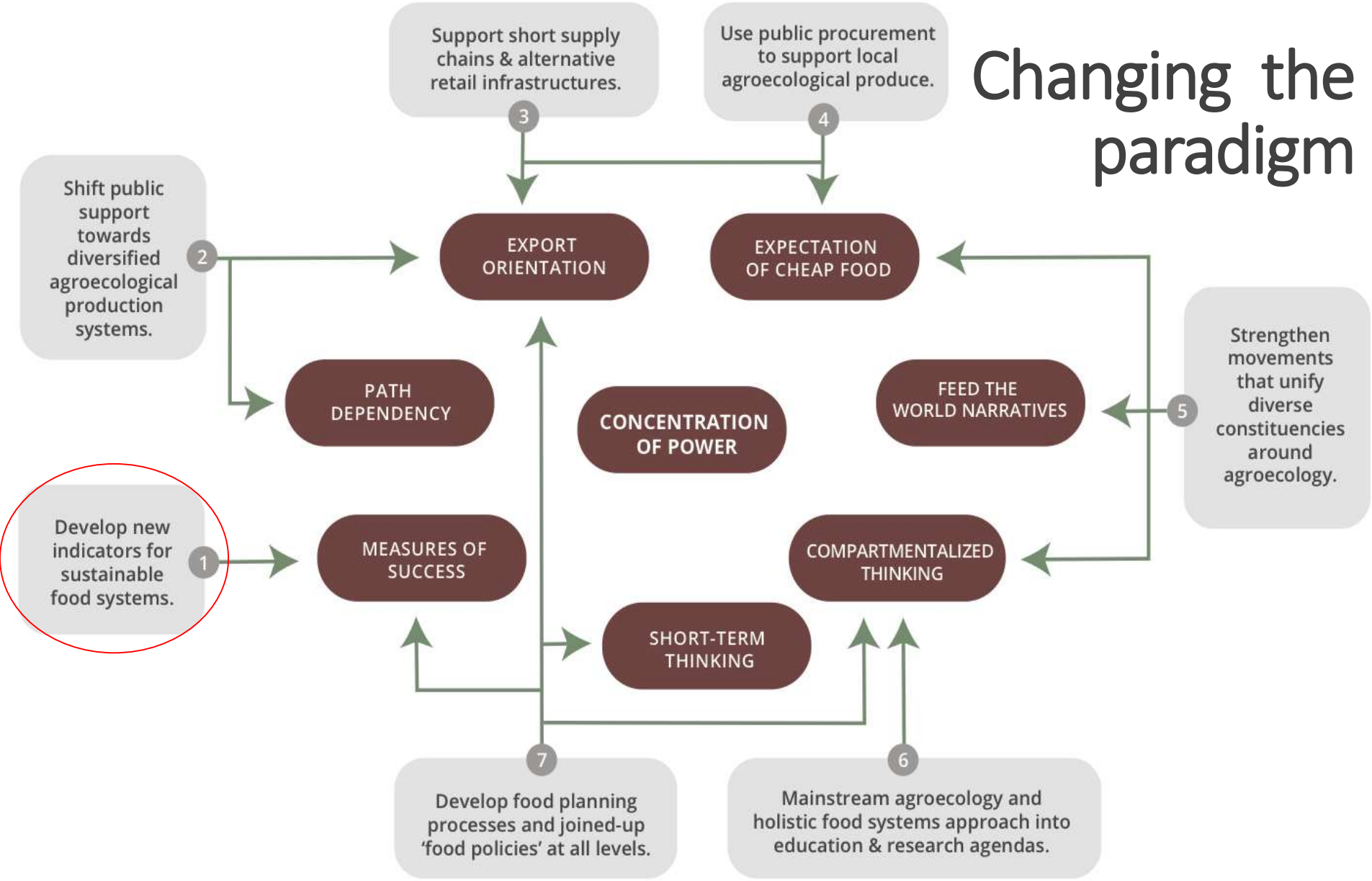
All have a common interest: maintaining industrial agriculture

