



Presentation from  
**2016 World Water  
Week in Stockholm**

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# Large-scale irrigation in the Lake Tana Basin, Ethiopia challenges and opportunities

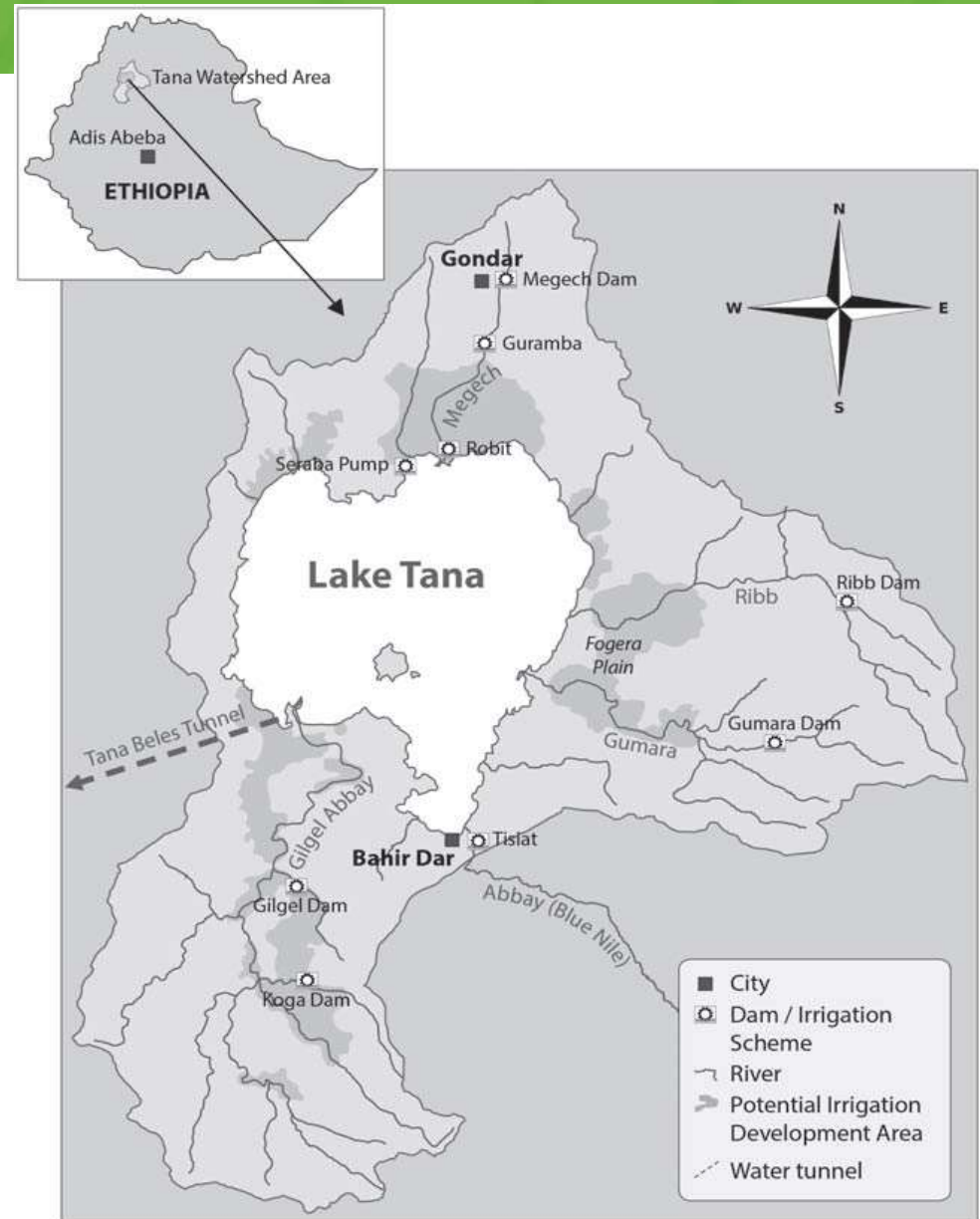
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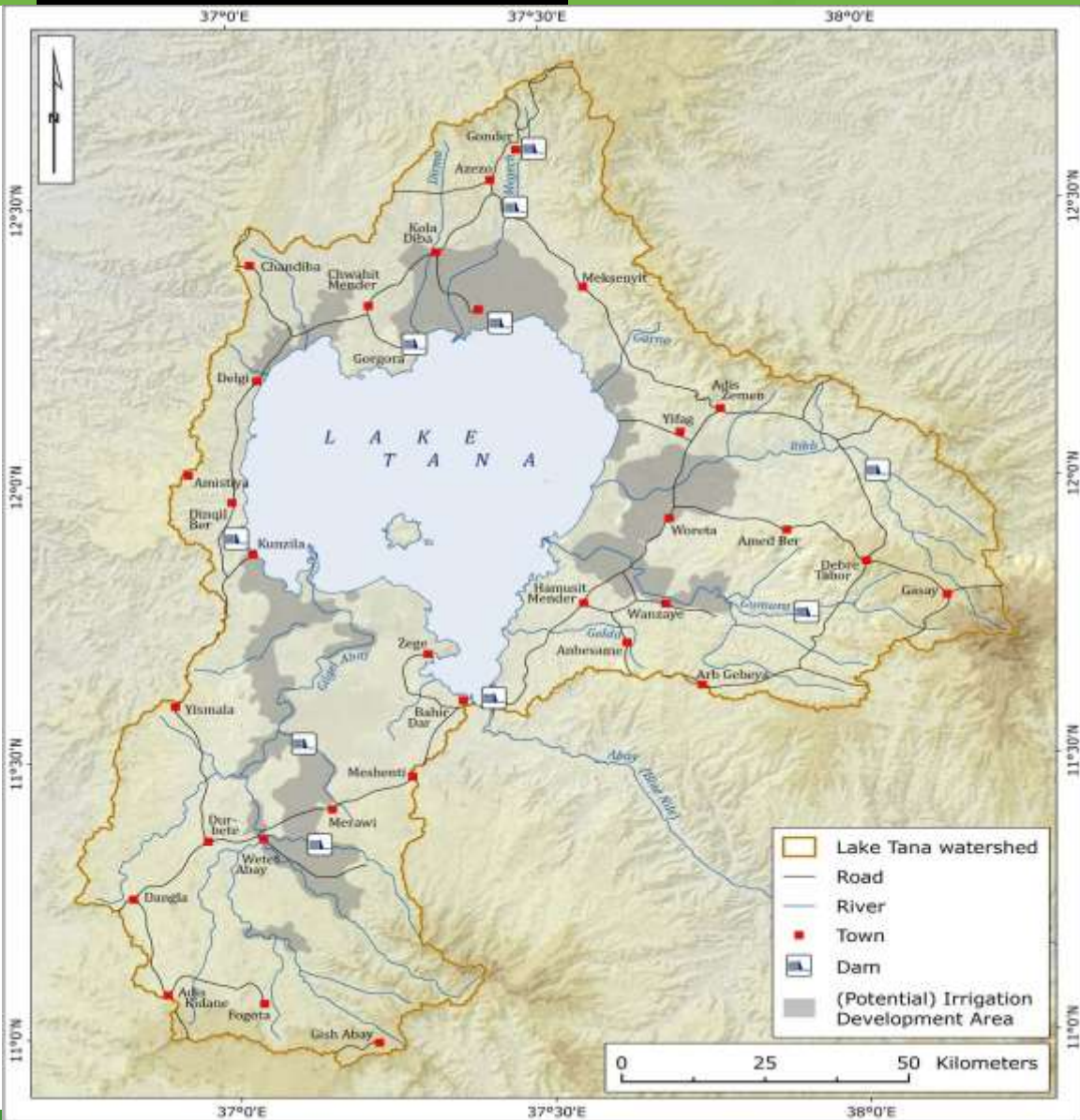
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## The Lake Tana Basin

