

# Bi-directional learning Africa – Europe Universities

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# The Sustainable Development Goals

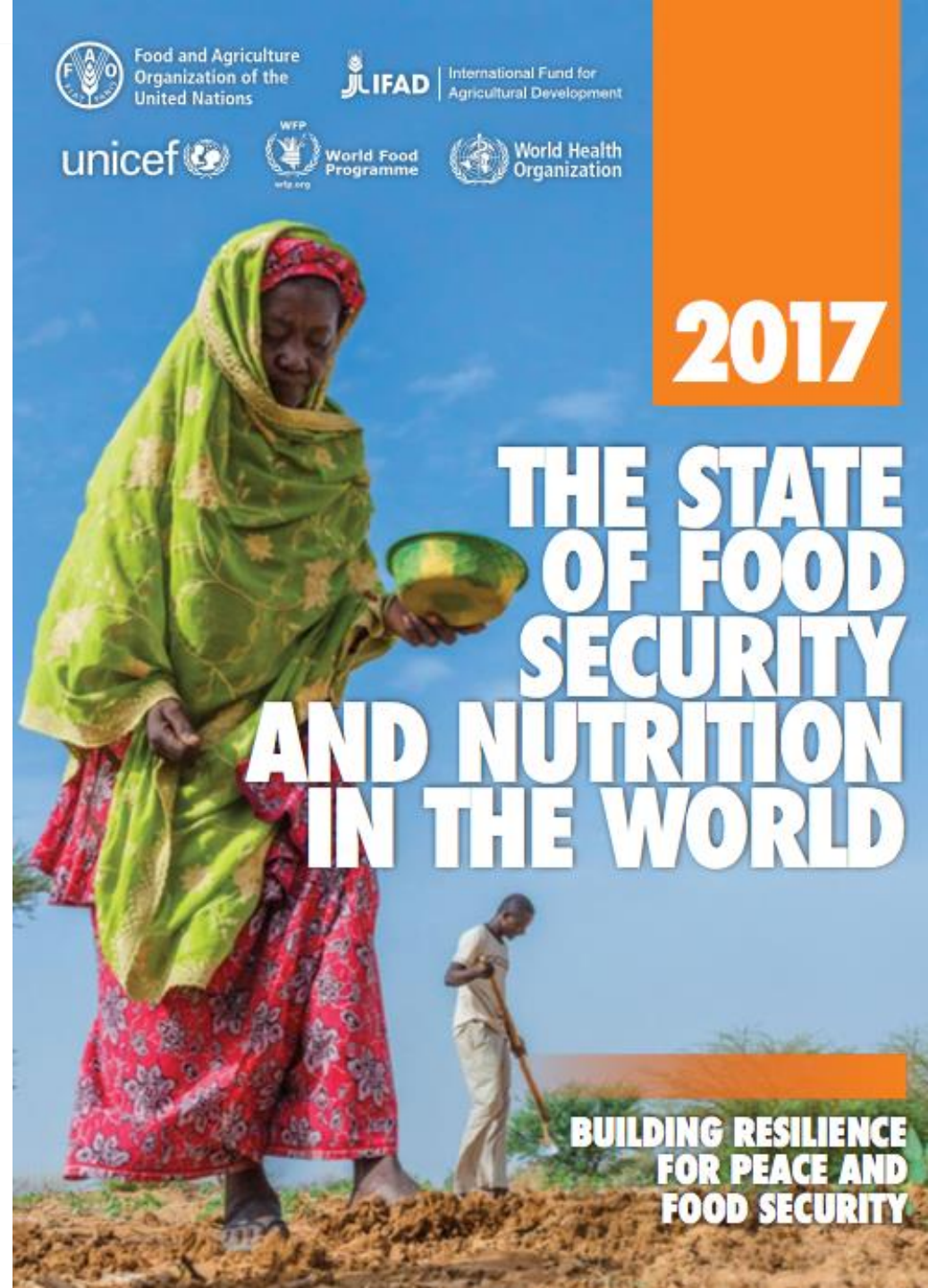
## 2015–2030



SDG 2      End hunger, achieve food security and improved nutrition and promote sustainable agriculture

