

A woman with curly hair, wearing a blue sleeveless dress, stands in a lush garden. She is looking upwards with her hands raised, reaching towards a large, tall banana plant that dominates the center of the frame. The garden is filled with various green plants and yellow flowers. The background shows more trees and a wooden fence.

Transformation of our Food Systems

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*President Millennium Institute, Washington;
Founder and President Biovision Foundation, Zurich*

Science and Technology Platform

Forum on Food Security and Nutrition in a Changing World

Thursday, 3 December 2020

Swanlake View Hotel, Huairou District, Beijing and via video link

北京中建雁栖湖景酒店

The SDGs offer the transformational pathway the IAASTD was suggesting

- Why
- What
- How
- Who



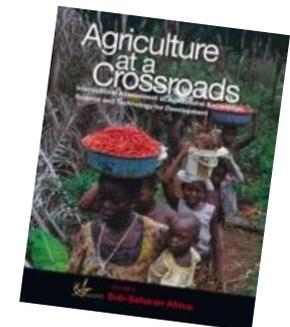
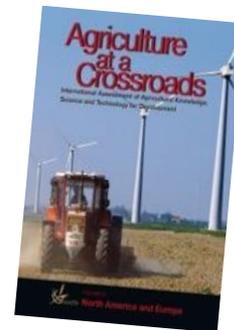
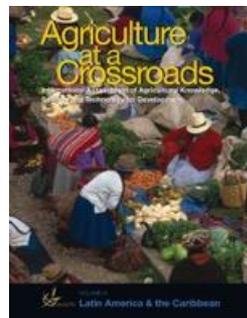
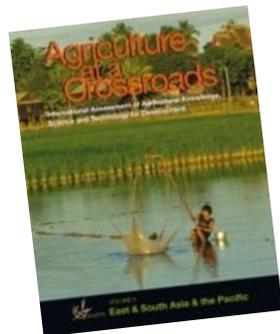
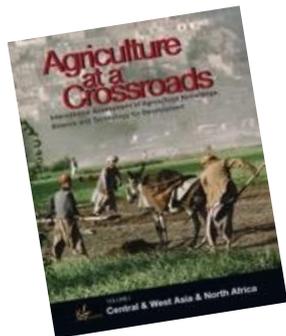
It always seems impossible until it's done. Mandela

The International Assessment of Agricultural Knowledge, Science and Technology for Development

11 Years



«Business as usual is not an option» (IAASTD 2009)
<http://www.weltagrarbericht.de>



What are the issues?

Hans R. Herren, Benedikt Haerlin, IAASTD+10 Advisory Group

Transformation of our food systems

The making of a paradigm shift

With contributions from

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Colin R. Anderson
Molly D. Anderson
Ward Anseeuw
Nadine Azzu
Lauren Baker
Michael Bergöö
Kate Brauman
María E. Fernandez
Emile A. Frison
Barbara Gemmill-Herren
Tirso Gonzales
Benedikt Haerlin
Jack A. Heinemann
Mary K. Hendrickson
Hans R. Herren
Angelika Hilbeck
Ulrich Hoffmann
Philip H. Howard
Bernard Hubert
Anita Idel
Marcia Ishii-Eiteman
Frédéric Lançon
Marie de Lattre-Gasquet
Fabio Leippert
Erik Mathijs
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Alexander Müller
Jan Douwe van der Ploeg
Mayumi Ridenhour
Marta G. Rivera-Ferre
Steve Suppan
Boyd Swinburn
Eugenio Tisselli
Rob Wallace
Bob Watson
Alexander Wezel
Ben White

Data

Updates

Reports



Agroecological approaches for sustainable agriculture that enhance food security

A re

High

BREAKING NEWS

New report says 'far-reaching changes in all aspects of agriculture'



LPE High Level Panel of Experts

ity

e CFS

WORLD LEADERS FOR SUSTAINABLE DEVELOPMENT

get

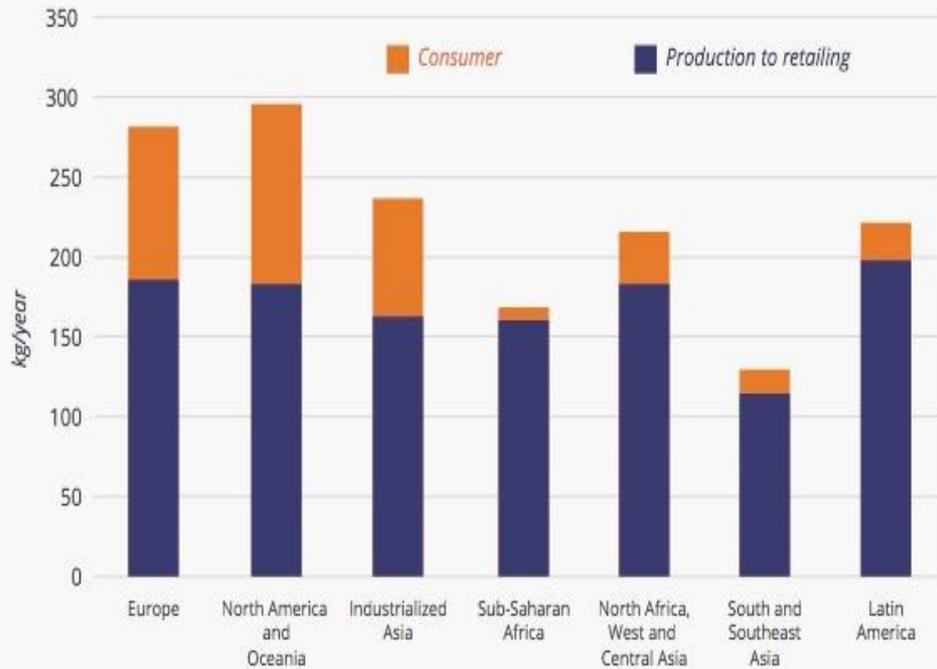


required to hold the U.N.

The food system today and future.....



