# SDG 6 (2026 Gaps) - March 2026

## 2026 GAP / ACTIONS TO INFLUENCE NW&SMP / OTHER

The SDG goals and targets came into effect on 1 January 2016 and will guide the decisions taken within South Africa over the next fifteen years. The target date for outcomes to be achieved is 2030.The SDG targets are indeed valid for and applicable to South Africa. They are also in line with the Vision 2030 (the National Development Plan) as well as Medium Term Strategic Framework (MTSF) Outcome Targets. They are also a key drivers of the National Water & Sanitation Master Plan in terms of the water and sanitation needs of each.

| **Table 1: Definition of the SDGs** | |
|---|---|
| | The 17 SDGs were endorsed "without reservation" by all heads of state, including South Africa, on 25 September 2015.The SDGs are a collection of 17 global goals set by the UN General Assembly in 2015. The UN resolution is widely known as "*The 2030 Agenda on Sustainable Development*" and is a plan of action for people, planet and prosperity. The goals are broad and interdependent, yet each has a separate list of targets to achieve. Achieving all 169 targets would signal accomplishing all 17 goals. The SDGs cover social and economic development issues including poverty, hunger, health, education, global warming, gender equality, water, sanitation, energy, urbanisation, environment and social justice.[i] |

Statistics South Africa (Stats SA) is the focal point for all 17 SDGs in the country. Out of these 17 goals to be attained by 2030, there is a dedicated water and sanitation goal, (Goal 6) with the objective to "ensure access to water and sanitation for all".

DWS is now spearheading the effort in the South African water sector to deliver on the SDGs, in particular SDG6: Ensure availability and sustainable management of water and sanitation for all. It is widely recognised that achieving SDG 6 is essential for progress on all other SDGs and vice versa. Sustainable management of water and sanitation underpins wider efforts to end poverty, advance sustainable development and sustain peace and stability.

The SDG 6 goal focuses on clean water and sanitation, and it is driven through eight targets and eleven indicators that will be used to propel different components and monitor progress. Achieving SDG 6 is not only essential for the water and sanitation sector, but it also has a major impact on all other 16 SDG goals led by others – from improving the health of our people; to curtailing hunger; improving the education of our children; maximizing gender equality; and the inclusion of all, including vulnerable groups. All of the above has to be taken into account while ensuring environmental protection, minimizing the impacts of climate change and ensuring sustainable growth for our country. Water and sanitation is central to development and has a major role to play in all SDG activities.

The SDG Country Report for the 2020 Data Gathering process, was launched in September 2023. The next UN data drive after 2020 took place during 2023 and all Targets developed their Indicator Reports for the UN besides their Gap Reports for 2023 . This Consolidated Gap Report summarises the Gaps that have been identified for each of the 8 Targets by the end of 2023 which must be addressed in order to close the gaps / data needs identified by each and whilst providing recommendations of areas to be improved and with which vehicles of change.

The Tables below summarise these Gaps and proposed Actions which will be taken to the NW&SMP / NWSRS Teams for consideration and incorporation into their respective action plans for implementation.

On completion of a long awaited SDG 6 Monitoring & Evaluation system, which is still not approved, the SDG 6 programme will be able to measure the progressive closing of the 11 Indicator Gaps of the 8 Targets effectively, and quantify the performance of Actions implemented towards the closure of these Gaps through vehicles such as the NW&SMP, the NWSRS, Legislation/ Strategies / Policies / Systems implemented through DWS and the Sector for example.

