Every drop counts!

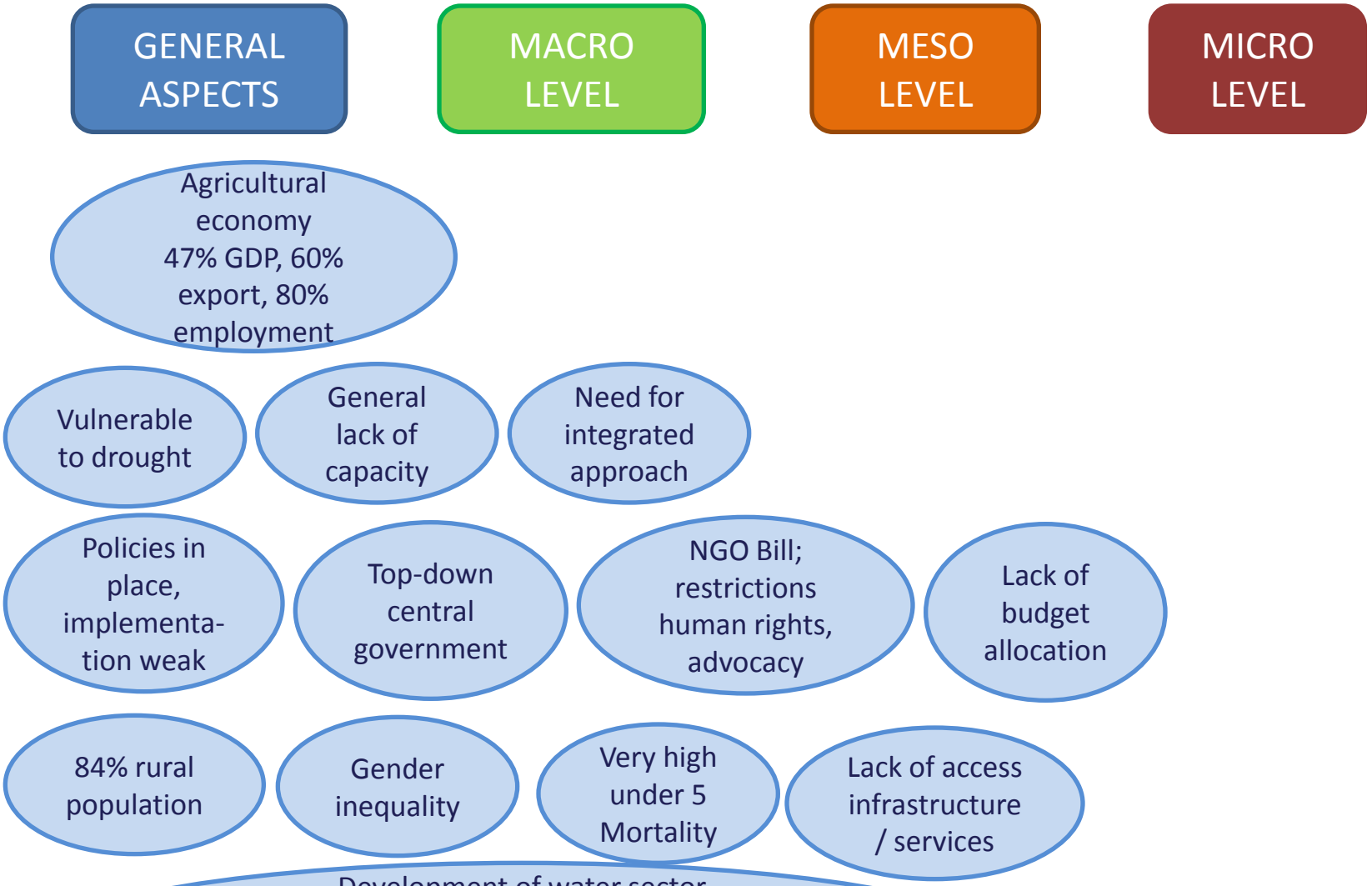
RAIN Rainwater Harvesting Implementation Network

