



29th August 2018



Sustainable Infrastructure for Inclusive Green Growth

Session 3

The Real World: Opportunities and Constraints for Sustainable Infrastructure

Session Chair

Gyewoon Choi, Incheon National University

Greening grey infrastructure and engaging stakeholders

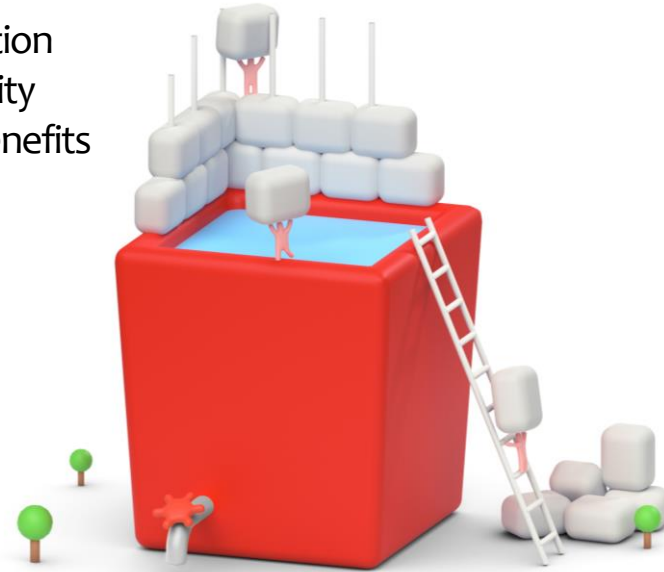
INCREASES URBAN WATER SUPPLY

by

OPTIMIZING EXISTING “GREY”
INFRASTRUCTURE

- ✧ freestanding gate installation
- ✧ additional reservoir capacity
- ✧ environmental & social benefits