Too much production, too much waste



TEEB-AG 2018

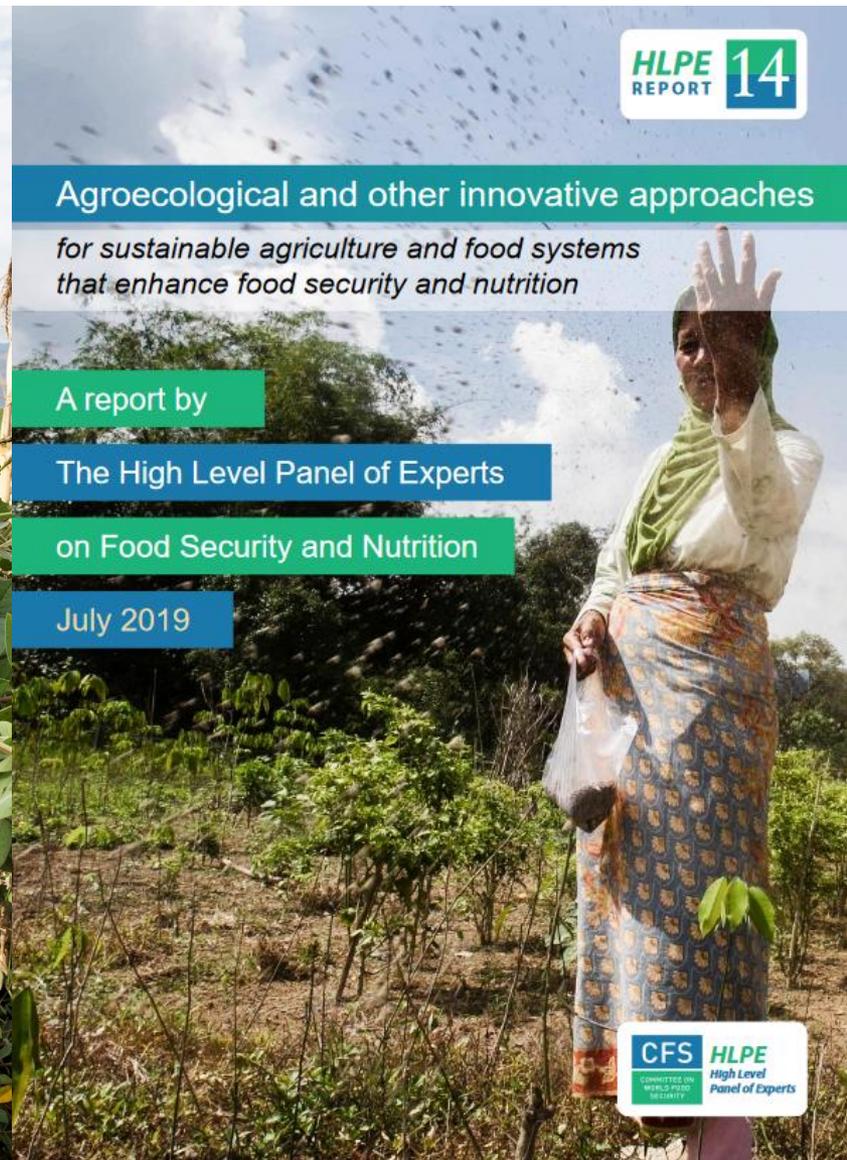
Food waste is 527 calories per day per person in the world in 2015.....

Broad recognition that the global food system is not functioning effectively



From FAO infographic

What can agroecology and organic farming contribute?



HLPE
REPORT 14

Agroecological and other innovative approaches

*for sustainable agriculture and food systems
that enhance food security and nutrition*

