

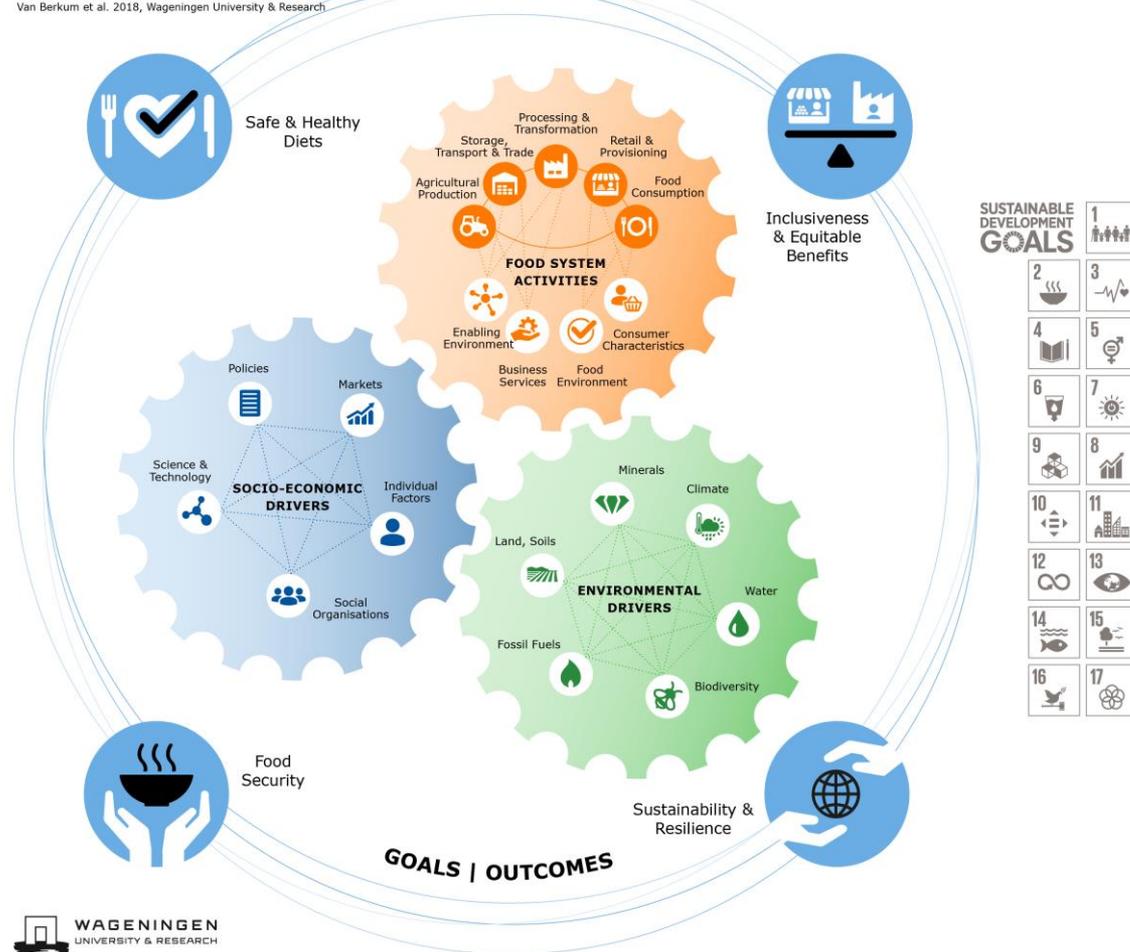
Climate- and Water-Smart Agriculture

From the Netherlands and Egypt to the World



Food systems framework

Van Berkum et al. 2018, Wageningen University & Research



Similarities and challenges

- Delta countries
- High population density
- Land availability for agriculture is small
- Agriculture in the culture
- Both in a changing climate: more extreme and unpredictable events



Topics in Climate and Water Smart Agriculture

- Nature inclusive farming and improving biodiversity
- Use of climate information services
- Water resource management
- Resilient seeds
- Healthy soils for sequestration



CaWSA projects in progress

Carbon farming (part of farms4climate)

Improve livelihood of small-hold farmers

Creating satellite-based tools to understand the effects of regenerative practices

The role of WUR together with Heliopolis University is to research the potential of carbon farming by combining several measures



CaWSA projects in progress

Seed sector transformation

Explore opportunities to extend Egypt-Netherlands collaboration to strengthen the performance of the Egypt's seed sector

- Assess seed sector performance map stakeholders' interests in collaboration
- Identify short- and medium-term partnership opportunities for business, policy and research



How to sustain knowledge and put this into action?

- Dutch Diamond Approach
 - Collaboration with local organizations
 - Repeated interactions
- Bringing academia into practice
- Training and education
- In dialogue with end-users



Living labs

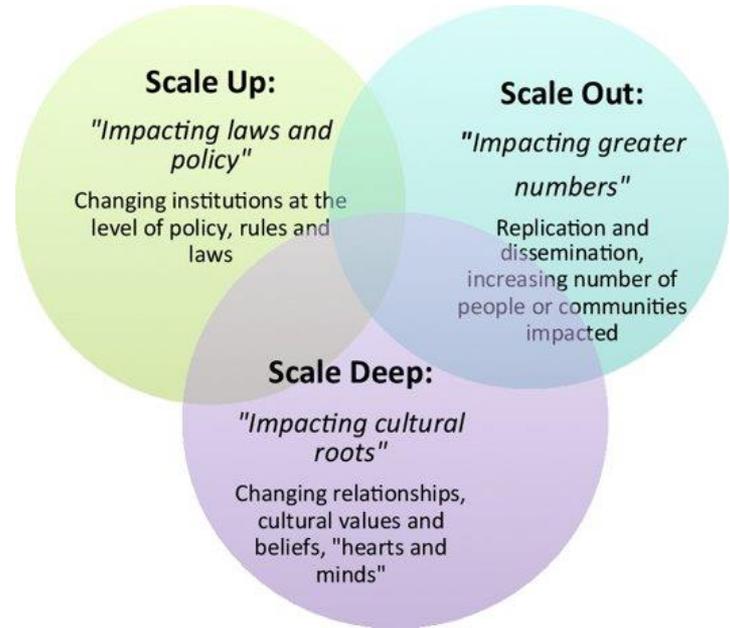
Joint Cooperation in Applied Research project

- Investigation before implementation
- End-user central
- Cocreation with all stakeholders
- Resulting in more motivation, ownership and understanding



How to upscale the projects?

- Break down silos: trans-disciplinary research
- Critical and reflective researchers to understand the complexity of a system
- Implement Theory of Change in every project
- How to impact the whole stakeholders in the food system?



Riddell, 2015

How to leave no one behind?

- Small, medium and large farmers: size matters!
- Accessibility and affordability of services



Video Farm of the Future – Pharosfarm