1. WORKS



PROMOTES SUSTAINABLE WATER USE AMONG
STAKEHOLDERS

by

ENGAGING THEM INTO SUSTAINABLE POLICIES &
PRACTICES

2. EDUCATIONAL ACTIVITIES



4. AWARENESS RAISING & COMMUNICATION



3. CAPACITY BUILDING & STAKEHOLDER ENGAGEMENT



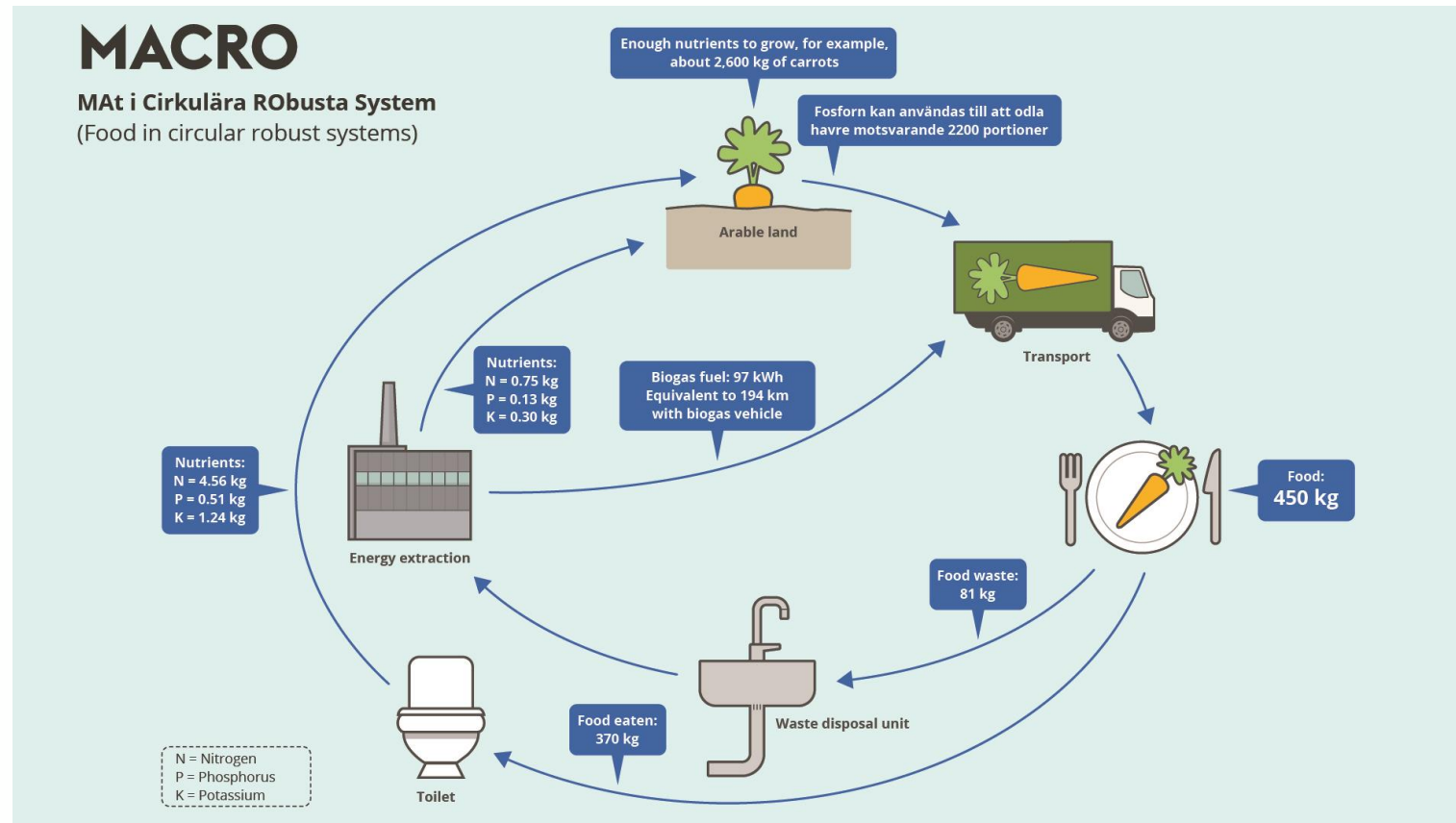
Take away points

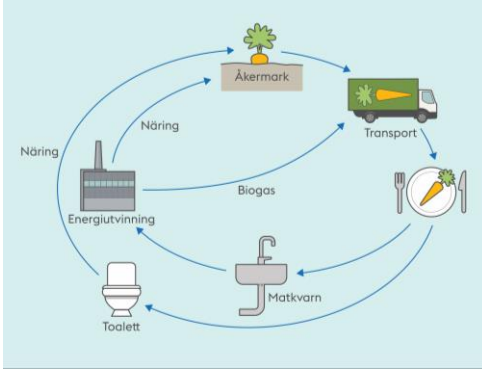
- ✧ We can optimize grey infrastructure & make it greener
- ✧ We can couple technical applications with targeted activities for decision makers & the civil society to increase benefits



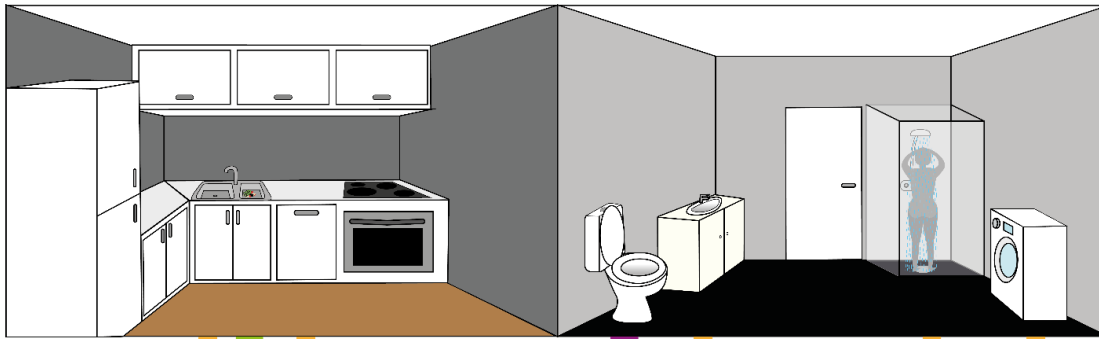
MACRO

What drives technology change?