…. But things are changing

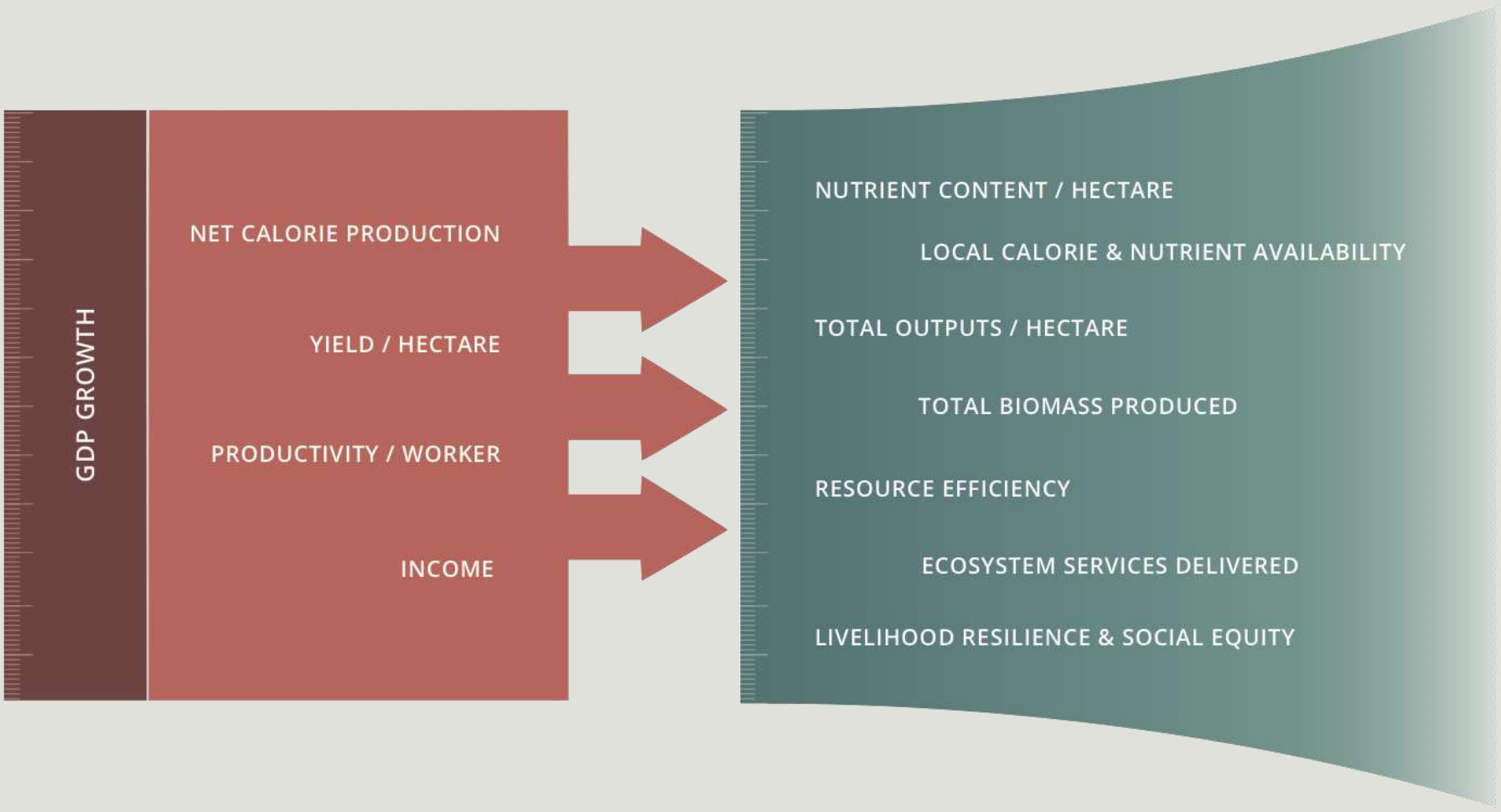
8 Emerging opportunities for a transition to diversified agroecological systems

- **Global recognition** (MEA, IAASTD, FAO, 10YFP)
- **Changing policies** (CAP, Brazil, Cuba)
- **Emerging multi-stakeholder initiatives** (FPCs, JRC, NL)
- **Integrated landscape thinking** (City region, ILM, LPFN)
- **Integrated food systems science** (FSCs)
- **Peer-to-peer action research** (CaC, FFS …)
- **Healthy Eating and Sustainable Sourcing** (OA, FT …)
- **Short supply chains**

