

Water productivity: vision, policy and implementation



Wim Bastiaanssen

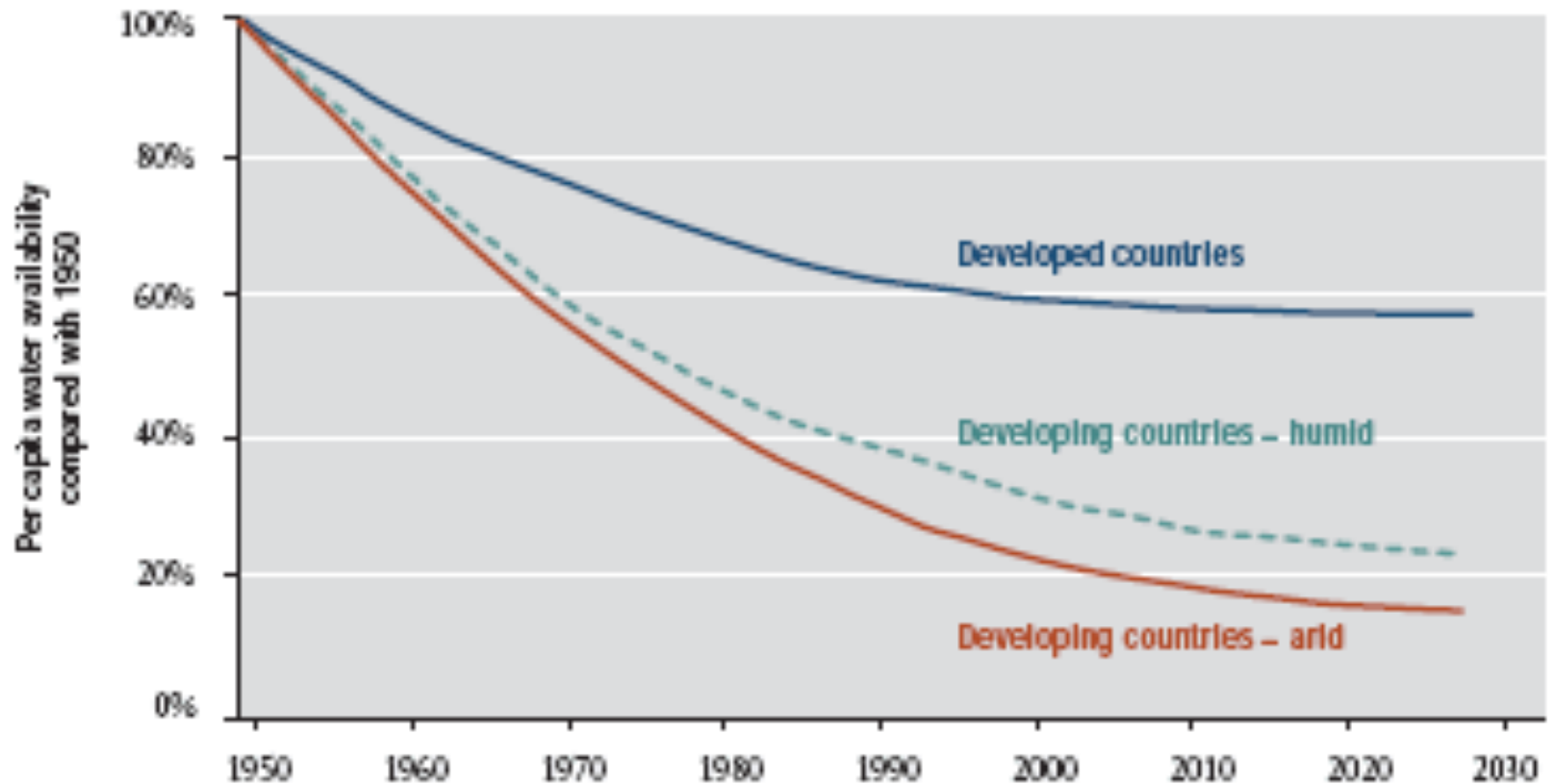


UNESCO-IHE
Institute for Water Education



We have to produce more food from less land and less water

FIGURE 7 Water availability, 1950 to 2030



Source: Bridging Troubled Waters: Assessing the World Bank Water Resource Strategy, World Bank, 2002

Improve efficient use of water in agriculture



Hoe draagt Nederland bij aan wereldwijd waterbeheer?

