



Challenges and opportunities for transferring research results into practice

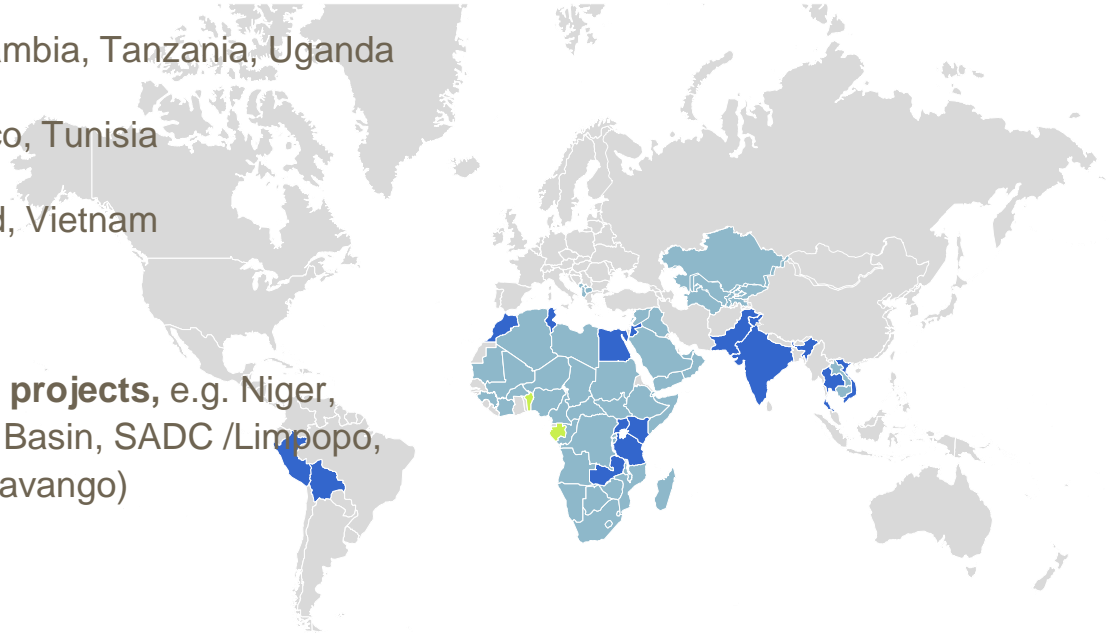
Perspective of „Change Practitioners“

Barbara Gerhager, GIZ, Competence Center Water, Waste Water and Solid Waste | 21.02.19

Where do we work

WRS projects worldwide

- **Sub-Sahara Africa:** Benin, Zambia, Tanzania, Uganda
- **MENA:** Egypt, Jordan, Morocco, Tunisia
- **Asia:** India, Pakistan, Thailand, Vietnam
- **LAC:** Peru, Bolivia, Nicaragua
- **Transboundary and regional projects,** e.g. Niger, Lake Chad Basin, Kongo, Nile Basin, SADC /Limpopo, Zambezi, Orange, Cuvelai, Okavango)
- **Water Stewardship**



Main Problem in Water Resources Management: Data scarcity

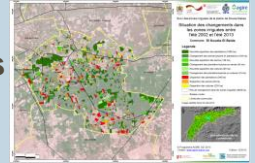
Opportunity for research results

- Data base is often insufficient to ensure sustainable and efficient water resources monitoring
- Big catchment areas, with too few levels/gauges
- High costs of in-situ monitoring network
- Erroneous data due to missing quality checks
- Missing preparation and analysis of data to be efficiently used by decision makers

Use of Earth
Observation
in GIZ
programmes

Marocco:

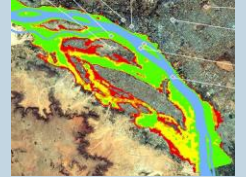
tracking of irrigated areas
and monitoring of
Water use