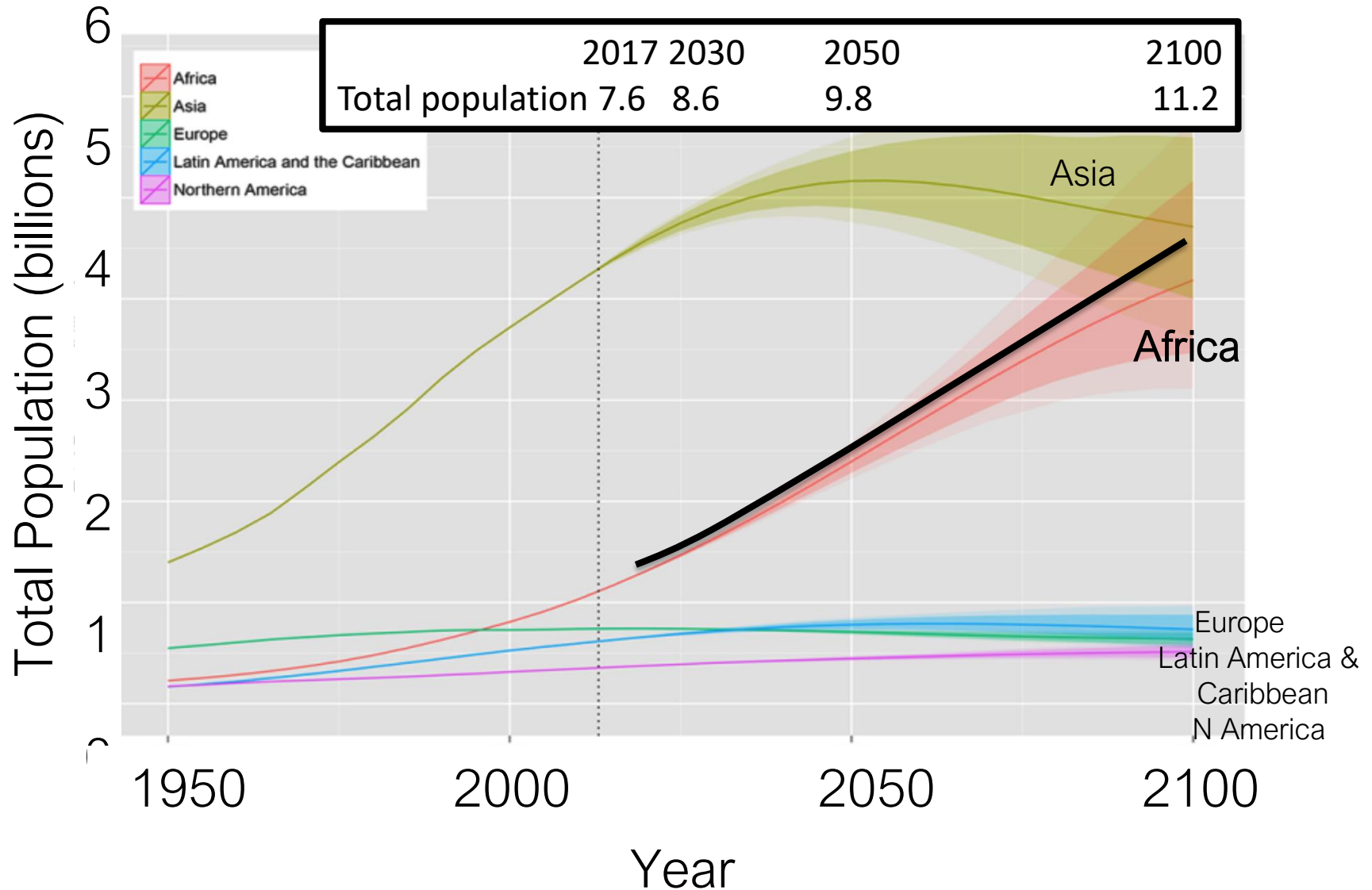
# Food Security

- First time report focused on conflict
- Worrying increase in food insecurity





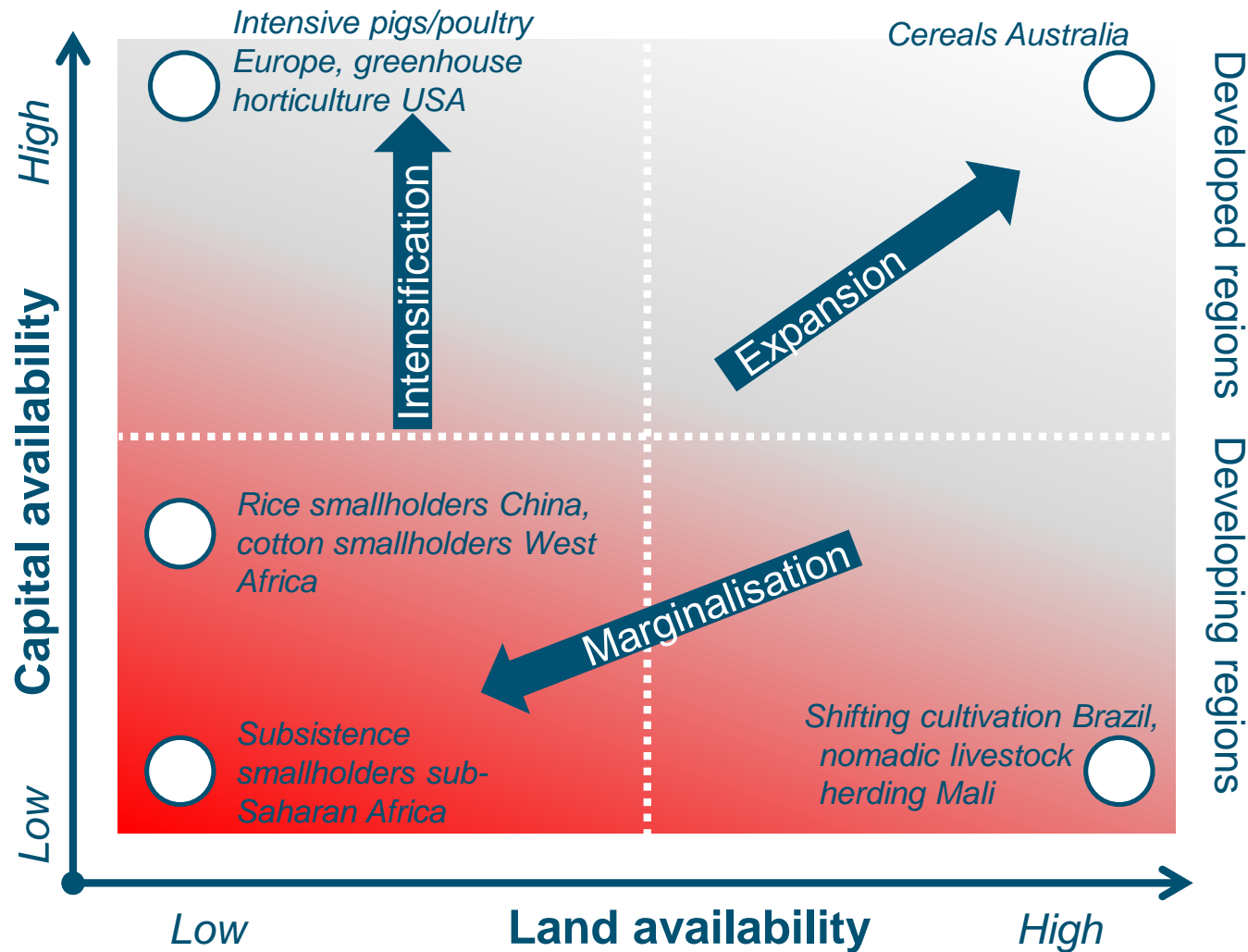