Waterbeheer is een van de 4 belangrijke thema's van het Nederlandse ontwikkelingssamenwerkingsbeleid. Nederland stelt daarbij 3 doelen:

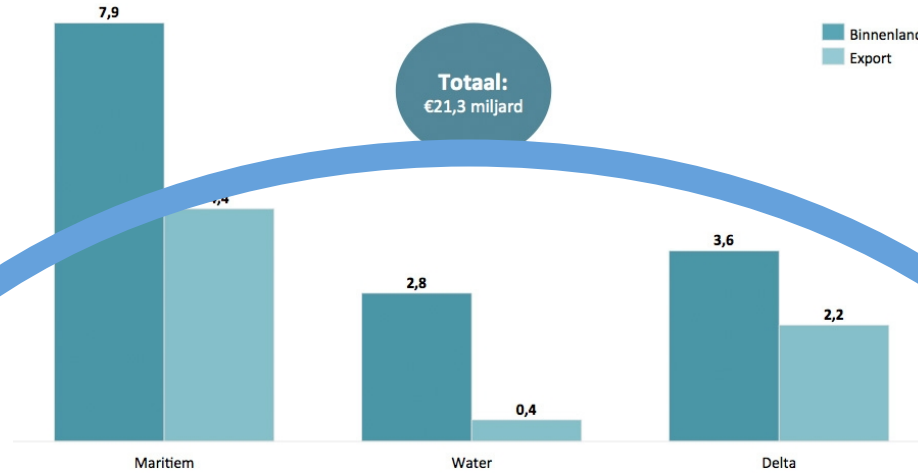
- veilig en schoon drinkwater: verbeterde toegang tot veilig drinkwater en sanitaire voorzieningen voor 25 miljoen mensen;
- waterbeheer: verbeterd stroomgebiedsbeheer en veilige delta's;
- Verhogen van de waterproductiviteit in de landbouw met 25%.



Landbouw & Water & Remote Sensing

Omzet van de Nederlandse watersector (per cluster)