Going from linear to circular



1-2 liter

Biogas
Nutrients

10-12 liter

Nutrients
Biogas

140 liter

Waste
heat

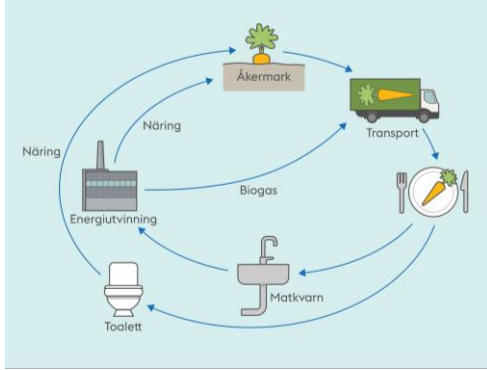
Potentials:

+ 50-60% biogas

+ Clean nutrients for recycling

+ 50-70% heat recovery

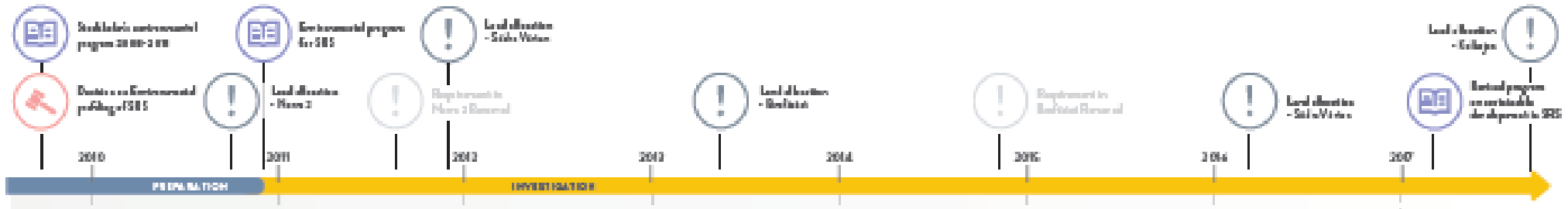




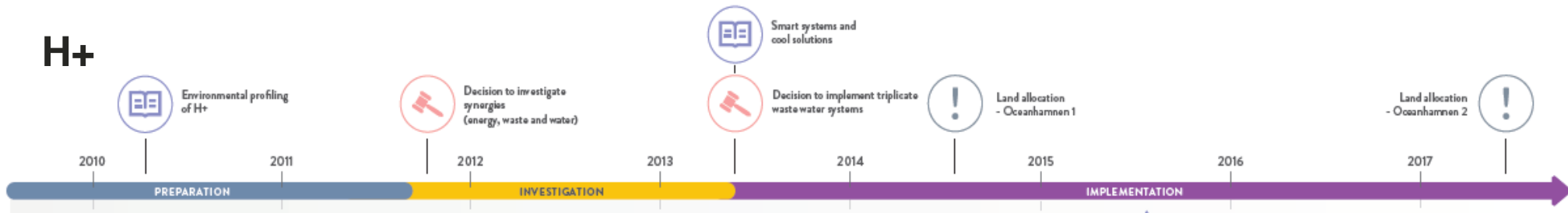
The case of Stockholm (SRS) vs Helsingborg (H+)



