water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

NATIONAL DEVELOPMENT PLAN
Our Future - make it work

Pioneering Change: Engineering Infrastructure for Inclusive Growth integrating with Water Services Development Plan (WSDP) Online System a Contributing Tool

DWS: Water Services Planning Support
Presented by Dr. M Mapholi

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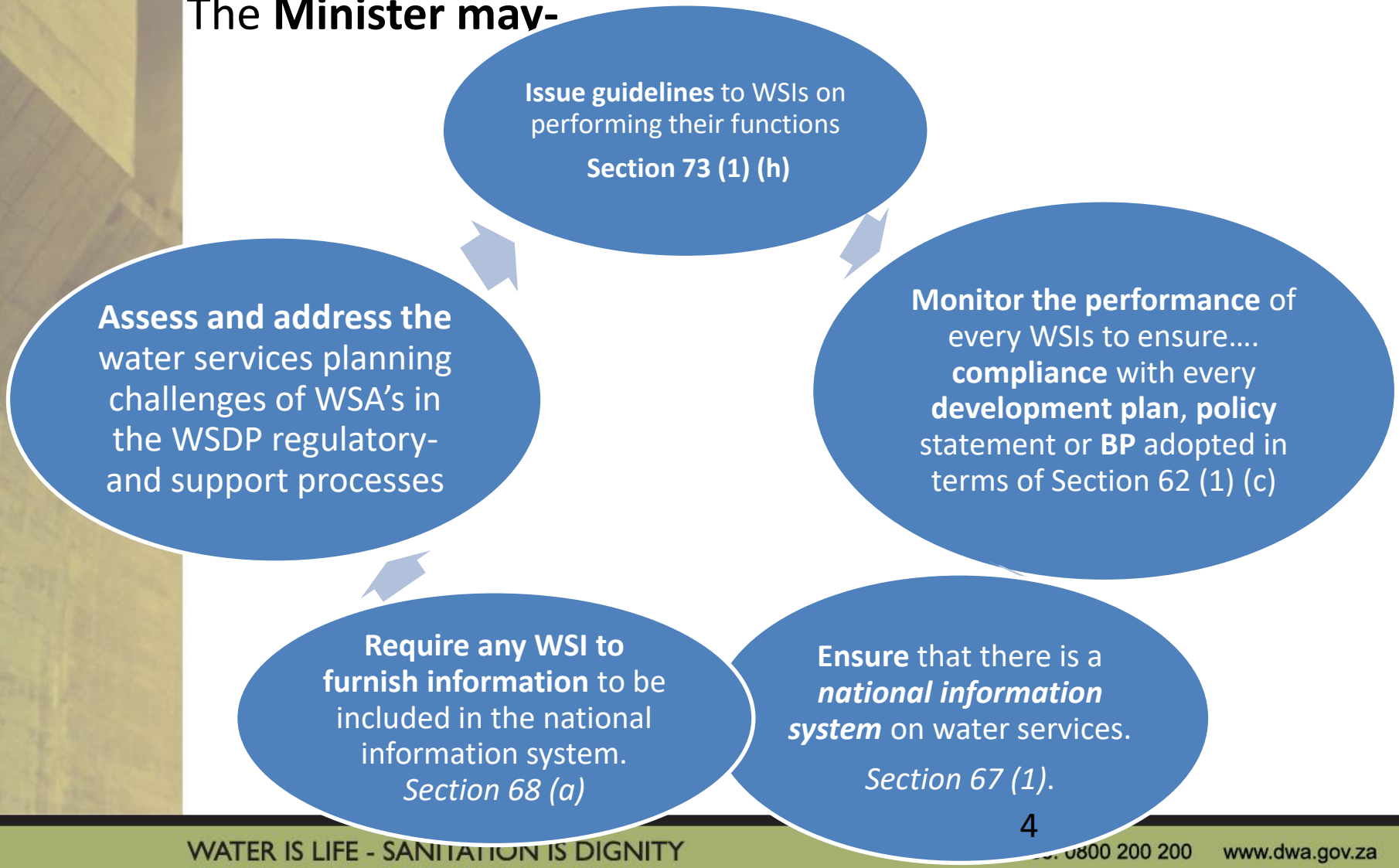
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Legislative Mandate

