

CLIMATE CHANGE AND WATER CONSERVATION AWARENESS CAMPAIGNS

Date: 4 – 5 June 2019

Venue: Burman Bush

INTRODUCTION

A Water awareness learning exchange was held at the Burman Bush Nature Reserve on the 4th - 5th June 2019. The learning exchange was hosted by MILE in collaboration with the Department of Environment, Forestry and Fisheries, GIZ, Department of Human Settlements, Department of Water and Sanitation, Free State Department of Economic, Small Business Development, Department of Tourism and Environmental Affairs (DESTEAT), Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), eThekweni Municipality Water and Sanitation and Umgeni Water.

PURPOSE

The purpose of this learning exchange was to exchange information, ideas and best practices amongst officials on climate change adaptation and water particularly around the impacts of climate change in the water sector. To provide a platform of practical sharing of best practices around water conservation as well as to emphasize the exigency of creating awareness around the conservation of water resources in the face of climate change.

SETTING THE CONTEXT

An official from the Department of Environment, Forestry and Fisheries, Ms Mikateko Sithole provided an overview/background to the session introducing the National Climate Change Response Policy which in its objectives is aimed at 1) South Africans making a fair contribution to the global effort to achieve the stabilisation of greenhouse gas concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference with the climate system; and 2) effectively adapt to

and manage unavoidable and potential damaging climate change impacts through interventions that build and sustain South Africa's social, economic and environmental resilience.

The policy exercises a variety of approaches that need to be used in ensuring that the two main objectives are realized. Some of these approaches refer to the importance of considering the developmental context of the country as well as engaging its people in a participatory manner for it to be research-driven, have a core basis and be able to influence decision making. The policy guides provinces to develop climate change response strategies that are specific to provincial context and conditions as they differ. It also guides municipalities in their service delivery mandate to work towards mainstreaming climate change responses in their planning.

A set of reports called the Long Term Adaptation Scenarios (LTAS) was commissioned by DEFF to focus on the impacts of climate change on critical sectors like water and health. Following on these reports, DEFF in collaboration with the provinces, developed and reviewed climate change strategies for the provinces. Key sectors that came out of these reports to be the most vulnerable were the water sector, health, agriculture and forestry, marine and fisheries, biodiversity, food security and human settlements. Observing trends from 1996 to 2010, reveals that there is an intensification on temperature over the years yet rainfall has decreased. There's also a high level of uncertainty on rain forecasting, rain falls over short periods of time hence there is not enough water being stored in our water systems thus leading to damages to infrastructure. The assessment findings pose critical threats to the Water Sector revealing that there will be an increased competition for water, changes in water availability and quality supplied, disturbance of the water-food-energy system and reduced groundwater recharge. Some provinces now have their own provincial vulnerability response interventions and respective adaptation strategies that have specific utterances that relate to that specific province. We need to do away with "business as usual" and really start being robust at enforcing climate change adaptation strategies.

Eastern Cape and Free State provinces decided to focus their initial interventions on the development of awareness-raising materials around climate change and its impact on water. Officials were presented with the opportunity to discuss water awareness messages and how to communicate these messages with different audiences.

At the core of this learning exchange was the sharing of ideas and best practices within the municipalities present. The need for collaborations was cited as a critical enabler of this learning process.

Objectives

1. To create the opportunity for the FS and EC provincial officials to learn more about effectively designing and implementing water saving awareness campaigns and projects.
2. To create the opportunity for FS, EC, and eThekweni officials to learn more about the potential climate change risks that will impact water security and start to think about ways to prepare for these risks.
3. To create partnerships and networks between the different organisations for continued learning post-exchange.

PRESENTATIONS

ETHEKWINI WATER AND SANITATION: WATER CONSERVATION AWARENESS CAMPAIGNS

Nomusa Buthelezi (NB) an Education officer at eThekweni Water and Sanitation (EWS) presented on the various water conservation and sanitation programmes implemented by EWS. EWS focuses on a participatory approach and their target audience includes schools, communities, industries, clinics, police stations and taxi ranks. Their aims are at educating schools and communities about water and waste water management and promoting good hygiene practices. They help schools and communities understand different water and sanitation services offered by the municipality as well as address a number of challenges such as water scarcity in the country, climate change and drought.