# Population growth in Africa shows no sign of slowing down



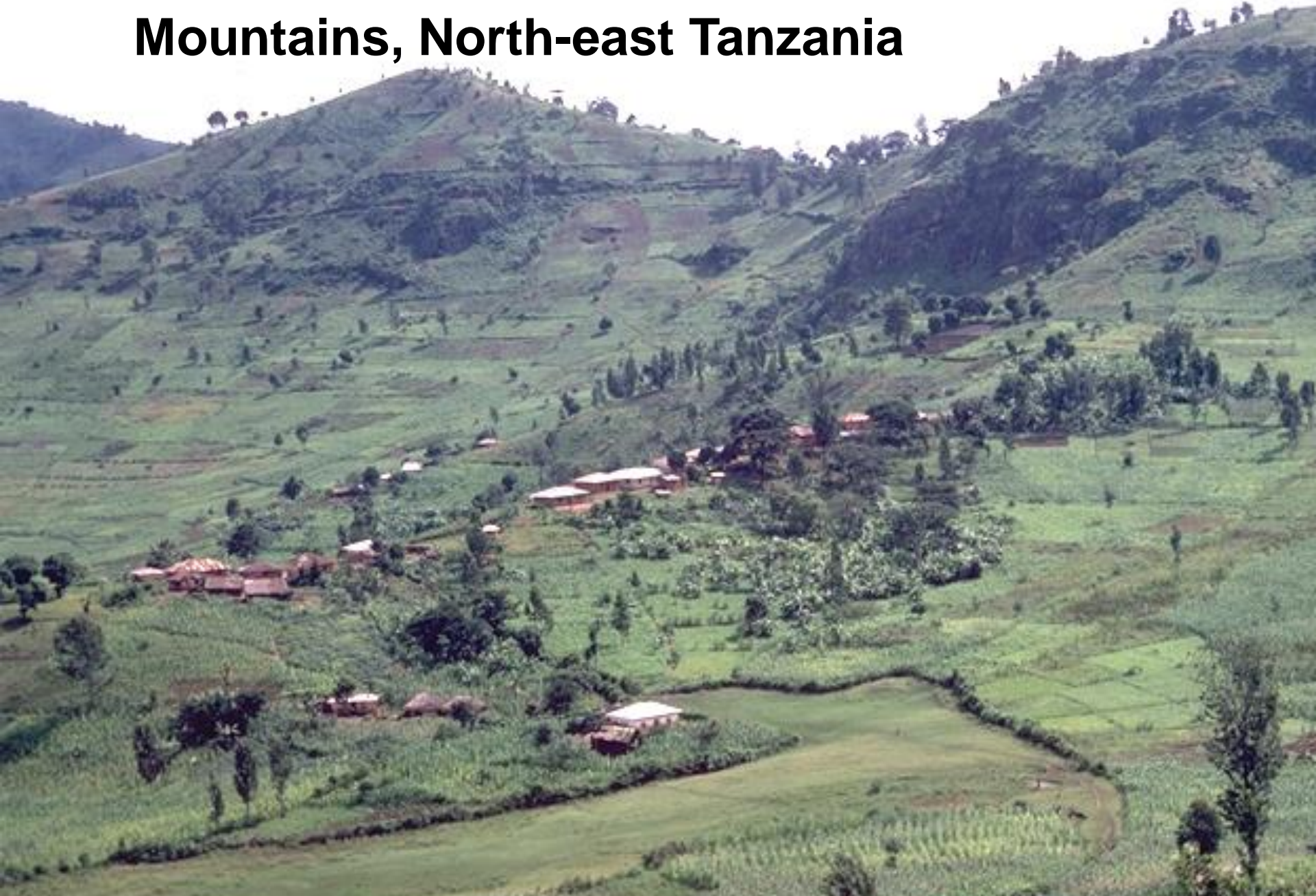
Gerland *et al.* (2014) World population stabilization unlikely this century.

