

Food Security and Valuing Water

WUR Research Programme 2019 – 2022

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Wageningen University & Research

Main global challenges



Needed transitions



Impact on global challenges



Change Performance Indicators targeted:

- 1. Continuous improvement for research excellence
- 6. Improved entrepreneurial culture and practice in education, research and value creation
- 10. Expanded connection with society and partners

New structure

Old structure 2015-2018

8 Kennisbasisthema's (WR)

5 Investerings thema's (WU)

11 additionele programma's
sinds 2018



New structure 2019-2022

5 Kennisbasisthema's:

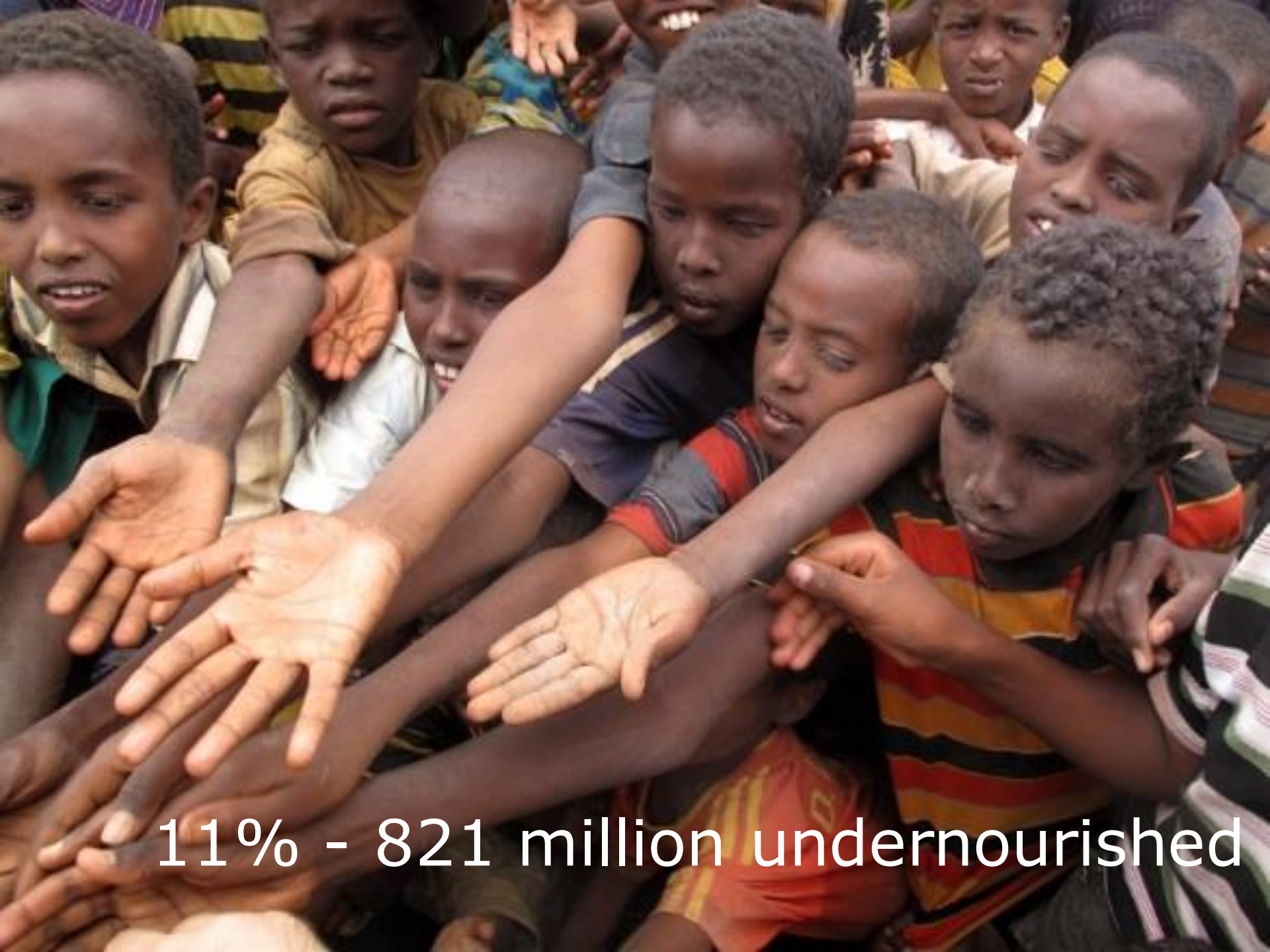
- A. Circulair en Klimaatneutraal
- B. Voedselzekerheid en de waarde van water
- C. Natuurinclusief en landschap
- D. Veilig en Gezond
- E. Data-Driven en High-Tech

