



29<sup>th</sup> August 2018



## Sustainable Infrastructure for Inclusive Green Growth

### Session 2

## Planning Sustainable Infrastructure for Inclusive Green Growth

*Session Chair*

*Stefan Uhlenbrook, UNESCO World Water Assessment Programme*

# A Basin-wide Approach to Building Resilient Livelihoods

60% of southern Africans rely on rain-fed subsistence agriculture

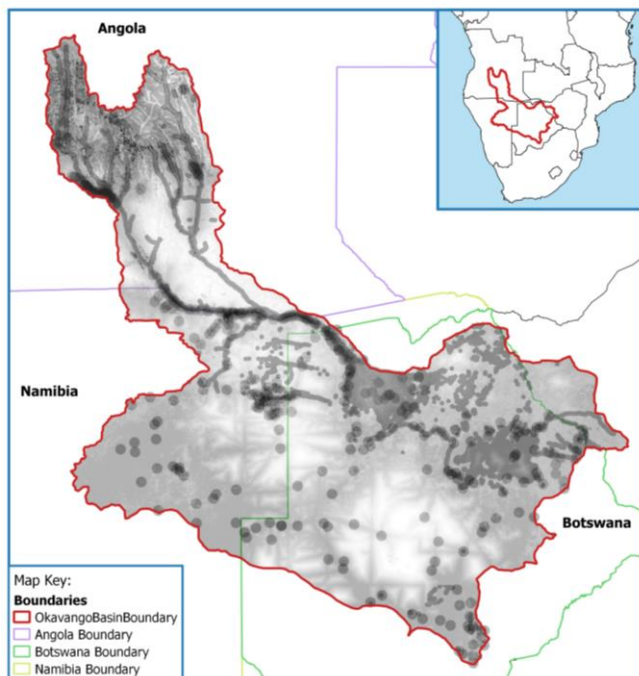


Climate change

Unsustainable use of the region's natural resources as a means of survival

Interventions supporting **livelihoods**, increasing **resilience** and **reducing poverty** at scale

Basin-wide inclusive, sustainable socio-economic development



Adopting a dual top-down (data & **hotspot mapping**) bottom-up (**stakeholder validated**) approach to:

- identify
- conceptualise; and
- develop appropriate livelihood responses to address localised challenges in river basins



Clustering individual project concepts into **portfolios of livelihood interventions**



**Building the capacity** of River Basin Organisations and implementing partners to develop **bankable project concept notes** tailored to donor interests

Creating the scale of investment necessary to **attract donor funding**

CRIDF



PEGASYS  
CHANGING LIVES CHANGING WORLDS



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# Managed aquifer recharge - sustainable infrastructure for inclusive green growth

