Water for Food and Ecosystems: The case of the Central Rift Valley

.........Or how to reduce poverty and stimulate agricultural development without further degrading and depleting the natural resource base?
Content

- Introduction to the Central Rift Valley
- Problem statement
- Process and LNV involvement
- Options for rural development
- Future steps
Central Rift Valley

- 100 km South of Addis
- Population: ± 1.5 Mln
- Area: 1.0 Mln ha
- Rainfall: 650-1350 mm
- Closed river basin
- National Park Abyata-Shala
Problem statement
Intensification of land use
### Intensification of land use

<table>
<thead>
<tr>
<th>in hectare</th>
<th>1973</th>
<th>2006</th>
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<tbody>
<tr>
<td>Intensively cultivated land</td>
<td>100,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Irrigated area</td>
<td></td>
<td>10,000</td>
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Good agricultural land becomes scarce
Intensification of land use

Smallholder horticulture

large scale floriculture
Diffuse but wide-scale water extraction for agriculture
Urbanization

• Quadrupling of urbanization expected in next 15 years.

• Economic growth thanks to horti- & floriculture:
  • Inflow of people from outside the region
  • Development of SMEs (shops, hotels, input supply)

• Economic growth implies a need for improved:
  • Social infrastructure (schools, hospitals, etc.)
  • Public services (waste disposal, drinking water)
Deforestation

Woody biomass satisfying energy needs and source of income for local people
Downstream Lake Abyata is drying up
In summary:

Competition for land and water resources:

- Agriculture (crops & livestock)
- Urbanization
- Industry
- Forestry
- Nature
- Tourism
- Fisheries
- Domestic water supply
LNV involvement up to date

in collaboration with WUR, DLG and the Horn of Africa Regional Environment Centre
Sustainable development

People

Planet

Profit

Public sector
(Ministries, municipalities)

Private sector
(flowers growers, peasants, tourism sector)

NGO's
(Lake Ziway Working group, environmentalists)

science / dialogue
Different approaches

• Develop knowledge base
  • Reports and website: [www.crv.wur.nl](http://www.crv.wur.nl)
  • Collaboration with local researchers (AAU, EIAR)

• Raise awareness
  • Presentations (e.g. World Water Day)
  • Workshops

• Stimulate policy dialogue
  • Multi stakeholder workshops
  • Policy briefs

• Capacity building
  • Training of students
  • Introduction of participatory planning methods
Build-on and reinforce on-going activities and processes in the Central Rift Valley:

- Link up with Rift Valley Lakes Basin Master Plan Development.
- Strengthen stakeholder platform ‘Lake Ziway Working Group’.
- Contribute to Demand Driven Action Research of Horn of Africa Regional Environment Centre.
- Strengthen planning and management capabilities of local institutions (policy, research, NGOs).
Options for rural development, and the needs to make it happen
Horticulture and floriculture

• Fresh water resources are limited and will constrain future expansion.
• Smallholder horticulture: Major user of fresh water and labor resources....
• .....but water, soil and labor productivity are still low.

Requirements:
• Improve performance of smallholder horticulture
• Improve water use efficiency in agriculture
Diversify economy: Tourism

Sabana Beach Resort, Lake Langano

Potentials for (eco) tourism:
- Nature (birds/wetlands)
- Landscape, hot springs, etc.
- Nearby Addis

Requirements:
- Develop tourism strategy (Ring of Lakes route)
- Tourist promotion of Rift Valley

Number of visitors Abyata-Shala NP

- 1996: 0
- 1999: 2000
- 2002: 4000
- 2005: 6000
- 2008: 8000
- 2011: 10000
Diversify economy: Rain fed agriculture

- Majority of population depends on rain fed agriculture
- Wide spread poverty under rain fed farmers
- Low crop yields and animal productivity

Requirements:

- What are rain fed production potentials?
- How affects climate change these potentials?
- What adaptation options?
Strengthen institutional capacity

On-going agricultural intensification results in:

- Increased fencing hindering people and livestock to access water resources.
- Increased risks of salinization and water pollution.

Requirements:

- Define and describe institutional responsibilities.
- Activities to secure water quality and access to water.
Future steps

1. Horticulture/floriculture
   • Improving performance of smallholder horticulture (LNV-OS)
   • Improve water use efficiency in floriculture (2g@there)

2. Institutional strengthening
   • Development of buffer zones (LNV-OS)
   • Water quality monitoring (LNV-OS)
   • Development of climate change strategies (LNV-BO)
Future steps

3. Diversify economy:
   - Tourism promotion (LNV-OS)
   - Improving the performance of rain fed farming (DGIS-WUR, LNV-BO and MTT-Finland):
     1. Exploring options for dairy as alternative source of income.
     2. Exploration of resource management options (Ethiopian PhD student).
     3. Exploring potentials for co-investments in soil and water conservation (Ethiopian PhD student).
     4. Assessment of climate impacts and adaptation strategies (Ethiopian PhD student).
Role LNV/Netherlands

- Analysis and development of sustainable options
- Capacity building (hands-on within projects, PhD’s and within Nuffic programs)
- Realization of ambitions requires long-term commitment and large funds: GEF and REDD?