SRS



H+

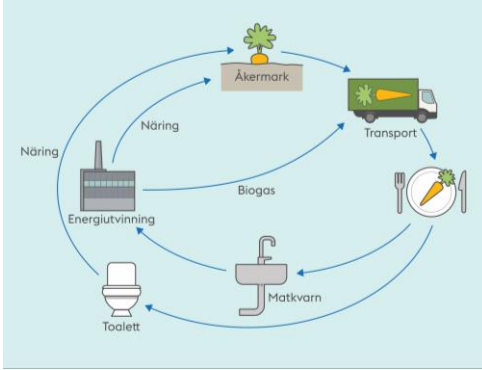


■ Planning

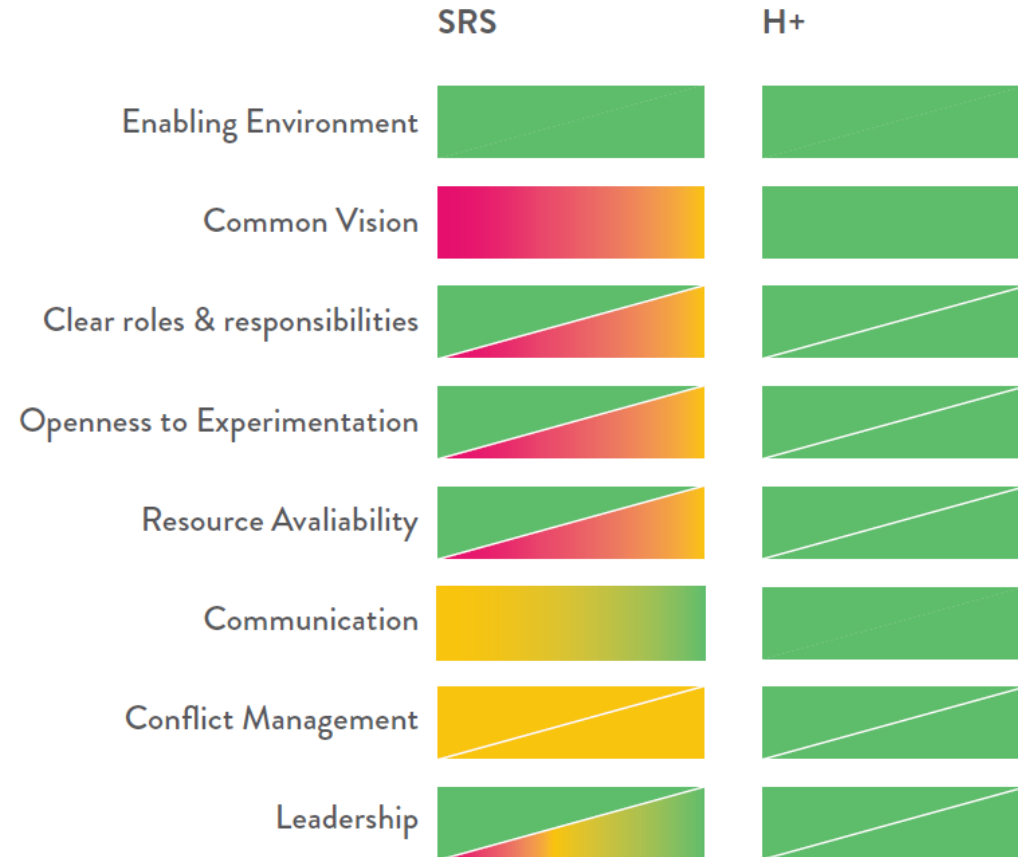
■ Investigation

■ Implementation





The case of Stockholm (SRS) vs Helsingborg (H+)





