Urban Research Symposium
BMBF Megacity workshop
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Sustainable water management in the emerging megacity of Lima – Based on macro-modelling and participation

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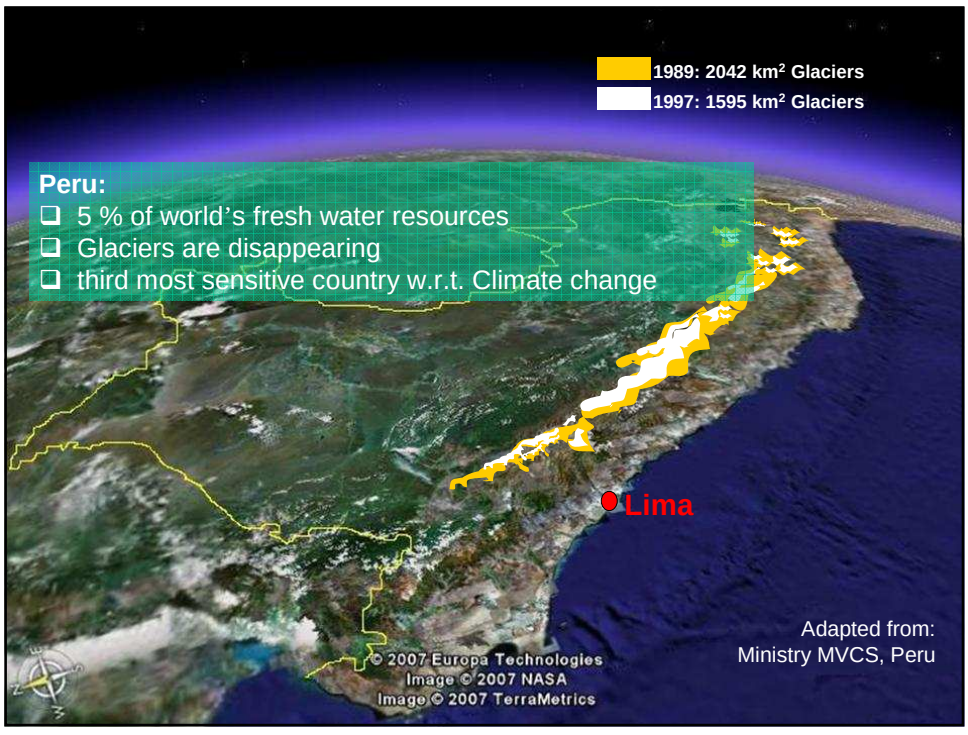
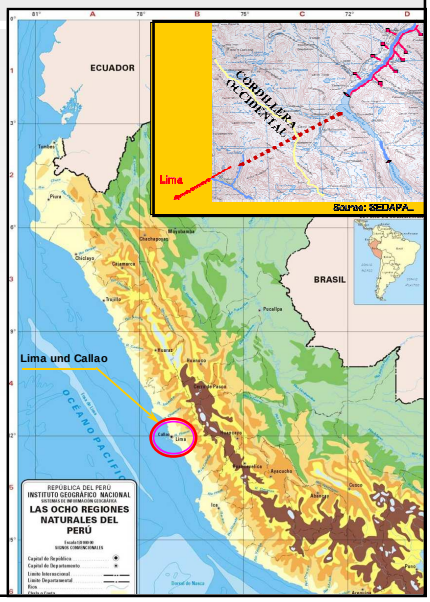
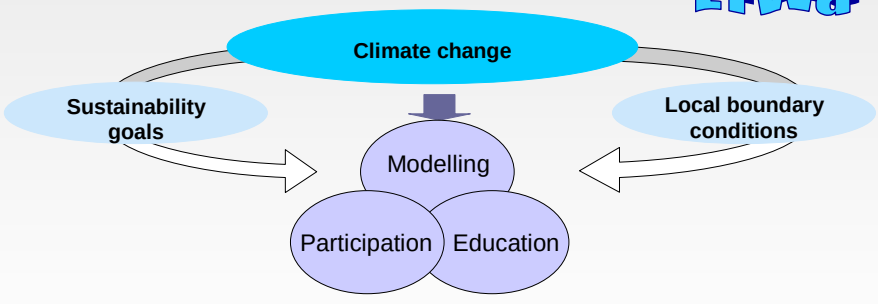


Urban growth centre Lima

- Lima: Urban growth centre: 8 million inhabitants
- Significant population growth (2.1% p.a.), mainly in peri-urban settlements
- Desert region, almost no rainfall (9 mm p.a.)
- Challenging boundary conditions for sustainable drinking water supply (demographic and geographic situation)
- Climate change intensifies water crisis in Lima by melting of glaciers and lack of rainfall in the Andean region



