

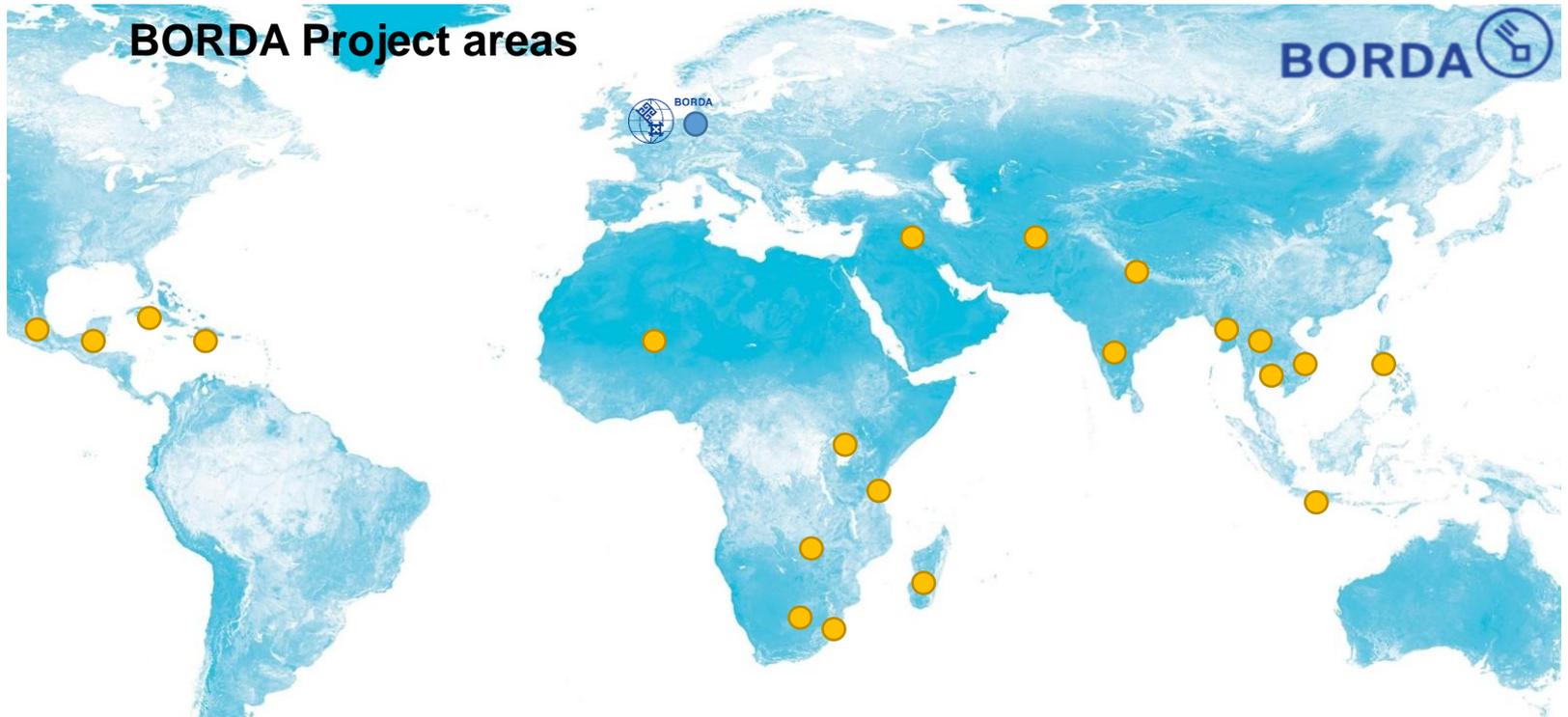


Development of national guidelines for scaling-up and mainstreaming decentralized wastewater treatment solutions in Tanzania