MUS through rainwater harvesting in Ethiopia

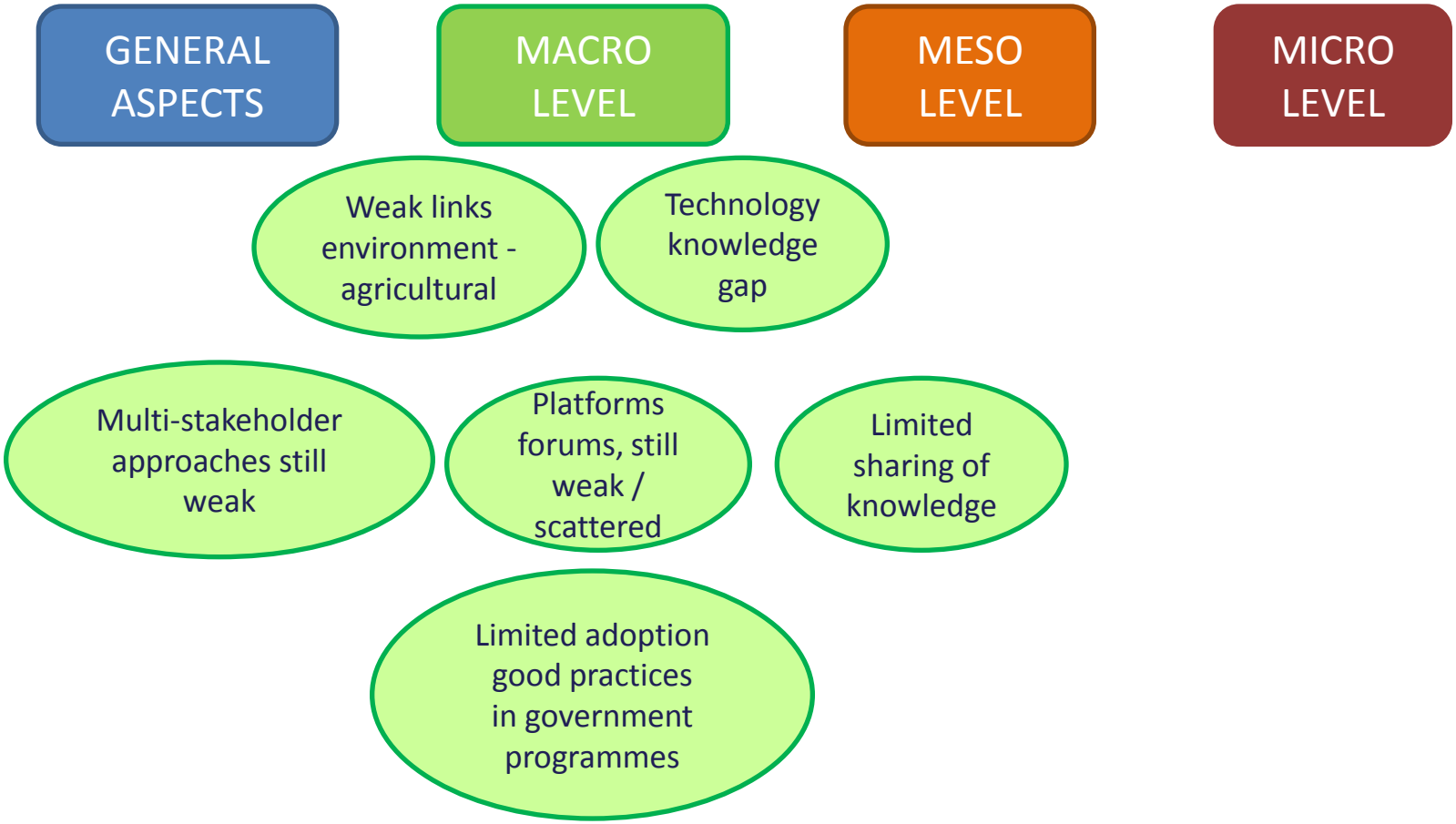
Ard Schoemaker

www.rainfoundation.org

Ethiopian context



Ethiopian context



Context of RAIN case and Ethiopian context

RAIN objectives in Ethiopia in general

- Demonstrate the high potential of rainwater harvesting (RWH)
- Demonstrate the high potential of various RWH technologies in combination with MUS
- Build capacities, promote inter-institutional cooperation around RWH,
- Put RWH for MuS solidly on the agenda, into policies and budgets.

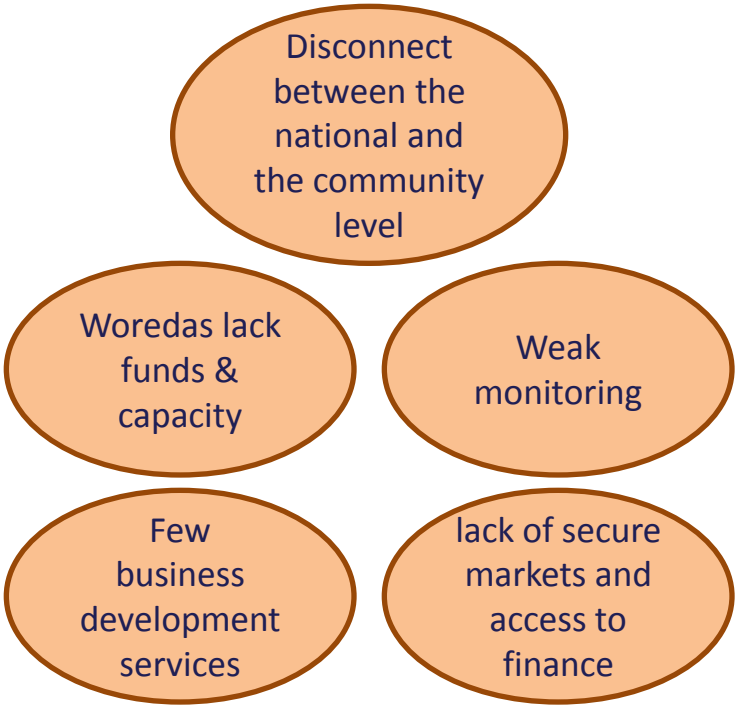
Ethiopian context

GENERAL ASPECTS

MACRO LEVEL

MESO LEVEL

MICRO LEVEL



Ethiopian context

GENERAL ASPECTS

MACRO LEVEL

MESO LEVEL

MICRO LEVEL

- Dryland farming, herding cattle, pastoralist systems
- Dependent on collection of runoff in surface water ponds
- Insufficient human capital for technical support
- Absence of reliable water supply: travel long distances
- Insecure water supply hampering intensified farming & livestock

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Needs and demands for MUS

Needs & Demands on Macro level

- More models on implementation of MUS in combination with RWH
- Access to practical guidelines
- Access to information and financial means to guide implementation

Governmental implementation program lacks behind:

- Inadequate capacity, promotion, lobby and participation
- Insufficient attention for low cost technologies.

Needs & Demands on Meso level

- Adequate allocation of funds (central → regional)
- Planning, implementation, M&E of MuS
- Stronger link between different sectors
- Knowledge & awareness: low cost technologies / "MuS capacities"
- MuS guidelines for decision-makers / managers

Needs & Demands on Micro level

- Capacities: O&M of MuS technologies, efficient use, re-use, AT
- Financial mechanisms: investments / repairs, upgrading to MuS
- Post construction support functions ensured

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Objectives and scope

RAIN in Ethiopia in general

- Put RWH solidly on the agenda, into policies, planning, budgets, different sectors.