- Ca 3 million population (2007)
- Drainage area of about 15,575 km<sup>2</sup> of which the lake itself covers 3,156 km<sup>2</sup> (SMEC 2008)
- Four major river tributaries: Gilgel Abay, Ribb, Gumera and Megech
- Ca 130,508 ha of irrigable land distributed across 106 medium- (200ha -3000ha) and 11 large-scale (greater than 3,000ha) irrigation areas (Wale et al., 2013)





Planned and on-going dam and irrigation sites

# KOGA DAM AND IRRIGATION PROJECT : IRRIGATION COMMAND AREA LAY OUT

WATER WORKS DESIGN AND SUPERVISION ENTERPRISE



- LEGEND**
- COMPLETED SECTIONS
  - COMPLETED MAY 2011
  - NIGHT STORAGE RESERVOIRS
  - RIVER
  - COMMAND AREA NAME
  - WEDLA SMALL SCALE IRRIGATION PROJECT

# Large-Scale Irrigation for smallholder farmers – overall objectives

Multi-objective, emerging land investment model

- Poverty reduction, growth, change
- Climate resilience, green growth strategies

Change smallholder production dynamics

- Secure household income
- Initiate regional/national economy: growth corridor
- Create critical mass of producers that meet urban and industrial demands
- Transform agriculture

## Three key issues

1. The scheme as a 'common good'?
2. Governance: institutions & organizations
3. Scale formation: scheme-level and beyond

# Practicing the common

- The scheme as a ‘common good’?: As infrastructure and as resource
  - Technology (dam and canals) as setting/defining boundaries
  - Technology scoped the common to become inclusive
  - But also the volume of the investment is big and this puts pressure on users to deliver (expectations)



# Practicing the common

- **Conditions to access water are fairly defined, but no strict rules on water use**
  - Inclusive (downstream) and exclusive (upstream) characters
  - About 10,000 households and almost all in the irrigable site are included
  - Upstream people who depend on ca 20,000 ha required to practice conservation, but no mechanisms of payments enforced
  - Water use efficiency/productivity
- **Multi-actors**
  - Government agencies (Agriculture, Extension, Land Administration); Authorities (Abbay Sub-Basin; Donor agencies)
  - Farmers
- **Require collective action**
  - Systemic integration and collaboration mechanisms need to be strengthened

# Governing the 'common'

- Transfer of canal management (state to users)
  - After 5 years of the project period, but not yet
- Institutions & organizations
  - Water use associations/cooperatives/unions
- 'Self-organised' vs government-supported WUAs
  - Government support is necessary in terms of providing clear framework
  - New policy on WUA: obligatory membership to access water
  - But, crucial that users own the processes

# Challenges

- Engagement and mobilization of users
- Water financing
  - Cost recovery mechanisms, setting the fees, etc
  - Financing operation and maintenance works
  - Costs of clogged irrigation channels, etc.
- Communication structure across scheme
- Up- and down-stream collaboration and benefit sharing/ payment for ecosystem services

# Creating scale: missing elements

- Production and market frontier
  - Some reasonable degree of market focus
  - Some degree of uniformity in production
- Access to household irrigation technology and improved market linkages
- Capacity building
- Engagement with mid- & large-scale private sectors (the case of babycorn outgrower scheme)
- Agricultural productivity & commercialization

# Concluding remarks

- Move focus beyond the physical infrastructure
  - More on conditions that ensure returns and benefits/facilitate transformation
  - Pro-smallholder value chains
  - Farmers' cooperatives, secure access to markets
- Nurturing 'new' production and marketing dynamics among small farms
  - Differentiations in farms and products
  - Early-state business incubation and insurance
- National policies should align investment models so that small farms can invest or engage with investors, e.g.
  - Building skills & capacities of small farmers
  - Promoting relevant, small-scale and affordable agro-processing technologies
  - Promoting specialty and niche markets that also involve small farms
- Interaction and collaboration

# Thank you!

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