Act	Relevant Section
(Legislation) **The Water Services Act (Act 108 of 1997) places a duty on Water Services Authorities to adequately plan for water services provision towards progressively ensuring efficient, affordable, economical and sustainable access to water services.** Water Services Act	• Section 12: • A WSA **must**, **as part of the process of preparing any IDP**, prepare a draft WSDP for its area of jurisdiction.
	• Section 13: • A draft WSDP **must include an implementation program** which specifies the institutional arrangements, *infrastructure* requirements, water *sources* utilization, *capital* costs, *operating* costs, *O&M* particulars, repair and replacement plan and *water services access profile* for the next five years.
	• Section 14: • A WSA must **publish**, **distribute** and **invite public** and government comment on its draft WSDP
	• Section 15: • A WSA must consider- and **respond on all comments**, after which it must **adopt its WSDP**
	• Section 16: • The WSDP **must form part of the IDP** (section 15) • A WSA must **prepare- and adopt a new water services development plan** every five years (as aligned with the IDP process) (section 16 read together with relevant regulations)
	• Section 17: • A WSA may **not deviate** from its implementation **program** as set out in the WSDP, unless such changes are embodied in a **new development plan and adopted by Council**
	• Section 18: • A WSA **must report on the implementation of its development plan during each financial year**, within four months after the end of the financial year and must distribute and publish such report.

Role of the Department in Water Services Planning in terms of the Water Services Act of 1997

The **Minister may-**



Role of the Department in water services planning in terms of the Water Services Act of 1997

To **provide input to the Auditor-General (AG)** with regards to the inclusion of WSDP process compliance in the local government audit processes.

Support on establishing **appropriate data structures, processes** and **systems** to enable the adequate **capturing** and **collation** of essential **water services information for planning** and regulatory reporting purposes.

Assess and address the water services **planning maturity challenges** of WSA's in the WSDP regulatory- and **support** processes.

Responsible for **addressing technical, Engineering** and **interpretation challenges** and **consider improvement suggestions to the WSDP framework** including the IDP outflow report and Annual Business Plan report

Support, facilitate and **monitor** the **compliance** of WSAs with respect to its **WSDP processes** towards the overall improvement of water services planning maturity & Water Security

Role of the Department in Water Services Planning in terms of the Water Services Act 0f 1997

- **Monitor** and **report on the status of the WSA's 5-year development plans:**
- Including:
  - **Participate** in, and **inform the planning activities** pursued by the Department (including regional planning panels) towards enabling alignment with WSA (local) development plans
  - **Promote regular- and sufficient planning interactions** between the regional office and WSAs as directed by the planning needs of programmes and/or projects;
  - **Participate** in- and **contribute** to programme planning and/or **Engineering Infrastructure planning project activities**;
  - **Interpret and disseminate**, the contents of each WSA's **5-year development plan**, the **prioritized projects** as established for the next year, as well as the WSA's planning performance outcomes;
  - Coordinate and **facilitate WSDP integration** and uptake of DWS-funded projects.
  - WSDP coordination is considered as an 'administrative' function but requires 'Engineering or Technical' inputs.

Role of the Department in water services planning in terms of the Water Services Act of 1997

- If the **WSA does not carry out its WSDP mandate**, the implications are as follows:-

  - There will be **information gap**
  - The **geo database won't be updated**
  - **Misalignment of the WSDP and the IDP**
  - **Cross boarder information won't be properly managed**
  - **Informed decisions with regards to water supply and water backlog will be compromised.**
  - The dept. won't know be able to **monitor project milestones** as contained in Business Plan
  - **Training and capacitating** the WSAs will be compromised
  - The department **won't be able to measure the compliance** of the WSAs
  - The department **won't be able to regulate as our core mandate**
  - The department won't the existing needs perspective and strategic interpretation of problem.

The Roles of a Water Services Authority

A Water Services Authority (WSA) is a local government structure.

The WSA:

a) Must do its best to ensure **efficient**, **affordable**, **economical** and sustainable **access to services** for people living in its area.

b) Must take **account of availability**, the need to **conserve water**, the need for **fair allocation** as well as the duty of consumers to pay reasonable charges.

c) Must **draw up development plans** for their area.

d) Must **monitor the performance** of water services providers and intermediaries.

Water Security Engineering

Water Security is not just having water; it is about a holistic approach to ensure that water involves:

- **Socio-Economic Development and Implementation** of strategies & Technologies.
- Construction of water infrastructure projects ***(Availability, Sustainability, Risk, Equitable and Ecosystem preservation).***
- Engineering aspects use of **smart technologies and systems.**

e.g. In GP Platform for Water Secure Gauteng (PWSG) is working on reducing water demand by 10% to achieve *water balance* (WSDP online system).