Current RAIN projects on RWH & MUS

1. "MUStRAIN in Ethiopia"project

- To further test and adjust RWH technologies, to supply water for MUS purposes in rural areas of Ethiopia.
- Details MUStRAIN in Ethiopia" project under "approach followed"

2. Dutch WASH Alliance

- WASH for (semi) pastoralist communities in Afar and Oromiya
- Economic and environmental WASH innovation; linking WASH to private sector and innovative financing options
- Mainstreaming MuS concept in wider alliance (9 countries, 5 year)

3. Dutch Waterboards

- From single-use to multiple use water schemes (upgrading to MuS in existing schemes)
- Improve water management of RWH systems by efficient use, improved maintenance and operation of RWH systems, enhanced water quality and quantity

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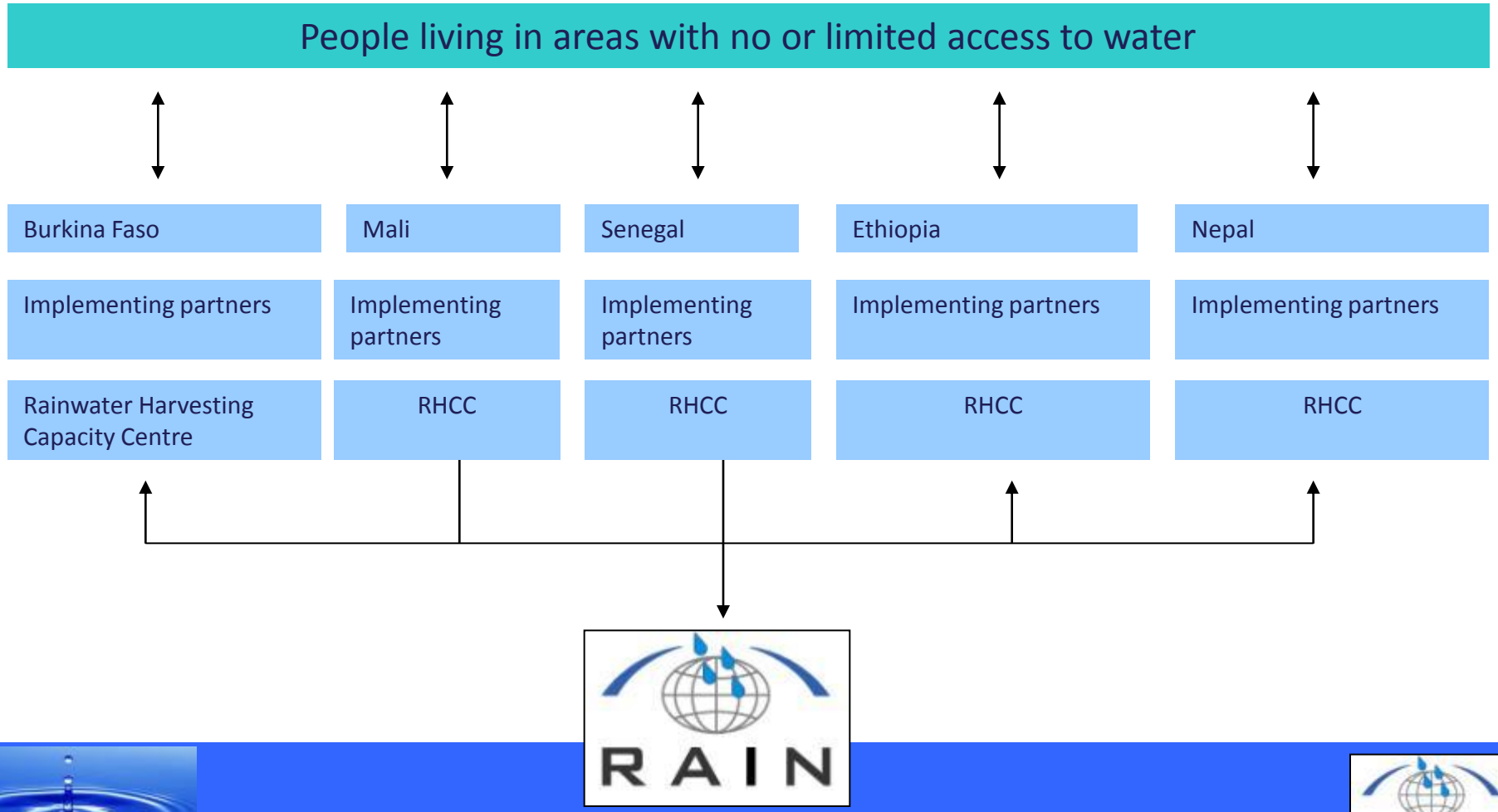
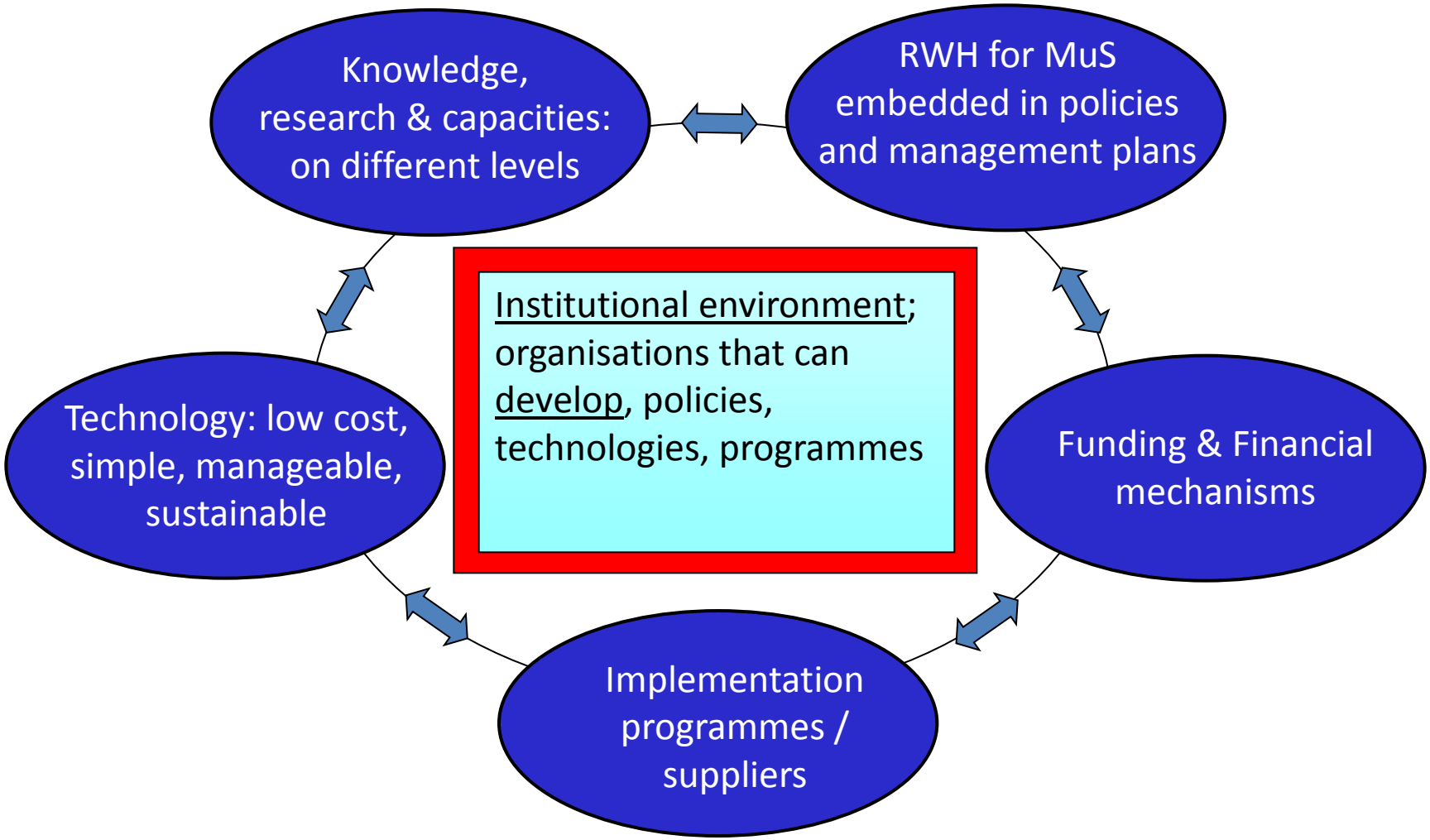
Approach followed