*Science* 346, 6206, 234-237 + UN World Population Report (2017)

# (Family) farms - diversity and trends



# ***Phaseolus* beans in the Usambara Mountains, North-east Tanzania**





# *Phaseolus* beans on Lushoto market

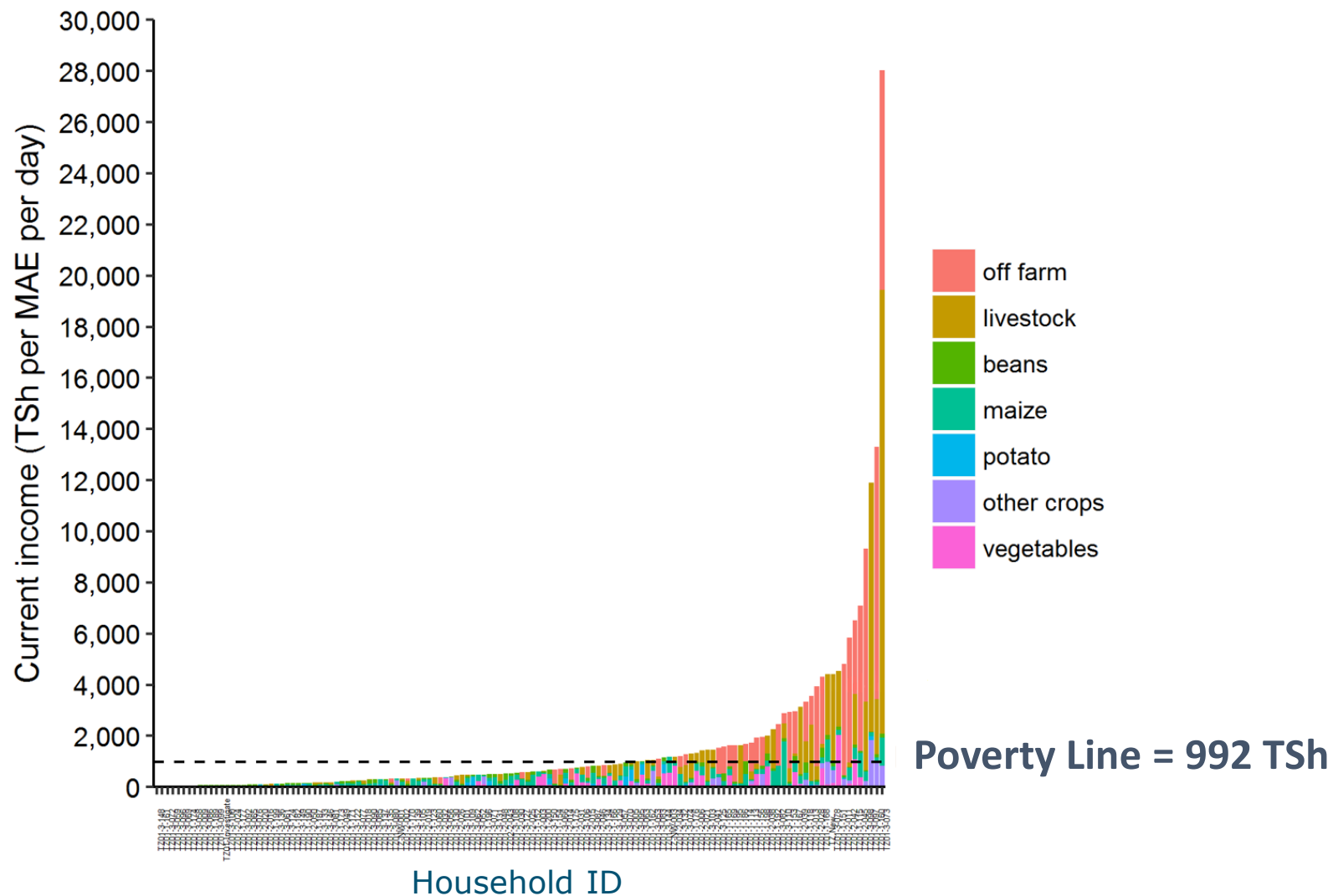
1987



2014

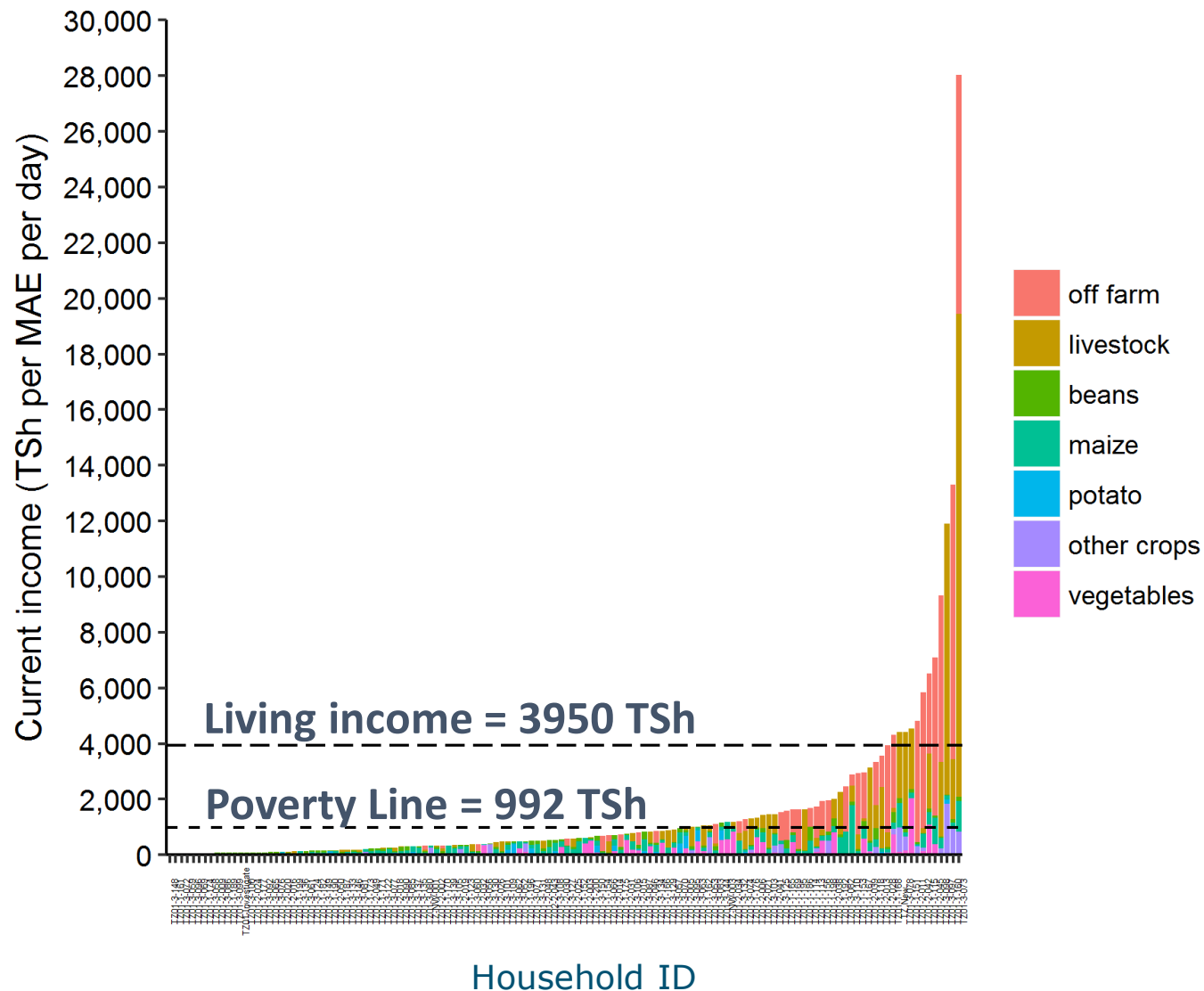


# Household income in West Usambara, Tanzania





# Household income in West Usambara, Tanzania



# The Food Security Conundrum

- National food security requires an abundant supply of cheap and nutritious food for the burgeoning urban population
- Agriculture is a major contributor to the balance of payments for African economies
- Rural households (reluctant farmers) lack sufficient land or economic incentives to invest in agriculture