Sustainable Water Security

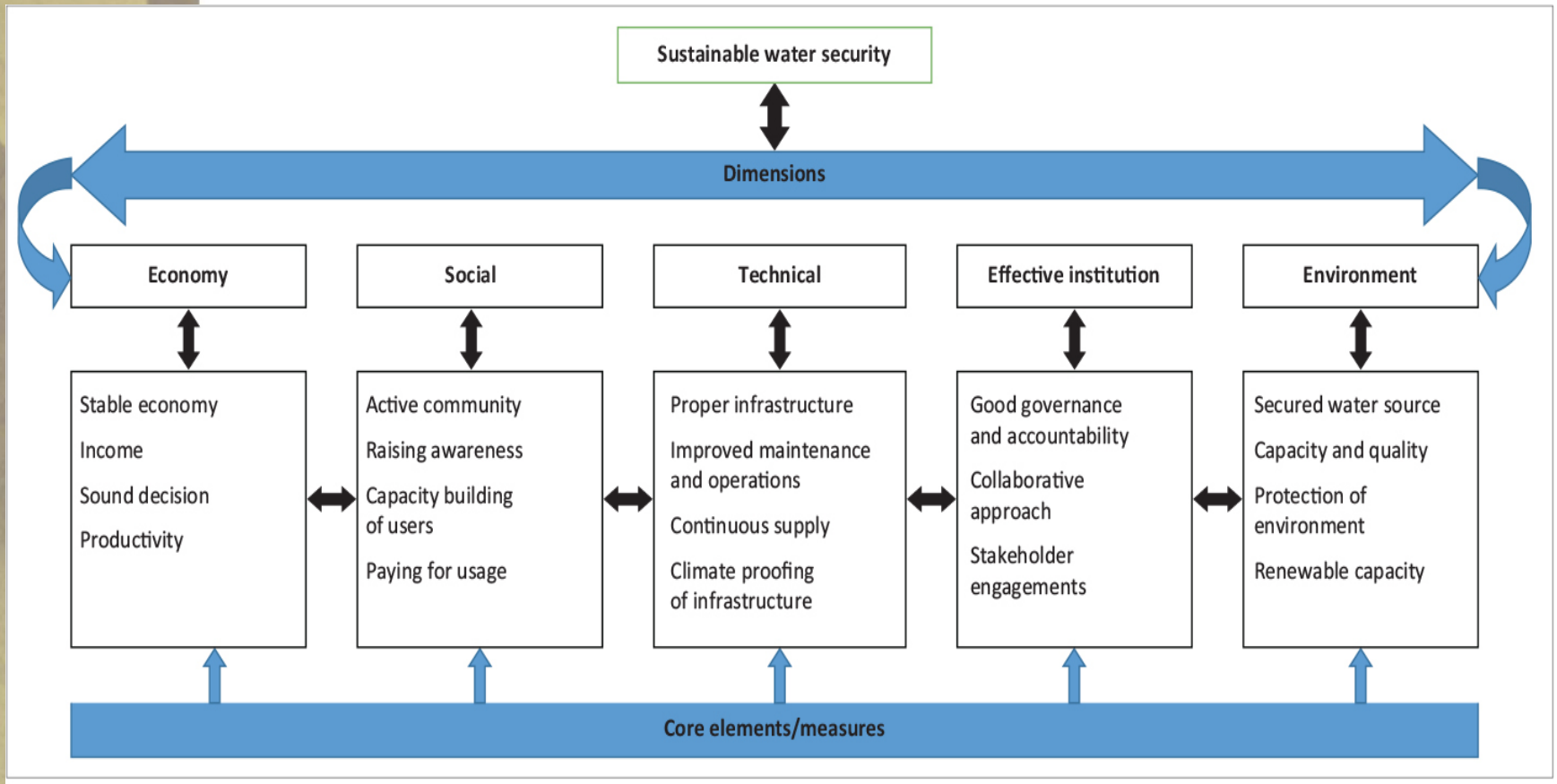
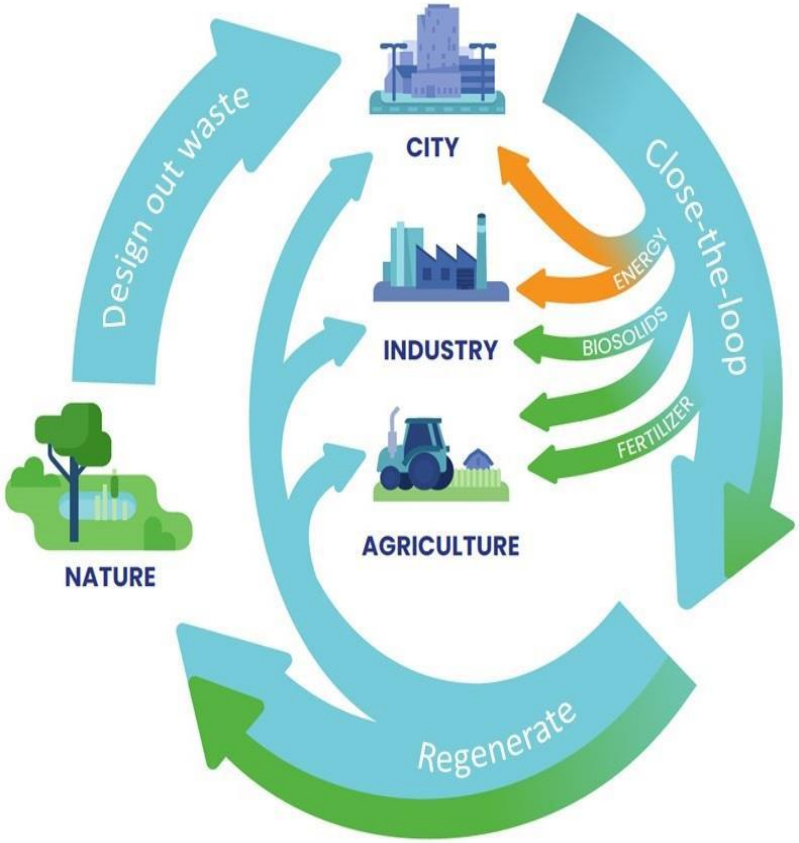