A report by

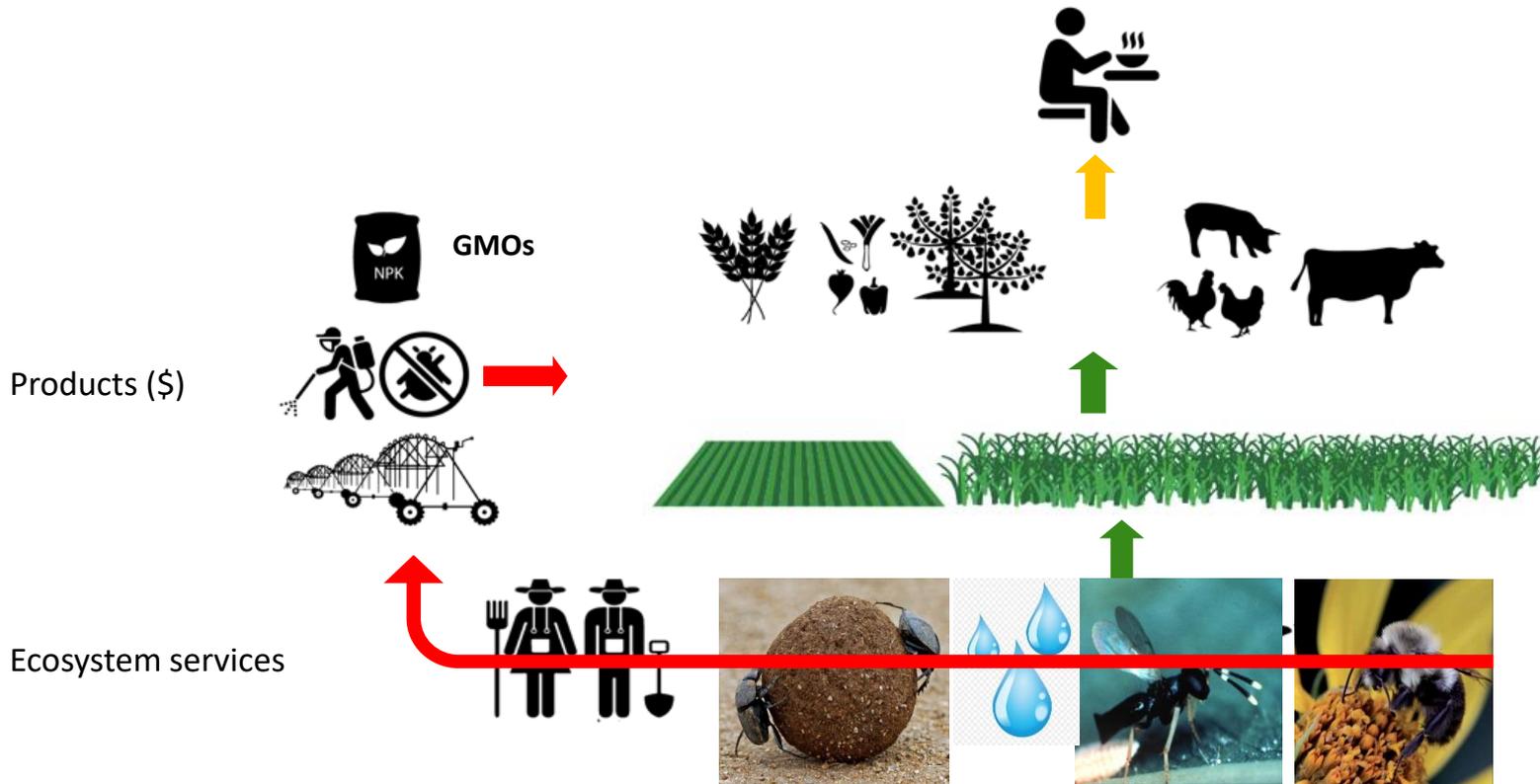
The High Level Panel of Experts

on Food Security and Nutrition

July 2019

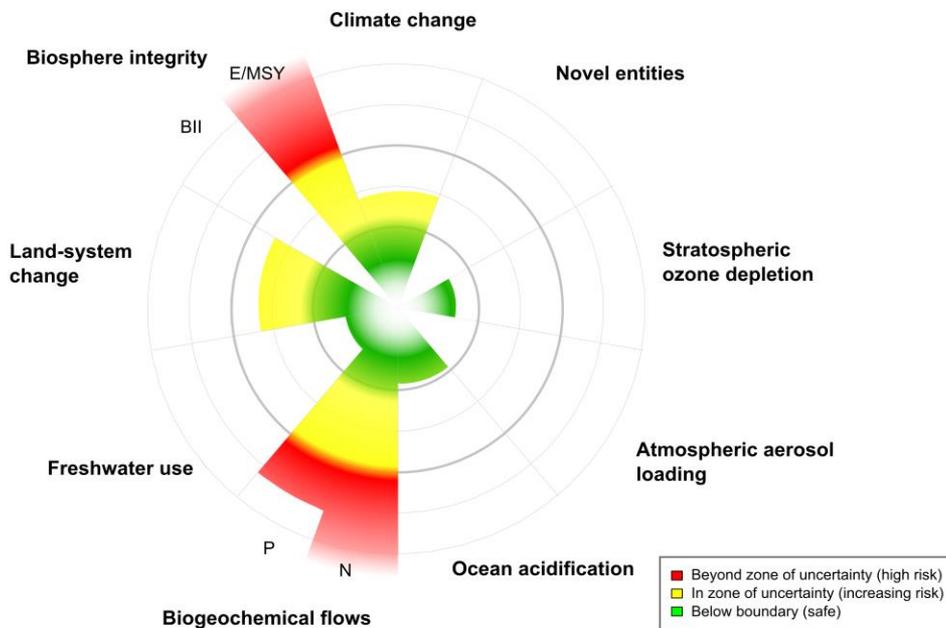
CFS
COMMITTEE ON
WORLD FOOD
SECURITY
HLPE
High Level
Panel of Experts

...but first, how did we create these problems?

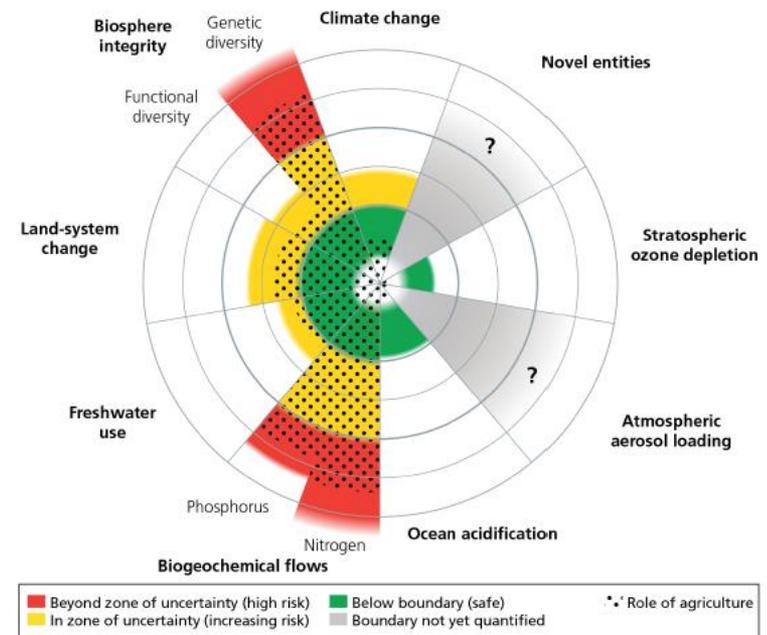


...cheap food and profit above all

...the issues with our food system are summarized in this landmark presentation....Threatening the planet's capacity to provide for all



