

Scenarios for the South African Water Sector in 2025

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Abstract

In 2008 the Water Research Commission initiated a project to develop 'Water Sector Institutional Landscape in 2025 Scenarios'. The aim was to build knowledge about key drivers and uncertainties related to the future of the South African water sector. A diverse group of stakeholders contributed to the development of the drivers, which translated into different scenarios and associated stories that have potential implications for social and economic development, as well as for the management of water resources and water services. The four scenarios were derived from a matrix with two axes that represent the ability of the decision-making paradigm of water institutions to deal with complexity, and the reconciliation of environmental, social and economic demands of present and future generations (sustainability). The Wise Tortoise scenario describes a sector which deals with complexity and is sensitive to sustainability issues, whereas the Ignorant Ostrich scenario describes the opposite conditions. The Greedy Jackal and Busy Bee scenarios describe the other combinations of the key drivers. The scenarios provide stakeholders and policy-makers in South Africa's water sector with insights to strengthen decision-making and to counter undesirable trajectories of change. The knowledge will empower role players in the water sector to engage in participative governance by equipping them with insights into potential futures that the South African water sector may face. This paper reports on the process to develop these scenarios for the South African water sector institutional landscape in 2025, presents the key forces, introduces the stories, and reflects on the use of scenarios in the water sector.

Keywords: Scenarios, water sector, South Africa, water institutions, water futures

Introduction

Social development and economic growth are key national and regional priorities (SADC, 2004; NPC, 2011). Socio-economic development depends on the effective deployment of resources, particularly water, with water resources being required for basic human needs and water security being critical for agricultural and industrial development (United Nations, 2003). Decisions and actions in support of this development are often framed with uncertain future conditions, which make it difficult to predict the efficacy of a particular option in the medium- and long-term. These options relate to the way the water sector is organised and to specific decisions for water resource deployment. The Water Research Commission initiated the project 'The Water Sector Institutional Landscape in 2025' to build knowledge about key drivers and uncertainties related to the future of the South African water sector. The institutional landscape refers to the context in which water institutions would operate in the future, rather than different operational models or configurations for water institutions. The knowledge about this context, which diverse stakeholders have contributed to during the course of the project, has been translated into different scenarios (with associated stories) that hold potential implications for social and economic development, as well as for water resources and water services. These scenarios provide stakeholders and policy-makers in South Africa's water sector with valuable insights to strengthen decision-making and to counter undesirable trajectories of change. The knowledge also empowers role players in the water sector to engage in

participative governance through anticipating potential change and planning for effective action.

The knowledge base for the development of the scenarios was developed through structured research, which included an extensive participative process (Claassen et al., 2011a). The authors identified water-related needs, priorities and uncertainties from diverse perspectives through engagement with different stakeholder groups. They also made use of a broad range of methods, such as interactive workshops, semi-structured interviews, social attitude surveys and a web-based survey, to include stakeholders in rural and urban settings and with different cultural and educational backgrounds. Since the project was built on a process of continuous learning and feedback, participants in the research process also improved their understanding of the development and application of scenarios.

Approach

Emergence of scenario development

Scenarios are narrative descriptions of a possible state of affairs or development over time, which can be useful to communicate speculative thoughts about future developments to elicit discussion and feedback, and to stimulate the imagination (Warfield, 1996). The concept of scenario planning has its origin in military applications, with the United States Air Force developing 'scenarios' of what the enemy might do and preparing alternative strategies. It was thus aimed at achieving a desired outcome in an uncertain future (Mietzner and Reger, 2004). At the end of the 1940s, researchers at the RAND Corporation (Santa Monica, California) started to investigate the scientific use of expert opinion in planning for the future (Landeta, 2006). The Delphi method became a popular technique for forecasting and decision-making based on the opinions of experts on issues of the future (Glenn and Gordon,

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