Overview of "LiWa" project



Project outcomes:

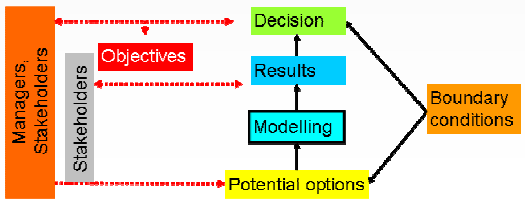
Macro-modelling tools	Scenario analyses	Governance models	Educational programmes	Guidelines
Decisions	Scientific dissemination	Industry liaison		

The partners of the “LiWa” project

- Germany
  - ifak e. V. Magdeburg (Coordinator)
  - ZIRN, University of Stuttgart
  - IWS, University of Stuttgart
  - Leuphana University Lüneburg
  - Dr. Scholz & Dalchow
- Peru
  - SEDAPAL S.A.
  - Universidad Nacional de Ingenieria
  - Foro Ciudades para la Vida
  - FOVIDA
- Funding: BMBF and BMZ

Sustainable water management: Challenges (systems approach)

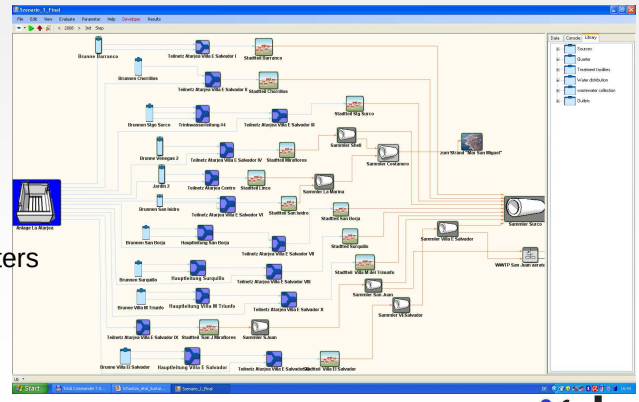
- The underlying system
  - Dynamic, fast growing, complex, many subsystems
  - Numerous interactions (of subsystems and processes)
  - Uncertain predictions of future system states
- Present solutions
  - Often driven by particulate interests (e.g. private companies)
- Proposed approach
  - Modelling to cope with complexity
  - Participatory discussion and decision approaches, ensuring ownership



"LiWatool" – Macro-modelling system for urban systems (here: water/wastewater in Lima)

- Planning and analysis of water system on a global (metropolitan) scale
- Modelling and visualisation of scenarios and variants

Modelling of
- Water
- wastewater
- pollution
- Energy
- other resources
- GWP
- qualitative parameters