From Rockstrom et al 2015

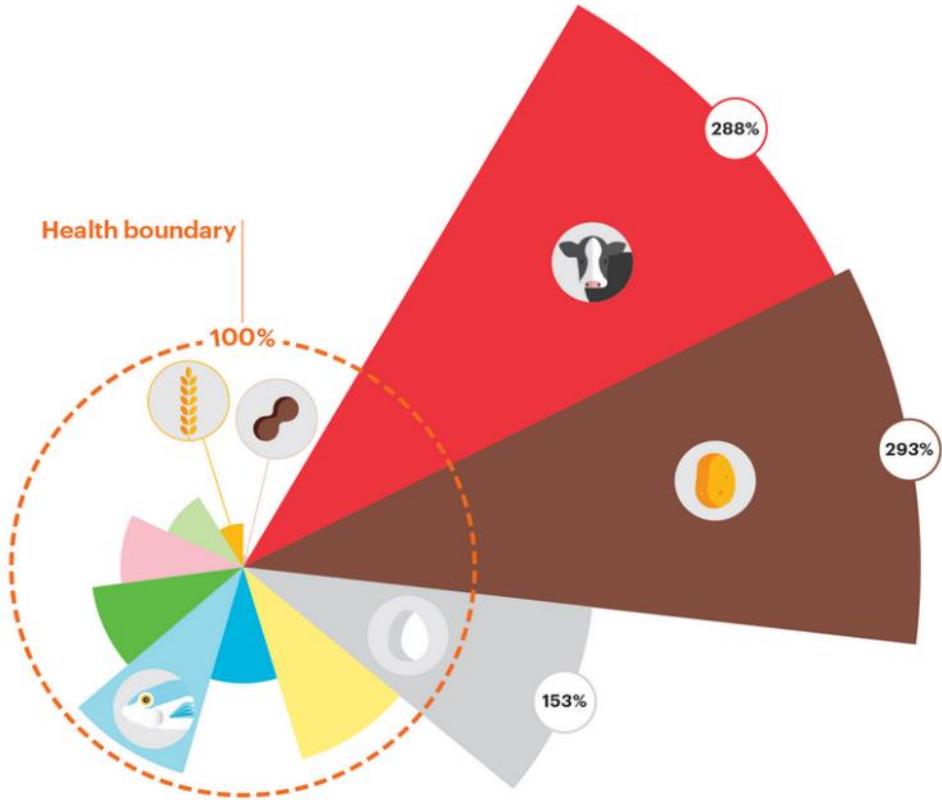


From Campbell et al 2017

Diets need to change, for various reasons

Current Diets vs Planetary Health Diet

Global

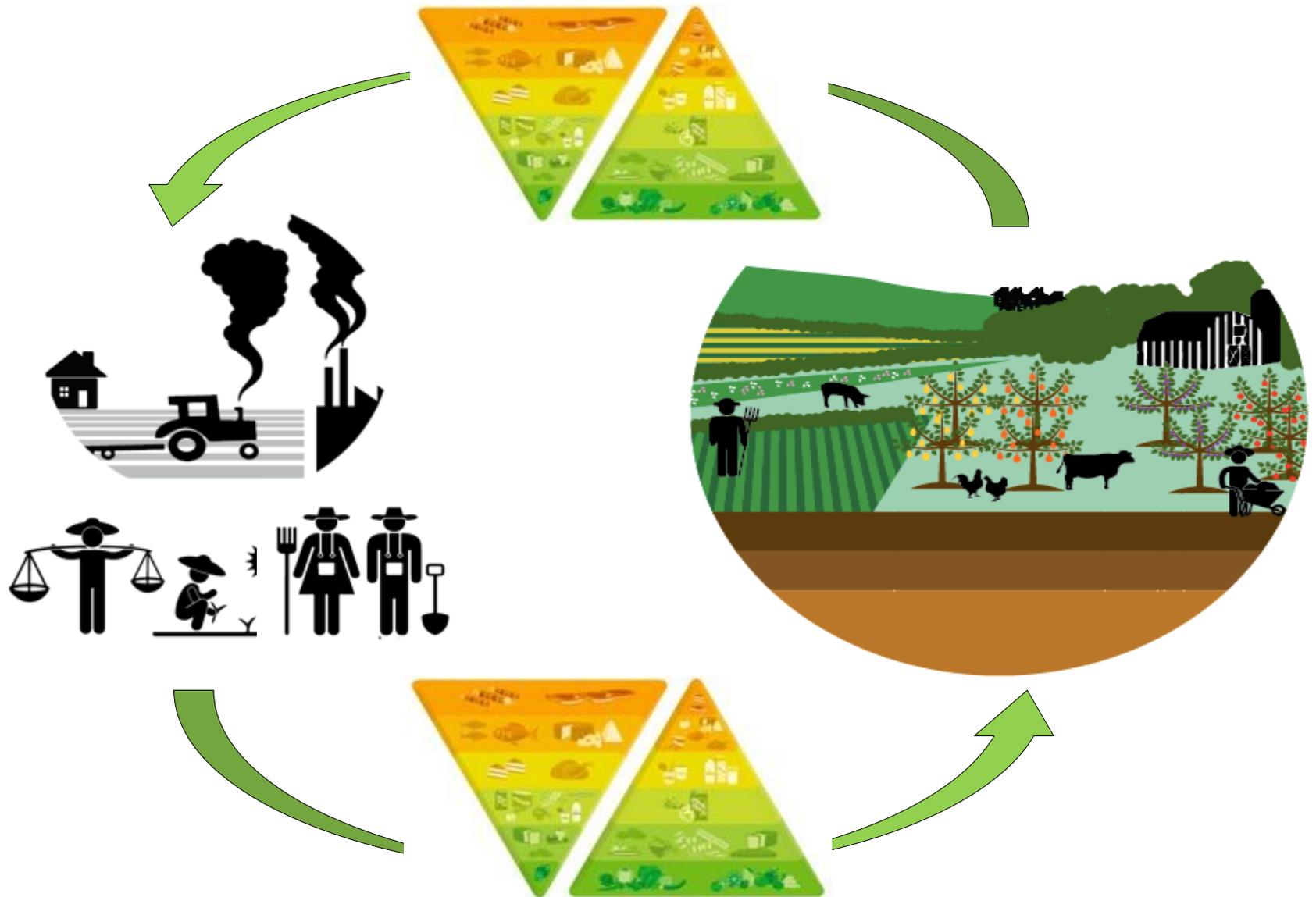


The food system today and future.....