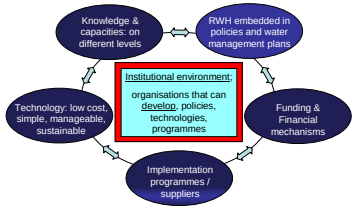
RAIN works through the “RHCC model”, based on pilot implementation



An enabling environment for upscaling RWH for MuS



An enabling environment for upscaling RWH (practical implementation)



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Users

Implementing partners

Rainwater Harvesting Capacity Centre

Knowledge institutes / universities

Govern-ment

Providers / chain

MFI's / banks

ODA's

International levels, policies, funds, programmes

Approach followed

"MUStRAIN in Ethiopia" project (2011-12)

Further test and adjust RWH technologies, to supply water for MUS purposes

Specific objectives

1. Strengthening collaboration between partners
2. Demonstrate the high potential of various RWH technolopgies in combination with MUS;
3. Lay basis for income generating projects enable upscaling;
4. Building capacities (techniciens / local politicians)
5. Publicity and knowledge exchange amongst national stakeholders in RWH/MUS and develop guidelines for RWH/MUS-methods

Some of the Key activities

- Water demand analysis, MuS based
- Selection of the potential techniques
- Efficient water use
- Finetune RWH-models to MUS
- Applying a 'Learning and Practice Alliance Approach', platforms to exchange knowled amongst all stakeholders

Approach followed

"MUStRAIN in Ethiopia" project (2011-12)

Main themes:

Food and ecosystems: e.g. water buffering, and use in an integrated ecosystem
Climate: RWH-technologies can retain large volumes and increase aquifer levels
Drinkwater and sanitation next to hygiene, wastewater, kitchen gardening and cattle
Capacity generation of stakeholders at governmental levels.

Partners:

- IRC, RAIN and Ripple / HCS
- Ministry of Water Resources Development
- Oromia Region Water Resource Development Bureau