Their communication strategy is through the use of radio slots, billboards, posters and street theatre using drama as a method of education that uses creativity and humour to accommodate those with limited concentration and literacy levels to inform and educate residents about water shortages, water conservation and climate change. EThekweni Water and Sanitation uses a toll free number, a WhatsApp reporting line, SMS function, email and Facebook for ease of communication with the public.

One of the challenges cited was that it has been difficult to change mind-sets of some people around the payment for water services as many believe that “water comes from God so it should be free” without understanding the costs to water supply. There is a high level of water loss as water leaks and illegal connections are not reported timeously. However, the successes of their campaigns is seen through the reduction of water bills and household consumption as residents become more aware of water saving tips.

ETHEKWINI WATER AND SANITATION: WATER LEAKS AWARENESS CAMPAIGNS

The water leaks program aims to create awareness on the impacts of Non-Revenue Water, educate about the importance of reporting leaks and illegal connections and to determine water losses in terms of volume and costs. Their target audience is primarily schools with high bills and high consumption, communities and industries who are the bulk consumers of water. They have introduced Water Detectives in schools to detect and monitor consumption patterns. These detectives are the learners themselves. They introduce them at assembly and also develop posters for awareness around leaks and wasting water. At a community level, EWS employs a group of Customer Service agents who operate as field workers that check for leaks and go door to door (war on leaks programme) in targeted areas. They have been successful in registering unmetered connections and repairing leaks. Some of the challenges experienced include the non-reporting of leaks in township areas, tampering with infrastructure and illegal connections.

UMNGENI WATER

Umngeni Water presented their Water and Environmental Education Program which aims to promote positive attitudes to water-related environmental issues as well as integrating water projects to the school curriculum. They work very closely with schools from Foundation phase to Grade 12 because water education fits in many different subjects not only natural sciences. They also accommodate tertiary institutions and community groups. They run educator workshops and target their awareness campaigns by observing environmental awareness days such as Water Week, Wetlands Day etc. They also have an on-going Adopt-A-School programme where they provide educators with posters and other education materials and together with EWS work on school water audit projects, learner competitions and clean up campaigns.

The challenges highlighted is that some schools are not proactive, they generally lack interest on implementing water education programs. Some educators are not organized, education materials are not adequately distributed. At a community level, political dynamics exist especially in areas governed by traditional authority. They have however observed a change in attitudes towards water and environmental issues amongst learners and communities and there is a demand for the materials, especially from educators.

Discussion

Derek Morgan from Urban Earth facilitated a discussion based on the presentations. Some of the key issues that arose included:

- The importance of developing multi-stakeholder task teams that include different organisations and institutions at a municipal and provincial level. It was noted that KZN already has an effective task team in place.
- It is important that water conservation awareness is linked with water demand, water levels and climate change so that the public understand the importance of conserving water for the future and cost implications therein.
- Illegal water connections are a universal problem, they are found in informal settlements, urban, township and rural areas.
- Water leak reporting avenues must be backed up by technical capacity so that leaks that are reported are responded to quickly.
- Although it is important that reductions are made in emissions, we are already experiencing the effects of climate change and South Africa needs to adapt urgently.
- The impacts of the water conservation awareness programmes at schools must be monitored until consumption is reduced.
- It is crucial that municipal staff involved in water education and social development meet regularly with technical departments.
- Catchment management forums serve as important platforms to connect with agricultural organisations.
- No specific awareness campaigns have been developed for farmers in Eastern Cape or Free State.
- In the EC, there has been a proposal to develop environmental structures at a ward based level.

The context of the Free State Province

Derek Morgan presented the Free State Water context citing the irrigation sector as the biggest water user in the province. A Provincial Joint Tactical committee (PJTC) was established to ensure water services are prioritized in the province. A large majority of the population receive their water through piped systems, and therefore there is a need to focus on the municipal system. Through initial consultation with the Free State, messaging ideas have been around the conservation of water, water infrastructure and the reporting and fixing of leaks, climate change impacts in the water sector, water as a generational issue water as life meaning no water, no life. The initial target audience identified for the Free State included Municipal Officials, Agricultural users, and the Youth. The language used to communicate these messages is Sesotho, English, Afrikaans and isiXhosa. Their strategy is through digital platforms to allow for easy transmission and sharing via social media. Their materials include posters on fixing water leaks and email signatures for email users particularly municipal officials.