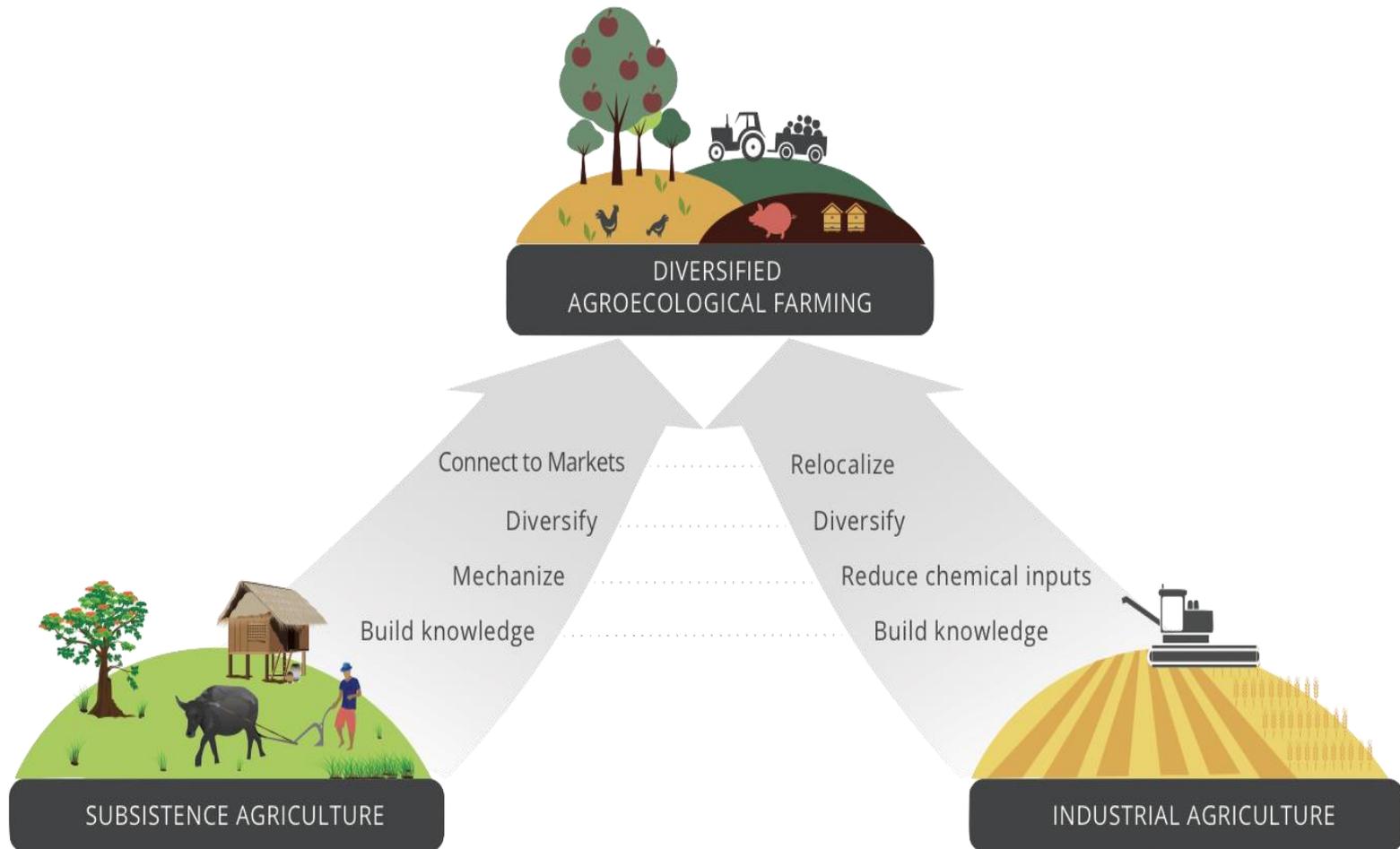


....unless changes are made

Transformation at all levels, from field to fork



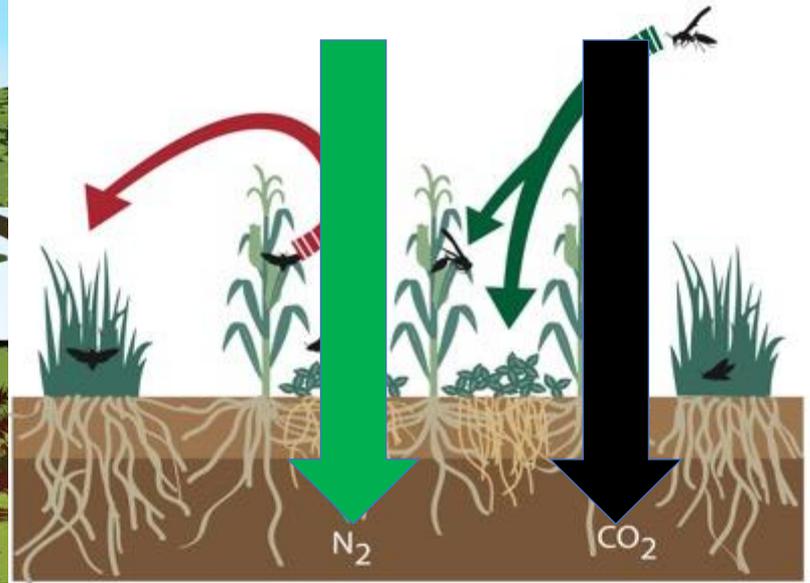
Transformation process