## 6.1 – Achieve universal and equitable access to safe and affordable drinking water for all

| | TARGET SPECIFIC (6.1) DESCRIPTION | | VEHICLES OF CHANGE | | | | |
|---|---|---|---|---|---|---|---|
| No. | **GAP** | **ACTION** | **NW&SMP – Is it covered already?** | **NW&SMP – Can this be a new action?** | **OTHER (NWSRS, Legislation etc** | **Comments** | **Estimated Budget** |
| | | | | | | | |
| | | | | | | | |
| **1** | Lack of an SDG 6 Dashboard: A systems approach is required to track the 8 SDG indicators including SDG 6.1. The purpose is to keep the Department, Sector Role Players and its Regional Offices informed of SDG 6 progress. | A systems approach is required to track the 8 SDG indicators including SDG 6.1. The purpose is to keep the Department, Sector Role Players and its Regional Offices informed of SDG 6 progress.<br>The IT team which supports Water Services Planning Support to set up and maintain a Water Services knowledge base to present the outcomes in the form of a dashboard. This SDG dashboard has been engaged on. . | YES | YES | The NWAct and WSAct requires the Department to maintain a knowledge system to track water and sanitation i.e. SDG 6.1 & 6.2. The proposal is to track all 8 SDG indicators which link both water and sanitation. | A Business Plan has been presented for consideration by the SDG Project Manager<br><br>Water Services Supply Status and implementation strategies will be supplied through the development and implementation of the 5-Year reliability plans and the development of the Provincial Water and Sanitation Bulk Plans | Initial R10 million to roll out the Business Plan as presented. This includes system development, data uploading, cleaning and transforming of SDG 6's Task Teams data, training and rollout, support/ maintenance, data interrogation and reporting. |
| **2** | Non availability of data on rural water quality | The SDG 6.1 National Team will engage and reach out to our Provincial counterparts to determine if they are monitoring water quality in rural areas in their area of supply.<br>If this data is available, we will engage with Regulation to incorporate this data in their water quality database. As an Interim measure.<br>A proxy indicator measured in the GHS will be used to track drinking water quality. | YES | YES, need to include a more comprehensive approach that will adequately address rural areas. | NDP | The SDG 6.1 Task Leader will engage with Regulation, Stats SA, WRC (researching the UNICEF Rapid Response Test Kit) and the JMP to optimise the data collected to present the full picture of water quality in rural areas. This new data source needs to integrate with the Blue Drop data collection process. The IT systems will need to work closely with the SDG 6.1 team. | Rural water quality to integrate into the Blue Drop process = **R3 million** rand. |
| | | | | | | | |
| **3** | **Interruptions of basic water supply and** | This is the most important action required to improve the indicator safely managed | YES | Provide universal and | NWA and WSA | The MTSF stipulates the development of a 90% reliable | It is very difficult to report on this indicator as |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **water quality to determine the safely managed component of the JMP Access Ladder to water supply for SDG 6.1.** | water indicator through the development and implementation of the 5-Year reliability plans, and the Provincial Water and Sanitation Bulk Plans<br>The Five-Year Reliable Water and Sanitation Services Delivery Implementation Plans, once completed, from a monitoring and reporting perspective, will enable the Department, as sector leader, to re-establish the long overdue and critical water and sanitation service delivery performance benchmarks by gathering audited municipal related planning and performance information.<br><br>DWS established a National Groundwater Programme for Unserved Communities<br>The programme is intended to serve as a national response to resolving the lack of access that still remains in some rural communities. It aims to achieve this through the development of groundwater sources and springs<br><br>DWS has developed Standard Operation Procedure for groundwater and the purpose of this strategy is to ensure and enforce a common approach and a high standard to groundwater development for community water supply projects. The SOP will guide the water sector and practitioners to enable high standards throughout the exploration, development, and monitoring groundwater usage.<br><br>DWS continues to support Local Government through their Grants for water services infrastructure development and comprehensive planning | | equitable access to reliable water supply and sanitation services | | service to all households in SA. The development of Five Year Reliability Plans is also noted in the MTSF as a deliverable with DWS as the responsible institution to complete. This programme has been roll-out to all nine provinces and Five-Year Pans are in the process of being developed for each WSA. Data from this process needs to inform the Water Knowledge System to enhance the existing data to include reliable in the process. Will also need to include Business Intelligence to the data to align with statistical data from Stats. This process is all about maintaining existing water and sanitation infrastructure it is a major add on to the existing database. | Census 2011 was the last time any meaningful data on reliable water supply was obtained. Using the 5-year reliability planning process is a major practical step in improving the safely managed component of SDG 6.1. The interpretation and alignment of the Census 2022 is crucial.