3 Investerings thema's:

- I. Verbonden circulariteit
- II. De eiwittransitie
- III. Digitale tweelingen

We need a
transition in
our Food
System





11% - 821 million undernourished

70% more
production by 2050



Water for Food



70% fresh water for agriculture
22 countries in Asia and Africa:
waterstress level > 70%



70% of fresh water is
frozen, 29% groundwater

Biodiversity under threat





"Food is as important as energy, as security, as the environment. Everything is linked together."

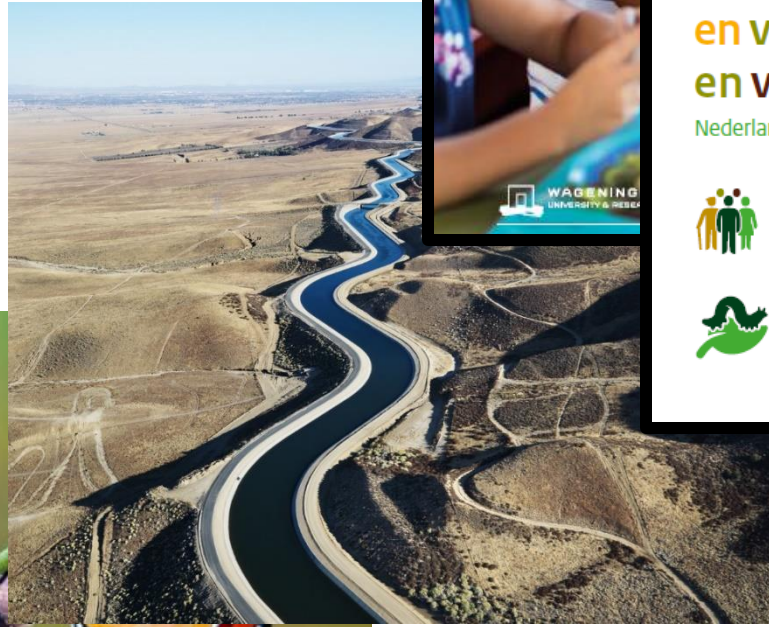
Louise O. Fresco



Food Security and Valuing Water - Mission

Contribute to Food Security by combining our interdisciplinary knowledge in the agri-food and water domains to shape the transitions towards sustainable food systems

Transition & Vision



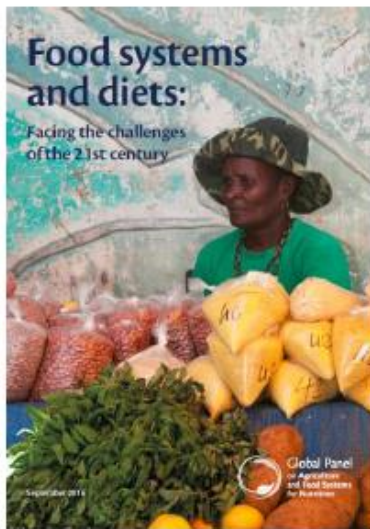
Great Food Transition

The Lancet Commission, 2019

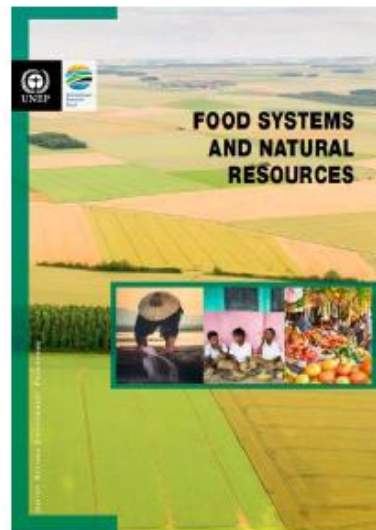
1. Healthy Diets
2. Mass → healthy food production
3. Sustainable production
4. Governance Land & Water
5. ½ food loss & waste

Food Systems

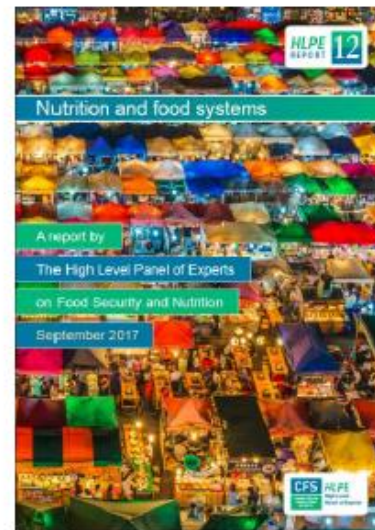
Global Panel (2016) Food Systems and diets