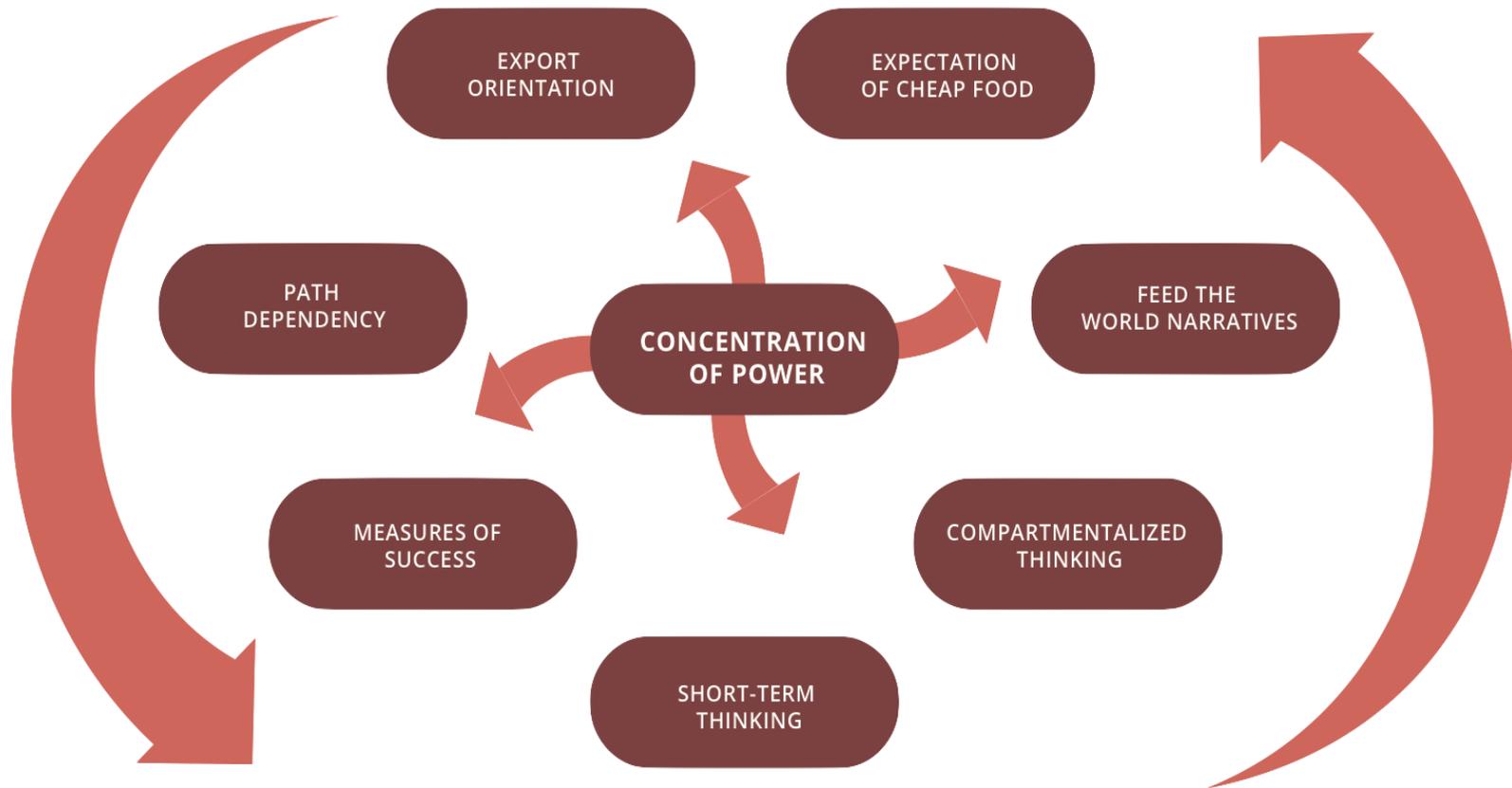
The So(i)lution is literallyin the soil



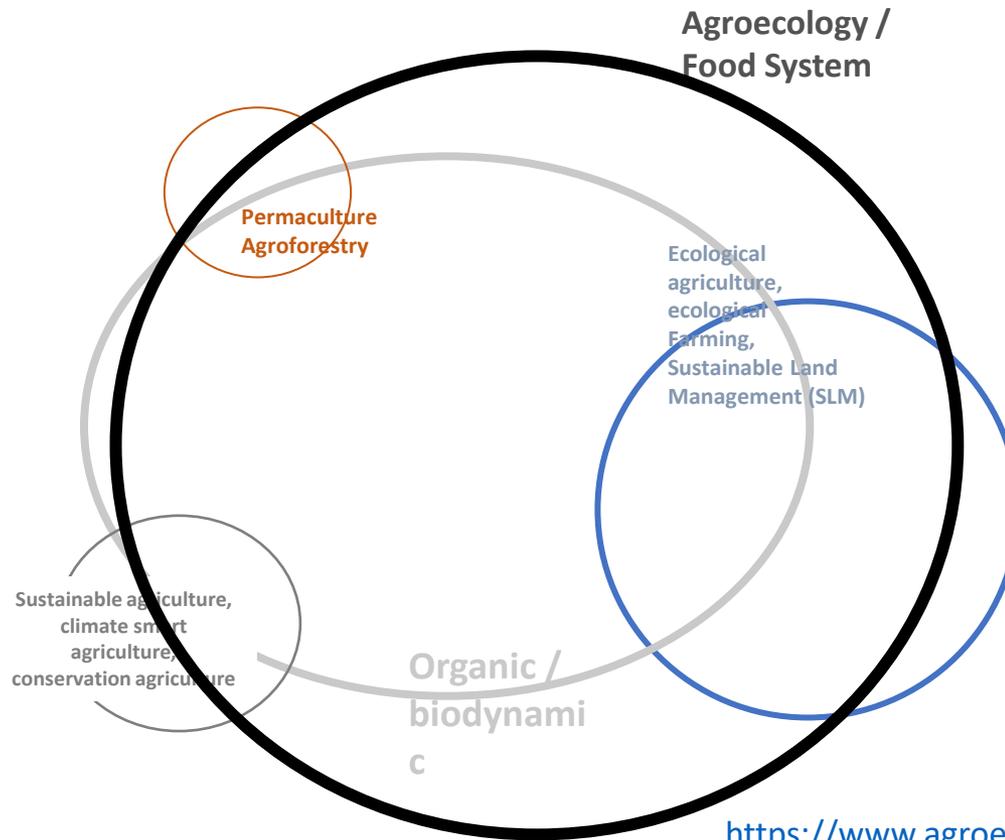
....and above Push-Pull system



What and who stands in the transformation's way?