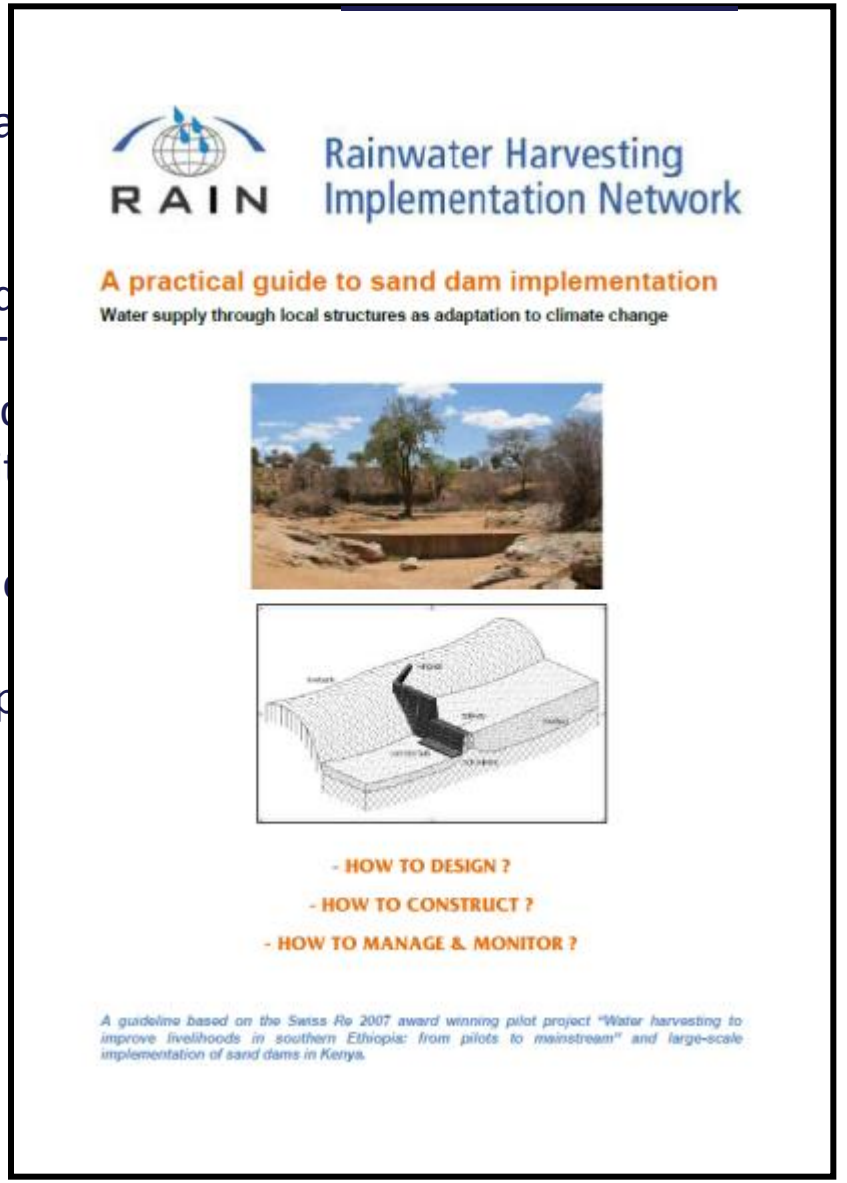
Guidelines used

Guidelines for RWH for MUS:

- Explore demand and supply and evaluate potentia
  demand
- Gender disaggregated data required
- Explore different RWH technologies, rooftop, sand
  ponds, infiltration galleries etc. and evaluate (FIET
- Explore how water extraction can be compensated
- Base all experiences on (learning) projects, capaci
  influencing (so not only implementation focused)
- Integrate the RWH concept into IWRM, in a practi
- General policies
- Guidelines under development in the MUStRAIN p

RAIN SAND DAM MANUAL, (guidelines / practical)

- **3R consortium;** Water Recharge, Retention and Reuse.
  (RAIN, Acacia Water, Meta Meta, BGR)



Lessons learnt

- Interinstitutional intersectorial approch required,
- Involve all stakeholders
- Knowledge sharing, learning agendas important elements, need for collaboration

- Alternative financial models needed – shortage
- Analysis of financial aspects of integrated systems is essential (C-B analysis)

- Analysis of demand / supply (including potential of RWH) essential
- Existing RWH systems can be upgraded to MuS
- Optimize the storage systems and volumes for integrating RWH for MUS

- Identify capacity needs on all levels and interventions focused at all levels (MMM)
- Ensure Post construction support functions

- Combi research and implementation is necessary, still lots to be learned

Conclusions and recommendations

Communication around MUS group and guidelines is essential:
How to promote and achieve wider and effective outreach
Review: “What is the adequate balance between”:
- further development and testing of guidelines
- Promotion
- Implementation (upscaling)

Collaborate!
Now is the time
Use the MuS group also as a practical group,
Interinstitutional collaboration, implementation and learning

Example of MustRAIN, West Africa Wash Program (wa-wash / Winrock)

Who’s next (amongst us)?
Collectively develop project proposals, invitation to joint initiatives

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