International Water Management Institute

CGIAR

Building climate resilience across scales

participatory – farmer-led – community action

Sander Zwart

Innovative water solutions for sustainable development

Food · Climate · Growth

Climate change and water

Water – Climate impacts on food production systems

	Rainfed systems	Irrigation systems	Wetland systems
Major challenges:	rainfall patterns (onset, intensity, uncertainty)	increased water demands, reduced river discharges	lowered water levels, shortened flooding
Adaptation to:	prolonged drought spells and flood events	reduced irrigation water availability,	decrease wetland area, decrease fishing areas
Affected water users:	farmers, herdsmen	farmers, herdsmen, domestic users	fishermen, farmers, domestic users

Climate change adaptation options

Farm-level solutions:

Short duration/drought-tolerant crop varieties
Water conservation measures
Water productivity improvement

Local solutions:

Irrigation development
Water storage (small reservoirs)
Irrigation water savings
Digging wells
Landscape water planning

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Scaling climate-smart water solutions

Challenges in scaling climate-smart water solutions for resilience:

- Adoption rates are low in development projects
- Solutions do not match the demand from the users
- A focus on infrastructure rather than services and users
- Actions are not sustainable and create unwanted impacts
- Poor planning and integration in other initiatives
- Actions are not supported by policies, laws and regulations

Scaling climate-smart water solutions

Technologies for African Agricultural Transformation (TAAT)

- Scaling low-cost irrigation + water & soil conservation technologies
- Demonstration site development, training of trainers
- Technology approach & linear scaling model
- High potential impact, low adoption

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Scaling climate-smart water solutions

Smart-Valleys approach

- Low-cost approach for land and water development in inland valleys (bunding, drainage, land levelling for rice-vegetables rotations)
- Facilitating communities with design, implementation & maintenance
- High impact & high adoption rates observed

Approaches and solutions

The beneficiaries must be upfront and central, always!

- Co-design climate-smart water technologies & solutions
- Co-develop community/landscape plans for water resource allocation under climate change
- Co-implement projects, climate-smart water solutions and landscape plans
- Marginalized groups must be heard in processes

Ownership of the action is key to sustainability

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Paradigm change in climate action

Researchers for development – not only saying it, but actually doing it (for example scaling readiness)

Developers of climate adaptation projects – design projects with different indicators for success, less infrastructure, more time available, focus on the people and inclusion of beneficiaries in design and implementation

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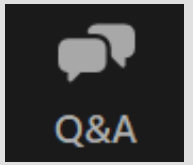
PLEASE PUT YOUR QUESTIONS IN THE Q&A, CLICK



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