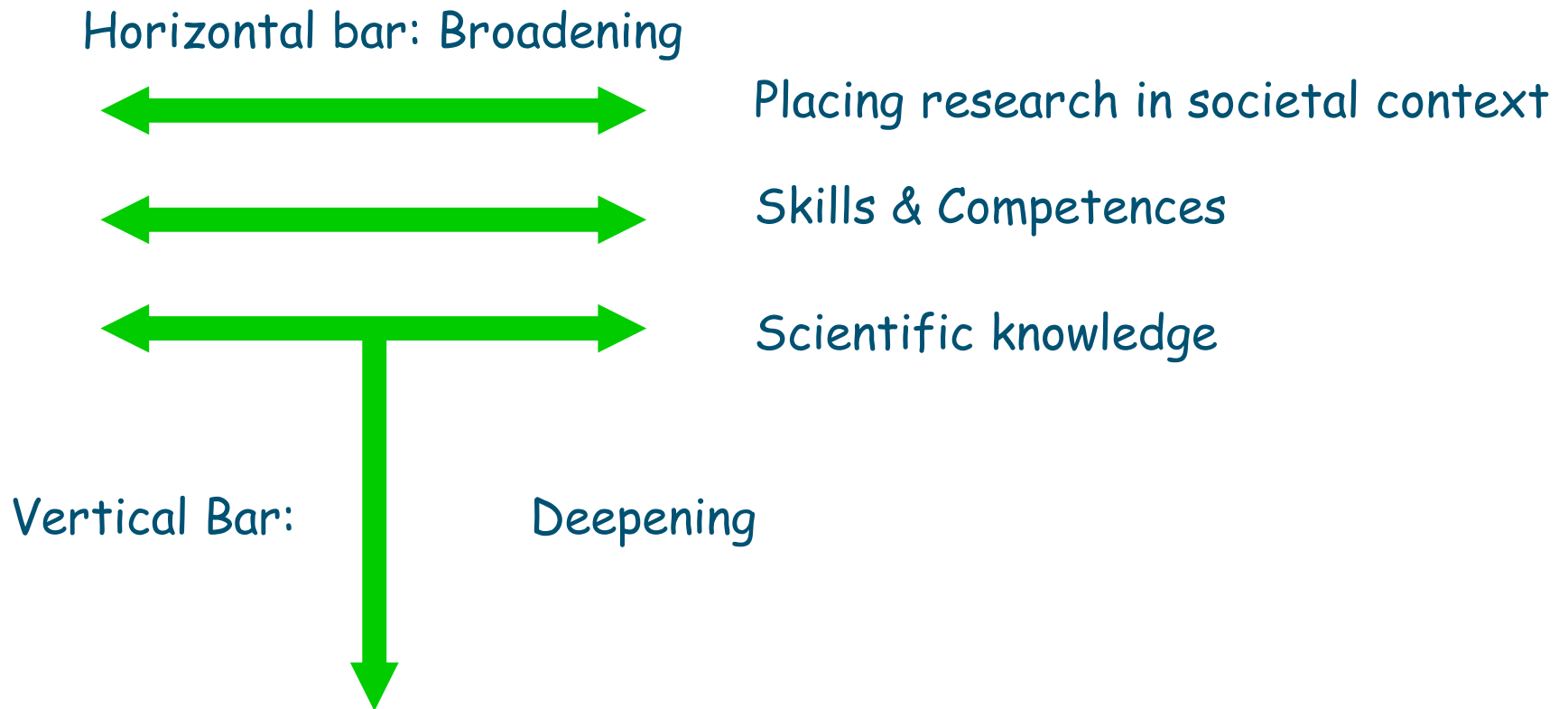


# The new role of science

- Requires well-trained, interdisciplinary scientists who can address complex challenges