€ / miljard



Nederland landbouwland

157 miljard dollar



Verenigde Staten

1 miljard dollar



Nederland

93 miljard dollar



Duitsland

83 miljard dollar



Brazilië

82 miljard dollar



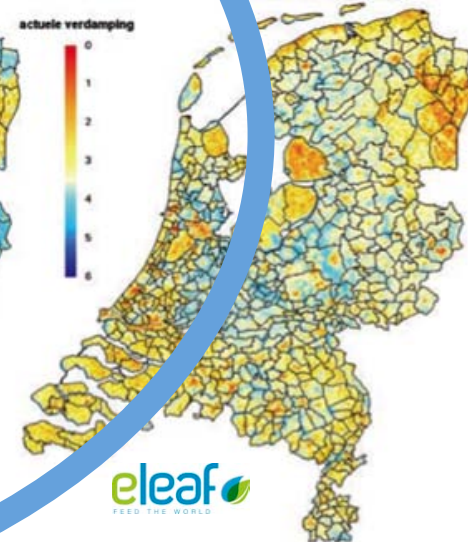
Frankrijk

Water

15 april 2007



22 april 2007

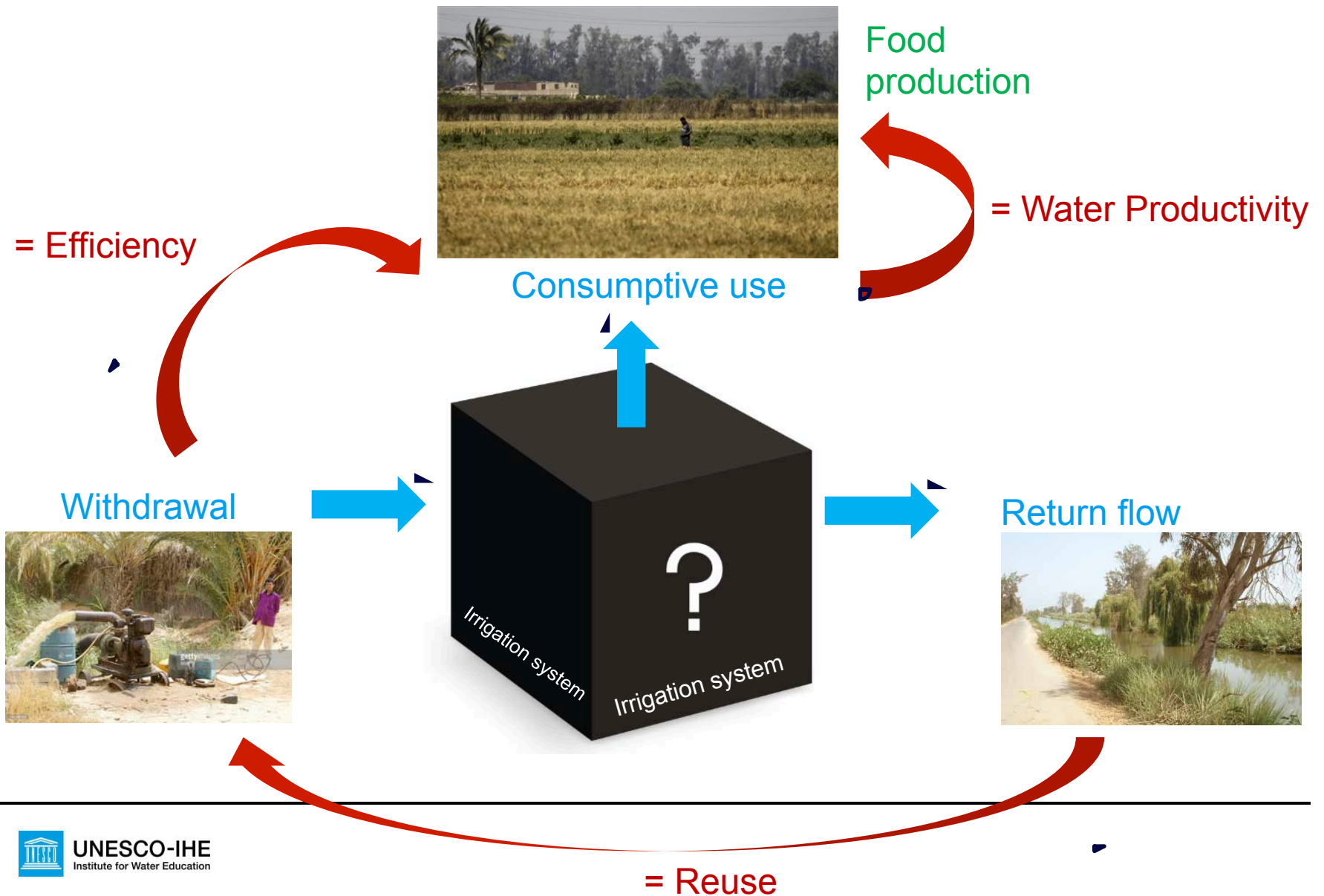


actuele verdamping

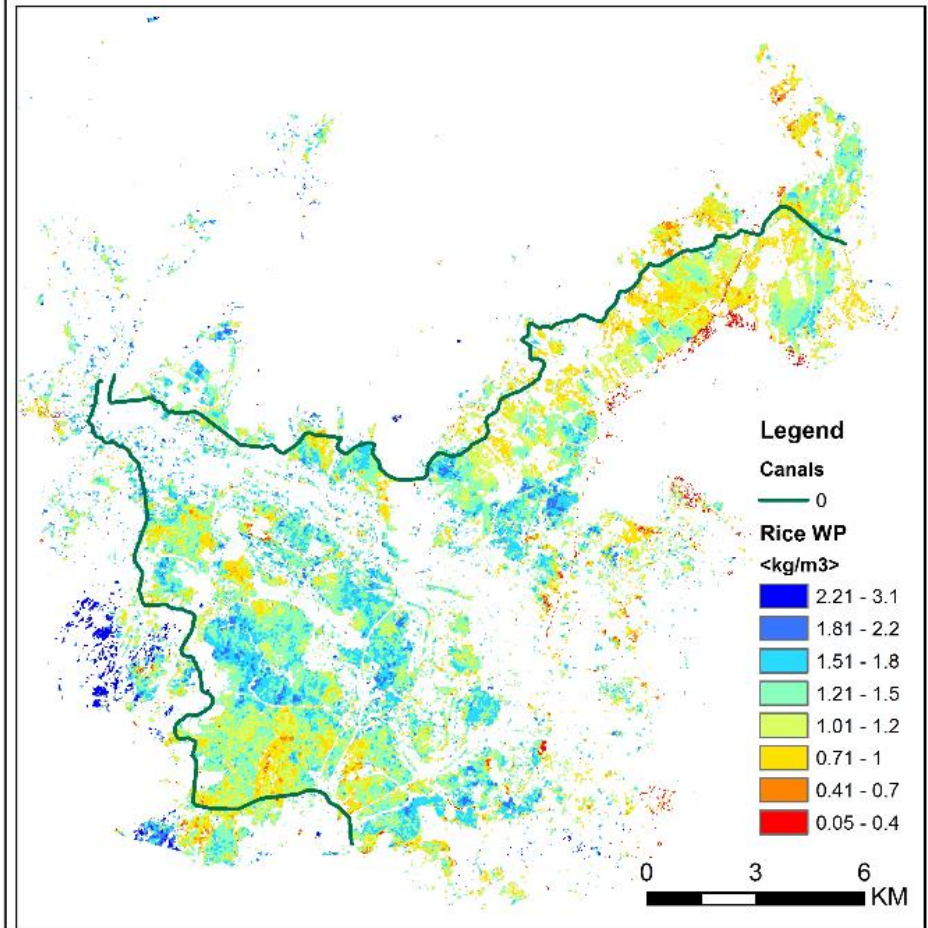
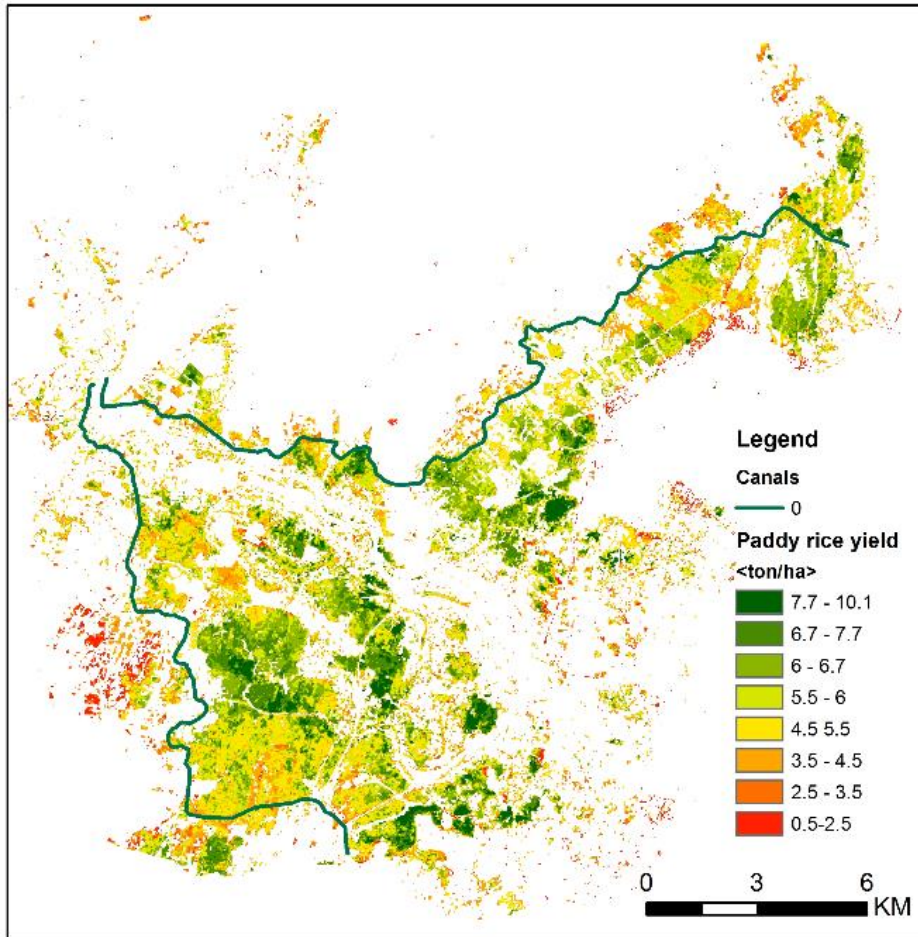


eleaf
FEED THE WORLD

Understand the field scale water balance first



Example land and water productivity in rice (Vietnam)