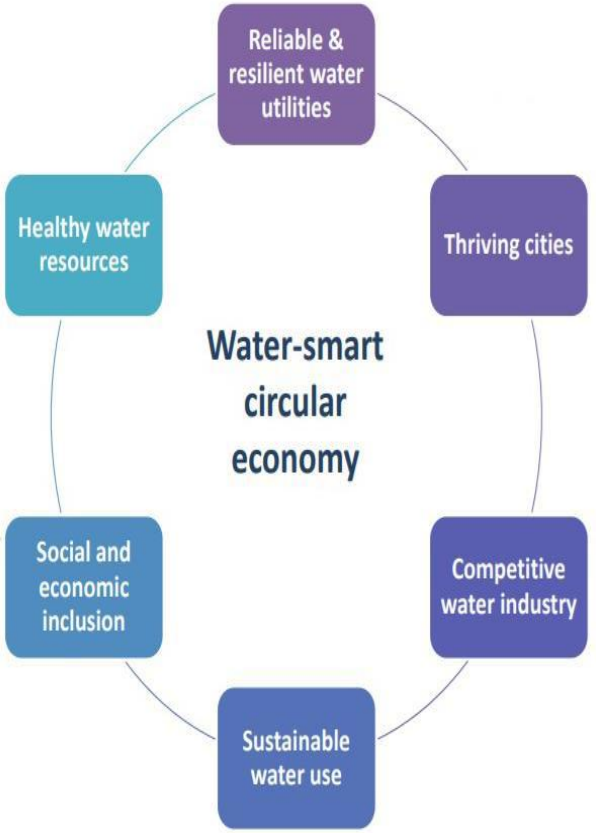
FIGURE 2: Proposed model for sustainable water security.

