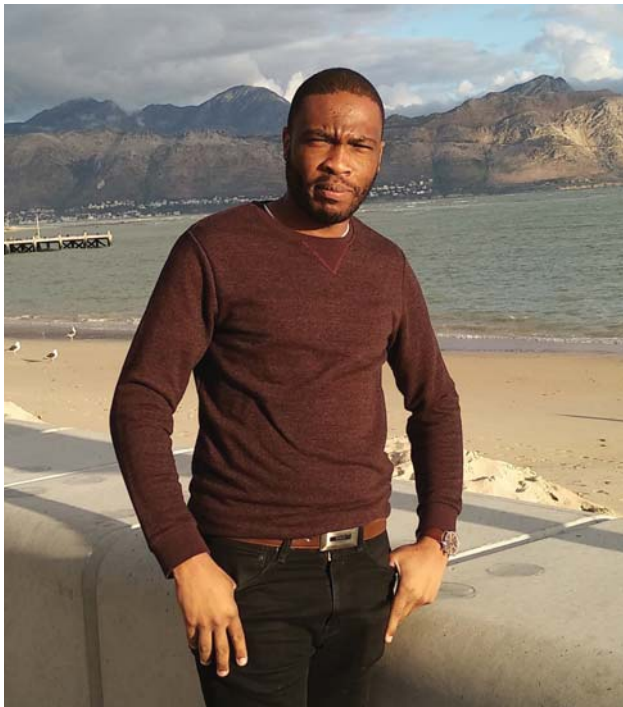


YOUNG WATER PROFESSIONAL

Love for the environment sets Ashton's path in water sector

Ashton Busani Mpofu has been appointed as the national lead for the Water Institute of Southern Africa's (WISA) Young Water Professionals programme. Bridget Lepere found out what inspires this dynamic young man.



New national lead of the WISA Young Water Professionals, Ashton Mpofu.

Ashton is a water sector analyst for GreenCape, a sector development agency and non-profit organisation. He engages various stakeholders in the sector, advising and seeking greener solutions for the sector. He specialises in market research, consultancy and business support for a water resilient and sustainable green economy.

Ashton's appointment follows many years of being an active member in the YWP programme, where in 2018 he was elected as the vice national lead. This year, he reluctantly accepted the honour of national lead as he jokingly pokes fun at the idea that his age is now in contention with the title of the programme. Nevertheless, he adds that he heeded the call once more, highlighting that what he has always wanted to do is serve

and this role and his job at GreenCape allows him to do so seamlessly.

Ashton's role as national lead involves leading the national committee of diverse water professionals, steering the decision-making and strategies, implementing the goals of transformation and empowerment within the sector and ensuring that every member's voice is heard and their needs addressed.

Born in Bulawayo, Zimbabwe Ashton was brought up in a humble home of primary school teachers. After many years of teaching, his father decided to make a career change to become an accountant, and it was this adjustment that nurtured his interests in entrepreneurship. But, as fate would have it, Ashton's great performance in maths and science led him in the opposite direction.

During Ashton's high school years at John Talac Missionary School, also known as Ingonya Missions, he was pushed into the science stream by his teachers, where his liking for the sciences grew even more despite his aspirations and passion for business. He also happened to be the best biology pupil in his grade, receiving medals and accolades for his great performance. The better he got in these subjects, the more unreasonable his case against continuing in the science stream became, so he continued until completing high school.

His aptitude in biology made him consider a career in medicine, however, the fear of blood and scalpels made him decide otherwise. Thus, he fell back on his love for the environment and his nomination as president of the environmental club back in high school. This channelled his ambition to study environmental science, then later chemical engineering.

Ashton's mind was now set on chemical engineering and he worked even harder to improve on his chemistry, so he applied for scholarships, but the sponsor willing to pay for his varsity fees had already pre-selected a course in dentistry for the lucky recipient at the Cape Peninsula University of Technology.