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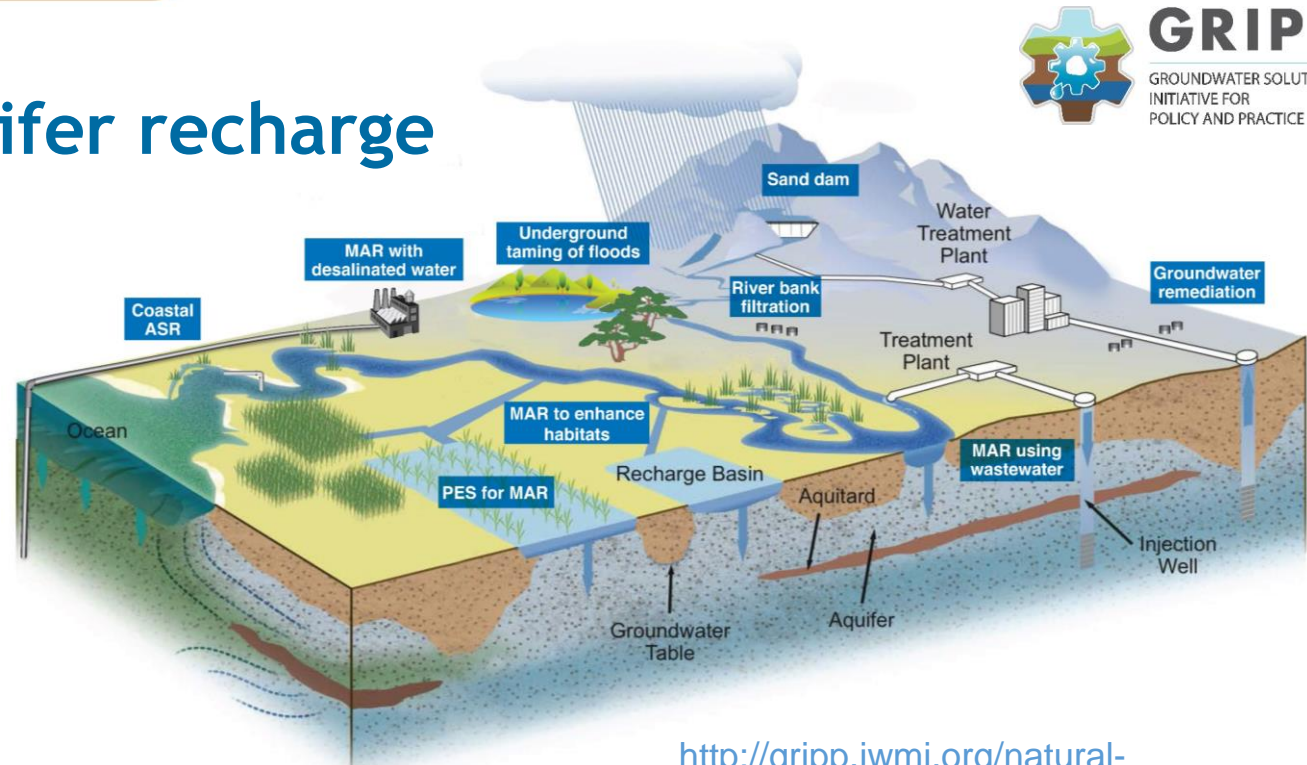
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# Managed aquifer recharge

Intentional  
recharge of water  
to aquifers for  
subsequent  
recovery and/or  
environmental  
benefit



Our approach

# INOWAS DSS

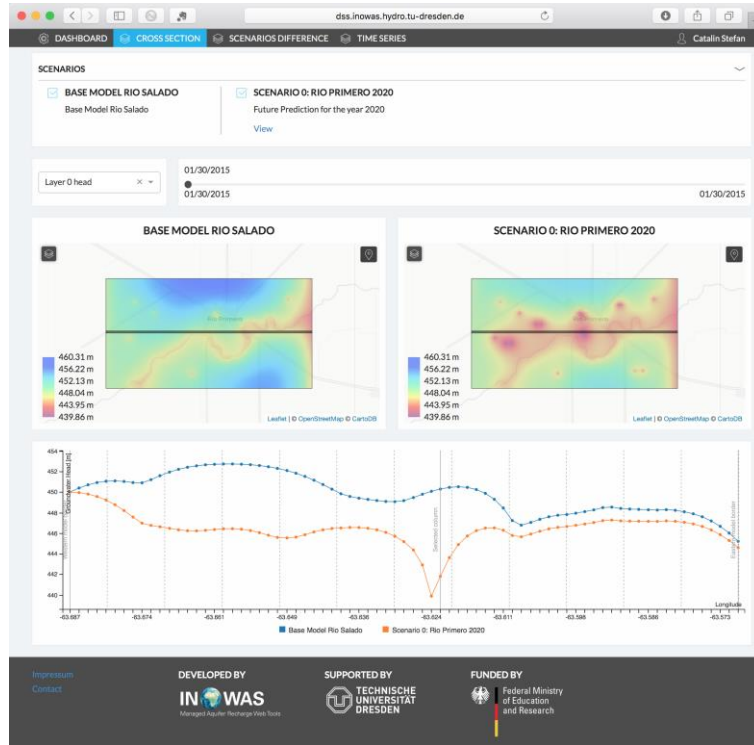
Free, web-based modeling platform for planning, management and optimisation of managed aquifer recharge (MAR) applications

