



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



ROUND TABLE DISCUSSION

Ministerial Interactive Session FEEDBACK

Department of Water and Sanitation
10 November 2018

Marius Keet



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Theme 1 (Water and Waste Water Package Plants


ROUND TABLE DISCUSSION

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“Throughout history, it has been the inaction of those who should have acted, the indifference of those who should have known better, the silence of the voice of justice when it mattered most, that has made it possible for evil to triumph.”

**Haile Sellasie I (1892 - 1975)
Emperor of Ethiopia, 1930 - 1974**

Applications for package Plants

What are the criteria for the use of PP's?

- Timeframes (can have
 - Emergencies
 - Short term or
 - Long term

Considerations will be:

- Economics
- Time frames
- Volume
- Reduction in unemployment
- involvement of women and youth
- involve societies




Can raw water be treated to potable water

Cost of raw water and waste water is not cost effective however we need to do R&D to take water from raw to potable.

Who are responsible for approving Technologies and roles of:

- Government
- Water Boards,
- Municipalities




There need to be a mind shift in SA to convince consumers that any waste water can be treated to potable water

DWS must make sure that we have the necessarily norms and Standards

DWS should be the one approving new technology to be implemented


How do we enter the new technology space?
How do we take it to the market?



How do we develop and implement with the shortage of funding?

Paradigm shift, things are changing and we need to re use waster water

Conventional work can change in 5 years. As new technology develops it becomes more affordable to put up package plant.



One of the challenges: what about limiting of job creation when moving away from conventional treatment plants.

Advantages

Quick deployment

New technology can be deployed when available with new PP's



“I draw lines, I don't move trees!”





Conclusion

No problem can stand the assault of sustained thinking.



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MINISTERIAL INTERACTIVE SESSION WITH WATER AND SANITATION SECTOR

Presented by: THEME 2 Team Leader
Name Surname of Scriber: Zanele Bila Mupariwa
Venue: BIRCWOOD Conference Centre

Date: 10/10/2018

Outline



- Purpose
- Background
- The need of Recreation Facilities
- Where to from here
- Conclusion

PURPOSE

- To identify, challenges and possible actions or strategies in accelerating and addressing the bucket toilets

LESSONS LEARNT

- Sanitation is a business and a job creation enabler;
- The session provided a platform for stakeholders to create partnerships;
- Monitoring and impact assessment analysis

CHALLENGES

- Operation and Maintenance;
- Affordability of services;
- Buy-in and partnership
- Accessibility to market
- To reduce the amount of water we use to flush;
- Lack of awareness/education in the informal Settlement in terms of the use of toilets and Health and Hygiene
- Communities do not know how to regulate sanitation

Challenges (2)

- Unreliable data (information to develop new technology)
- Value for money I.T.O of technologies that are implemented;
- Pit latrines dry out quickly, frequency of emptying the pits;
- Data is not accurate (2.1 mil is not correct) needs to be verified

CHALLENGES (3)

- How to reduce water usage;
- Procurement process in terms of prioritisations;
- Rapid urbanisation;
- Stigma “not being able to flush”
- No clear roles and responsibilities among spheres of govnt;

KEY PROPOSAL AND PROPOSED SOLUTIONS

- There is a need to reduce & recycle and use grey water for flushing;
- Choice of technology should be adopted by the sector and community;
- Grants **MUST** come with conditions to champion technologies (i.e should include innovations)
- It **MUST** be declared that Sanitation should include Youth and Women

PROPOSED SOLUTIONS

- Perception is that flushing toilets are dignity and anything else is unacceptable – alternative solution to water borne is a Low flush systems;
- We should ring-fence a budget to try new innovation;
- We need a integrated national plan and implementation strategies to guide what is required;
- Guiding the cost of sanitation provision including norms and standards;

PROPOSED SOLUTIONS

- Change the mentality of the communities;
- Systematically address settlement planning, DWS **MUST** champion the integrated sanitation;
- Create jobs by through different technologies solutions;
- DWS must define itself and its role in eradicating the buckets AND EVEN BEYOND the programme;
- Technology demonstration sites appropriate for the environment

PROPOSED SOLUTIONS (Bucket eradication)

- Expert panel must be established;
- Waterborne toilets for all (change of mind set) and responding to climate change;
- DWS **MUST** make use of the research that is currently in place;
- Continuous engagements with innovators

POSSIBLE PARTNERS

- Research, development and innovation experts
- Private Public Partnerships
- Owners of innovation and technologies

HOW SA CAN BETTER ADDRESS NATIONAL POLICY IMPERATIVES (NWRS, W&SMP, Water Investment Framework

- Integrated approach to sanitation planning and provision through different partnerships.





Cuts across all sub goals

6.1 SAFE DRINKING WATER FOR ALL



6.2 SANITATION FOR ALL



6.3 BETTER WATER QUALITY



6.B MORE LOCAL PARTICIPATION



6 CLEAN WATER AND SANITATION



6.4 MORE EFFICIENT WATER USE



6.A INTERNATIONAL COOPERATION



6.6 HEALTHIER ECOSYSTEMS



6.5 INTEGRATED WATER MANAGEMENT



THUMA MINA!!!