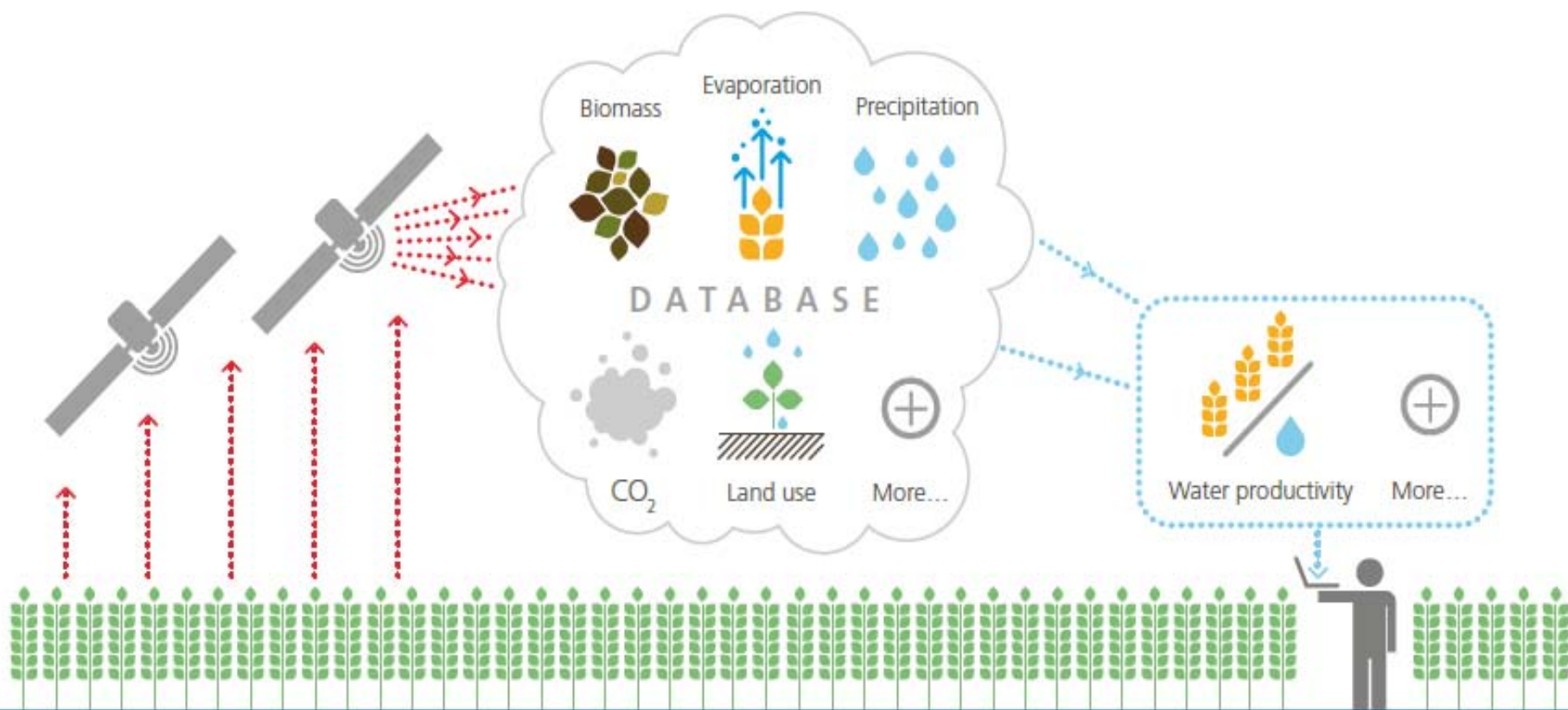




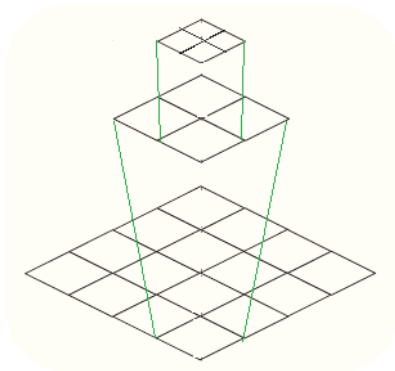
Food and Agriculture Organization
of the United Nations

<http://www.fao.org/in-action/remote-sensing-for-water-productivity/en/>

Using Remote Sensing in support of solutions to reduce agricultural water productivity gaps