-  Web-based interface
-  Worldwide accessibility
-  Cloud modelling
-  Online collaboration
-  Detailed documentation
-  Open source > FREE





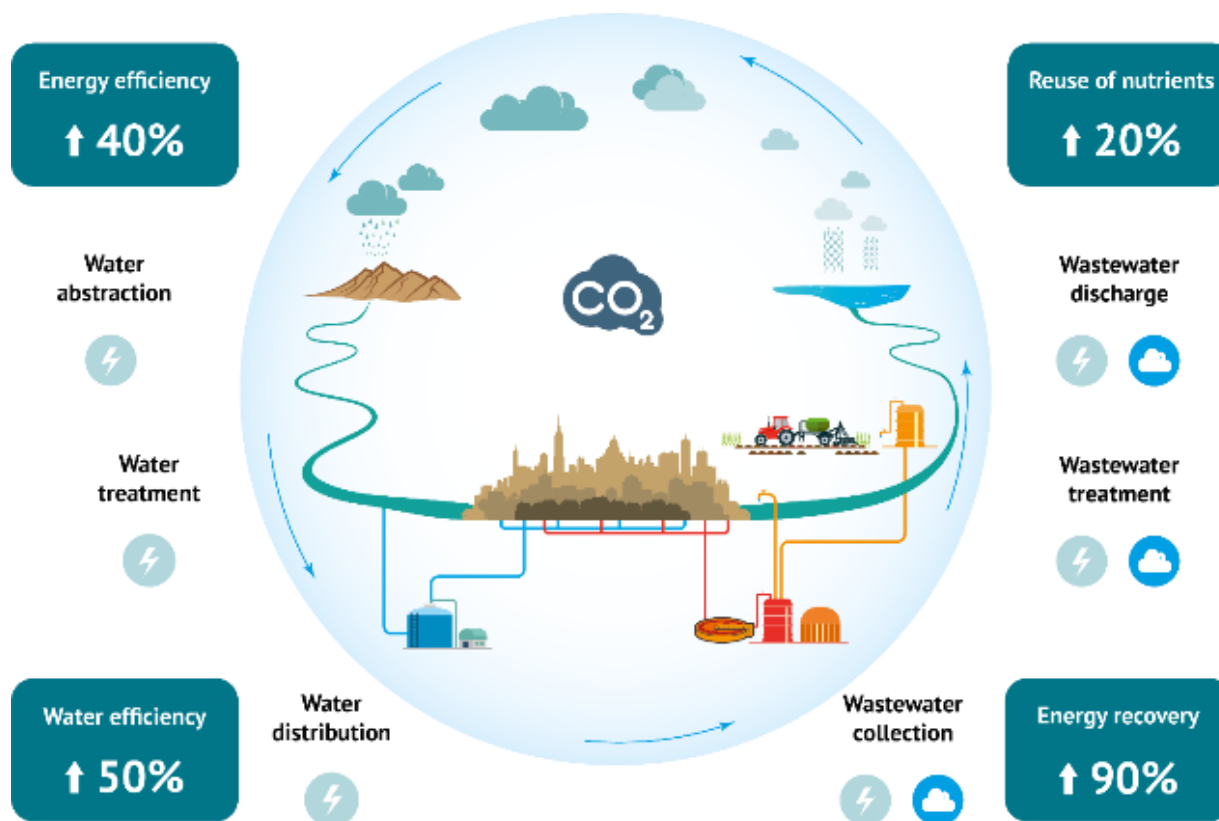
## Opportunities



- Enable quick decision-making by sharing ready-to-use MAR solutions via internet;
- Easily modify MAR components and assess their impact on groundwater;
- Increase system performance by applying automatic optimisation tools;
- Side-by-side comparison of different MAR approaches;
- Plan and assess MAR schemes before starting detailed investigations.