We want to be there when all rural households have formal yard connections and running water everyday

*We want to be there when learners no longer fall into **OXIDATION PONDS***

We want to be there when we shift the focus from “treatment of waste disposal to “treatment for safe reuse”

THANK YOU





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Towards sustainable and innovative drinking and wastewater quality management

Theme 3: Contribution to green and blue drop

Rapporteur: Dr H Pienaar (CSIR)

Summary of main points from the session

- Lack of sufficient data provided to DWS for blue drop
- Insufficient monitoring
- Need to go back to basics
- Where is the gap coming from- is it a budget or planning issue?
- Challenges within the system that impact the resources- leaks, pipe burst, etc
- Municipalities struggling with funds which result in them not complying or attending to the enforcement letters
- Define when intervention and support is enough- is the intervention improving the situation.
- Need uptake of appropriate technology

Key actions emanating from your session

- Need to identify the key root cause of all the challenges
- Need to enforce revenue management – intervene and recover

Please outline the central challenges that came out of the session

- ✓ Lack of data or non-submission of data
- ✓ Inadequate investment in maintenance, rehabilitation and replacement of old infrastructure;
- ✓ Lack of operation and maintenance of infrastructure;
- ✓ Inadequate asset management;
- ✓ Lack of resources, i.e technical staff and budget;
- ✓ Use of appropriate technology
- ✓ Challenge in getting the non-complying transgressors to courts to ensure compliance;

What key proposals and solutions were mentioned

- ✓ Bring private sector on board to the monitoring process ;
- ✓ Need to build capacity especially in the municipalities – DWS is fairly capacitated;
- ✓ Need strong legislative enforcement from the side of DWS;
- ✓ Need to involve research institutions and universities and ensure the curriculum responds to the challenges;
- ✓ The involvement of the community can turn the problem into an opportunity – Hartebeespoort Case Study
- ✓ Teach school children how to take and monitor data- test water for good quality
- ✓ Operation and maintenance of infrastructure is important;
- ✓ Need to consider who loads the reports or the accounting officer on WSA level
- ✓ Implement the polluter pays principle
- ✓ Monitor what the mining industry is discharging into the system to lower the burden on the municipalities
- ✓ Need to depoliticise the appointment in the operation and maintenance of municipalities
- ✓ Update and enforcement of the bi laws;
- ✓ Clear definition of roles between WSA's and WSP's and also allocate adequate resources;
- ✓ Review of WSA status

Outline possible partners

- ✓ Private sector
- ✓ Communities through basic education- introduce the term citizen science
- ✓ Entities
- ✓ Universities and research institutions (issue of curricula – whether its contributes to Regulators needs)
- ✓ Learners
- ✓ WISA (Process Controllers)

New insight into how South Africa can better address national policy imperatives

- Promote water quality as a business
- Use SWPN (among other) as entrance point / platform

What did you learn that was new and highly innovative in this session

- ✓ Getting the basics right.
- ✓ Scalability of systemic issues.
- ✓ How we do we address emerging contaminants – there are technologies available that we have not yet explored.

Interventions to accelerate licensing

Short term	Medium-long term
The Department to identify internal resources and assign them to licensing	Implementation of the NWA
Departmental Institutions to provide support (e.g. Umgeni and CMAs) <ul style="list-style-type: none"> - Training of applicants - Technical support - Hosting of training 	The establishment of CMAs and WUAs
- External experts to provide technical support on a short term basis	Costing model for the establishment of institutions.
- Devolving functions to existing institutions	
- Online application and training	
- Use of water within General Authorisations (registration is required), whilst applying for a WULA.	
- Simplify the application form	
- Differentiation of the application fee	



WORK GROUP THEME 5

NON-REVENUE WATER STRATEGY, WATER LEAKS AND FINANCIAL & ASSET MANAGEMENT

Towards NDP Targets – 2030

- Reduce losses by 15 %
- Increase water use efficiency

Non –Revenue Water & No Drop

- Average water losses in SA – 37%
- R100 billion in losses
- Regulation 509 – WSA must repair any reported leaks within 48 hours
- World average of l/c/p/d 173 and SA is 280

Current Situation

- Value of water not appreciated in SA, misconception that water is cheap
- Ageing infrastructure yet most municipalities do not have infrastructure replacement programmes and how to fund such
- Most municipalities do not have internal capacity to detect state of their assets
- Rural municipalities are struggling to satisfy the AG requirements with respect to non-accountability of losses
- Non-payment of services particularly in rural areas
- Tendency to focus on the municipal leaks, yet a large amount of losses are in private homes
- Targeted solutions should be different from urban areas and rural water challenges
- No real-time data to do proper water balance

Current Situation

- **Groundwater is not fully explored, only used as a last resort**
- **Lack of capacity in municipalities to do proper construction supervision when infrastructure is being implemented**
- **Weak IGR and poor infrastructure planning**
- **Asset management is not a priority in municipalities**
- **WRC is the platform to share technologies but the uptake of these technologies is a gap**

Solutions Towards efficient infrastructure Management

- **Go back to the basics**
- **Re-look at how infrastructure is designed-ought to design for 100 years and there are economical pipeline technologies (Do we Go purely trenchless)**
- **Project specifications and project Designs to incorporate new technology requirements both for urban and rural areas differently**
- **Platform for private sector and government to define problems and to share technologies**
- **RDP houses should be provided with gadgets to detect leaks**
- **Smart technology and provide rebates for water savings**

Solutions Towards efficient infrastructure Management

- **Community Education that happened during the drought period in Cape Town is a lesson that should be replicated**
- **There are technologies available to identify visible leaks (smart citizen) reducing the location time spent to find leaks**
- **Need a solution for rural areas given that there is no proper billing due to illegal connections in the Amakhosi areas**
- **Re-look at localizing treatment system for small communities and avoid the long-pipelines trying to bring services to the sparsely populated rural villages**
- **Asset management should be central for sustainable infrastructure management**