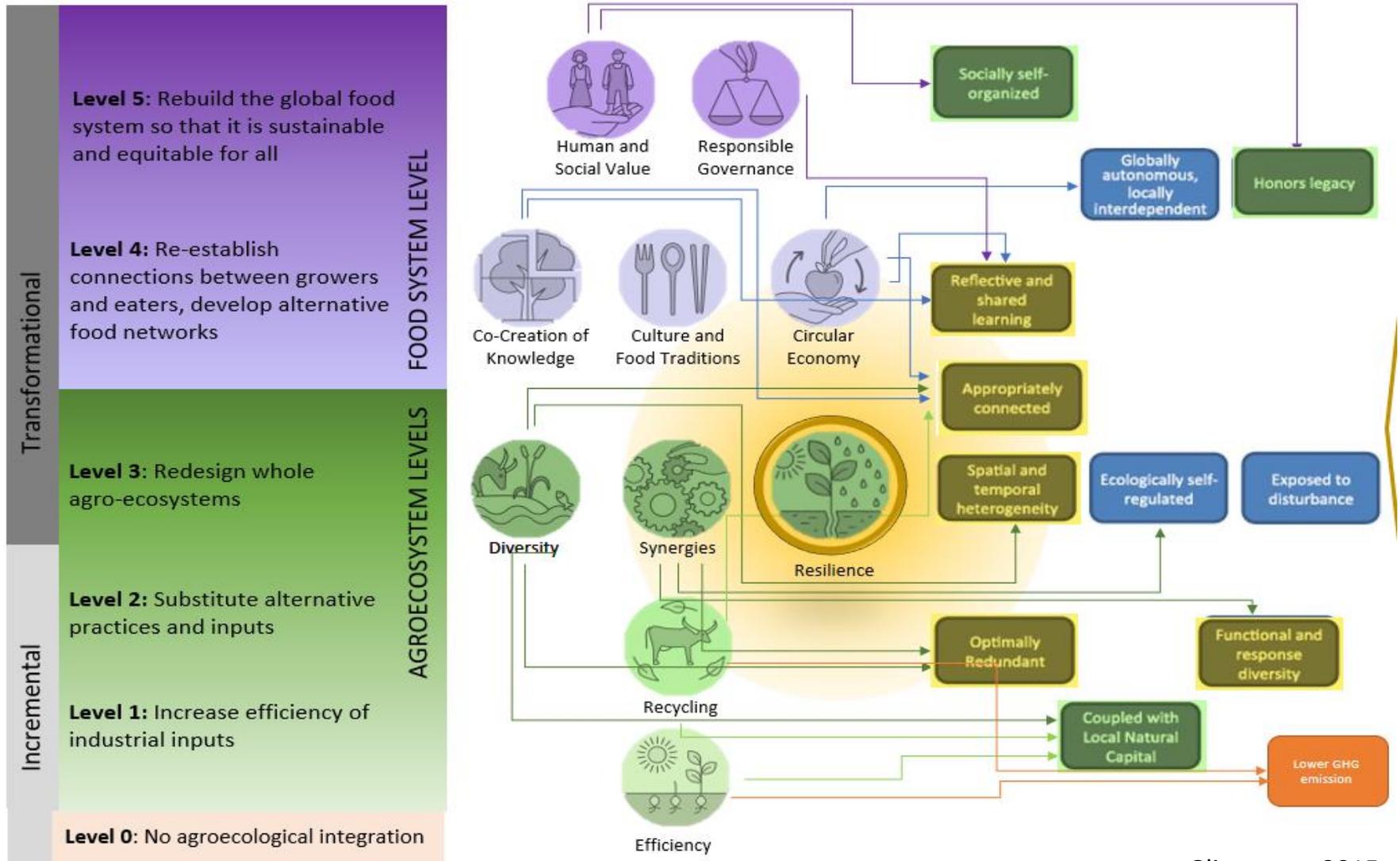


Agroecologyand other alternatives



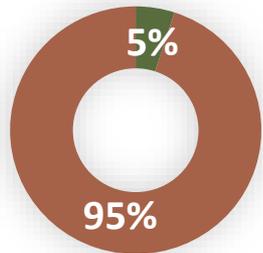
<https://www.agroecology-pool.org/methodology/>

Applying what we know to the transformation process

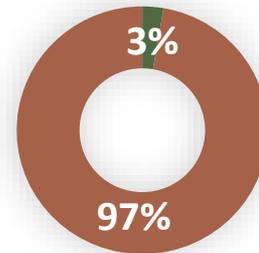


This is the name of the Conference

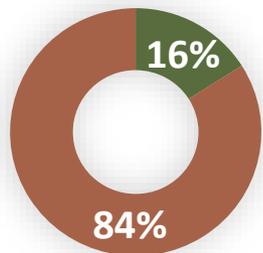
Investments in change.....or is it the status quo?



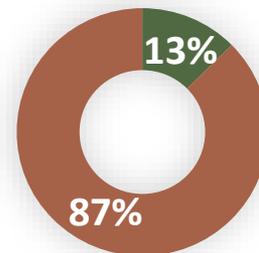
UK
Ag ODA (DFID)
(Pimbert & Moeller, 2018)



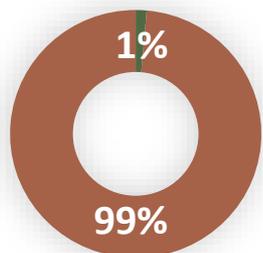
EU
DG DEVCO to FAO, IFAD, WFP
(CIDSE and CAWR, 2020)



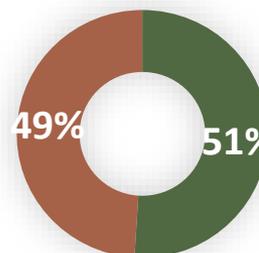
Belgium
Ag ODA (Enabel, FBSA, and others)
(Coalition contre la faim, 2020)



France
Ag Bilateral flows to developing countries (AFD, Proparco, BPI)
(Action contre la Faim, CCFD and OXFAM France, 2020)



Denmark
Direct bilateral Ag ODA (Danida)
(DanChurchAid, 2020)



Switzerland
AgR4D to Sub-Saharan Africa (SDC, SNSF)
(Biovision and IPES-Food, 2020)

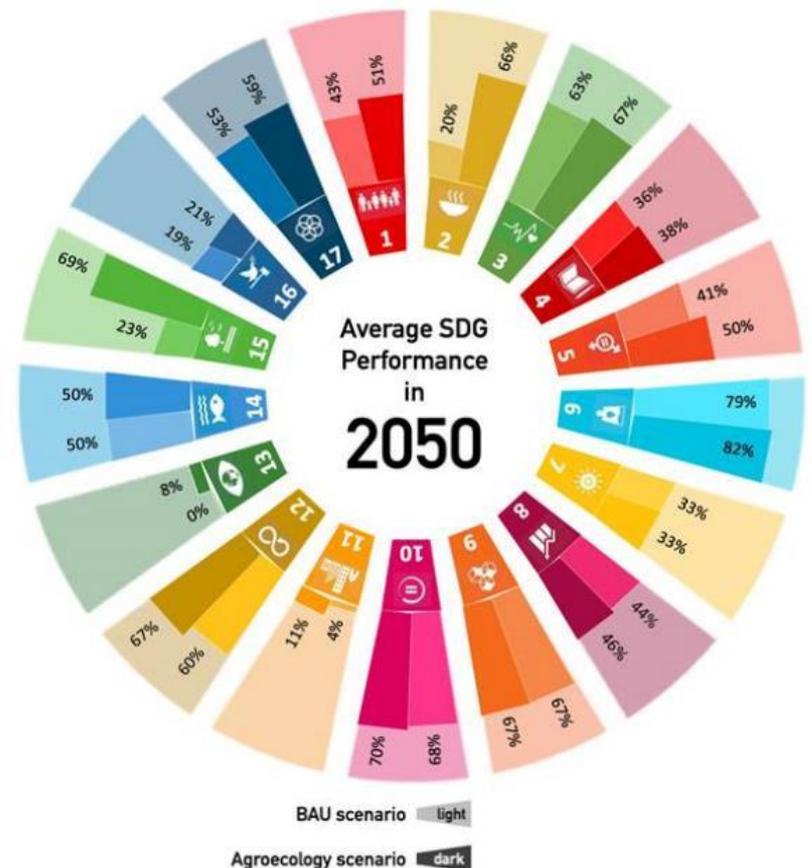
 Funding flows contributing to an agroecological transformation