Ntombenhle Hlengwa from the Free State Department of Human Settlements, Water and Sanitation presented on some of their awareness campaigns in the province. The department runs various campaigns with other partners, including water week, the clean river campaign and general water conservation activations at public spaces like taxi ranks. They focus on an integrated approach bringing together government, business and private sector. They hand out pamphlets, branded water, jo-jo tanks sponsored by Coca-Cola and other educational materials to “spread the gospel” of water conservation. FS DESTEA highlighted that they would consider including schools as part of their target audience.

The context of the Eastern Cape Province

Lyndon Mardon from Eastern Cape DEDEAT presented on the context of water and the Eastern Cape Province. The Eastern Cape is a large diverse province and water availability differs from area to area. He highlighted that 7 of the 8 mines are located in the Eastern Cape. The province still has available water to allocate, however, it is experiencing the worst drought in a long time, even worse than the Western Cape. The province is particularly vulnerable to the impacts of climate change. There are still significant backlogs in service delivery in the province, especially in former homeland areas. The rural population is significant with high numbers of youth and granny headed households. Very little money has been spent on maintenance of water infrastructure. Water sources in this province are piped water, rain water and water flowing through streams. The province has experienced high water losses in recent years and has had farmers extracting water from national water resources.

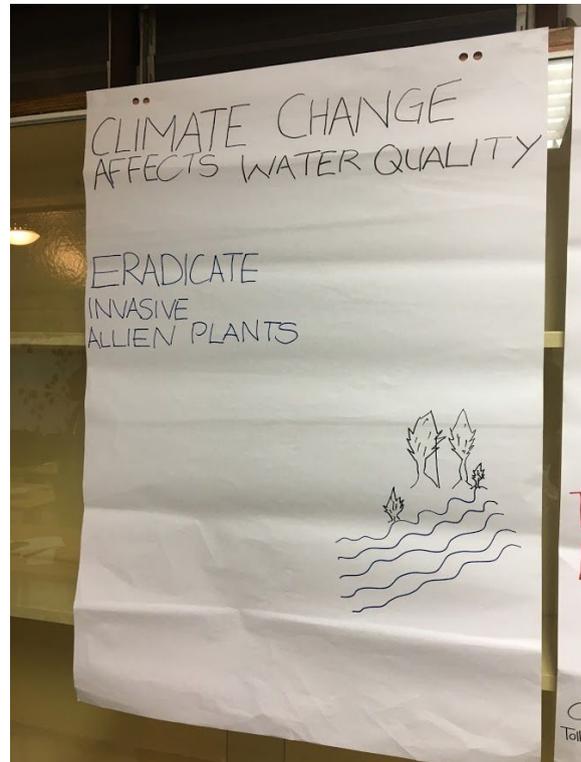
Their messaging ideas are around creating awareness that water is a valuable resource and how to reduce water consumption. The critical message they want to communicate is the impact of climate change on water availability. They envisage their materials to be simple and easy to understand focusing mainly on schools and agricultural users. Their communication strategy will be through school posters and farming posters with different messages respectively.

Lusanda Mbola from the Eastern Cape Department of Human Settlements, Water and Sanitation presented on some of their water awareness campaigns in the province. These include national water week with the theme for 2019 being “Leaving No One Behind – Water For All”, school curriculum integration, promotion of careers in water and sanitation, adopt-a-river programme,

water audits and the clear rivers campaign. These programmes aim to remind people that water doesn't come from a tap and that climate change is the new normal.

POSTER DEVELOPMENT SESSION

There was a group breakaway session where groups had to develop design elements for posters. These materials had to have clear and direct messages to targeted audiences. For example, messages for farm owners will have a different approach to farm workers. Each poster had to have a main message, sub-message and a relevant icon or image giving the poster more visual meaning.



Two examples of posters developed by some of the groups. The rest of the draft posters and photos can be found [here](#).

The ability or rather capacity of municipalities to respond to these messages was cited as a challenge. There are not enough adequately skilled plumbers to fix water tap leaks or burst pipes. Municipalities need to enforce the cost risk-benefit ratio in understanding the costing of water and what it means for municipal revenue. Hiring and capacitating plumbers' costs less to the money lost on unbilled water through illegal connections, burst pipes and leaks.