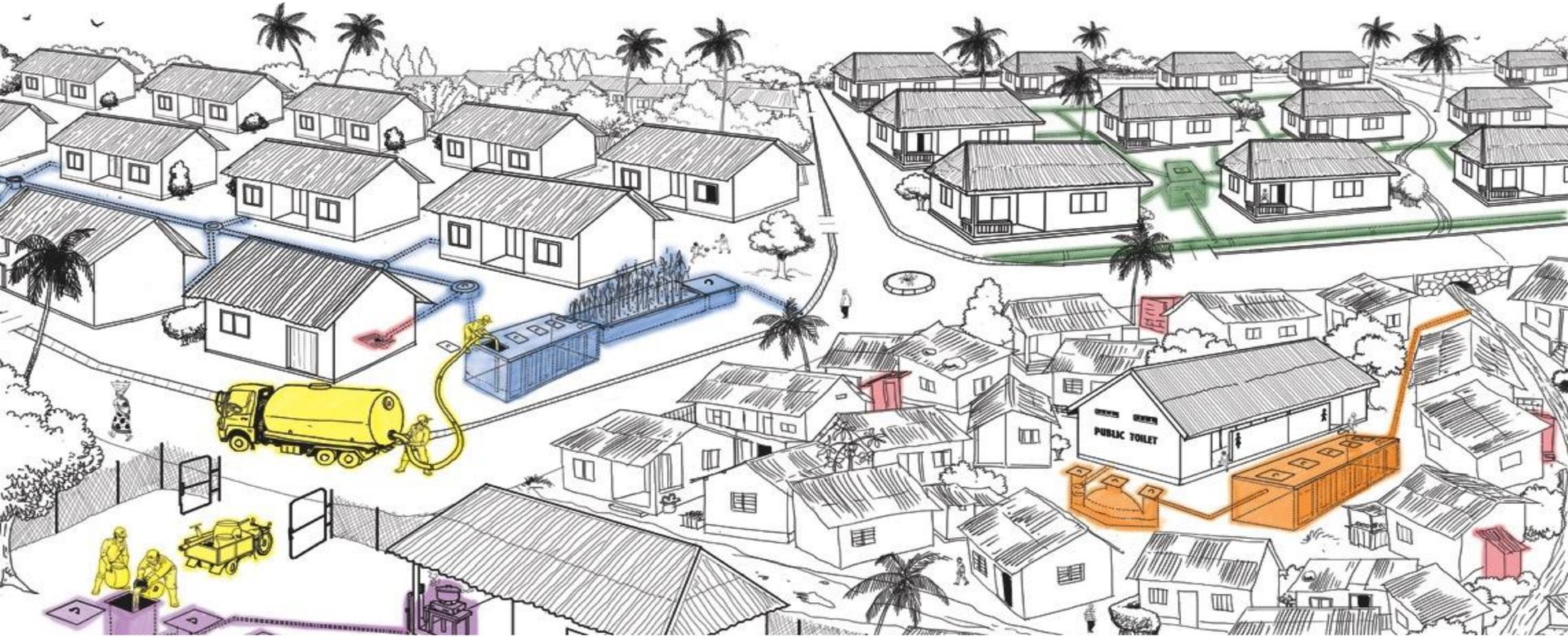
Jutta Camargo, BORDA Africa Director



Bamako, February 10th 2018



- Basic Needs Services Network more than 70 Partner Organisations
- Serving > 1 Mio. people with > 2.000 Decentralised Wastewater Treatment Systems



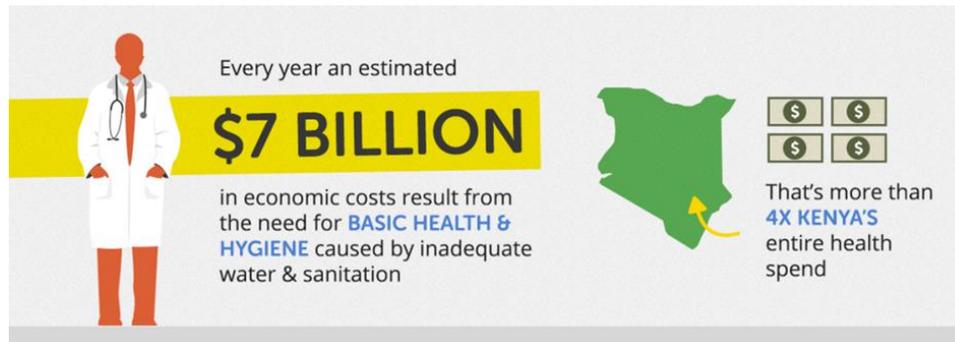
1. Project background



Sanitation Facts



- 2.4 billion people lack access to basic sanitation services
- More than 80 per cent of wastewater resulting from human activities is discharged into rivers or sea without any pollution removal
- Improved sanitation can contribute to an approximate one third reduction in diarrhoeal diseases (e.g. Cholera)
- Each day, nearly 1,000 children die due to preventable water and sanitation-related diarrhoeal