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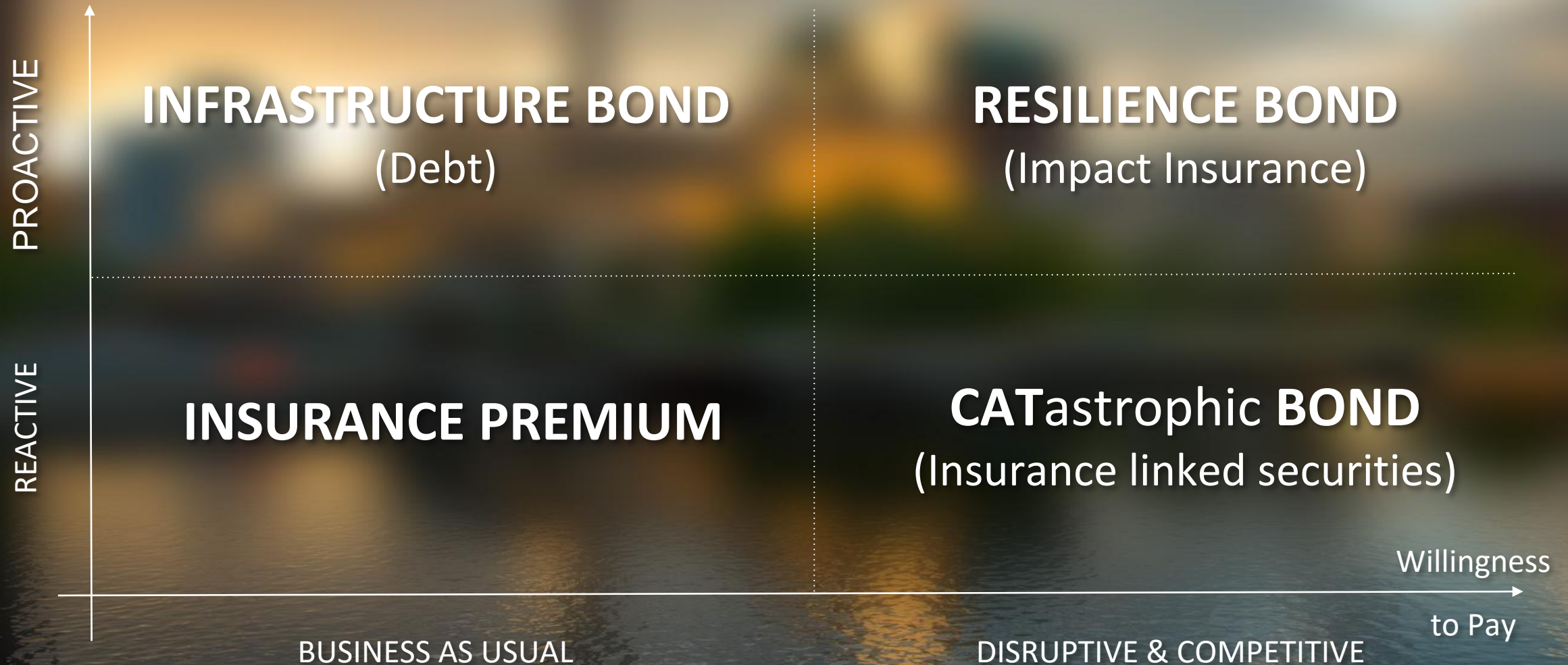
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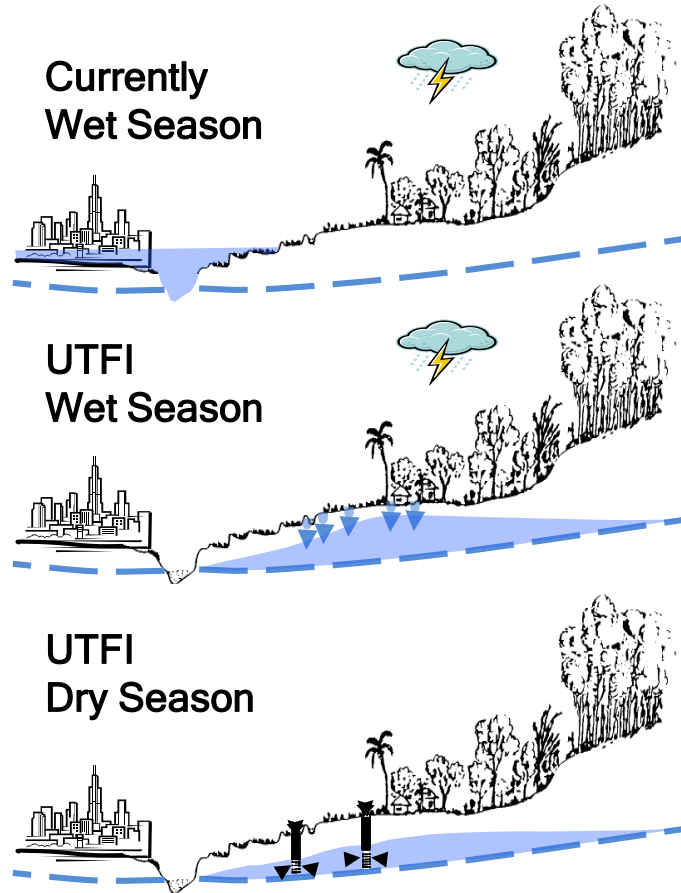
NEW SOLUTION OUT OF THE BOX