<br><br>= **R3 million** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **4** | **Unreliable water services data:** | Updating the Water Services (water and sanitation) Knowledge System to include coordination between actors and formal mechanisms was effected through data from the 5YRP developed.<br><br>A monitoring Tool for the 5Yr Reliability Plans was developed with the objective to track and report on progress on the provision of reliable water and sanitation services through the implementation of projects identified in the development of the 5YRP. The data from the 5 Year Reliability Plans Geodatabase will be used to report on demographics, needs and reliability. The geodatabase includes projects that were reported on in the phase 1 situation assessment reports as well as in the phase 2 pipeline of projects reports and will be incorporated as baseline information into the system and the projects data from the Project Management Dashboard (PMD). Structures are developed to enable reporting on service delivery projects using the project dashboard updated information, MIG and other grants on water service delivery progress reporting sheets<br><br>The SDG process has highlighted major gap in receiving information from other National Departments to report on SDG 6.1 and 6.2. For example, data flows and sharing of information with the Department Human Settlements, Rural Development needs to be strengthened.<br><br>A monitoring Tool for the 5Yr Reliability Plans was developed with the objective to | YES | YES<br>The SDGs are supported by AMCOW, the WHO and through their GLAAS process highlighted the need to strengthen co-operation with other National Departments. | International reports | Formal mechanism needs to be put in place to coordinate work of different ministries. Includes all ministries and agencies influencing service delivery. Includes non-governmental stakeholders Includes donors that contribute to WASH activities nationally. Includes mutual review and assessment Evidence-based decision making, considering agreed indicators. Bases work on agreed sectoral framework or national plan Includes documentation of processes and activities Budget line allocated for coordination activities.<br><br>DWS has worked with CoGTA on list of all MIG projects under implementation for reporting on on the Project Dashboard | = **R2 million** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | track and report on progress on the provision of reliable water and sanitation services through the implementation of projects identified in the development of the 5YRP. Projects that were reported on in the phase 1 situation assessment reports as well as in the phase 2 pipeline of projects reports and will be incorporated as baseline information into the system and the Project Management Dashboard (PMD).<br><br>To engage with STATSSA on data gaps regarding water services supply | | | | The Water Services Reliability Progress Monitoring tool will amongst other areas cover Monitoring the reliability progress against the baseline of the Functionality, Water Security, New Infrastructure Development needs and Governance towards achieving the targets and to report on progress of service delivery in terms of how many households have been served with reliable services. | |
| **5.** | **Poor Performance of municipalities in service delivery or water services provision** | **DWS Support to Local Government through the following initiatives:**<br><br>Initiation of the Water Services Improvement Programme (WSIP) to assist with fast tracking water & sanitation services interventions.<br><br>Intervention Unit (Rapid Response Unit) established within Branch: WSSM for co-ordination and implementation of interventions.<br><br>Established Regional PSCs for Interventions<br><br>Resuscitation of the Regulatory DROPS monitoring Programme (BLUE, GREEN, NO DROP) watch report has been published. DWS supports through monitoring of the | YES | YES | NWA & WSA | Support through DWS Grants for refurbishment, new and infrastructure upgrades, R47,5 billion is earmarked towards Water Services includes projects that will improve access to reliability of water supply.<br>Support from and collaboration with COGTA to strengthen and achieve maximum impact through interventions which include Capacity building.<br>Section 63 Interventions in struggling municipalities through Water Boards as IAs<br>Support in Policy and By-Laws development for water and sanitation services | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | implementation of Corrective Action Plans developed by municipalities<br><br>Re-Development of Water Services Development Plan - WSDP framework requires a revamp to ensure that all municipalities can plan for their water and sanitation business. With the current WSDP online system, some municipalities are experiencing difficulties and funding and therefore don't comply in terms of the development of their WSDPs which affects their planning to tackle service delivery. The revamp will ensure that all the of the 5Yr Plans outcomes/projects are incorporated in the newly developed WSDPs.