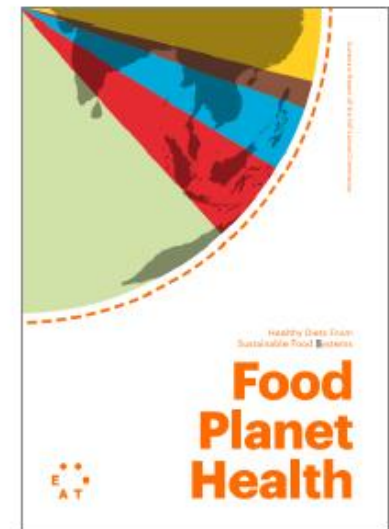
UNEP (2016) Food Systems and Natural Resources



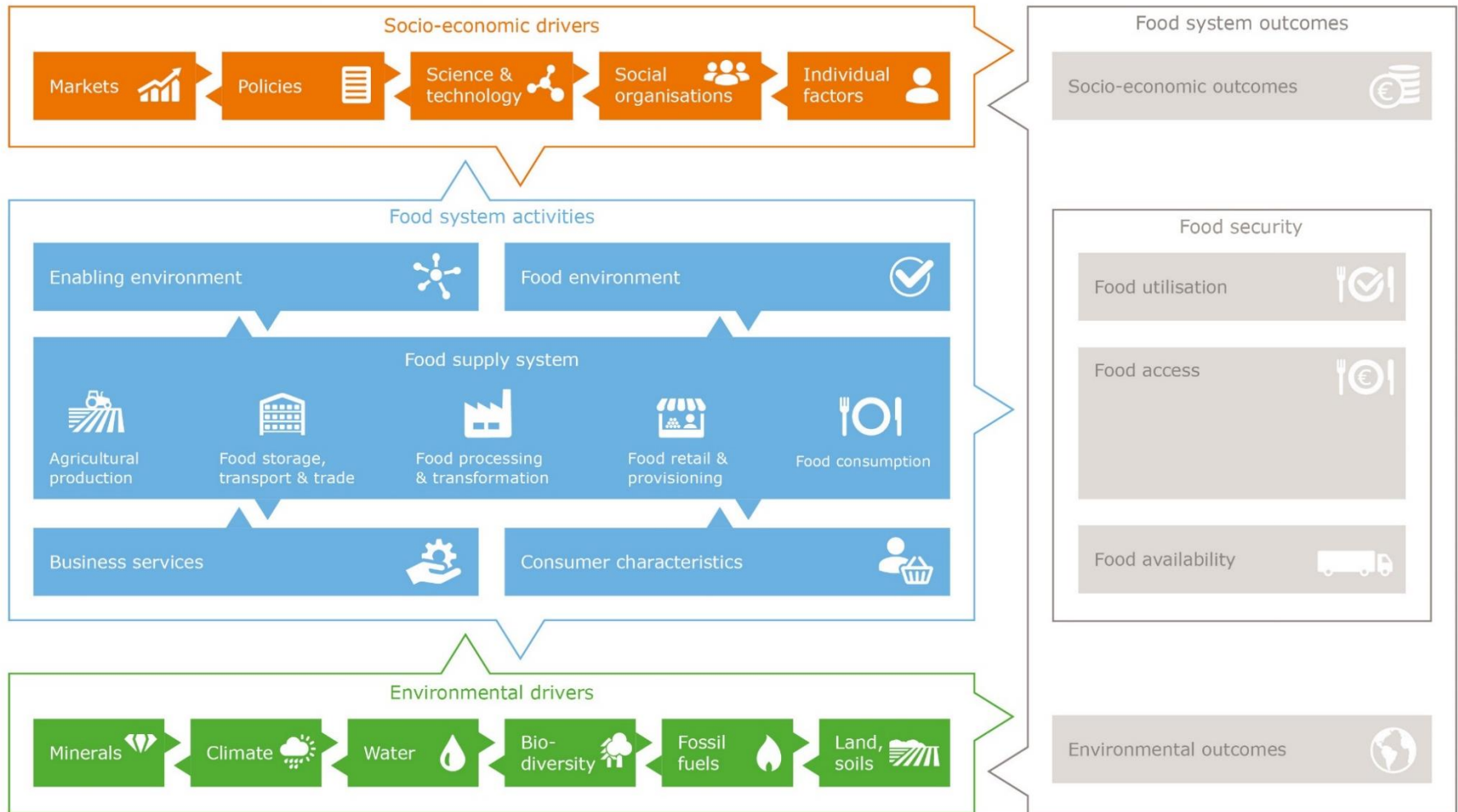
HLPE / FAO (2017) Nutrition and food systems



