

Change and Innovation in Utility Management in Low and Middle Income Countries

Neil Macleod

Durban

South Africa

Creating an enabling environment

- Competent utility management in a business-like relationship with political policy makers is the foundation of sustainable water and sanitation services in developing countries
- A clear separation of the roles of the policy makers and the administration is also essential in order to deal with poor performance and the reality of corruption that pervades many institutions in our sector

Regulation and benchmarking

- Regulation can be a strong driver of change: the Blue and Green Drop systems in South Africa being good examples
- Benchmarking has not really taken root in our sector in low and middle income countries (despite many attempts to introduce the concept), possibly because the approach is often seen as a tool to expose and embarrass, rather than as a tool to share experiences and learn from each other in a positive and developmental way

A business-like attitude

- For any business to grow and prosper it has to innovate and change or else it will stagnate and fall behind its peers.
- We operate in a monopolistic environment and so the business continues, but without innovation it becomes less efficient and service levels do not improve and may even deteriorate
- Change and innovation make good business sense !

Suggested approaches

- Adopt an institutional culture of ‘learning by doing’ and tolerating mistakes, but learning from them so they are not repeated
- Innovate in ways that recognise the realities of low and middle income countries: poverty and unemployment and often low levels of professional and technical skills
- Innovate in ways that improve customer service
- Partner with local universities and international institutions funding research and innovation

Practical examples

- Communal toilet blocks and the lessons of Project Poo
- Providing sanitation is a much about communities accessing toilets as it is about creating jobs in communities, improving the environment in which people live, ensuring food security and dealing with gender issues



PROJECT POO

Percy Shangase

Expectations from a toilet

- Based on a survey of hundreds of informal settlement residents
 - A place of refuge and contemplation
 - A place to be private and read, sing, cry, etc
 - A clean place that does not smell
 - Safe to use
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- Means the toilet must be private, clean, odour free, well lit and safe to access and use

Communal toilets

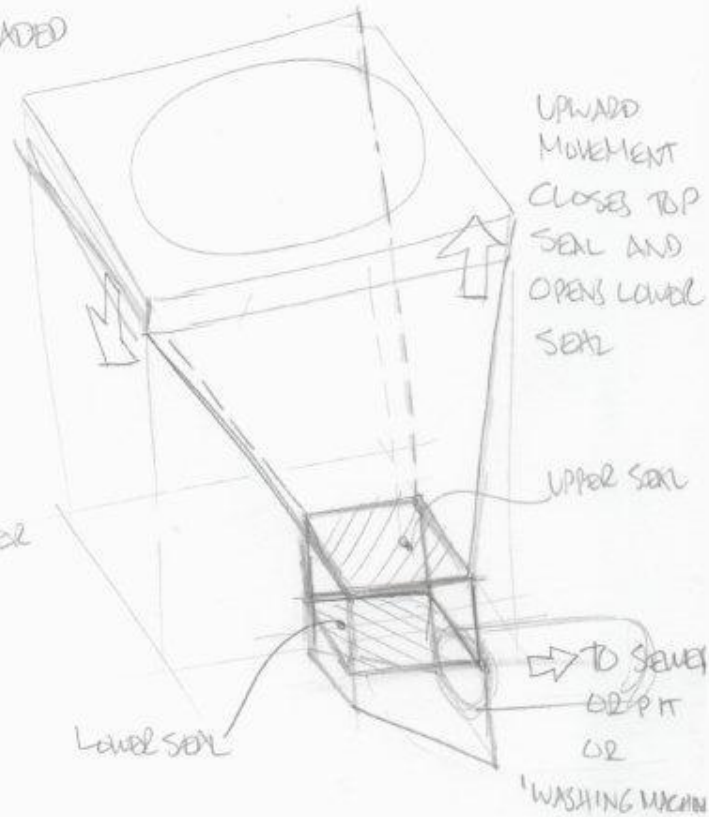




SPRING LOADED
SEAT

DOWNWARD
MOVEMENT
OPENS TOP
SEAL AND
CLOSES LOWER
SEAL

UPWARD
MOVEMENT
CLOSES TOP
SEAL AND
OPENS LOWER
SEAL



- SPACE BETWEEN SEALS IS VENTILATED
- SIDES CAN BE FLAT, NEAR VERTICAL SURFACES
- SIDES COATED WITH EXCRETA REPELLENT!

The new sanitation paradigm

- Through co-operation with others, we are working on solutions that will allow small decentralised water borne sewerage systems as well as solutions that do not require any water but have the utility of a flush toilet
- Technology now exists to recover nutrients and produce energy. It requires refinement.
- This will mean smaller sewers in future and reduced centralised treatment costs with the added benefit of reduced environmental pollution

VENTURE:

02800



**CAPE ADVANCED
ENGINEERING**

Bobcat















Flow limiter





Some final examples

- Use of mobile phones to interact with customers – either specifically by delivering and paying accounts or generally through social media sites
- Innovations in dealing with customers in debt to the utility
- The use of GIS and call centre software to improve response times and services to customers

Concluding remarks

- Dealing with expectations is the most difficult challenge
- Any solution must be socially acceptable, with a clear path to upgrade from basic services over time
- Infrastructure choices must take account of future technology changes to avoid wasted investments