



TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT

THEMATIC AREA

WATER QUALITY AND HEALTH

TITLE

A situational analysis of alternative drinking water supplies in South Africa

Background and Rationale

Access to clean and safe drinking water is a fundamental human right and a critical component of public health. The constitution of South Africa bestows the executive power, and responsibility for the provision of such services to the public with Water Service Authorities (WSAs). The Water Services Act defines water service authorities as municipalities including districts or rural councils. To fulfill this vital function, water service authorities or intermediaries may work with various stakeholders, including government agencies, private companies, and non-governmental organizations. For example, a water services authority may contract a water services provider or enter into a joint venture with an independent water services company for the provision of drinking water services. A water services intermediary is defined as any person or organisation who is obliged to provide water services to another in terms of a contract where the obligation to provide water services is incidental to the main object of the contract.

The Act also specifies the manner in which municipal drinking water services are to be provided, i.e. the water must be safe, and produced in an efficient, equitable and sustainable manner. Furthermore, the Act makes it mandatory for water services authorities to consider alternative ways of ensuring access during supply disruptions due to water quality or infrastructure failures, and as an interim measure for non-serviced areas. The Department of Water and Sanitation is in the process of enacting National water and sanitation services norms and standards stipulating the requirements for use of alternative means of drinking water services provision under such circumstances. Examples of alternative drinking water supplies that can be used, include, water tankers, packaged water, refilled water, and other drinking water supplies, produced from sources such as boreholes, springs, rainwater harvesting systems, etc. Each type of drinking water has its advantages and disadvantages, based on the cost, ease of implementation, convenience, quality assurance and environmental impact. This situational analysis aims to comprehensively assess the state of these supplies in South Africa, identifying challenges, risks, and opportunities for improvement. The analysis will inform policy development, planning, and interventions to ensure the implementation of a unified risk-based regulation of drinking water alternatives in South Africa.

Objectives

The primary objectives of the situational analysis are as follows:

1. To review existing legislation, regulations, terminologies, and health and safety practices related to the production, distribution and use of drinking water alternatives in South Africa
2. To assess the current status of the alternative drinking water sector in South Africa, in terms of the market aspects, operational aspects and safety of the water for human consumption
3. To identify key challenges and risks associated with the use of drinking water alternatives as an option for drinking water services provision
4. Based on best practices, provide policy recommendations for improving the use alternative drinking water supplies as an option for drinking water services provision

Scope of Work

The scope of the situational analysis will include, but is not limited to, the following work packages:

Work package 1 – Water tankering

- Conduct a review of existing literature, reports, and data on water tankering as alternative means for drinking water supply, including market studies, industry reports, as well as regulatory frameworks, standards, and enforcement mechanisms governing the operation of water tankers in South Africa.
- Conduct an analysis of the extent of services provision, in terms of the cost and operational aspects, and the quality of the water.
- Conduct a PESTEL (Political, Economic, Social, Technological, Legal, and Environment) SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to identify internal and external factors affecting water tankering services as alternative means of drinking water services provision.
- Compile findings into a comprehensive report, including analysis, recommendations, and actionable insights related to the use of water tankers as an alternative for drinking water services provision.

Work package 2 – Packaged drinking water

- Examine regulatory frameworks, terminologies, industry standards and best practices, and environmental considerations associated with the production, distribution and use of packaged drinking water.
- Assess the current state of the packaged water market in South Africa, including market size, growth trends, key players, and consumer preferences, behaviour and purchasing patterns.
- Investigate the influence of factors, such as production (water treatment) method, packaging materials, storage temperature, and exposure, on the shelf life of packaged water, and provide recommendations for optimizing packaged water shelf life and ensuring product quality.
- To provide recommendations based on the findings to improve product safety, sustainability and use as an alternative for drinking water services provision.

Work package 3 – Water refilling stations

- Conduct a review of existing literature, reports, and data on water refilling stations, including market studies, industry reports, regulatory frameworks, standards, and enforcement mechanisms governing the operation of water refilling stations.
- Assess the current state of the water refilling market in South Africa, including market size, growth trends, key players, and consumer preferences, behaviour and purchasing patterns.
- Create an inventory of water refilling stations in the country, based on the types, sizes, business models and operational practices, as well as their location.
- Formulate recommendations for enhancing the safety of water distributed by water refilling stations in the country and use as an alternative for drinking water services provision.

Work package 4 – Community based drinking water supplies

- Review of existing literature, reports, and data on existing policies and regulations, on the status of community based private drinking water supplies (boreholes, springs, rainwater harvesting systems, and taps) in South Africa.
- Examine the governance structures, the infrastructure and technology used for drinking water production.
- Conduct a comparative analysis with international best practices in managing private water supplies in South Africa
- Formulate recommendations for enhancing the governance and safety of community drinking water supplies and use as an alternative for drinking water services provision.

Methodology

The methodology for the situational analysis shall include, but not be limited to, the following:

- The research must be representative of all the nine provinces in South Africa and may include global market data for comparison.
- Field visits: where appropriate, site visits to relevant sites across South Africa for data and sample collection.
- Stakeholder consultations: Interviews, focus group discussions, and surveys with relevant stakeholders.
- Data analysis: Quantitative and qualitative analysis of collected data.

- Comparative analysis: Comparison with international best practices and case studies.

Deliverables

The project shall deliver the following:

- Inception Report: Detailed work plan, methodology, and timeline for the situational analysis.
- Draft Situational Analysis Report: Comprehensive document outlining the findings, analysis, and recommendations for each identified alternative.
- Final Situational Analysis Report: Revised report on each alternative based on feedback received, incorporating any additional information or data.

Timeframe: 24 months

Total budget: R 2 million