# **Decentralised Solutions – Agile & Appropriate**

Wastewater Treatment Solid Waste Management Renewable Energies



**BORDA** remen Overseas Research and Development Association

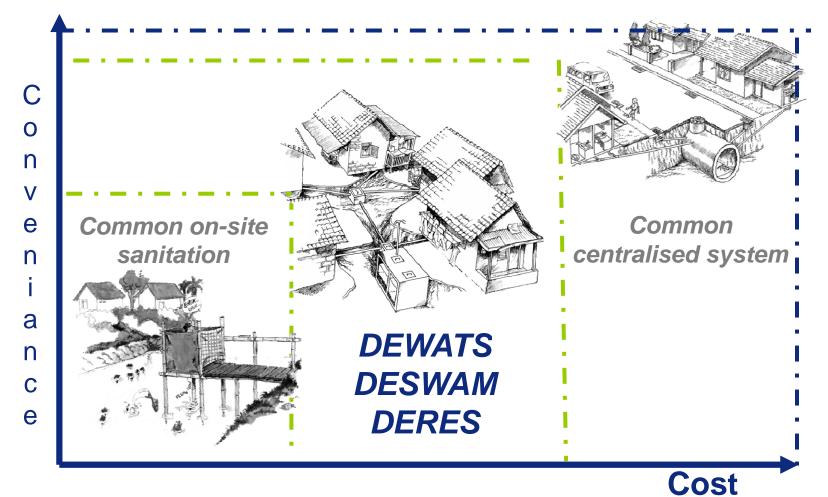
www.borda-net.de Manila, May-27th 2014 Jens Bruns BORDA Board of Directors

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### **Profile:**

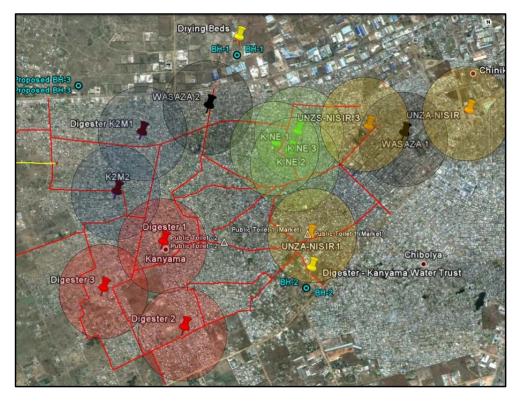
BORDA –27 organisations from 4 continents Mainstreaming Decentralised Solutions



2

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## A wake up call: Decentralised Solutions are agile + appropriate for rapid urbanisation:



Urban city plan for location identification

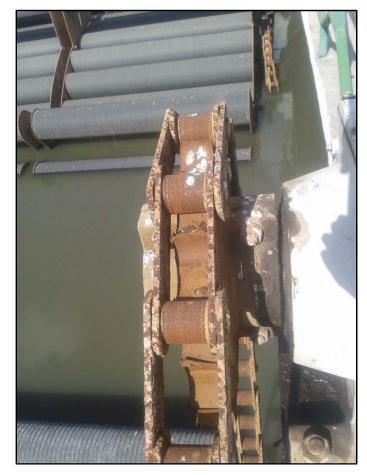
- Economic service provider models
- Treatment capacity:
  Up to 100.000 PE\*
- Scale effects
- Low energy demand
- Low maintenance
- Resource reuse

3

\*population equivilants

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## A path out of the dilemma Problems need to be accepted to get solved



Large scale WWTP – after 4 years of operation

A few facts: •Decreased invest. In BSN Services (Glass) •Missing of sustainable service provider models •Local ownership (who is really product owner?) •Mainstream for large treatment system projects (Environment follows technology – Copy-Paste)

Awareness for alternatives is missing

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A new approach for new challenges: Agile iterative development of local solutions for local needs with local ownership

> *DEWATS, DESWAM, DERES – Scrum* Locals know best what their needs are



- Coaching local
  - development process
  - (30 years of experience)
- Based on IT-development tool Scrum
- Iterative sprints with development backstopping