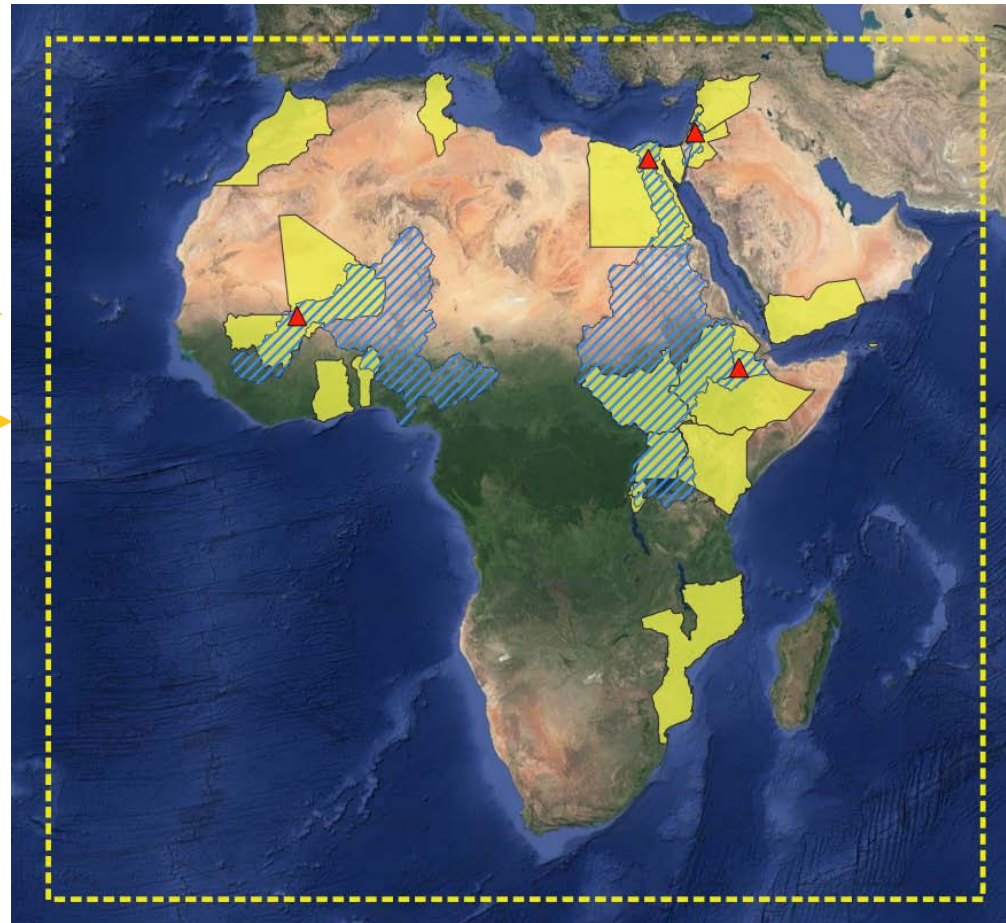
1. Database: structure



Level 3 – 30 m

Level 2 – 100 m

Level 1 – 250 m



4

