

Limits to irrigated agriculture: A case study in the Central Rift Valley of Ethiopia

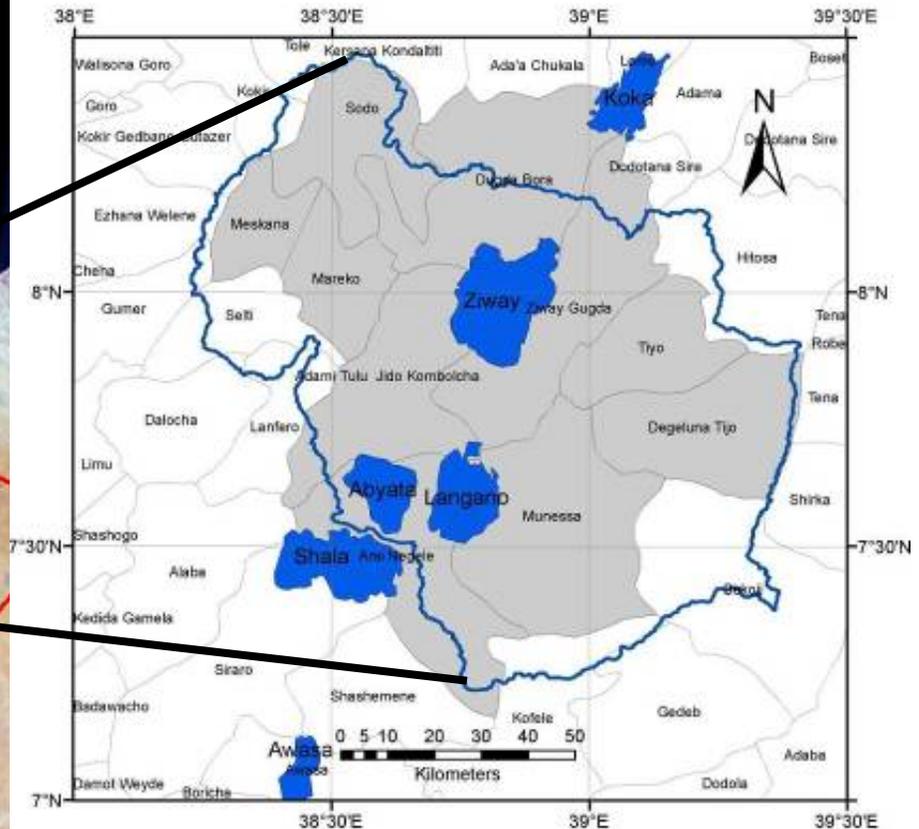
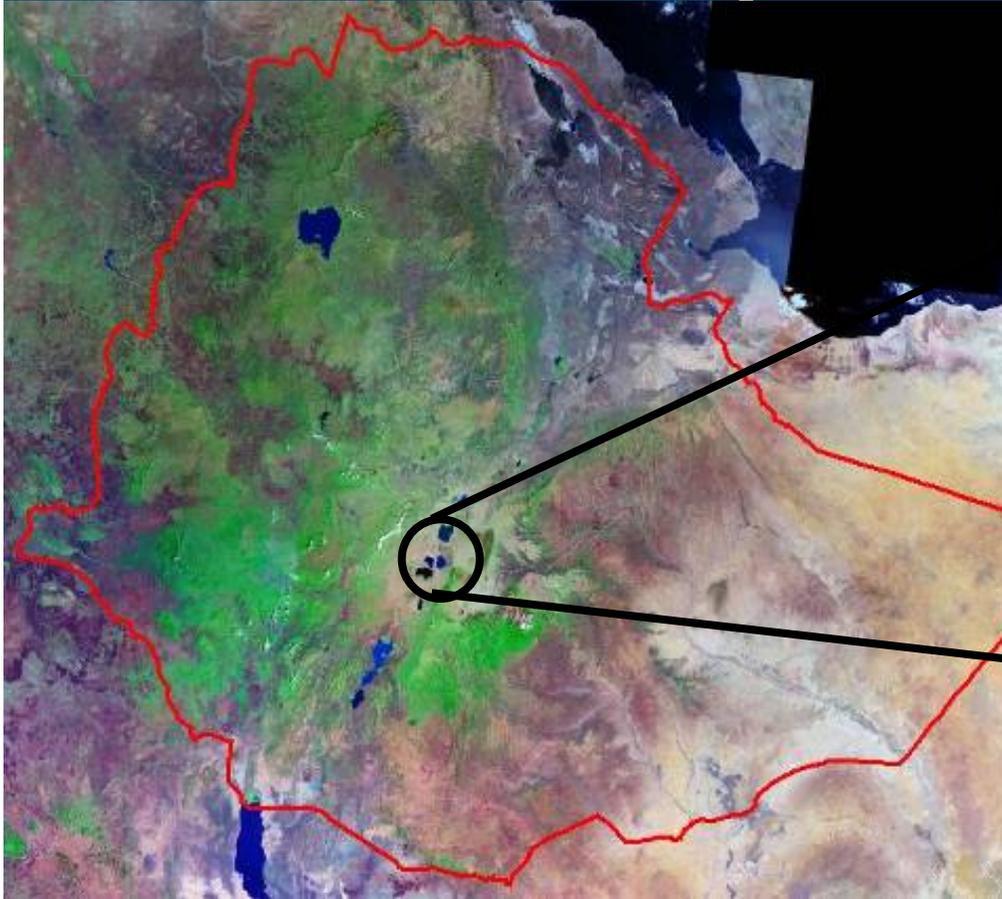
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Background

- Irrigated agriculture:
increase productivity and reduce poverty
- Availability of water resources?
- Case study Central Rift Valley (CRV):
 - Floriculture and horticulture development
 - Poverty and low rain-fed agricultural production
 - National Wetland Park
 - Deforestation/environmental degradation
 - **Closed river basin**

Central Rift Valley Lakes



Area \pm 1 Mln ha
Population \pm 1.5 Mln

Falling water tables of Lake Abyata



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For quality of life

Objectives

To strengthen local authorities in the field of integrated water resources management contributing to a sustainable development of the CRV

- Improve knowledge
- Raise awareness
- Stakeholder participation and dialogue

Partners

- Multi-stakeholder platform 'Lake Ziway' (counterpart)
- RNE-DGIS-Horn of Africa program (network)
- Addis Ababa University (R&D)
- Ethiopian & Dutch students (education)
- Master Plan for entire Rift Valley (vision)

Land use development (in 1000 ha)

	1973	2006
Rain-fed intensive agriculture	100	400
Irrigated area	0	10
Lake Abyata	19	9

Increased intensification of land use:

More deforestation, land degradation, water extraction for irrigation, and falling of water tables of Abyata and Ziway

Current water extraction in the CRV (Mln m³):

■ Domestic use	7
■ Livestock (drinking water)	8
■ Soda ash plant	1
■ Floriculture (100 ha)	2
■ Open field irrigation	150-200

Some lessons learned

- Open field irrigation has major impact on lake water levels in the CRV
- Risk for Lake Ziway to become salt
- Closed river basins require special attention
- Voluntary multi-stakeholder platforms lack resources and mandate for local planning and management

Policy/research agenda

- Water allocation and efficiency
- Risks of greenhouse production (pollution, urban and social infrastructure)
- Climate change
- Diversify economy: improve rain-fed agriculture, tourism, fisheries/aquaculture
- River Basin Organization with legal mandate for coordinated action

Thank you

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