Wastewater technical solutions



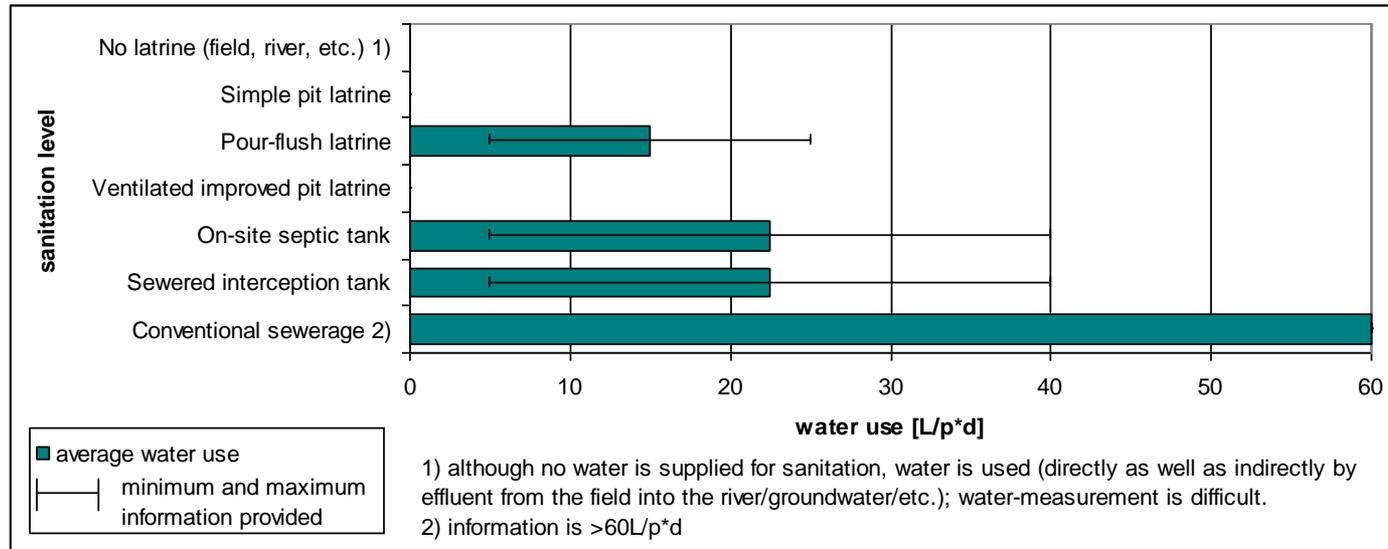
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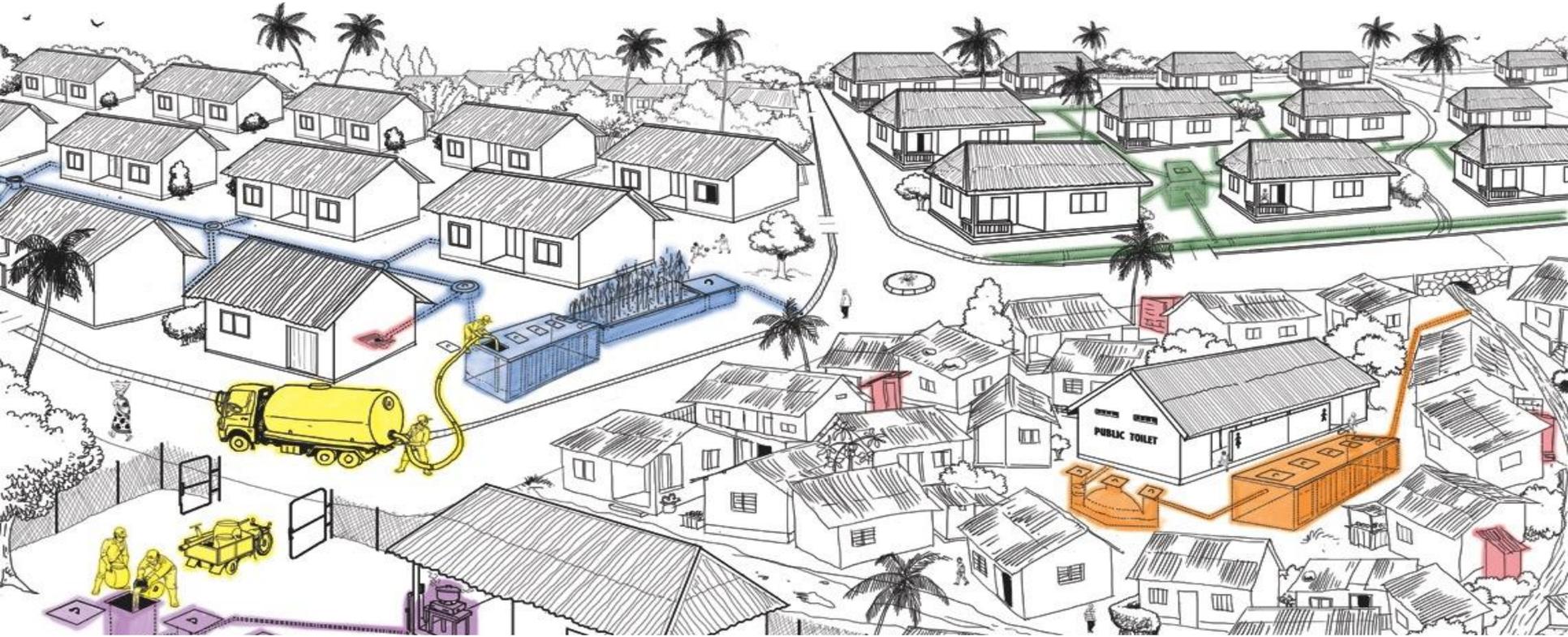
Challenges:

- ✓ High investment cost
- ✓ High O&M cost & require trained staff
- ✓ Require reliable energy supply