However, Ashton's determination impelled him to select a course in analytical chemistry in his first semester, and in the second semester he was granted a place in the chemical engineering class. Fast forward to his third year, he did a module in water treatment and that is when his path became clearer. He knew then that this was the direction which his career would take as his passion for helping people and saving the environment made it the obvious choice.

“The main challenge faced by the youth, including those in the water sector, is unemployment and poverty.”

While completing his degree he worked for a mining company, mainly doing research and developmental work on recovering minerals from waste materials from the mines and treating its wastewater. His supervisor persuaded him to take on a research project funded by the Water Research Commission (WRC) on wastewater treatment in the tannery industry for his Masters degree, which he gladly accepted. The project also looked at ways in which tannery and leather manufacturing sludge could be used to produce biogas. It was this work with the WRC that reinforced Ashton's convictions to save the planet by looking for viable and sustainable solutions for the tanning industry and the environment.

Working on this project gave him real life experience and afforded him the opportunity to learn while making a difference in the mining and tanning industry. “Water was becoming the new gold and everyone was beginning to talk about water and that is when we realised that we needed to focus more on water as we knew it could run out at any time,” he explains.

Ashton believed that this research could make the tanning industry more sustainable. His research focused on quantifying the amount of water used for production. This was necessary for the sustainability of the industry as the competition of leather textiles, water scarcity and high waste management costs would soon make tanneries obsolete. It was talking to the realities of challenges faced by the tanning industry, while seeking feasible solutions to saving them and making them adapt to the fast changing economy. “One of the things that I found to be striking was the enormous production of solid wastewater sludge,” explained Ashton. “The tanning process is very wasteful; about 50% of the intake material becomes wastewater sludge. So I thought let's find a way of reducing the solid waste from the tanneries instead of disposing of it at landfills.” A sustainable and applicable way of dealing with this problem was to use anaerobic digestion as a biological process to reduce the amount of sludge sent to landfills, Ashton found.

Accordingly, the WRC undertook further studies into this study, and is currently looking into tannery wastewater to salvage value added materials such as sulphur, bio-methane and possibly bio-fertilisers to be inclusive of the secular economy dynamic. While further feasibility studies need to be carried out in order to prove that the anaerobic digester processes could be implemented to solve the tannery industry woes, they looked at retrofitting anaerobic digesters to treat the wastewater itself and produce

the value added materials. “It is very difficult in South Africa to take research into application. On the research side we are very quick to do the studies and publish the work, but we don't even think about patenting the work because as researchers we are not obliged to tap into that stream so that these ideas are applicable in industry. There is thus a need for increased collaborations between research and industry,” Ashton notes.

He says the main challenge faced by the youth, including those in the water sector, is unemployment and poverty. Those young people from rural areas, from underprivileged communities where services such as sanitation are limited, are worst off. “These are some of the things we as young water professionals are scratching our heads about and trying to solve. We know that the national government is working on something, but as YWP's when looking into the future we do not want to be sitting with the same problem and not have done something. We have to look into the issue of jobs while, at the same time, dealing with issues of experience. Some water professionals have the qualifications, but the water sector sometimes requires one to have a vast number of years of experience to work.”

Ashton concludes by saying the challenges range from accessibility to water and facilities, to unemployment, but the primary issue for many water professionals is water security for a better future and for the economy because without water there is no future.

Who are the Young Water Professionals?

The South African Young Water Professionals (YWP) Programme is focused on bringing people working in or interested in the water sector together in a meaningful way. The YWP is a network of people who are passionate about all aspects of water and its intrinsic linkages to people, economies, development, nature, dignity and life itself. The programme is aimed at helping people in the earlier stages of their studies and careers to find their 'professional home' in the South African water sector, understand and explore the challenges and opportunities of the sector, build the skills they need to be influential contributors to the sector and develop meaningful networks that will provide the insight, support, access and opportunities needed to build exciting, meaningful and challenging careers. The YWP is an international initiative spear-headed by the International Water Association (IWA). In South Africa, the YWP is in partnership with the Water Institute of South Africa (WISA). WISA is a volunteer organisation representing the professional water industry in Southern Africa.

For more information, Visit: www.ywp-za.org