Experiences and lessons learned from The Nile Basin Development Challenge

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Agricultural Systems of the Nile

• Rainfed agriculture supported by small scale irrigation is dominant system in upstream countries.
• Downstream countries, principally Egypt and Sudan dominated by large scale irrigated agriculture.
• Between these pastoralism and agro-pastoralism.
• Rainfed systems need to maximise loss through evapotranspiration and reduce other loss through capture and storage and reduce land degradation.
Within the Blue Nile Basin Rainfed agriculture is the dominant system

- Characterised by:
  - High population
  - Land is upland in nature
  - Farming is subsistence dominated
  - Small land holdings
  - High occurrence of poverty and food insecurity
  - Land degradation is common
Land Degradation leads to sedimentation downstream

Source: Gebremichael et al., 2013

<table>
<thead>
<tr>
<th>Irrigation</th>
<th>Reservoirs</th>
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<tbody>
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<td>Increased costs/ reduced efficiency</td>
<td>Loss of storage</td>
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<td>Reduced yields and revenues</td>
<td>Reduced life of turbines</td>
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<tr>
<td>Inequality in distribution of water</td>
<td>Reduced efficiency</td>
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Nile BDC focus

Three dimensions

- Integrated
  - Social
  - Economic
  - Technical
- Multiple scales
  - (Households)
  - Communities and catchments
  - Blue Nile River Basin
- Undertaken in partnership
Nile BDC approaches

• Biophysical, social and economic data collection and analysis
• Local innovation platforms
• Community engagement through
  – digital stories
  – NRM Planning tools Wat-a-game and happy strategies
  – Participatory monitoring
• Local planning processes
• Scaling out and GIS
• Biophysical, social, economic and integrated modeling
Nile BDC monitoring

- Generation of primary data, often so lacking in SSA. Use data to drive models to examine future scenarios
- Meteorology
- Soil and groundwater
- River discharge
- Use both logged and community participatory co-operation
Participatory planning and learning tools – Wat-a-Game
Nile BDC Goblet Tool

Suitability mapping of rainwater management strategies
National RWM Stakeholder Platform
So what can and has the Nile Basin Development Challenge done?

- Typically we talk more and more about outcomes as opposed to outputs:
- Outputs are tangible products—papers, reports, etc.
- Outcomes are changes to peoples—skills, knowledge, and attitudes—THE LEGACY
Outputs

• Data
• Book
• Meetings
• Training courses
• Advanced student thesis
• Papers
• Briefs
• Proceedings
• Pilots
Livelihoods Innovation Platforms Participatory Methods

INTEGRATING FRAMEWORK

Research outputs
Information on:
• Livelihood strategies, choices, constraints
• Factors influencing adoption/lack of adoption
• Drivers of landscape change (social and economic)
• Research/implementation processes: participation, innovation platforms etc.

Inform decision making/policy
• Briefs for policy makers
• Messages that can be fed to national level platform
• Suggestions for alternatives to current practices
• Piloted processes that can be used in planning and implementation

SCALING OUT
Outcomes (1)

- Knowledge
  - Combining traditional and technical knowledge
  - Importance of systems approach
  - Local needs
  - Upstream downstream
Outcomes (2)

- Skills
  - MSc students
  - PhD students
  - On job training
  - Specialised

Attitudes?
Change in attitudes through key messages on enhancing rainwater management

8 messages:
1. Local community empowerment and leadership, based on demand, equity and inclusiveness

2. Partnerships integrating and sharing local and other types of knowledge, creating new knowledge through R4D and ‘learn by doing and sharing’ processes

3. Strengthening and transforming the institutional and human capacities of all stakeholders, with a special focus on local level extension officers
Change in attitudes through key messages on enhancing RMS

4. Creating, aligning and implementing incentives and risk management mechanisms to encourage innovation and successful implementation at scale
5. Adapting and using new learning and planning tools
6. Strengthening the integration and synergies among multiple RWM interventions at w.shed and basin scales
7. Greater attention to the downstream or off-site benefits of RWM in addition to upstream or on-farm benefits and costs
8. Stronger focus on markets, value chains, and multi-stakeholder institutions to enhance benefits and sustainability
Achieved this through Partnership

- National Universities
- Regional agricultural research authorities
- NGO’s
- CGIAR
1. Agricultural intensification and agricultural water management at a watershed/landscape scale
2. Inclusive approach to management
3. To meet these requirements the NBDC has used a range of methods leading to outputs.
4. These need consolidating and fed into systems to bring about further outcomes and changes in attitudes

Messages: The way ahead
How ??

- Feed into Government SLM- SSI-TF
- Develop Networks
- Future Projects
  - Water, Land and Ecosystems
- Sustain Partnership
- ??