How agroecology impacts the realization of the SDGs

Sustainable Development Goals	Positive impact recorded	
	No. of cases	% of cases
No Poverty	27	54 %
Zero Hunger	50	100 %
Good Health & Well Being	11	22 %
Quality Education	31	62 %
Gender Equality	17	34 %
Clean Water & Sanitation	14	28 %
Decent Work & Economic Growth	27	54 %
Responsible Consumption & Production	33	66 %
Climate Action	21	42 %
Life on Land	33	66 %

«Agroecology contributes positively to ten of the 17 SDGs»

50 case studies from 22 African countries
Farrelly et al. 2016



Impact of an agroecological policy scenario
Biovision / Millennium Institute 2019

.... and the transformation of our food system to agroecology is a great part of the solution

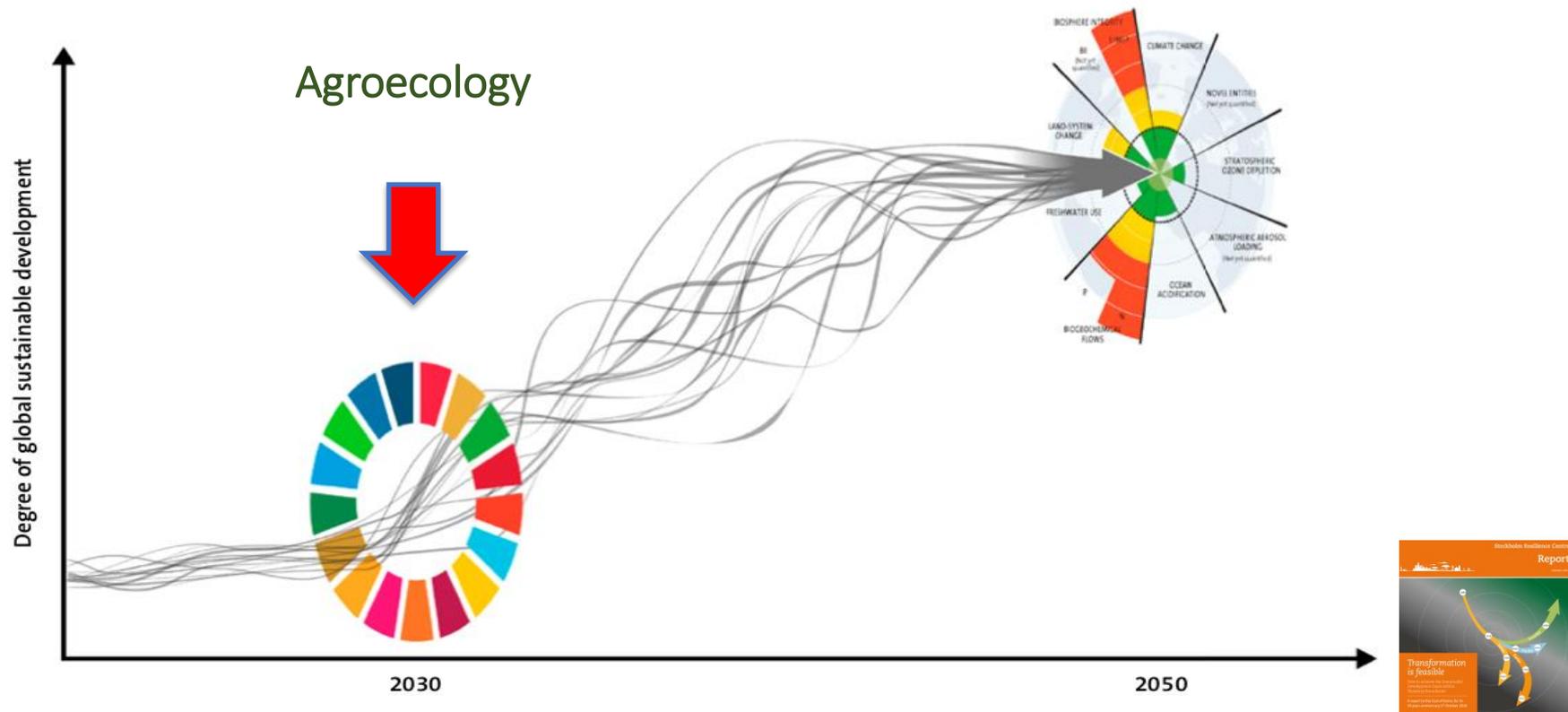
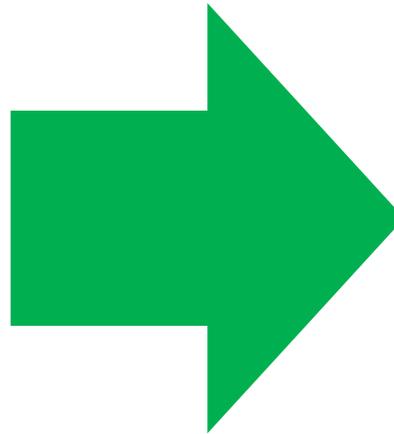


Figure 1.1 What pathways can lead to achieving the SDGs within planetary boundaries in 2050?

Setting agriculture and food systems right

From problem....

- Greenhouse gas emissions
- Soil erosion
- Biodiversity loss
- Water crisis
- Rural poverty
- Non-communicable diseases (NCDs)
- Chemical residues



.... to solution

- Carbon sequestration
- Localization
- Food sovereignty
- Soil fertility
- Agro-biodiversity
- Water retention
- Rural incomes
- Healthy nutrition
- Equity

...transformational lever: Full cost accounting

MEASURING WHAT MATTERS IN AGRICULTURE AND FOOD SYSTEMS

*A synthesis of the results and recommendations
of TEEB for Agriculture and Food's Scientific and
Economic Foundations Report*



**Report just published by
UNITED NATIONS
ENVIRONMENT:**

<http://teebweb.org/agrifood/home/scientific-and-economic-foundations-report/>.

.. Yes, changing course is possible.....but
it's everyone's responsibility

**You cannot solve the problem with the same
kind of thinking that created the problem**
Albert Einstein



Thank you