WAY FORWARD

Once the groups had presented on their draft posters, there were some critical discussions that will assist in formulating a plan of action going forward. Urban Earth will finalise the materials and distribute them to the provinces. Once the materials are finalised and printed, the provinces will need to think about how they will distribute the materials. The discussions included:

- The need to educate people on what to do before they call for a plumber. Train households on how to fix minor leaks.

- DEFF hosting a multi-province type of launch like the Green Good Deeds Programme.
- Incorporating the materials into existing themed days and water related weeks. Developing social media versions of the materials and contacting the marketing sections of municipalities to distribute via social media and websites.
- The materials should be adaptable so that relevant provincial and municipal logos can be included.
- The materials will be sent to the provinces to distribute internally and externally.
- Urban Earth will develop some specific materials for EC and FS and KZN as well.
- DEFF to probe the possible launch.

DAY 2 – SITE VISIT

The second day of the learning exchange, officials conducted a site visit to Mjoji Primary School in Osindisweni near Verulam, a school that EWS and Umgeni Water have worked with closely on water awareness. The school is situated in a rural area and accommodates 567 learners from Grade R-7. A number of different stakeholders have sponsored the school with rain water tanks and other environmental related donations. The school promotes water conservation amongst the learners and EWS and Umgeni Water have been instrumental in educating and creating awareness around water conservation and leaks in the school. The teachers and headmaster show a keen interest on environmental and water education judging from a number of posters displayed on every corner of the school on water saving tips, littering and gardening tips. The school has won a number of awards and presented on different water and environment issues through song, poems and drama.

To conclude the learning exchange, some valuable recommendations were made on the way forward on the development of Adaptation materials for other provinces:

- The school has on-going recycling activities and can properly manage their waste. They have brilliant water reuse strategies and the school is litter free.
- It is crucial that the school principal is involved. It was clear that the Principal of Mjoji Primary was passionate about water and environmental issues.
- The learner presentations showed a good understanding and awareness about the value of water and their environment.
- An effective awareness and education campaign at schools requires the participation of different role players and sponsors. A collaborative approach is required!
- It was noted that none of the rainwater tanks had stop cocks and therefore the maintenance of jo-jo tanks is a concern. This intervention would assist in saving water and reduce risk going forward.
- Their materials, general awareness and messages on climate change were well articulated
- Combining creativity and education is a great methodology in enticing school children – they have fun reciting songs and acting out plays through their learning process.
- Train the trainer school program can be adopted where the best performing schools can be models as best practices for other schools to replicate.
- Collaboration is key between schools, local municipalities and water departments.
- It was highlighted that a stakeholder forum is hosted in eThekweni Municipality where different stakeholders from different areas meet on water related issues and share resources. Through this forum a number of schools are reached and schools assist each other.

- It was highlighted that the EC has existing forums on climate change and environment. DEFF has appointed environmental ambassadors at the ward level particularly the youth, to push environmental agenda. These forums could be approached.
- It will be useful if DEFF develop a specific programme on water awareness and schools with clear objectives. EC and DEFF to meet and discuss a proposal provincial wide.
- Academic institutions are important stakeholders that should be included going forward e.g. Rhodes University was identified as an environmental hub – a partnership could be forged for education initiatives.
- The Schools Environmental Education Programme (SEEP) in KZN is similar to the WESSA eco-schools programme but does not require payment. The Mpumalanga Province also run a climate change programme in schools by their Environmental Empowerment branch. Both of these could serve as good examples to emulate.
- Capacitate existing environmental education centers and enforce program such enviro-quiz, eco-schools etc.
- Important partnerships to consider going forward include universities, ward ambassadors and municipal and provincial departments.
- The development of materials should talk specifically to the context of each province.
- Schools are crucial for the dissemination of water conservation awareness. If you educate and obtain buy-in from the children, inherently you also educate their parents.
- Assistance on developing a stakeholder forum would be helpful for municipalities.

