



W@tskills- South Africa 2021

Overview of Study Cases

Case 1: Sustainable empowerment of local communities for cleaning rivers

Case owner: DUCT (part of: Blue Deal South Africa, uMsunduzi River project)

The uMsunduzi and uMnmgeni River systems have become badly degraded through neglect and over exploitation. The mission of the Duzi-uMngeni Conservation Trust (DUCT) is to empower local citizens to be champions of the environment (Enviro-Champs) in their local community. Through a green livelihoods programme, people living adjacent to rivers are given the responsibility to adopt-a-stretch – cleaning, maintaining, greening, restoring, and undertaking citizen science monitoring on that section of the river. The challenge that DUCT now faces is how to create a (financially) sustainable business model for the activities of the enviro champs. Government, private, and civil society partners all have something to give, and value to gain from being involved. How do we bring this together in a long-term sustainable ‘win-win’ way?

Case 2: LookSeeDo: Virtual Reality experience for capacitating staff

Case owner: LookSeeDo (part of: Blue Deal South Africa, Crocodile River project)

South Africa is facing an immediate water crisis caused, by amongst others, insufficient water infrastructure maintenance, a lack of investment and inadequate technical skills. Many WWTWs are failing to comply with their stipulated license conditions, are not "Green Drop certified" as required by the Department of Water and Sanitation, and at least 30% are at a high risk of failure. One of the key challenges is the lack of ongoing regular and appropriate WWTW staff training. Virtual reality (VR), as training and education method, could bring new opportunities for (cost)effective training provision. Could JumpLoom become a sustainable value-add given the current technical skills challenges in the South African Wastewater sector?

Case 3: Swamp-friendly Water Hyacinth harvesting

Case owner: Blue Deal South Africa, Vaal River project

The Vaal river is known for its poor water quality. The Blesbokspruit wetland (BBS), located in the Upper Vaal catchment, is one of the 26 RAMSAR sites in South Africa. The BSS is close to losing its status due to threats of pollution resulting in low water quality. One of the main challenges is the invasive alien species like the water hyacinth, which is well-known for its fast growing and destructive attitude. The water hyacinth is also a useful plant for improving water quality and purposes as energy production, water purification and building materials. The main question for the BBS: How can the water hyacinth be prevented spreading or collected in a sustainable and self-supportive way.

