

Workshop: Building Climate Resilience via enhancement of Water and Sanitation Risk Management Processes (KreATiw Project)

Date: 19 August 2022

Time: 10:00 – 11:30

Background

In South Africa, Water Services Authorities (WSAs) are increasingly experiencing challenges related to water quality, water quantity and damaged infrastructure, due to the impacts of increases in temperature, floods, storms and droughts. Water resources are fundamental to the provision of drinking water, and it is therefore critical that both water supply and sanitation systems have the resilience and capacity to mitigate both current levels of climatic variability and future climate change impacts. However, it is noted that as a developing economy, addressing service delivery backlogs and the need for socio-economic development in South Africa will often take precedence over emerging issues (such as climate change). Climate change is impacting municipalities in a way that significantly challenges their ability to sustainably and reliably provide safe drinking water and sanitation services. It is therefore essential that municipalities and stakeholders are made aware of climate variability and change impacts and can make decisions that allow them to adapt and enhance resiliency. Most WSAs in South Africa have realized that planning is key in preparing for the future, and risk management approaches such as water safety planning (WSP) and wastewater risk abatement planning (W₂RAP) provides municipalities with a proactive, flexible and robust approach to assess and manage current and future risks (both climate and non-climate related). However, it is often challenging for municipalities to understand the relevance of climate information, interpret the information and incorporate the findings into existing risk management processes and day-to-day activities. These processes often do not consider a holistic integrated water management approach (i.e. water supply and sanitation, including both off-site and on-site sanitation systems). Shit flow diagrams (SFD) are a tool to understand and communicate how excreta physically flows through a specified area. While SFDs have been applied globally, including in South Africa, they do not yet include information on climate resilience.

The KreATiw project is funded by the German Federal Ministry of Education and Research (BMBF) under the funding of African-German collaborative projects in the field of water security in Africa (WASA). The three project partners are (i) Umweltbundesamt (UBA) – Germany's main environmental protection agency, (ii) Technologiezentrum Wasser (TZW: DVGW) – German Water Centre, and (iii) Emanti Management (Pty) Ltd – South African water and environmental engineering consultancy. The project objectives are to: (1) Use lessons from South Africa to refine and test a methodology to successfully integrate climate variability and change into existing water supply and sanitation risk management approaches for a holistic integrated water risk management approach, and (2) Grow and develop capacity that enables the roll-out of the approach. The KreATiw project is supported by the Water Research Commission through an international collaboration agreement that forms part of the Global Water Research Coalition (GWRC).

Webinar Learning Objectives

1. Appreciate how water supply systems and wastewater/sanitation systems are affected by climate variability and change.
2. Understand how the WSP/W₂RAP/SFD approach may be used to manage climate-related risks.
3. Provide guidance and tools that can be used to access and integrate climate data/information into water supply and wastewater risk management approaches.
4. Raise awareness and advance water and sanitation sector skills and capacity through sharing knowledge and experiences.

Target Audience

Participation is expected from WSAs, Catchment Management Agencies (CMAs), Water Boards, National/Provincial Departments of Water and Sanitation, CoGTA, SALGA, Science Councils, Universities, Consultants.

Proposed Webinar Programme

Programme Chair: Dr Brilliant Petja

Time	Title	Speaker
10:00-10:05	Welcome and introductions	Brilliant Petja (WRC)
10:05-10:10	Workshop overview and project background	Bettina Rickert (UBA)
10:10-10:25	Understanding key concepts, including (i) climate change and variability, (ii) how this may impact water supply and sanitation systems, and (iii) how best to manage current and predicted risks	Bettina Rickert (UBA)
10:25-10:40	Risk and vulnerability management approaches for climate resilient systems, including (i) WSP, (ii) W ₂ RAP and (iii) SFD, and understanding status of such approaches in South Africa	Sebastian Sturm (TZW)
10:40-10:55	How to source and interpret climate data and information	Laura Huber (UBA)
10:55-11:10	How to include climate data and information into WSP, W ₂ RAP and SFD	Matthew Damons (Emanti)
11:10-11:25	Questions and Answers	Facilitator: Thabisa Manxodidi (Emanti)
11:25-11:30	Wrap up	Thabisa Manxodidi (Emanti)
11:25-11:30	Webinar closure	Dr Brilliant Petja (WRC)