# T-shaped skills





# Adopting T-shaped skills:

## (Inter)Active (participatory) training



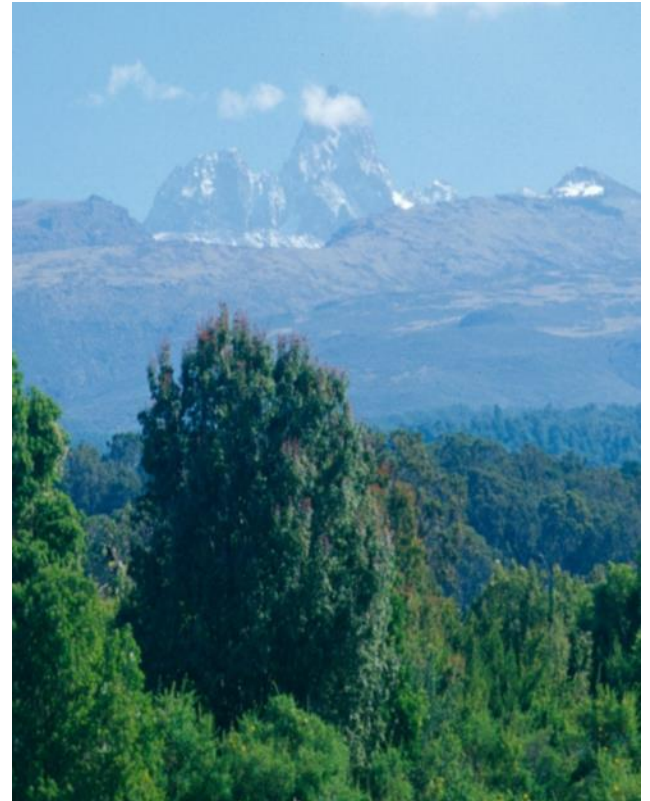
# Adopting T-shaped skills:

## 2. Interdisciplinary training (on-site courses)

### Farming Systems and Rural Livelihoods



### Land Dynamics: Getting to the bottom of Mount Kenya





- Competence & skills training for PhD candidates and staff



# Interdisciplinary Research and Education Fund (INREF)

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## ■ Objectives

- to produce research results that really make a difference
- to conduct and trigger innovative, interdisciplinary and comparative research, development and education
- to strengthen education programmes on interdisciplinary issues

**Keywords:** *Systems approach, interdisciplinary, training PhDs from LMIC, Solution driven*

**Instrument:** exploit and expand strategic international partnerships;

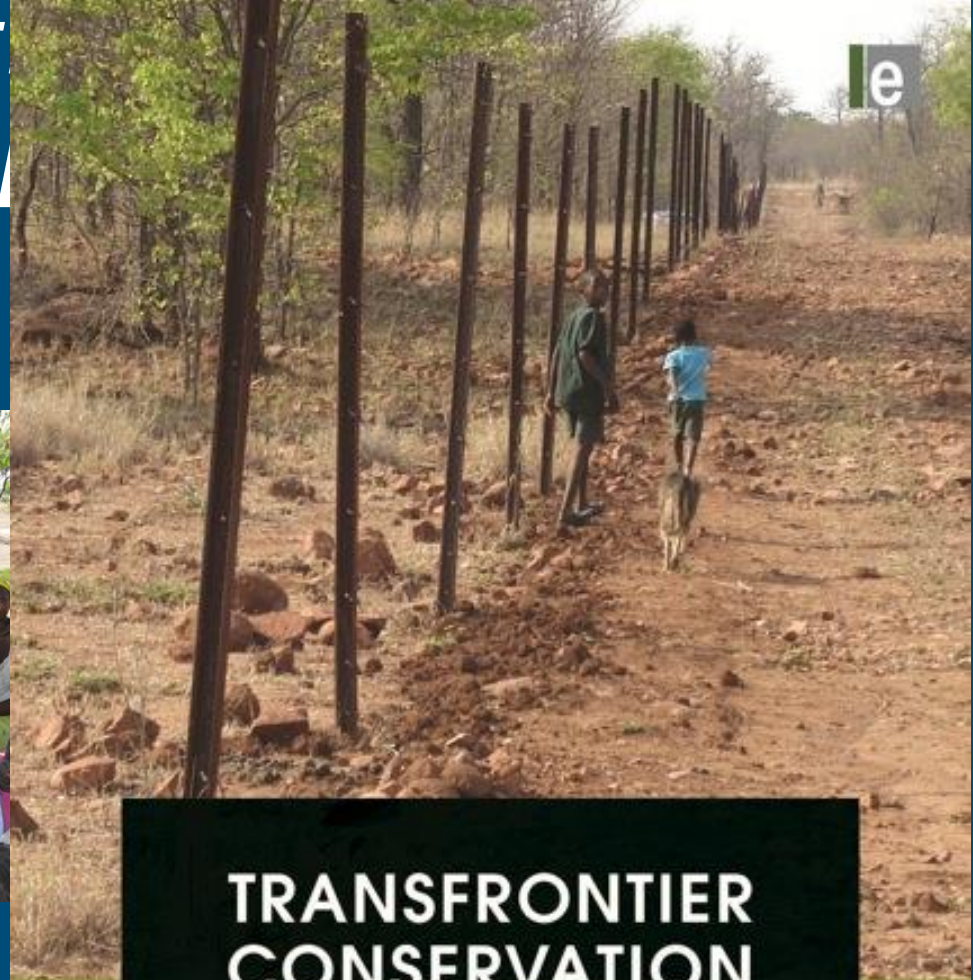




# *Transfront Areas: People Edge*



Multi-author book published  
Collaboration with local Univ  
Eds: Andersson, Garine-Witch