- ✓ Need reliable water supply and planned storm water system
- ✓ Require tariff and regulation

Domestic wastewater quantity depends on the level of service



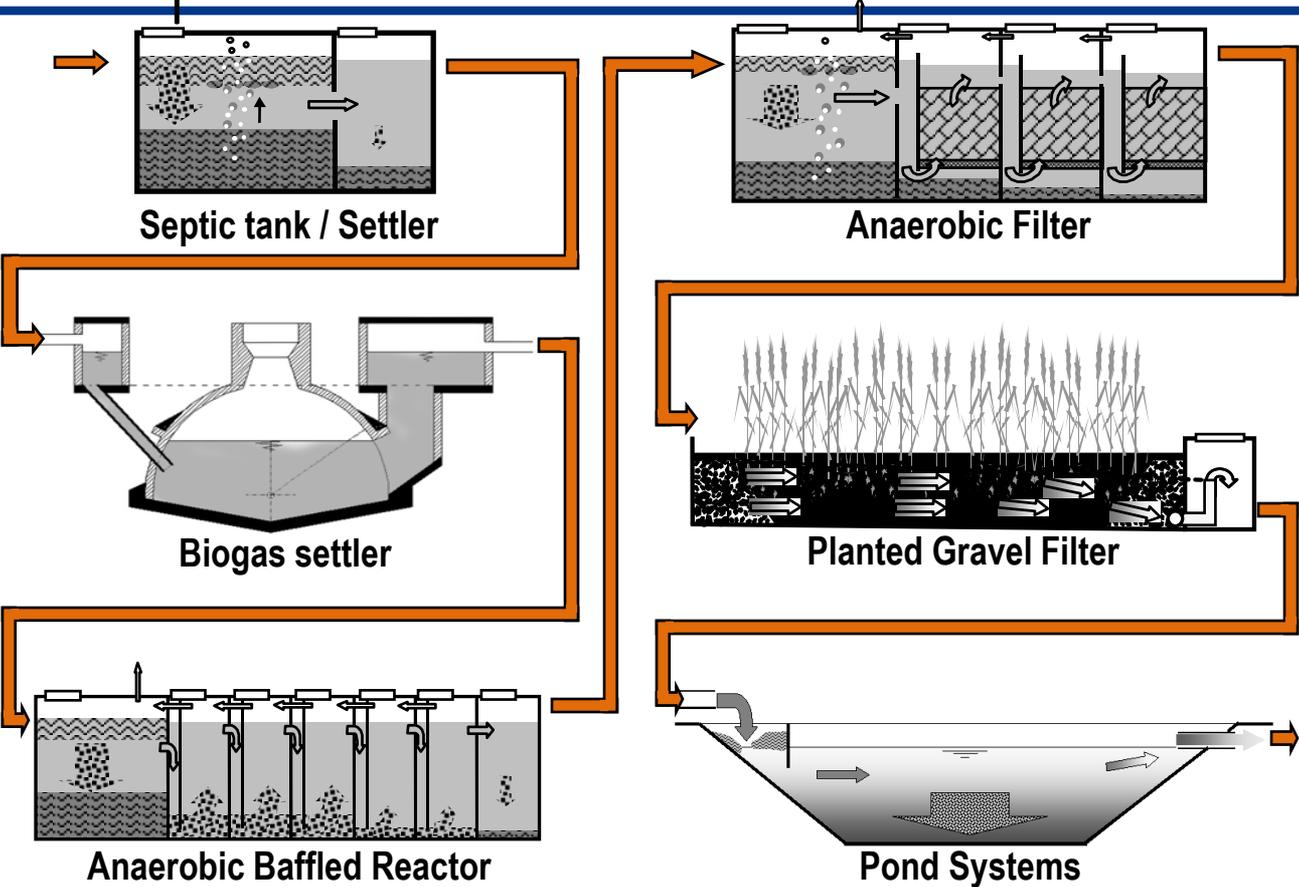
Original source: Handbook for the Assessment of Catchment Water Demand and Use.