Social & Business Impact
(Resilience & Robustness)



Underground Taming of Floods for Irrigation (UTFI):

Revitalizing Village Infrastructure to Co-Manage Floods & Droughts in the Ganges Basin



GOALS:

1. Develop a strong proof of concept for UTFI: technical, economic & institutional
2. Facilitate opportunities for scaling up in the most prospective regions



BENEFITS:

- Reduce impacts of climate variability
- Enhance groundwater storage
- Stabilize or enhance livelihoods



Research Program on Water, Land and Ecosystems

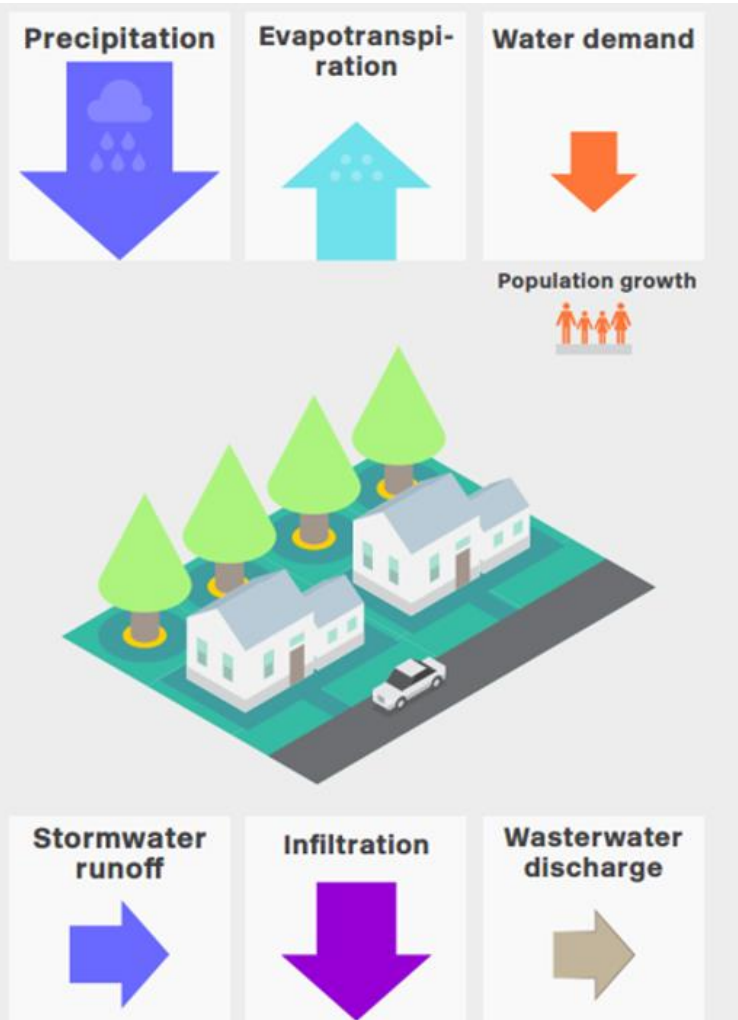


RESEARCH PROGRAM ON Climate Change, Agriculture and Food Security



<http://utfi.iwmi.org/>

Low-density development 2016



Infill development (Business-as-usual) 2031

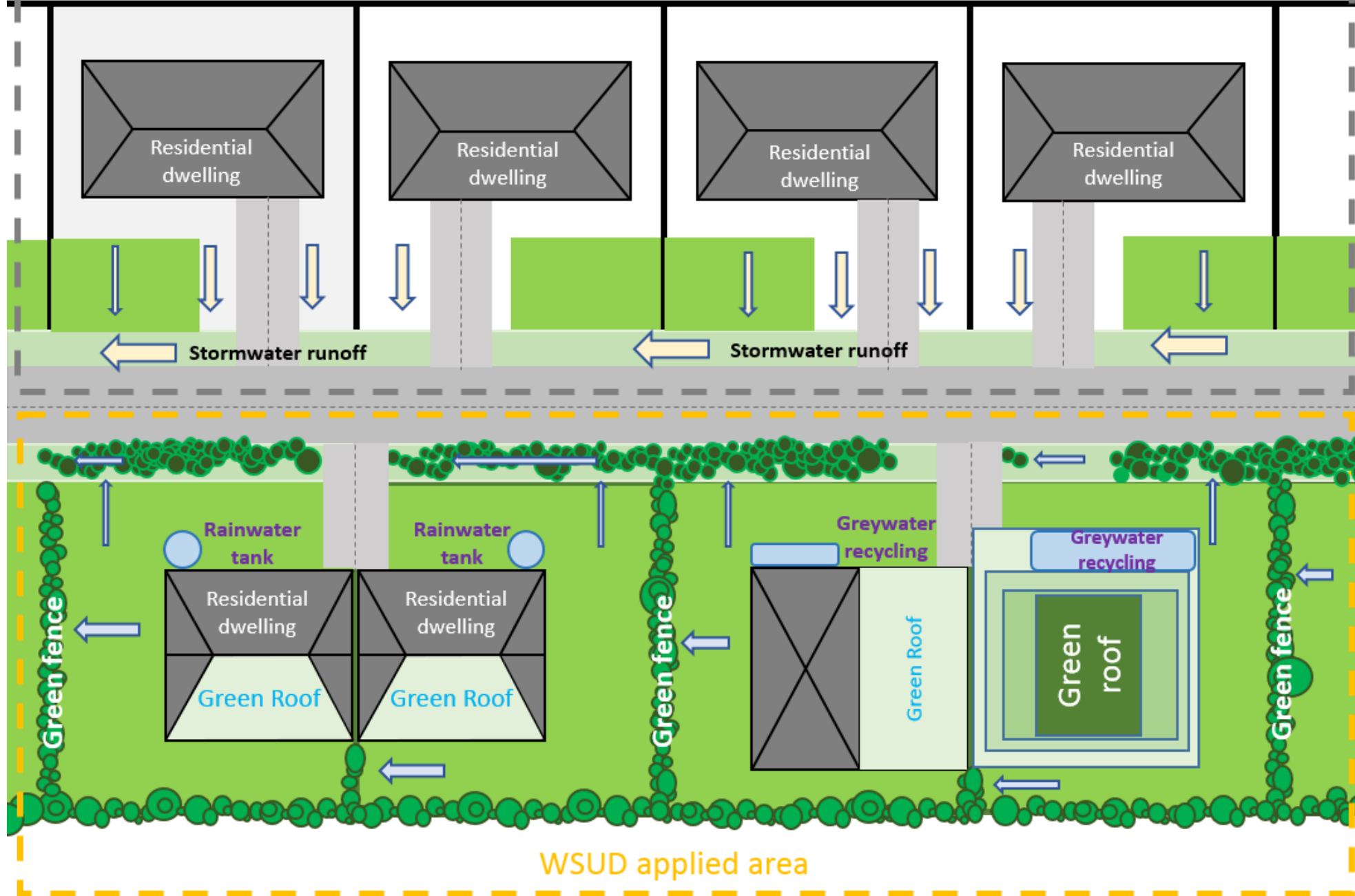


Water-sensitive infill development 2031



(CRC WSC, 2017)

Business as usual



Legend:

- BAU
- Runoff
- WSUD area
- Runoff in WSUD applied area



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Seminar Conclusions

Maimuna Nalubega, AfDB