## TRANSFRONTIER CONSERVATION AREAS

PEOPLE LIVING ON THE EDGE

Edited by  
Jens Andersson, Michel de Garine-Wichatitsky,  
David Cumming, Vupenyu Dzingirai and Ken Giller

# Massive Open Online Courses



## MOOC

# Sustainable Food Security: Crop Production

How to feed the world without depleting our planet's reserves? Learn the basics of crop production. This free online course is offered as a MOOC, and is part of the XSeries Sustainable Food Security.

### Organised by

Wageningen University & Research

### Date

Tue 7 January 2020 until Thu 23 July 2020

Tue 3 September 2019 until Thu 20 February 2020

### Duration

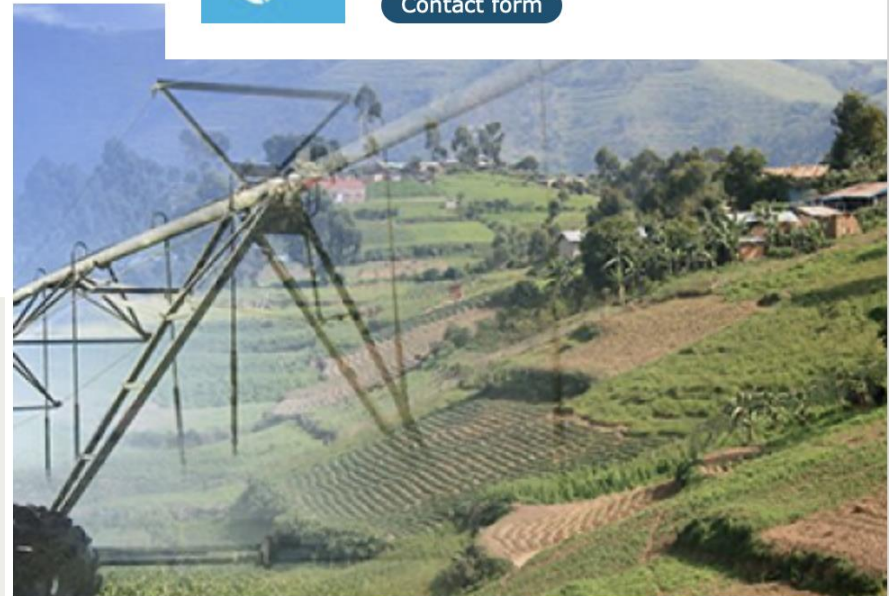
This MOOC is open for enrollment



Questions about this course?

Team Online Education (MOOCs)

Contact form



# E-conferences: carbon-free and inclusive

## Fall armyworm in Africa

- 500 participants, 70% from Africa
- 5 days, 2-3 speakers per day
- 270 - 450 views per video

## Nutrition-sensitive agriculture

- 975 participants from 100 countries
- 3 days, 1 speaker per day
- 460 - 945 views per video

- Online conference platforms are still active with 1700+ members
- 60% would not have been able to join a physical event
- 15% applied what they learned in practice



# Mutuality

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- Mutuality in collaboration requires mutuality of opportunity
- Challenges
  - Poor remuneration threatens staff retention
  - Lack of investment in facilities
  - The “Digital-Divide”
  - The downside of Open Access – predatory journals
  - Proliferation of private and public universities

# Helicopter Science and Parachute Policy

Perspective

*Outlook*  
on  
**AGRICULTURE**

## Why agroecology is a dead end for Africa

Nassib Mugwanya 

### Abstract

The urgent need to transform Africa's agriculture has led to a rise in advocacy for more holistic and sustainable models such as agroecology. However, in the name of working within the limits of nature, and of social justice, proponents of agroecology in Africa are—knowingly or unknowingly—pushing for the status quo. Moreover, the anti-corporate, anti-industrial sentiment informing the arguments of agroecology is likewise disconnected from the current economic reality in many African countries. Whatever one's position, arguments about what path Africa's agriculture should follow need to be based on a clear understanding of the starting point, on the reality of African agriculture as it exists today. The agroecological model advocated is too restrictive to transform the sector. At best, it seeks not to transform, but to trap farmers in the poverty of their current unproductive farming practices.

### Keywords

Agroecology, smallholder farmers, Africa, transformation, poverty

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**FAO'S  
WORLD  
AGROECOLOGY**

A pathway to  
achieving the SDGs

With thanks to:

Claudius van de Vijver  
Jennie van der Mheen  
Paul Gerts