# Improving the framework conditions to facilitate investments in water



Introducing **GHG reducing** technologies to the water sector makes a fundamental contribution to green growth.

CO<sub>2</sub>



# Case Study Madaba, Jordan



# Case Study: Jordan, Madaba utility

1. **Development of GHG Reduction Policy**  
for the Water Sector
2. **Development of Financing Mechanism**  
for the Water Sector
3. Identify and develop **NAMA projects**  
**(i.e. biogas, energy efficiency)** in water  
sector while contributing to **water**  
**security**

**Reduce costs and  
enhance water as well  
as energy efficiency**

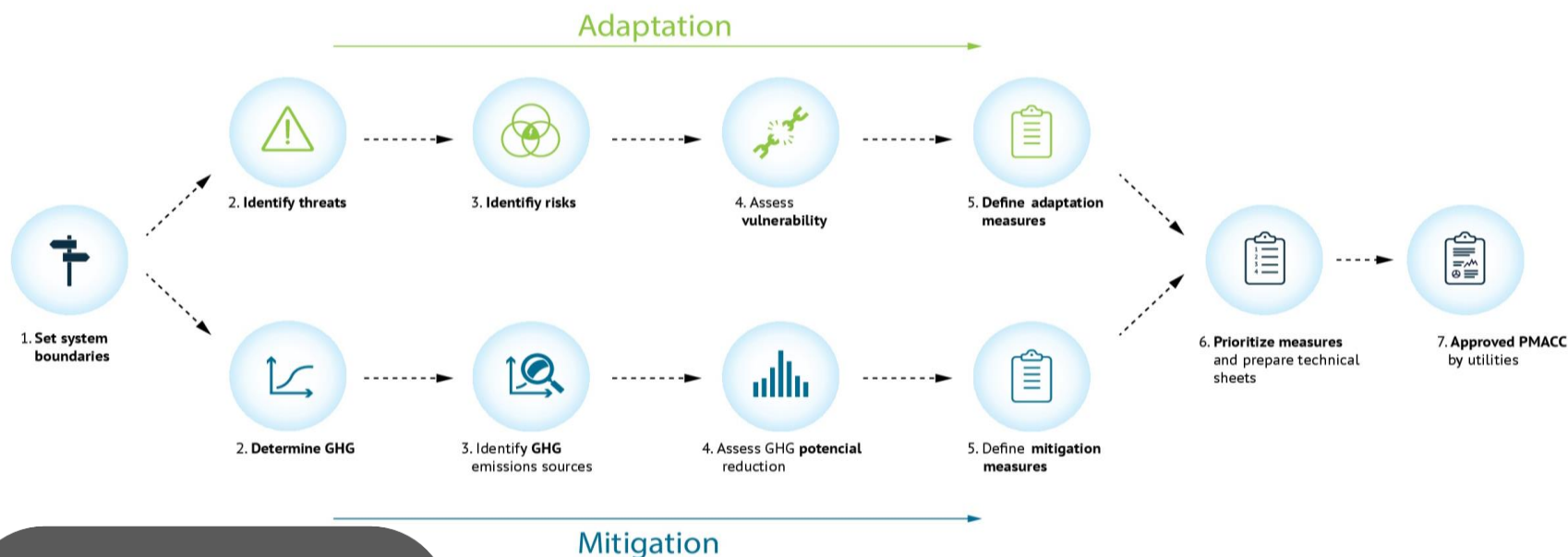




# Case Study, Cusco Peru



# How are Water and Wastewater Companies in Peru Facing Climate Change ?



Water-related innovation and investment in green infrastructure are encouraged by improving the **policy, regulatory and institutional framework of utilities.**



Green investments include both **low carbon, climate resilient infrastructure** and the sustainable management of natural resources.