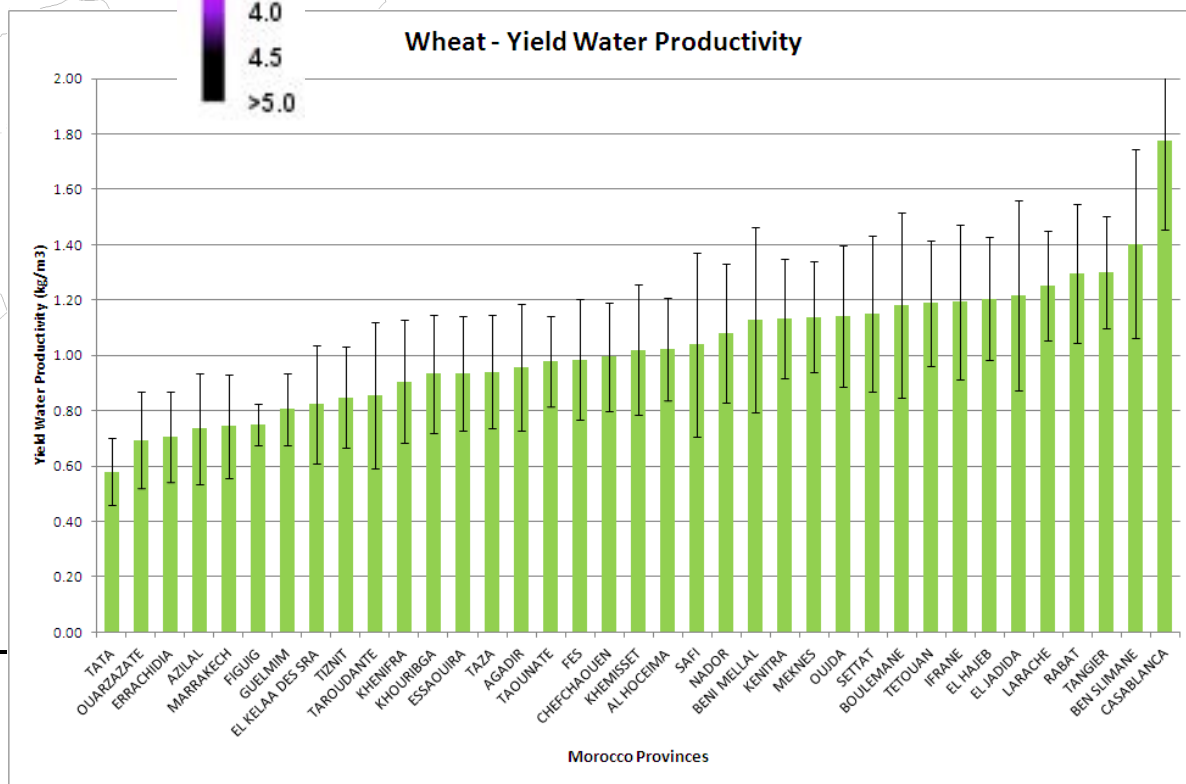
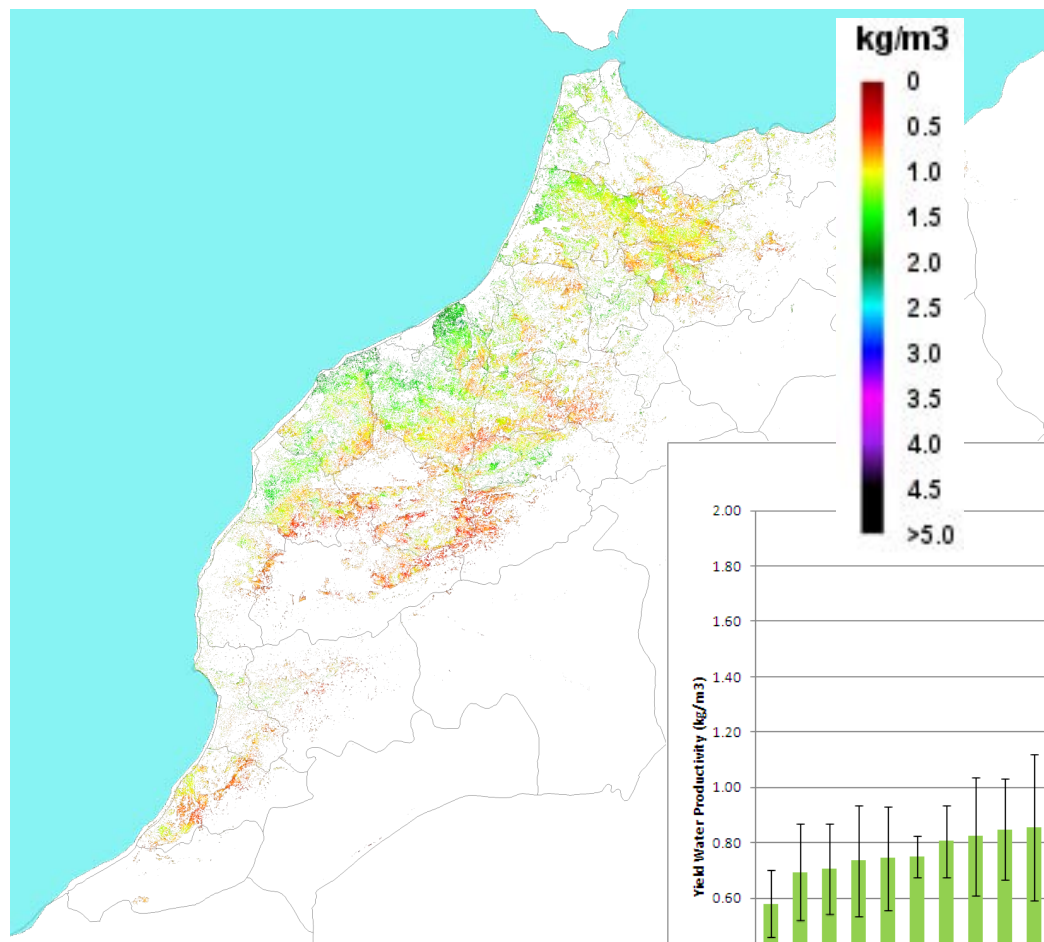
2009 - 2019

Role of United Nations (FAO)

