

Despite an overwhelmingly chilly day in Johannesburg, the South African youth came out in numbers to the former Women's Jail, Constitution Hill, to celebrate a youth month activity on Tuesday, 27 June, in honour of the 1976 youth. While the youth of '76 fought for the country's liberation from the tight and unfriendly youth policies, nowadays our youth face a unique challenge of unemployment, poverty and inequality, accompanied with economic decline, with water scarcity being at the centre of it all.

Amongst the series of dialogues hosted by the Water Research Commission (WRC), water conversations by youth have become inevitable. This year's youth dialogue was held in collaboration with a strategic partner, ICRD Group Foundation, with a side session – a Water Mini-Hackathon under the theme 'Re-imagining the future of Water'. ICRD Group Foundation is an organisation that assists social innovators and aspiring entrepreneurs to develop and mature their life-changing ideas.

The dialogue and Water Mini-Hackathon was premised on the fact that collective action plays a vital role in building a sustainable and water-secure future for all. By collaborating to mitigate risks and seize opportunities, as well as preserve and maintain this valuable shared resource, we can create a water-secure future for South Africa. These collective actions focus on what can be achieved in partnerships between civil society and the public and private sectors.

Water directly affects South Africa's socioeconomic development, but is becoming an increasingly scarce resource. Based on current usage trends, South Africa is expected to face a water deficit of 17% by 2030, and this shortage will only be worsened by climate change. Because water is a shared resource, we are all at risk; therefore, it is critical to understand our impact on water and incorporate water management into our daily lives. A massive drive is required to improve performance in public sector water institutions and local government.

Companies reliant on water for their operations, those that supply water and sanitation-related products, and also entrepreneurs, are acknowledging that Government requires their

urgent support in the form of partnerships and innovation.



Keynote speaker: Warren Hero, Microsoft

Key messages to our youth

Setting the scene, WRC CEO, Dhesigen Naidoo, gave an interesting perspective on water security and explained what it means for South African youth today. In his talk, he emphasised how the Southern African region has just experienced the worst dry period in 50 years. While elaborating on this issue he said, "Climate change scenarios have taught us that we have to examine the way we use water currently. We have to rethink the ways we use water. Currently we are using 235 litres of water per day per person, which can be reduced."

Furthermore, Naidoo encouraged the youth to be more innovative in their endeavours. "We need a technology toolbox," he said. "We should be smarter in the way we use water; we need to rapidly expand the water availability that we currently have. For example, wastewater can be utilised as our freshwater resource. Harvesting of water from the rain such that we don't lose the very little water we get. We need to learn how we can reuse the resources we have, get a water-sensitive design view and expand the water footprint and put well-treated water back into the river system."



Keynote speaker, Microsoft's Chief Technology Officer Warren Hero, spoke at length about the importance of data in the 21st century: "As youth in the 4th industry revolution you have to think of data as a key development tool."

Among the many speakers, Xera Vegter, a Grade 8 learner and science fair winner shared findings from her study that focused on a very unique scientific subject: 'Microbeads and their impact on the environment in South Africa'. (See Xera's story on page 17.)

Pontsho Moletsane, an entrepreneur from Yellow Beast Technologies, shared information on opportunities for young entrepreneurs in the water space. Pontsho highlighted how he managed to progress as a young entrepreneur, starting with entering school competitions, and how he has been winning other challenges that have shaped his career to where it is today.

Lucky Litelu of the IRCD Foundation said, "The future of water in South Africa requires a fresh new thinking from the youth – the water pricing we currently encounter presents opportunities for youth to be entrepreneurial in their approach, for example, faecal sludge presents opportunities to be food secure as a country." "A lot of new water ideas will help drive South Africa's economic growth that is urgently required. The future of water belongs to all those that nurture their dreams. About 60% of water is utilised in agriculture; a lot can be done by our youth in developing sustainable agriculture solutions."

WRC Research Manager Eunice Ubomba-Jaswa explained how pollutants degrade our water quality and how youth can develop their careers around water as it is a scarce resource. Eunice's presentation captured the attention of the audience when she shared her interesting personal career growth path. While studying towards her doctorate, she developed a solar disinfection reactor that is now used to purify water in many parts of the world, such as Uganda, Cambodia, Kenya and India.

Eunice Ubomba-Jaswa, WRC Research Manager

Hosting a 'water hackathon'?

With South Africa having faced the worst drought recently, and the Western Cape Province still grappling with water supply, there is a need for new ideas from great thinkers who are ready to new water solutions. A water hackathon is one such innovative way that contributes to new ideas leading to saving more water. As part of this exciting WRC Youth workshop, a water hackathon was hosted as a side session.

Digital activist and hackathon mastermind, Tiyani Nghonyama defined a hackathon as a way of gathering like-minded people, ranging from programmers, scientists, and designers, to entrepreneurs, community leaders, cultural creatives, and thought and practice leaders, to solve social or business-related problems using technology. The participants in the hackathon work throughout the defined period towards reaching a specific goal. "Due to water being at the centre of all human operations, there is a need to bring innovators aboard and bring forward-thinking ideas and solutions in addressing the future of water," said Tiyani.

Drumming session keeping youth entertained



An interactive drumming session organized as part of the hackathon experience which broke the formal part of the programme and got the participants to break into song and dance

The spoken word

The Freestyle poet and entertainer, Bongani Mathebula, captured the attention of delegates in his poetic water and sanitation narration. The audience was asked to throw in water-related concepts to form part of his informative edutainment story.

Music workshop with RJ Benjamin



RJ Benjamin and crew member

Who would have thought that water and sanitation discussions could lead to the composition of a song? RJ Benjamin, the famous Idols SA music coach, developed a song from the words randomly thrown to him from the audience. Not just entertaining, the activity taught the youth to be creative and spontaneous at the same time, especially in responding to water challenges.