2. OVERVIEW OF DECENTRALISED SOLUTIONS



Solutions: Integrated DEWATS systems





Septic tank



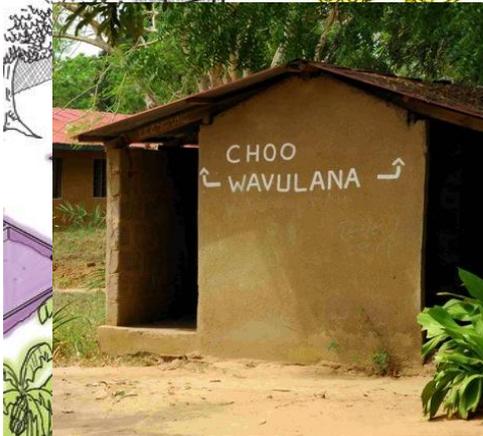
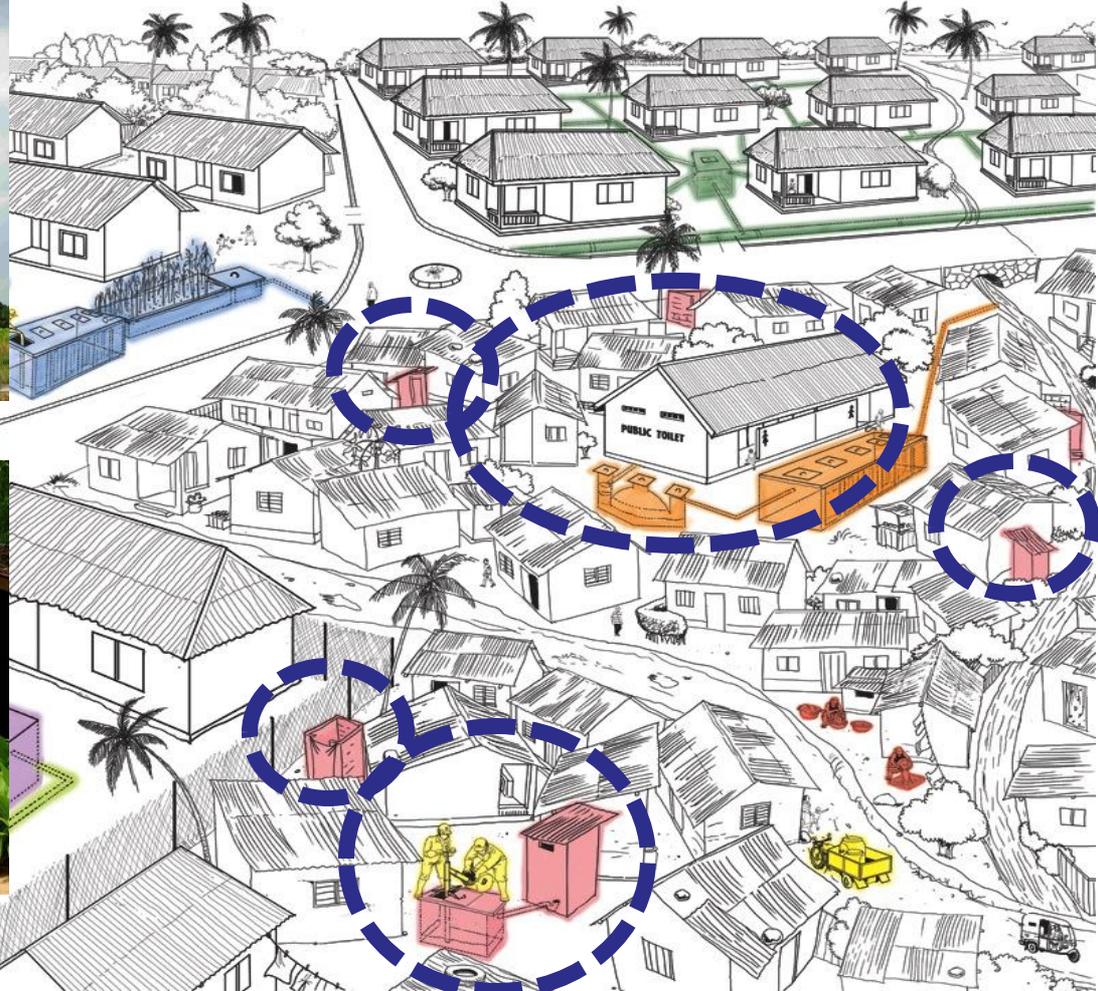
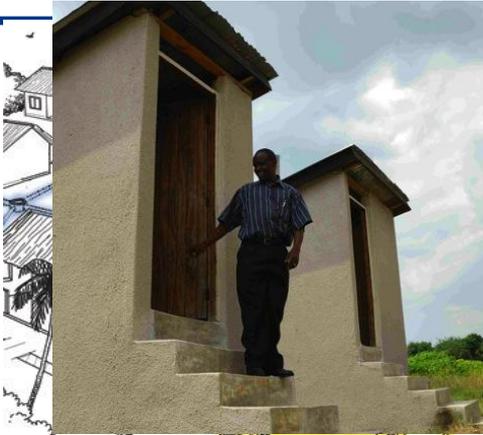
Andropogon filter