Sustainable Water Infrastructure for inclusive growth

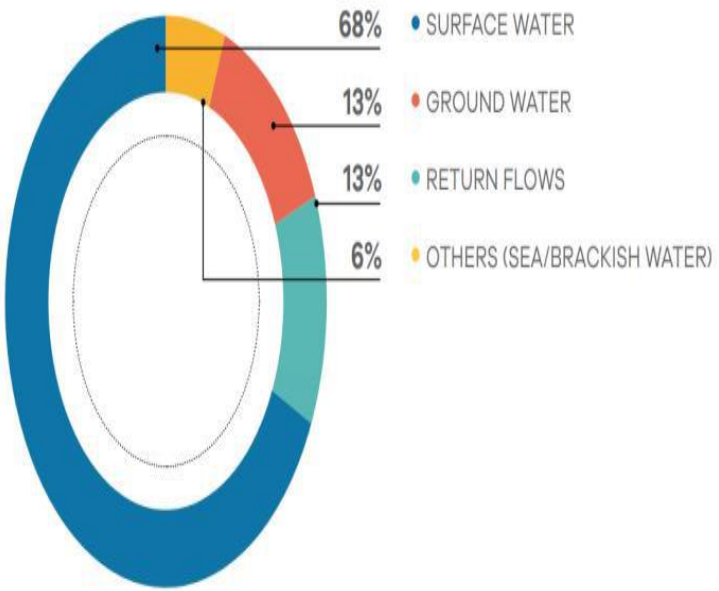
- Sustainability: Water use should not exceed natural replenishment rates, particularly for non-renewable groundwater resources.
- Infrastructure Investment: Solutions focus on repairing infrastructure, reducing and investing in new, sustainable water sources.
- Conservation: DWS emphasizes that all communities must conserve water, as dams in some areas.

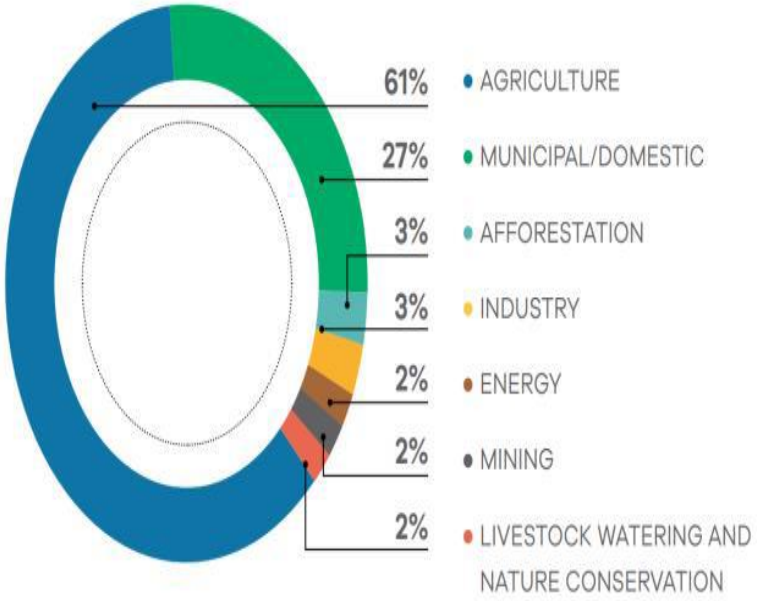
Water Cycle for Growth





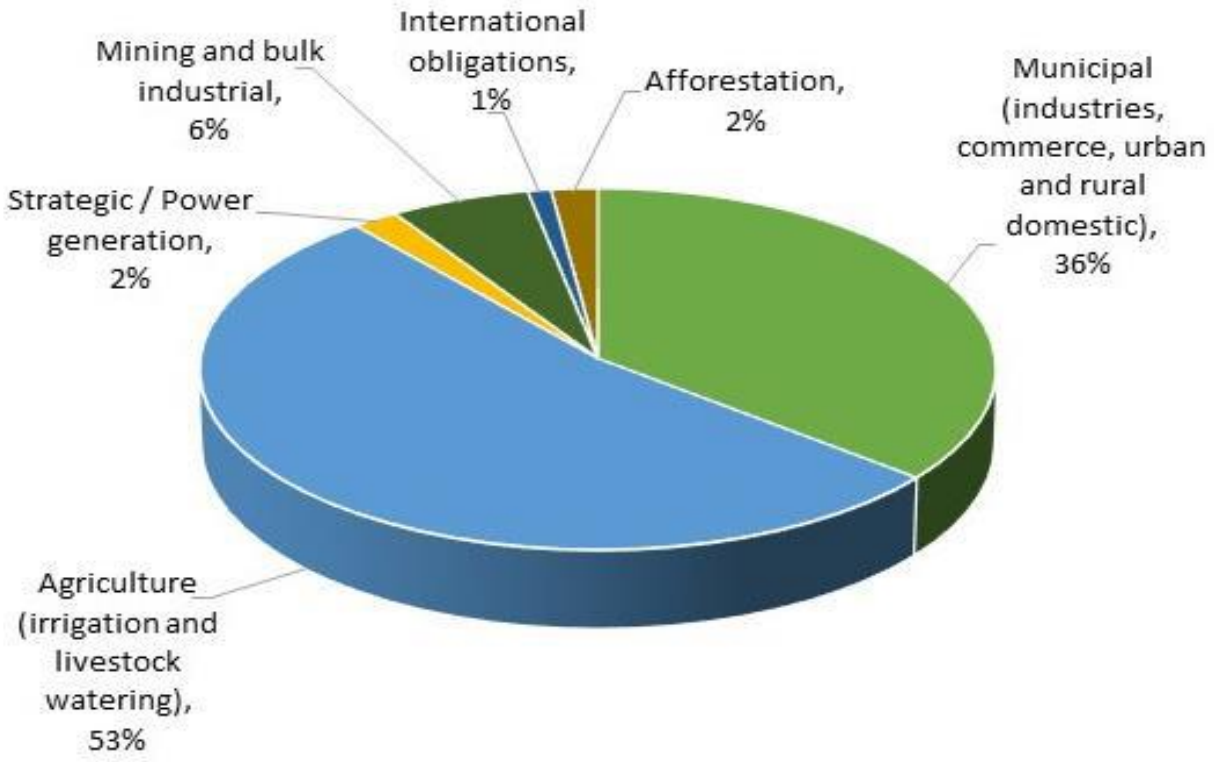
Water supply sources and allocations in South Africa