Changing the paradigm



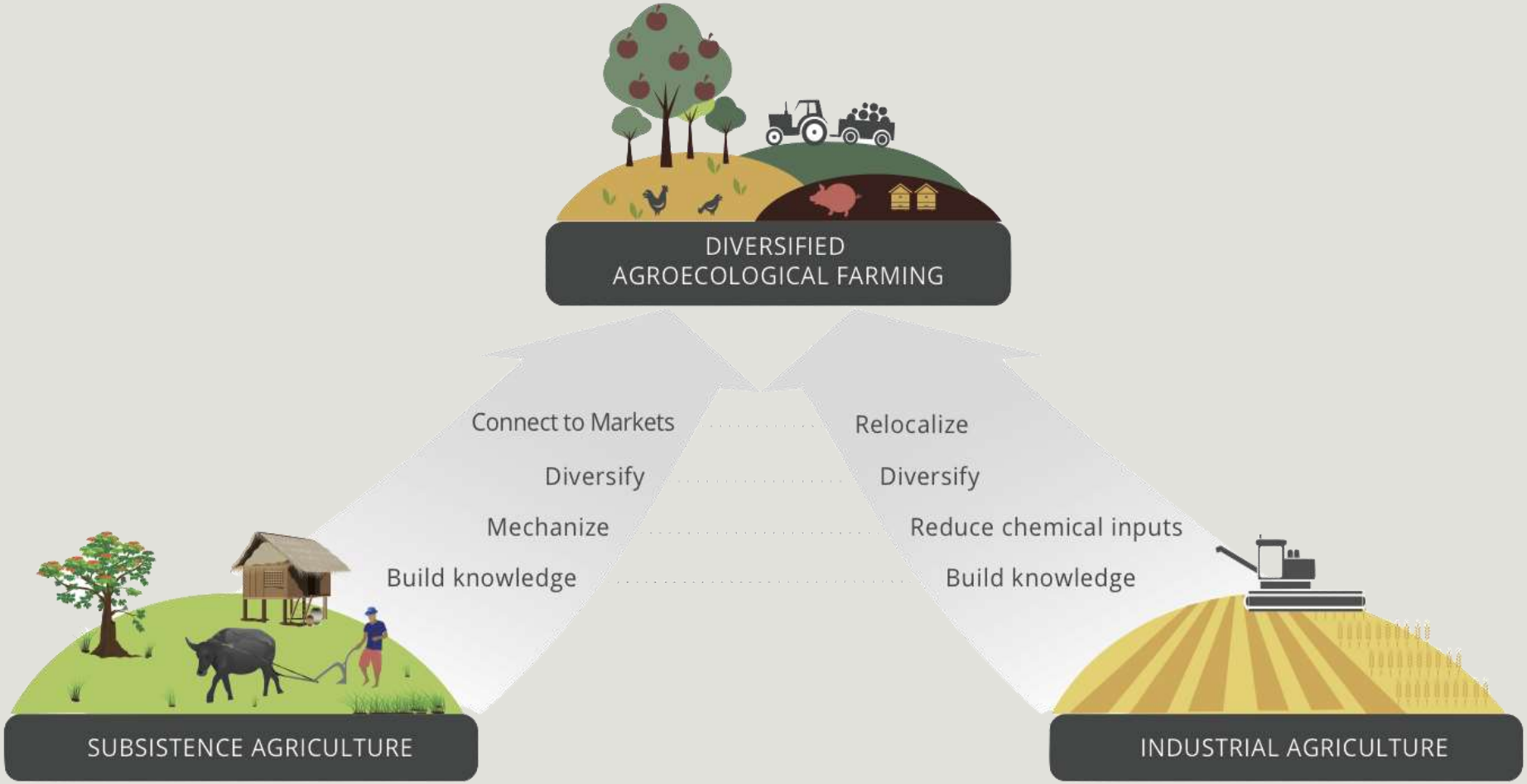
Measuring what matters



Recommendations

1. Develop **new indicators** for sustainable food systems.
2. Shift **public support** towards diversified agroecological production systems.
3. Support **short circuits & alternative retail infrastructures**.
4. Use **public procurement** to support local agroecological produce.
5. **Strengthen movements** that unify **diverse constituencies** around agroecology.
6. **Mainstream** agroecology and holistic food systems approaches into **education and research agendas**.
7. **Develop food planning processes** and '**food policies'** at all levels.

Different pathways, common goal



Key messages

- Industrial agriculture provides calories to global markets, but with many negative outcomes
- Problems are linked specifically to industrial agriculture
- Industrial agriculture is locked in place by a series of vicious cycles
- Tweaking practices can improve some of the specific outcomes, but will not provide long-term solutions to the multiple problems

Key messages (cont'd)

- What is required is a fundamentally different model of agriculture: diversified agroecological systems
- These systems can compete with industrial agriculture in terms of total outputs, performing particularly strongly under environmental stress
- Change is already happening
- A series of modest steps can collectively shift the centre of gravity in food systems

Thank you!

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