Possible solutions | Fully decentralised



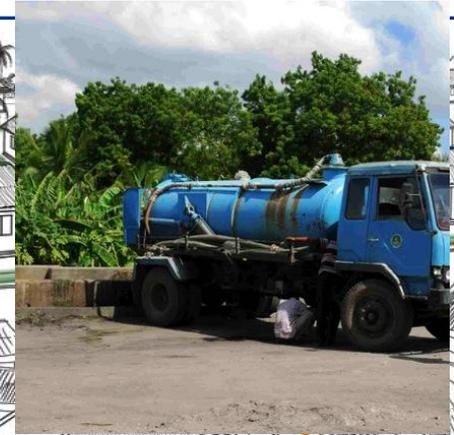
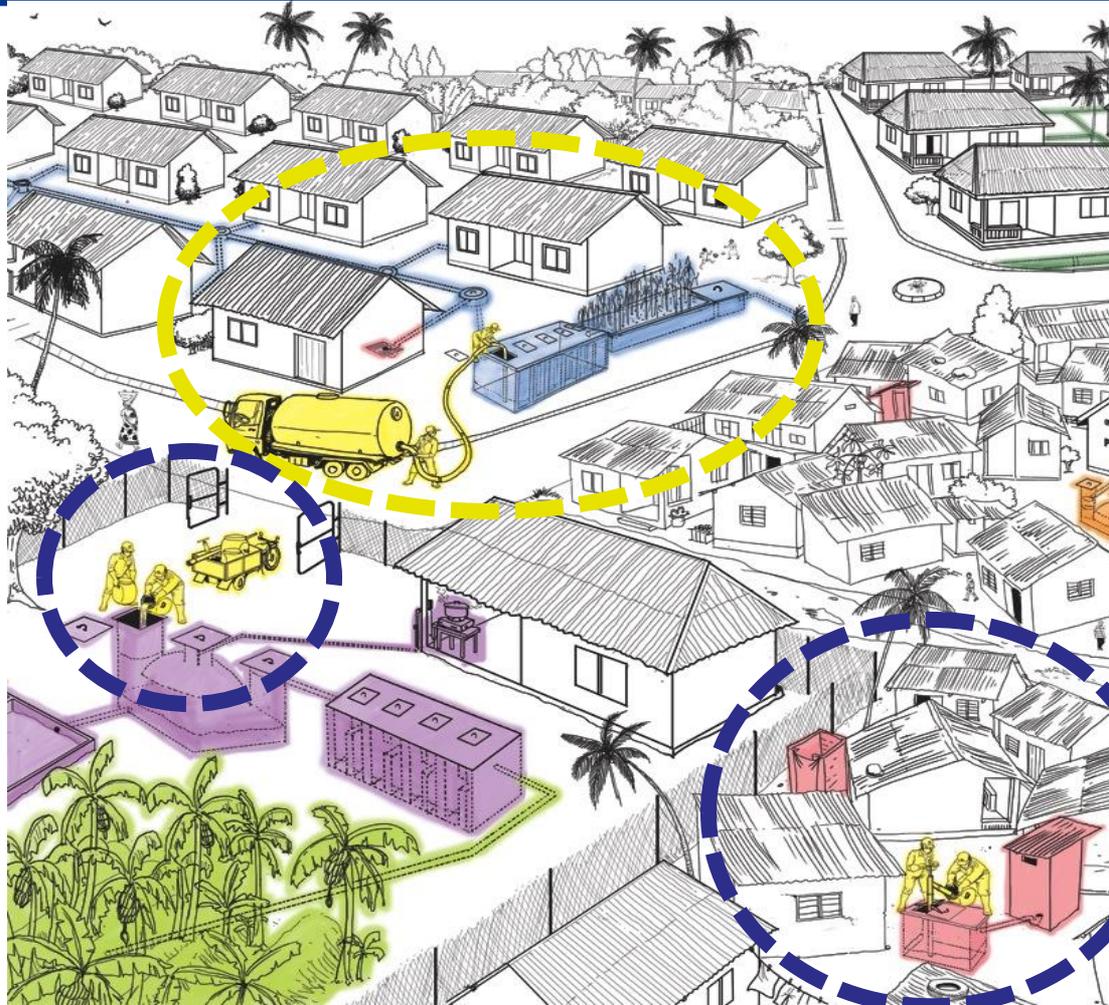
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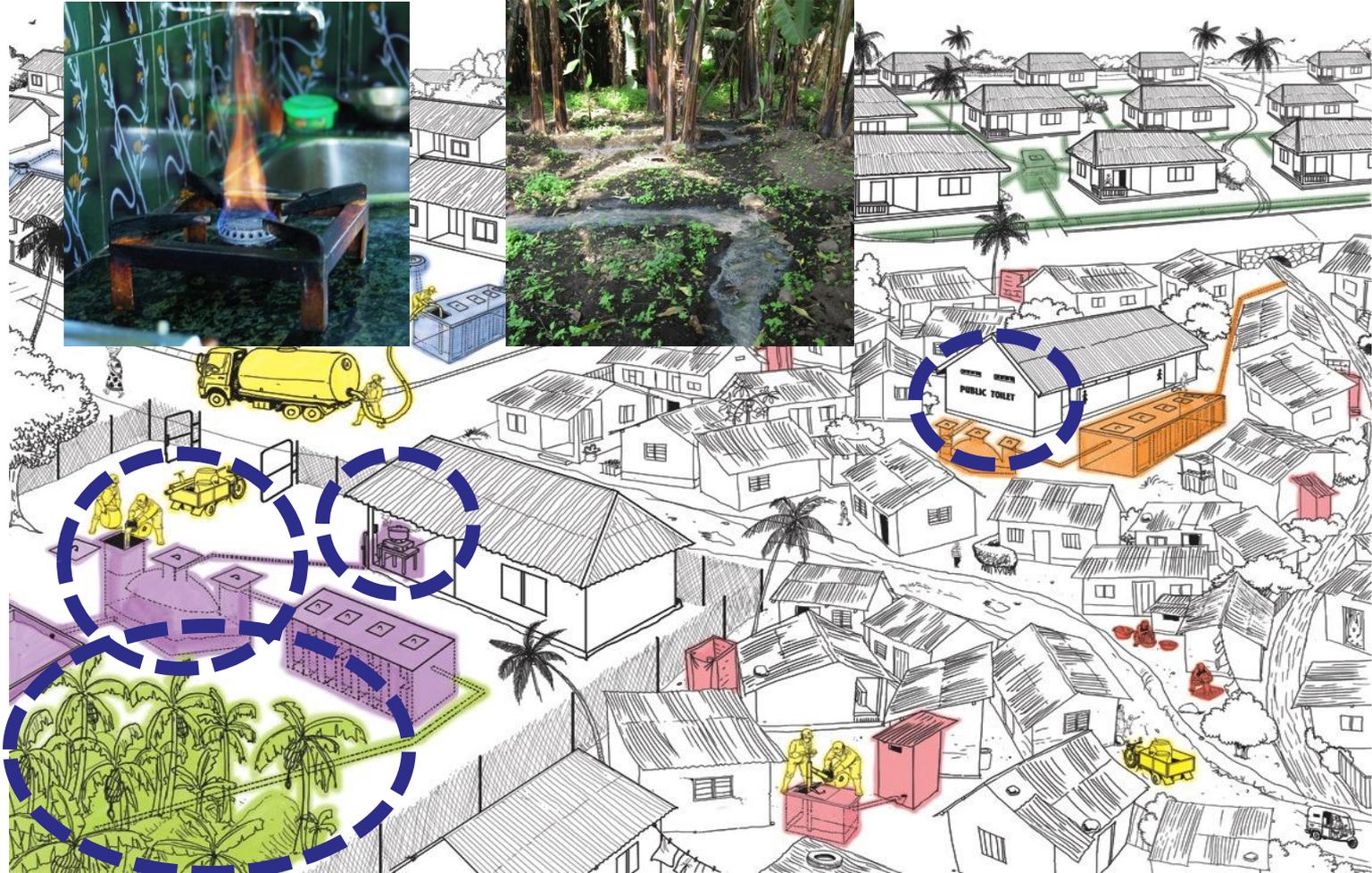
Possible solutions | Partly-decentralised