2040 Water use per sector projection

(DWS, 2022-2024)



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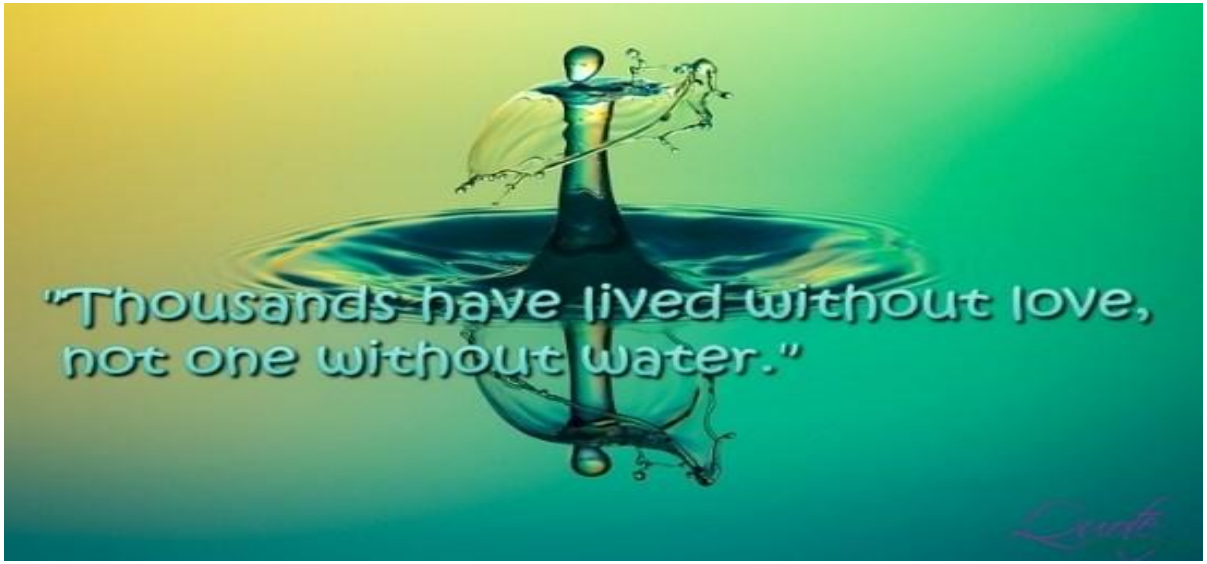
Integration of Water Security & WSDPs for Inclusive Growth.

South African water sector, points to opportunities in:

1. Designing out waste and pollution: e.g., reducing water use and wastewater generation, improved water use efficiency, better water use practices for instance (AI).
2. Keeping products and materials in use: e.g., reuse and recycling of wastewater (return flows), reclamation and recovery of resources from water-based waste.
3. Regenerating natural systems: e.g., improving water flow and quality through the restoration of land by controlling invasive alien plants (IAP) and rehabilitating and protecting wetlands and riparian systems (WSDP online system).

Conclusion:

"Greater awareness around the circular economy and the benefits to the water sector, could help to fast-track circular economy implementation ambitions to ensure future national water security and manage supply and demand risks that could hamper the National Development Plan objectives of economic development and social prosperity".



Thank You

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