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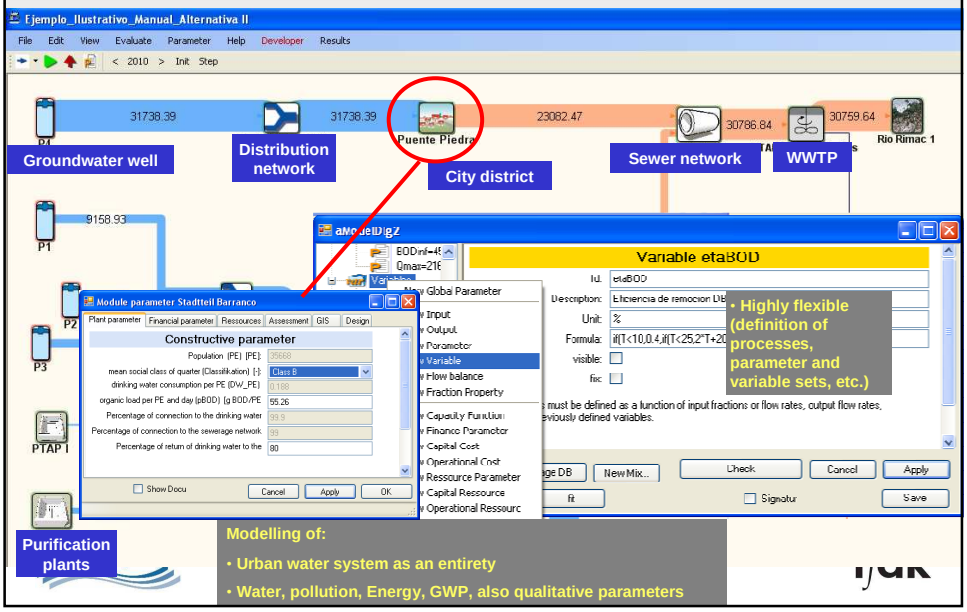
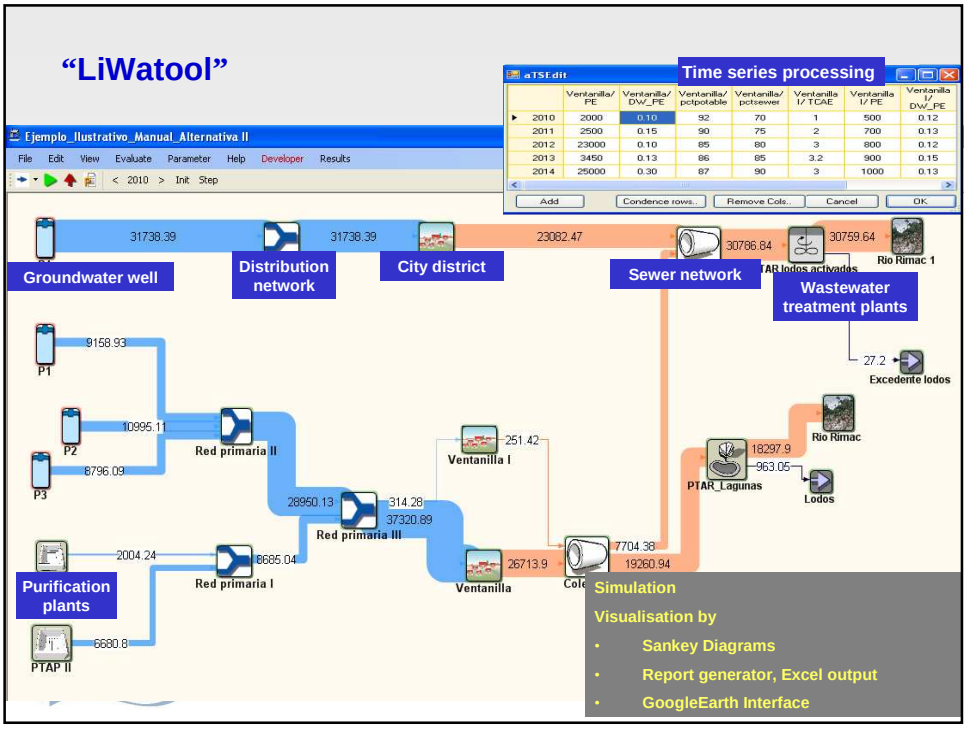
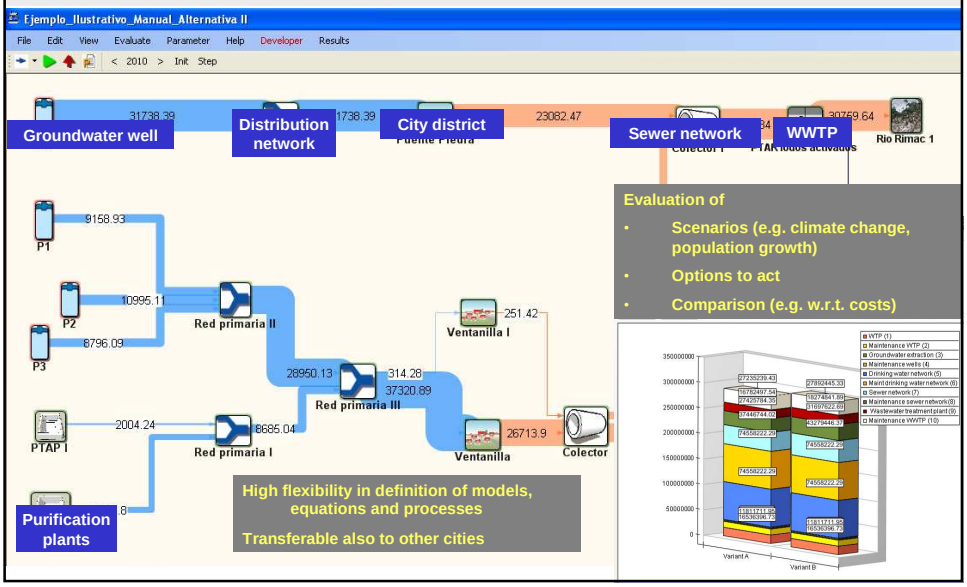
"LiWatool" – Macro-modelling system



“LiWatool”



Some aspects of “LiWatool”




THANKS FOR YOUR ATTENTION
Project „LiWa“
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