The **Water Scarcity Initiative (WSI)** has been formulated to support the countries of the NENA Region to cope with one of their most striking challenges: the pursuit of **food and water securities**, for a **sustainable** social and economic **development**, under an unprecedented severe escalation of water scarcity

The **objectives** of the initiative are: **enhancing policies, investments, governance** and best **practices** to sustainably increase **water and land productivity**; providing tools for **strategic planning** of optimal and sustainable allocation of scarce water resources; implementing a **regional collaborative strategy** for a water-reform agenda

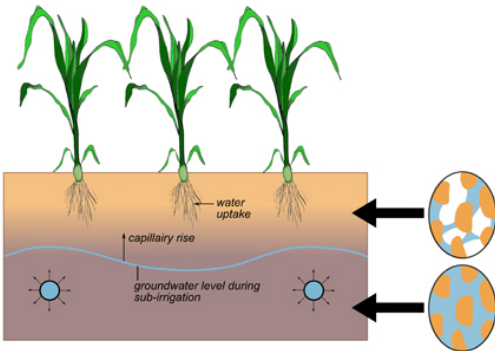
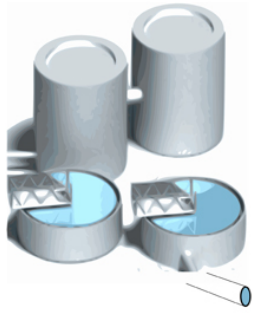
Role of Governments



Role of farmers

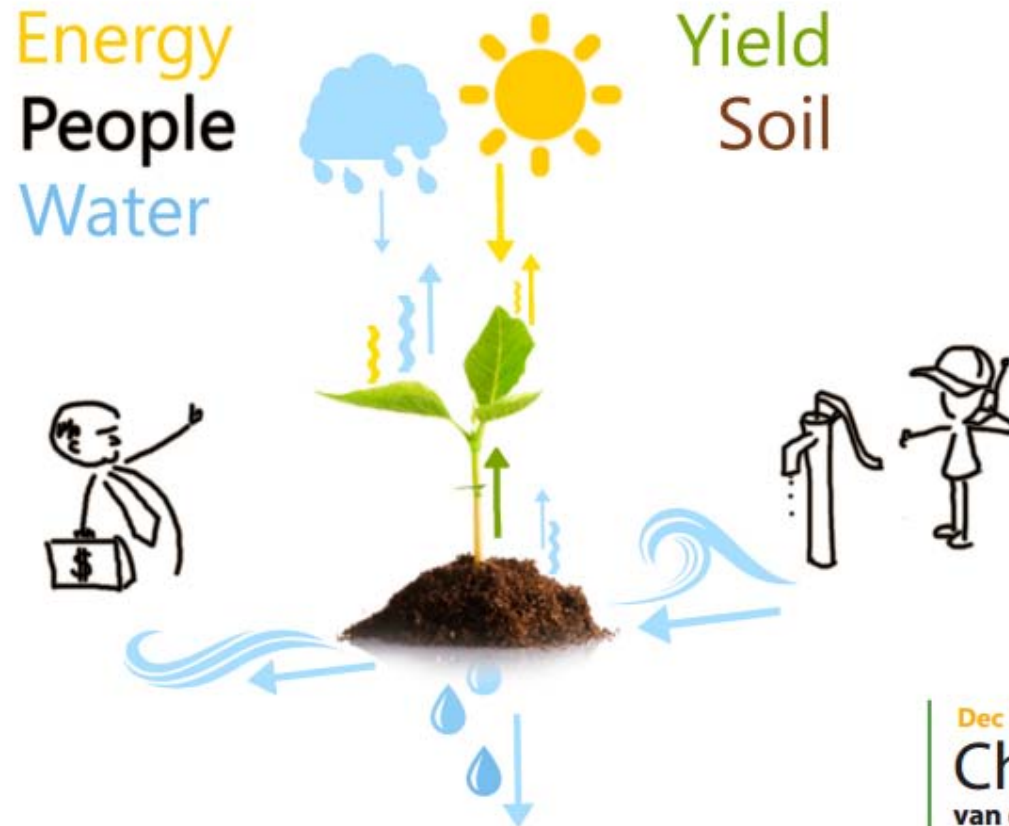


Role of the AgWa community



What is efficient use of water in agriculture ?

Improvement of efficient water use in irrigated agriculture at field scale



Dec 2016 - Aug 2017

Charlotte
van der Leer - Groen