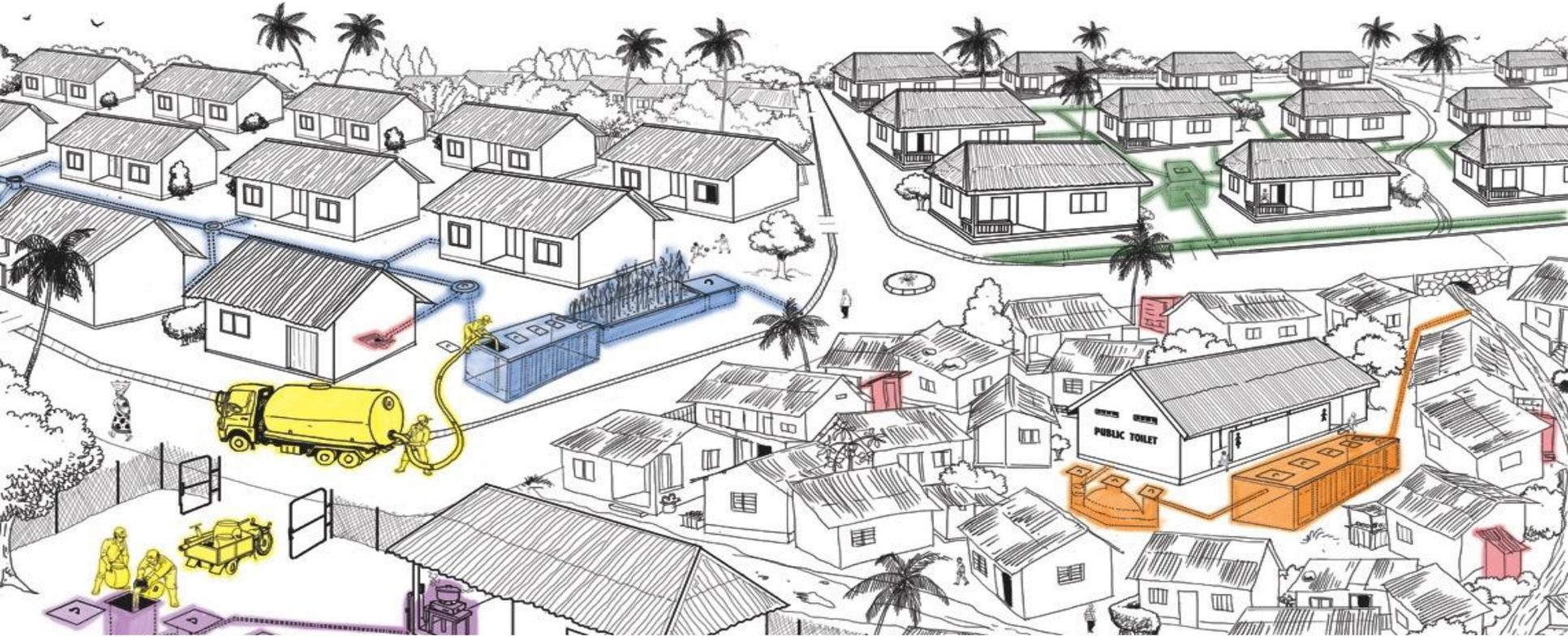


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Possible solutions | Benefits





3. PROJECT INFORMATION



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Title: “Demonstration of decentralised wastewater projects in non-sewered areas of Dar es Salaam”

Partners: UNEP/ UNHABITAT/ BORDA

Duration: May 2016 – May 2018



3. PROJECT INFORMATION |

Objectives



To showcase decentralised wastewater projects as suitable options for non-sewered areas of Dar es Salaam;

and



To compile information to support improvement of the associated regulatory framework for scaling up DEWATS

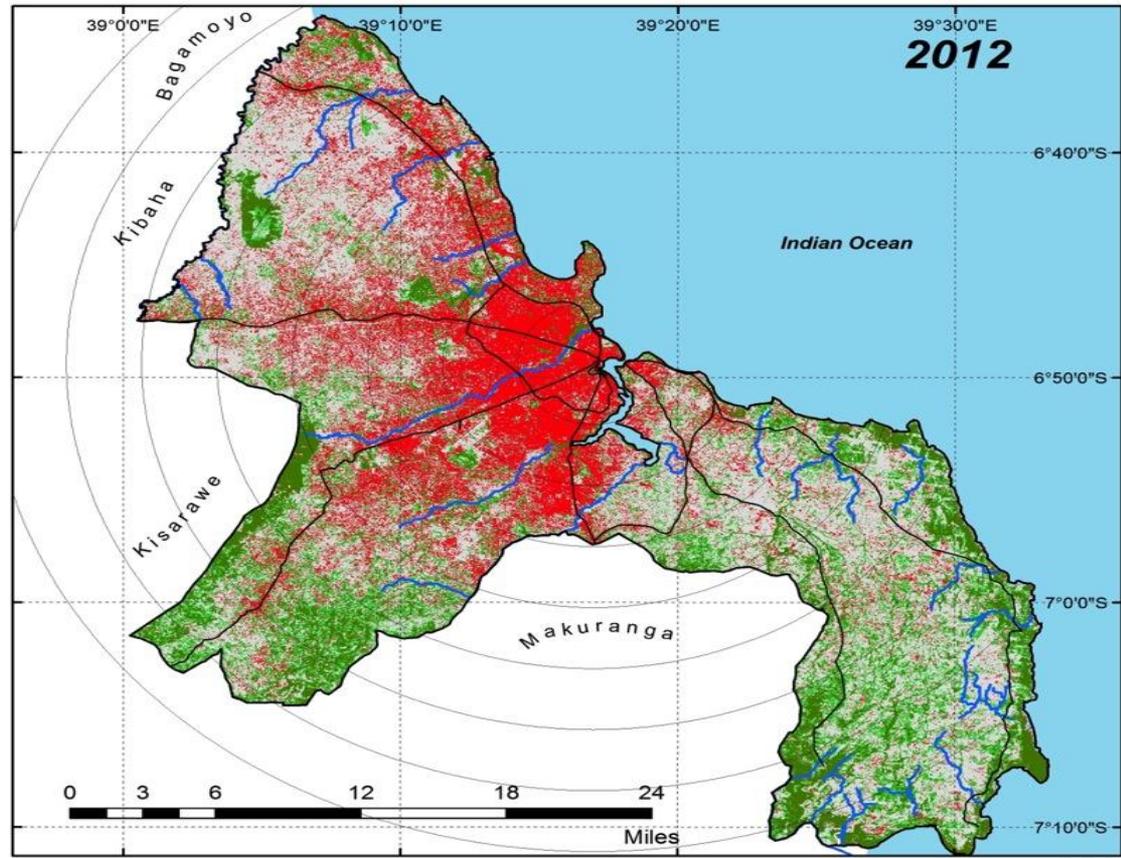
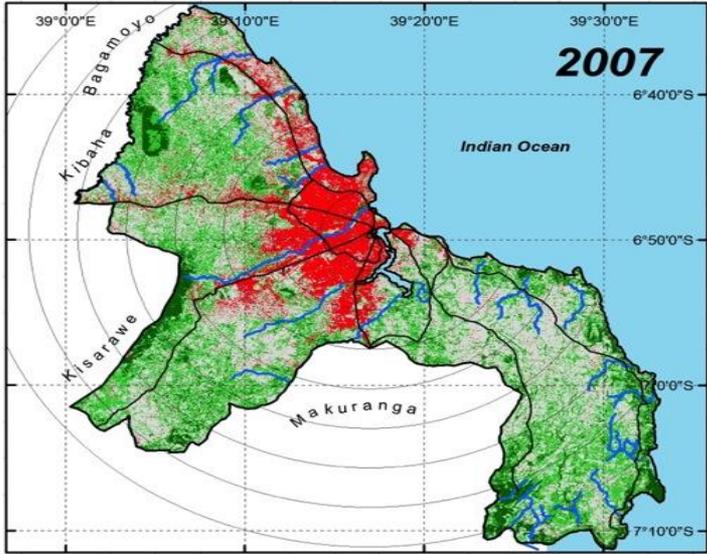
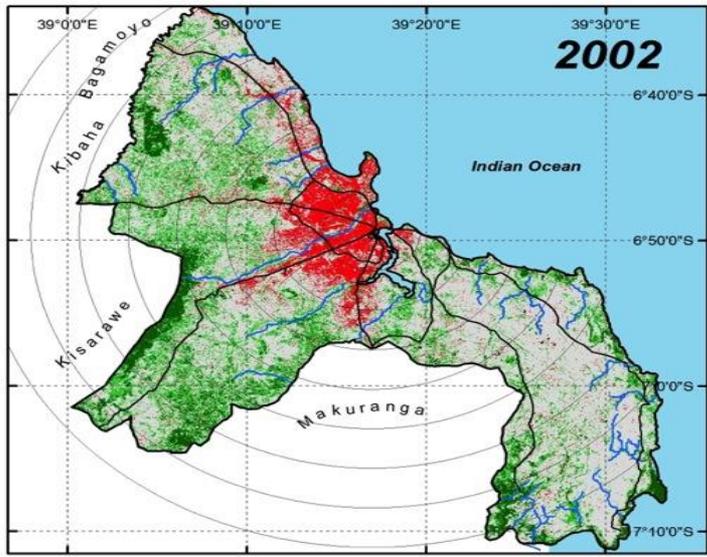
3. PROJECT INFORMATION | Rationale



