eThekwini Water & Sanitation Programme
City of Contrasts
Informal settlements within 5 km of world-class facilities
Rural communities within 20km radius from the city
Challenges

- Challenges facing EWS included:
  - Provision of services to communities that do not have access to basic water and sanitation services
  - Difficulty in accessing dense informal settlements
  - Maintaining existing infrastructure
Basic Water and Basic Sanitation should be delivered as a “package” and not supplied as two separate services.

- Cost efficient delivery
- Comprehensive health and hygiene education program
- Consideration of the level of water supply compatible with on-site sanitation (Urine Diversion Toilet)
Factors Influencing Choice

Financial

- Waterborne sewage is extremely costly due to topographical conditions
- Cost of emptying conventional VIPs through tankers - not sustainable
Factors Influencing Choice

Technical / Physical

- Each household receives 200 litres of water a day – dictates use of dry sanitation
- Safe on-site disposal of human waste
- No new pits required to be excavated when full
- No need to move top structure when full
Community Education
Emphasis on Education of Householder

HOW TO CHANGE VAULTS AND EMPTY YOUR UD TOILET

1. Move the toilet pedestal over the second vault.
2. Clean the pedestal and the area around it.
3. Make sure the pedestal fits tightly over the second vault.
4. Check that the pipes are connected correctly.

What do I do when the first vault is full?

A. Tools that are needed to empty the toilet vault.
B. Dig a hole one spade long, by one spade wide, by one spade deep.
C. Empty the contents of the vault into the hole dug in the ground.
D. Plant grass on the covered hole and tidy up around the toilet structure.

What do I do when the second vault is full?

A. Gloves
B. Spade
C. Bucket and clean cloth
D. Plastic or Perspex bag

ETHEKWINI MUNICIPALITY
Monitoring

- Concern is that, without an appreciation of why a urine diversion toilet has been chosen, how it works and its advantages / cost savings
  - It will not be used correctly
  - The maintenance / emptying obligation will not be accepted
  - The education programme MUST be successful
  - Monitoring – independent of the ISD consultant – is essential
Post Delivery Education

- Street Theatre at taxi ranks, clinics, etc.
- Roadshows
Lessons Learned - Technical

- Centralization of the programme has allowed for:
  - Cost savings
  - Focus on quality (sustainability)

- The implementation model must suite the needs of institution and be acceptable to community

- Ongoing independent monitoring allows for rapid response
  - Securing of back panels
  - Adequate cover for vent pipes
  - Pedestals design for children
Lessons Learned - Social

- Many households were emptying vaults
- Visit of President and Minister of Water Affairs greatly increased acceptance
- Communities near waterborne areas are now demanding higher sanitation service levels.
- Those in deeper rural areas more satisfied and operating well
New Business Models

- Sanitation as a business
- Shared Investments public-private community partnerships
- Support local entrepreneurship
Provision of Communal Ablution Blocks for Informal Settlements
eThekwini Water & Sanitation (EWS)
Starting Point

Rapid Urbanisation and Service Delivery Challenges

- Approximately 450 informal settlements housing one million people
- Limited access to water and sanitation services
- Service provision difficulties in dense informal settlements – lack of space
Institutional Setting

- Community demand for water and sanitation services (social protest)

- The IDP for the City sets out sanitation requirements for the poor

- Housing planning to accommodate all residents of informal settlements over the next 10 – 15 years

- But Housing development not keeping pace with rapid urban migration
**Project Strategy**

- To install new sewer and water links to informal settlements in eThekwini.
- The infrastructure will service temporary ablution blocks which comprise of toilet and shower facilities.
- Ablution containers are placed on a platform which is built as part of the project.
- One facility serves approximately 50 – 70 shacks in a 200m radius.
Design Advantages

- Easy to install
- Can be moved
- Modular structure
- Cannot be accessed by vehicles
- Vandalism minimised
Outputs

- 1 050 CABs installed
- 1 030 caretakers employed using EPWP grants
- Positive change to lives of over 500 000 people
- Maintenance support provided by EWS
- Toll free centres for complaints
- Consumables (toilet paper, detergents) provided
Community Education

Care of your Ablution Facility

This ablution facility has been installed in your area to improve the living conditions of your community.

Benefits include:
- Improved health and hygiene levels
- Provision of a safe place for sanitation
- Washing of clothes

The ablution facility is a temporary sanitation solution while the housing backlog is being addressed.

A caretaker has been appointed to clean and manage the toilet facility but he/she cannot do a good job without help from you!

Prevent blockages:
- Only use toilet paper provided by the caretaker.
- Avoid throwing away clothes, plastic or other objects in the toilet.
- Avoid using hot soaps or oil down sink drain.

Illegal connections will cause the water to come out slowly or not at all.
- Illegal connections will be removed to ensure reliable water supply.
- Report illegal connections to the caretaker or the toll free number: 080 13 13 013

DON'T LITTER
Throw refuse into plastic bags

SAVE WATER
by using it carefully (sparingly)

DON'T WASTE TOILET PAPER
Typical Ablution Facilities in Informal Settlements
Use of Caretakers

- Operation and management of CAB
- Ensure availability of consumables
  - detergents
  - toilet paper
- Encouragement of caretakers to establish other entrepreneurial activities
- In-house maintenance team (linked to call center)
Lessons Learned

- Caretakers essential for maintaining health and hygiene and maintenance
- Need to have maintenance team available for timeous response to repairs
- Monitoring and evaluation of projects allow for feedback loops and improvements
- Installation and fittings must be robust to reduce vandalism
- Partnering with other NGOs allow for improved social cohesion
- Community education improves correct operation of services
- Should the maintenance function be institutionalised or outsourced?
Transfer

In order to undertake a project of this nature, the following is required:

- The provision of services needs to be institutionalised with appropriate budget
- The Municipality needs to have robust institutional structures e.g. maintenance teams
- The Municipality must be able to manage tenders and contracts (i.e. technical expertise)
- The project needs political support
- Stakeholder liaison with community stakeholders is essential
Replication

- A solution to sanitation in dense informal settlements
THANK YOU