Challenges and opportunities for transferring research results into practice
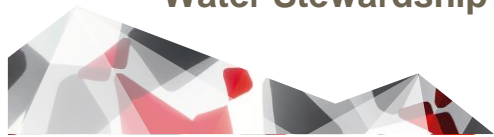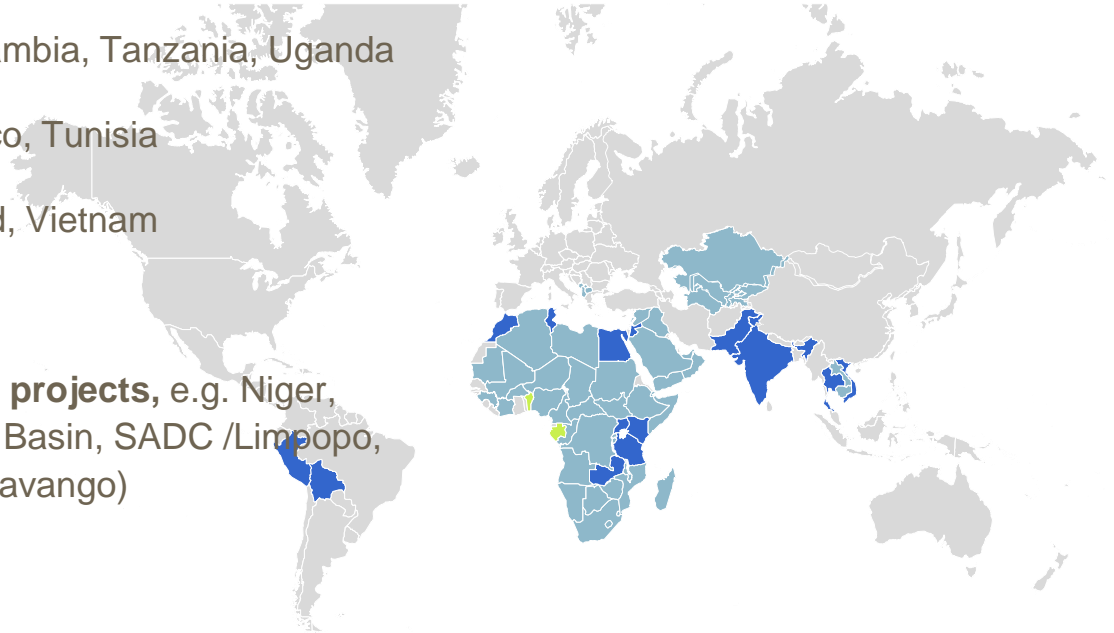
Perspective of „Change Practitioners"

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

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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**

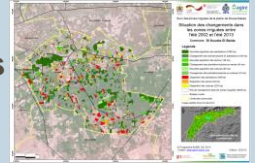# Main Problem in Water Ressources Management: Data scarcity

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**

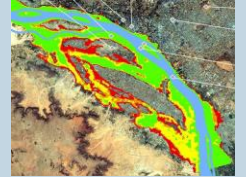**Use of Earth Observation in GIZ programmes**

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
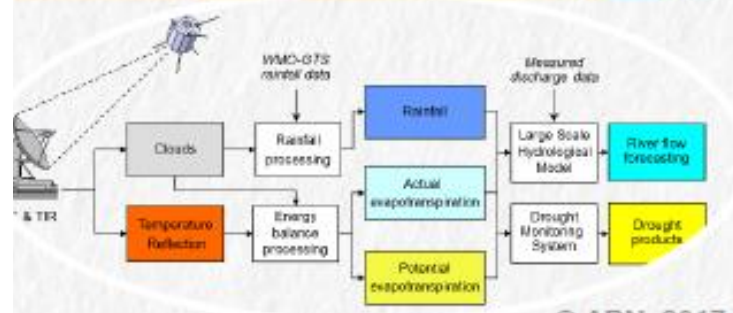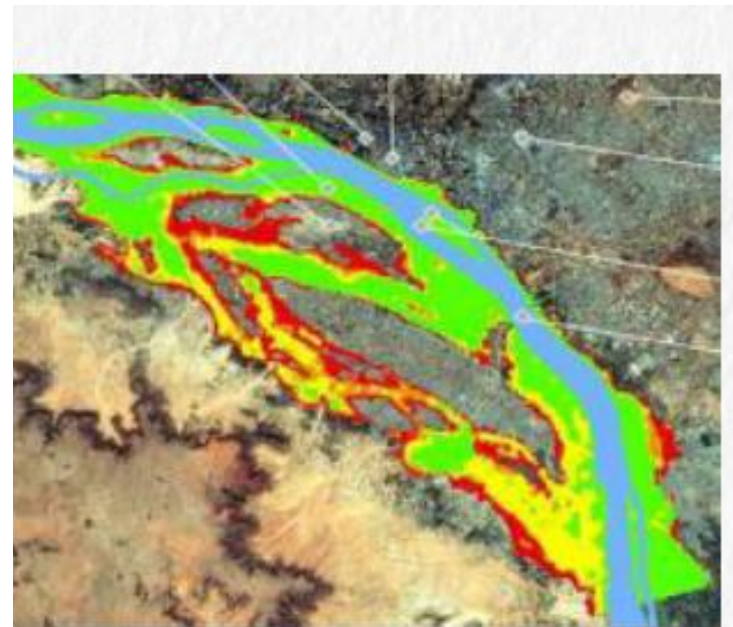
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Example Niger River Early Warning System

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!

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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)**

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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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Kontakt

Barbara Gerhager

KC Leiterin, Eschborn

Barbara.Gerhager@giz.de
T +49 (0) 06196 79 1551

Thank you for your attention!

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Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Sitz der Gesellschaft
Bonn und Eschborn

Friedrich-Ebert-Allee 36 + 40   Dag-Hammarskjöld-Weg 1 - 5
53113 Bonn, Deutschland   65760 Eschborn, Deutschland
T +49 228 44 60 - 0   T +49 61 96 79 - 0
F +49 228 44 60 - 17 66   F +49 61 96 79 - 11 15

E info@giz.de
I   www.giz.de

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für Internationale
Zusammenarbeit (GIZ) GmbH