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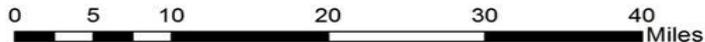


- Rapid, unplanned urbanisation in Dar es Salaam (6.63% per year)
- 2012 population of 4.36 million to exceed **10 million** by 2030
- Inadequate sanitation coverage / wastewater treatment



Legend

- Built Up Area
- Soil
- Vegetation
- Arterial Roads
- Radius of 5 Km Interval
- Dar es Salaam Boundary
- Water Bodies



Askari Monument is used as the central point for Radius Interval

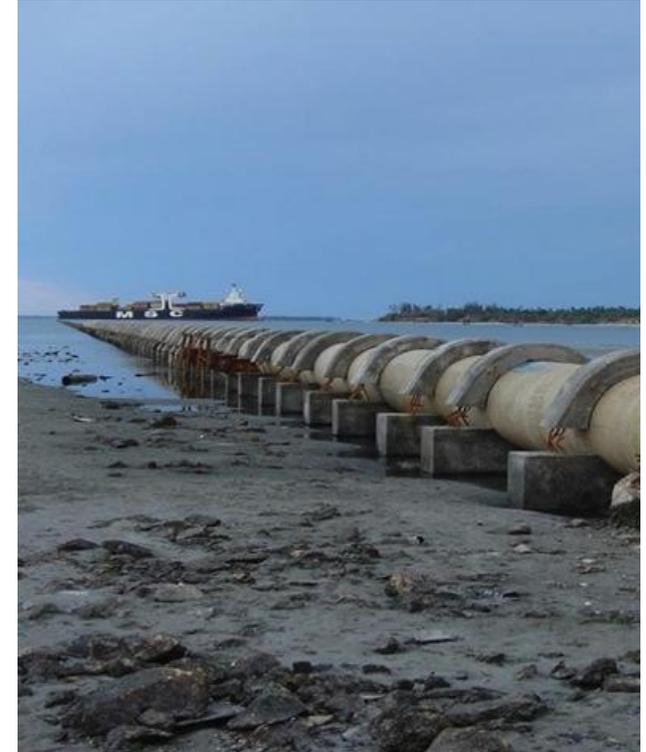
Source: Ardhi University Institute of Human Settlements Studies 2014

3. PROJECT INFORMATION | Rationale

Meanwhile...

>> Less than 10% of the city is connected to the public “centralised” sewer network

>> More than 50% of wastewater from these sewer networks is being discharged into the ocean
untreated



-
1. M&E of existing projects, to establish baseline data.
 2. Regular workshops at city level
 3. Develop technical standards and guidelines for the application, design, construction, and operation of decentralised wastewater treatment systems

4. PROJECT UPDATE | *Activities so far*



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- First “Kick-off” Workshop in July 2016
- Second Workshop in January 2017
- M&E activities conducted on 22 selected projects



- Development of DRAFT guidelines and standards

M&E of 22 decentralised Treatment systems



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- SoC 1: **The sanitation service maintains or improves environmental health**
- SoC 2: The sanitation service improves the living conditions of communities
- SoC 3: **Functioning Technology - systems are operating as intended**
- SoC 4: Functioning Maintenance - systems are maintained as intended
- SoC 5: **Sustaining Demand - system is available, used to capacity and acceptable**
- SoC 6: Effective management: Existing, active and accountable management entity and operator
- SoC 7: **Sustainable Financing: Sufficient ongoing income to cover all short and long term costs**
- SoC 8: Quality planning, design and construction

Guideline for Decentralised Wastewater Management

>> These technical guidelines will be disseminated throughout the sector, to support the further scaling up of such technologies in Tanzania.

ASANTE