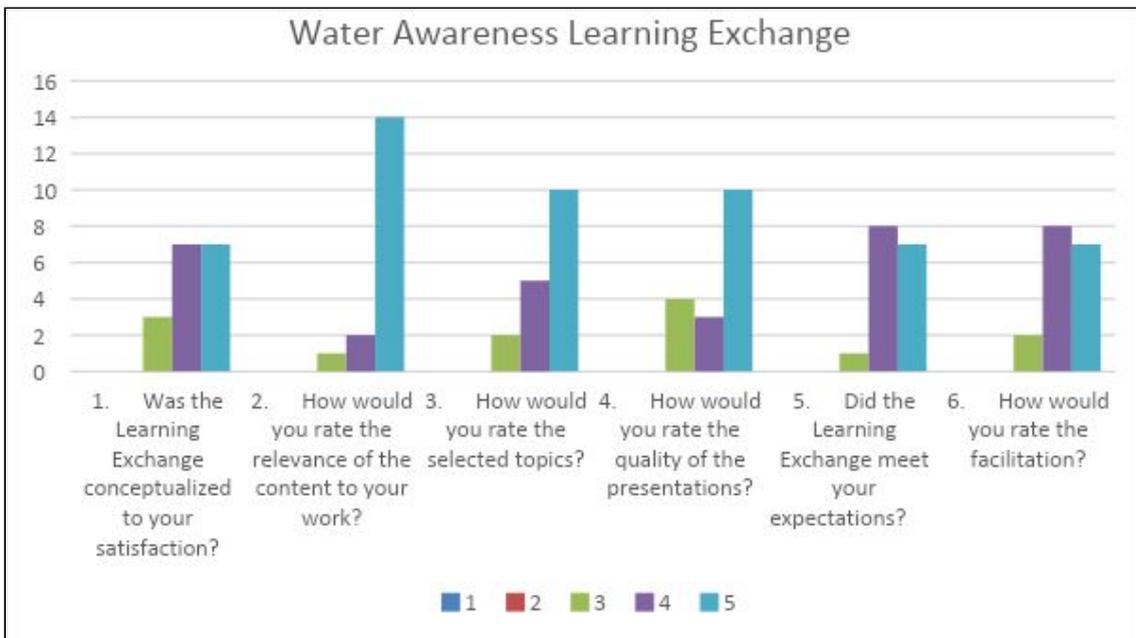
MILE FEEDBACK AND EVALUATION

WATER AWARENESS LEARNING EXCHANGE

DATE: 4 – 5 June 2019

VENUE: Burman Bush Nature Reserve, Durban

1 - Poor; 2 – Satisfactory; 3 – Neutral; 4 – Good ; 5 – Excellent



Please provide us two suggestions on how eThekweni and MILE can improve knowledge sharing on this subject?

- Distribution of an annual calendar to all prospective participants
- We can include more outdoor activities
- Ensuring municipalities attend such sessions
- Involving subject matter specialist to unbundle the key learning areas and messages
- Marketing
- Involving regional environmental officers more
- Conduct best practice workshop
- Case studies and site visits
- Farming and also official empowerment
- Invite more stakeholders
- Development of a standard program to ensure themes age is the same

Which other topics should the city consider for future learning exchanges?

- Groundwater management
- Acid Mine Drainage
- The use of social media in campaigns

- Renewable energy/energy saving
- Air quality and climate change
- Weather patterns
- Disaster risk reduction vs climate change adaptation.
- Forth industrial revolution how can it assist with climate change
- More on climate change
- Infrastructure asset management
- Desalination
- The translation of highly technical environmental concepts e.g. climate change, its effects, its relevance to society into local language without diluting the message

What was your biggest highlight during the learning exchange?

- The tour to one of the rural schools of eThekweni Metro and to be taught by kids on various issues affecting our environment
- The visit to Mjoji Primary School. It was lovely to see learners making water conservation awareness fun and creative.
- Environmental education in rural areas.
- Best practices from eThekweni municipality on environmental education and different projects at the schools. The site visit was very informative.
- Introduction by DEFF and eThekweni municipality education team.
- School water bottle irrigation
- Communication strategies on day 1
- School visit
- Sharing experiences and information
- An excellent networking platform
- Learning programs to schools – they leave no stone unturned
- School visit
- Networking with other provinces
- Farming ideas and networking with other municipalities
- Partnerships
- School visit
- Site visit