Partners: CRTS, AHT, ABH Souss-Massa
Cooperation with eLeaf under review

Niger River Basin:

Developing of
Flood risk maps and
Early warning systems



Partners: UNESCO-IHE, ABN
Other Activities through WMO, RVO

Example Niger River Early Warning System

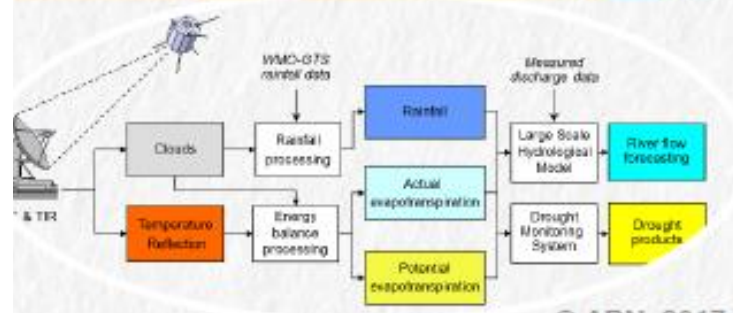
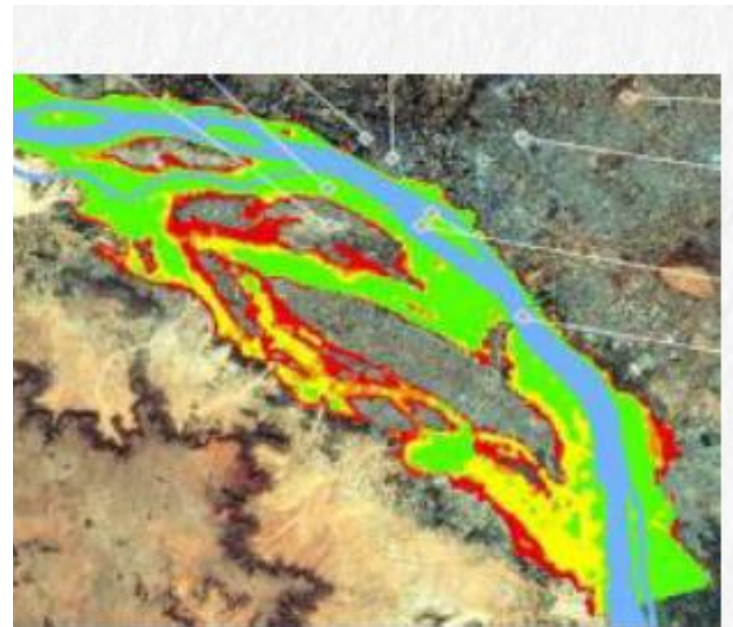
Objective:

Inform citizens timely about inundation risks with flood risk maps and run-off modelling

Challenge: Information Flow/Process

In **90%** of the last flood events, the local population was not informed in time about the coming risks.

Message: Technology is only one part of the solution!



Challenges in transfer of tools in Africa

Infrastructure/ Digital Readiness

Power supply, availability of data storage and computing power, data connections (Internet), local It experts, experts with interface competence

Governance

Embedding in administrative processes, communication, decision making. Transparency and data exchange as a value – sensitive data when it comes to drought, famine, analysis of data necessary

IT Integration

Existing software solutions with competing tasks. Starting point for research should be existing technology/tools; or allow to integrate new instruments (migration of data) in the existing structure

Costs

Planning of O&M costs
Costs of adaptation of tools to necessities of institutions (if not integrated from beginning)



Recommendations for successful transfer

1. **Clarify who's problem** will be solved
2. **Clarify** what administrative and financial conditions are available for future users
3. **Plan transfer of research results** early enough to allow for adaptation.
4. Develop tools that can be used in **different circumstances/regions**
1. Ensure research project is **adapted to local conditions of knowledge**



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Thank you for your attention!

Feel free to contact us!



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