Eat Lancet (2019) Healthy diets from sustainable food systems

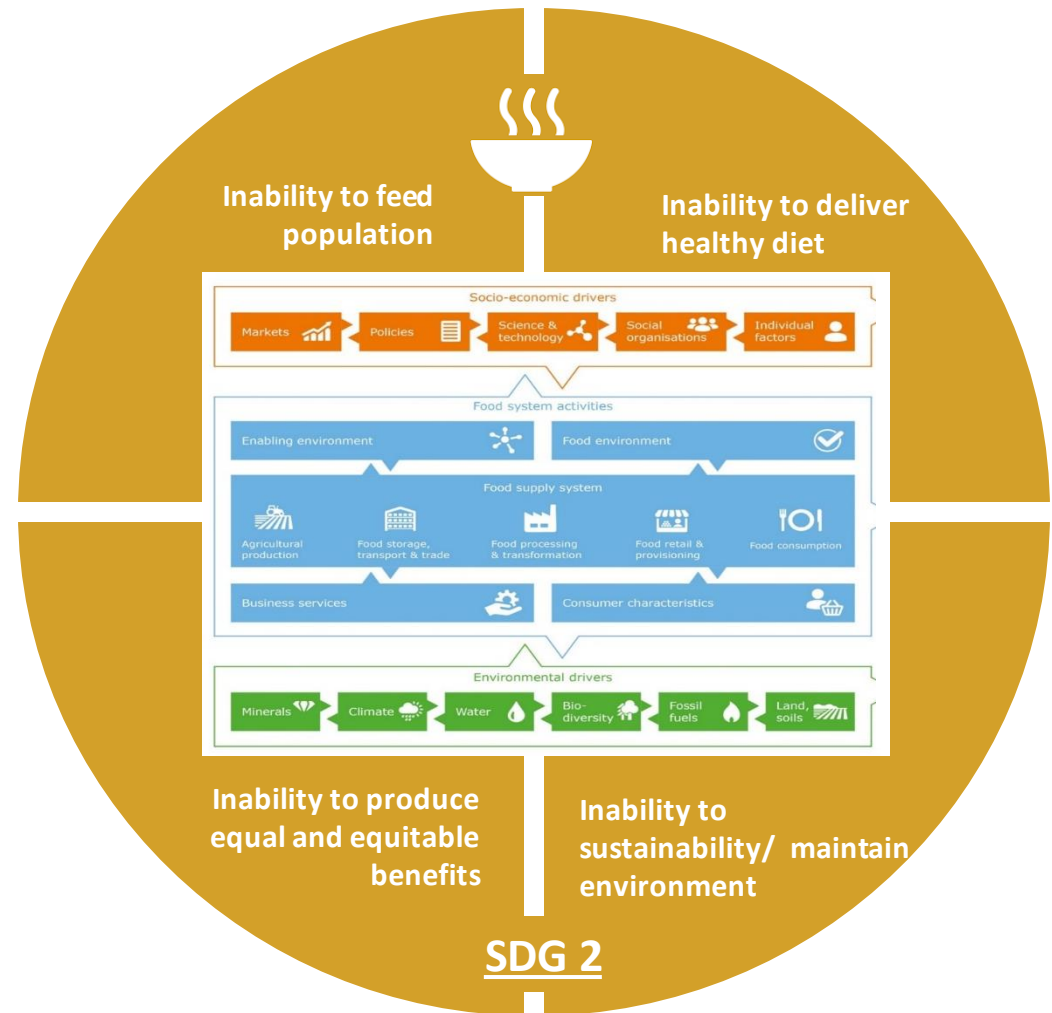


Food System Approach



Failure of Food System

- 4 main narratives



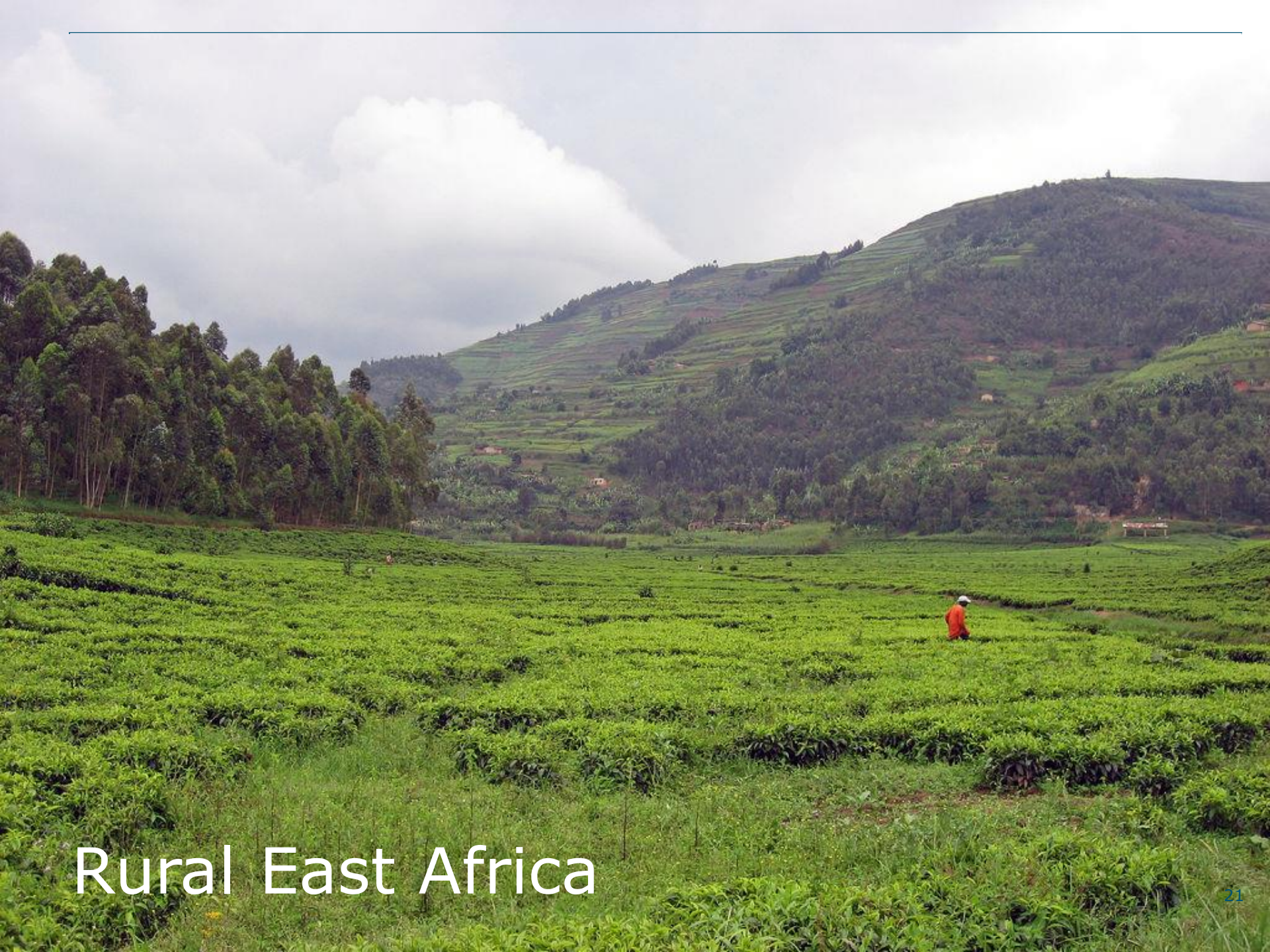
7 Research Projects a.k.a 'motifs'

Deltas under pressure



Feeding cities & migrant settlements





Rural East Africa

Aquatic Systems



Multiple Scales and Extreme Events



Photo: Flora Holland

Resilience to climate change & Food and Biodiversity



Transition Pathways



Transition pathways and integral findings

This *KB programme*

... investigates how to effectively support and facilitate transition processes,

.... involve and activate stakeholders,

.... drawing from and integrating multiple science disciplines, tools and methodologies,

.... shows different transition pathways, and gives inspiration for the use of different tools and approaches,

... aims to present cases of effective transdisciplinary work as well as advice about how to conduct such work in various settings.....

Food Security and Valuing Water



Programme mission: Contribute to Food Security by combining our interdisciplinary knowledge in the agri-food and water domains to shape the transitions towards sustainable food systems

Thank you



A ship is always safe at the shore, but that is not what it is built for.

Albert Einstein