



**water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

**SPEAKING NOTES FOR DEPUTY MINISTER OF WATER  
AND SANITATION**

**HON. D M MAHLOBO, M.P.**

**ON OCCASION OF THE WATER RESEARCH COMMISSION  
4<sup>th</sup> BIENNIAL SYMPOSIUM**

**SANDTON CONVENTION CENTRE**

**12 SEPTEMBER 2019**

***“INNOVATION IN EVERY DROP”: MANAGING  
UNCERTAINTY AND BUILDING CAPABILITY THROUGH  
COLLABORATION***

Program Director,

Water Research Commission Board

CEO Water Research Commission, Mr Dhesigen Naidoo, and the Executives of the Water Research Commission

Chair of the Symposium Organising Committee, Dr Mandla Msibi

Acting DG of the DWS and DWS officials

CEO's of water entities

Members of the International Community

Civil Society partners

Researchers, Innovators and Demonstrators

The Youth

Members of the Media

Distinguished Guests

Ladies and Gentlemen

Good Afternoon

- I wish to start by congratulating the Water Research Commission for hosting the 4<sup>th</sup> Biennial Symposium, and I would also like to express that I am humbled by the request to be part of this occasion. It is also an honour to present the winners in the Hackathon prize giving.
- We are meeting during a dark period in our country's history. With two types of incidences that do not inspire confidence in our people.
- The attack on the country's women and girl-children is an attack on our very own moral fibre. It cannot be correct that a precious section of our society must have a sense of foreboding and insecurity in the land of their birth.

- In the same vein, it is imperative for all of us to jointly enjoy the freedom that we attained, for the good of everyone. This refers to the improper attacks on those perceived to be foreign nationals who could be in the country for nefarious reasons.
- Yes, those who are undocumented or here illegally must be attended to by the law enforcement agencies according to the Constitution and laws of the country.
- None of us has the right to take the law into our own hands; notwithstanding how aggrieved we might feel.
- I am encouraged, and would like all of us to be encouraged by the stance of government against this scourge.
- The highest office in the land and the Justice, Crime Prevention and Security Cluster of Ministers has pronounced on the government's stance and that is our line of march.
- We know, Chairperson and Executive, that even among your own constituency of scientists and academia, you interact actively with your counterparts from the continent and abroad, enriching one another. Therefore we and you can never be separated from the community of nations.

Coming back to the issues at hand:

- We are astute to the challenges that remain. Making sure that water is available at the right quantity, in the right quality, at the right place and at the right time remains essential to our health and economic growth. As populations grow so will the demand for water, not only for our people but also for our agriculture and our industries. Existing infrastructure needs to be maintained, expanded, and diversified. At the same time, climate change is impacting on our available resources as we have already seen in South Africa with recent, severe droughts affecting several parts of the country. In this environment new and innovative solutions are required.
- Research, development and innovation have a significant role to play in improving the management of our water resources.
- The Water Research Commission (WRC) Symposium has become a key event on the South African water calendar. This Fourth WRC Symposium was

held under the theme 'Innovation in every drop – Managing uncertainty and building capability through collaboration' and has successfully served a strategic knowledge, information and solution sharing platform for various institutions operating at different stages of the water innovation chain.

- This event has served as an acknowledgement of the collaboration and cooperation that is required between all actors in the water value chain towards collective impact. South Africa is privileged to have a highly productive, albeit small, water science community. In fact, South Africa is a top 20 producer of new knowledge in the water domain globally. We are inspired by the fact that the country has produced several new solutions, inventions and technologies that have the potential to not only solve South Africa's problems but may also have further applicability globally.
- South Africa has also become a key player in the global sanitation research and innovation network that seeks to assist governments globally to meet the Sustainable Development Goal of ensuring universal access to improved sanitation within the next ten years.
- The WRC is key in leading the department, government and the country on the path towards the Fourth Industrial Revolution (4thIR).
- On the 16<sup>th</sup> of July, during the budget and policy statement in the National Assembly, I mentioned that the Fourth Industrial Revolution (4thIR) is already part of the water business and that our planning already uses complex hydrological models, with the ability to predict whether our systems will have enough water as far as six years into the future.
- The Department has already used satellite images to plot agricultural water use, for licencing purposes. We can do much more with this technology to monitor and manage water quality in our rivers, wetlands and dams.
- Research and Innovation can play a significant role in building industries, resilience, adaptation and resource sensitivity at local level through the testing of transformative concepts like Water-Energy-Food Nexus, Water and Resource Sensitive Design, the circular economy, and next generation sanitation.
- With the inclusion of water and sanitation in the industrial action plan, the government has now signalled new opportunities for investment in areas such

as sanitation where bold partnerships amongst the Water Research Commission, the Department of Science and Technology and the Bill and Melinda Gates Foundation is leading the way in trying to prevent tragedies like we have seen recently in schools where young children have died.

- On the very same day, the Minister of Human Settlements, Water and Sanitation committed that the Department would embark on an intensive campaign to digitise all its stock holdings, data and documentation. For Water and Sanitation this means all dams, reticulation networks, treatment and recycling plants and water licences.
- This commitment also means that the Department will be ready with their database to join the designs of the Fourth Industrial Revolution and the use of Blockchain technology. Digitised data and its manipulation are base loads for the development of that revolution.
- The WRC, with its partners, including the Bill & Melinda Gates Foundation and the Sustainable Sanitation Alliance, among others, are pursuing new opportunities in the sanitation revolution, which will catalyse South Africa's progress towards sustainable sanitation solutions.
- It is encouraging to witness the new era that is being ushered in by communities that no longer are passive recipients of scientific research, but active participants in the research process. This is evidenced in the inspiring projects initiated by the communities of Vhembe and Sekhukhune, in the Limpopo Province, supported by the WRC and its partners in implementing the Multiple Use Services project aimed at providing households with water for basic services as well as for various productive uses.
- It is encouraging to note the great partnership and participation from the international community in technical programme, the marketplace and exhibition as well as in the dedication third Day Africa Summit programme. It is my hope that the deliberations conducted over the symposium period will contribute significantly to building a more sustainable water future.
- In conclusion, I wish to once again thank the Water Research Commission for identifying and bringing together brilliant minds under one roof in a bid to offer water and sanitation solutions through technology. Congratulations to all the

participants and just by showcasing your work on this platform, you are all winners!

- I leave you with these words from Mr Bill Gates; “I believe in innovation and that the way you get innovation is you fund research and you learn the basic facts” close quote.

I thank you.