<br><br>Development of an Investment Framework, to ensure that the "the sector leaders" understand the financial impact of closing the service delivery gap, a framework that will identify the investment requirements focused on the reliability impact areas of the service delivery life cycle, needs to be developed from the outcomes of the 5Yr Plans.<br><br>Interventions in poor performing municipalities through Section 139 and 63 of the Constitution and the Water Services Act respectively<br><br>Review of the Norms and Standards for municipal services supply | | | | Support through DBSA Grants for the development of WSDP will be beneficial and assist the municipalities that are struggling to develop their WDSPs to ensure all developed WSDPs are council approved.<br><br>Previous investment requirement documents have been developed using a modelling approach to estimate the investment gap and address issues related to finding funding solutions. This product will however focus on reflecting the actual project solution needs requirements addressing the reliability business elements of functionality, water security, governance and infrastructure requirements, as developed as part of the 5Yr Plans outcomes. | |
| **6.** | **Water Security** | R105 billion is earmarked towards projects aimed at ensuring water security for the country covering | YES | YES | NWA & WSA | RSA and Namibia have mobilized resources for the feasibility study of the Noordoewer/Vioolsdrfit Dam. RSA projects that require | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | various resource development projects<br><br>TRANSBOUNDARY ARRANGEMENT AND PROJECTS: For sustainable water supply for SA, the Department is engaging neighboring countries and Development Partners with a view to ensuring sustainable water resources. An agreement was recently signed on transferring treated water from Zimbabwe for the benefit of Musina in Limpopo, including the Phase 2 of the LHWP.<br><br>RSA and Namibia have mobilized resources for the feasibility study of the Noordoewer/Vioolsdrfit Dam. RSA projects that require financing have been approved by the AIP-PIDA, (Botswana-Lesotho Water Transfer Scheme, NVD Dam with RSA/Namibia;)<br><br>DWS to develop a Concept Note for Infrastructure Asset Management with an objective to…..and to be utilized for …… | | | | financing have been approved by the AIP-PIDA, (Botswana-Lesotho Water Transfer Scheme, NVD Dam with RSA/Namibia;) | |
| **7.** | **Inadequate involvement of the Private sector in the water business** | Establishment of the National Water Resource Agency with the objective of sourcing private funding for infrastructure development<br><br>Establishment of Water Partnership Office to assist municipalities to contract for public private partnerships (PPPs). | YES | YES | NWA & WSA | The Department is putting in place public private collaboration agreements with industries such as the mines to invest through joint funding for infrastructure projects to provide bulk water to industry and reticulated water to communities. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Development of a Financial Model for exploring PPP for water services supply<br><br>Establishment of Special Purpose Vehicles to support LG in the upgrades and O&M of infrastructure<br><br>Development of bankable projects through planning to attract private investment<br><br>Support in Policy reviews to eradicate red tape in government policies | | | | Collaboration with Infrastructure Fund for BFI funding through blended finance–on projects with estimated cost above R1billion, and an economic component. | |
| **8.** | **Theft and vandalism of infrastructure, affecting reliability of supply** | The Department through the Branch: WSSM in collaboration with the JICC- discusses general issues of water infrastructure security<br>Idea is to develop a water infrastructure strategy and plan to safeguard both DWS and municipal infrastructure. | YES | YES | NWA & WSA | JICC, is a presidency-led structure that coordinates and monitors the delivery of collaborative initiatives for government led by SAPS.<br>The JICC Workstream Number Four: Securing Critical Infrastructure, focuses on critical energy (electricity), transport and logistics, and water infrastructures.<br>For the Water Infrastructure, its short-term intervention is to assess and investigate the issues of vandalism, theft and the necessary resources required to address the challenges. | |
| | **TOTAL** | | | | | | **R18 million** |

## 6.2 - Achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

| No. | SDG 6.2 GAPS | PROPOSED ACTION | NW&SMP – Is it covered already? | NW&SMP – Can this be a new action? | OTHER (NWSRS, Legislation etc | Comments | Estimated Budget |
|---|---|---|---|---|---|---|---|
| **1.** | Inadequate integrated planning, to ensure sustainable sanitation services towards meeting the 2030 NDP/ SGD6.2 Goal | To activate the implementation of the National Sanitation Integrated Plan (NSIP) 10-year Roadmap. The DWS in partnership with DSTI will drive a National Sanitation Programme of Action to ensure that equity is achieved by enabling access to inclusive and safely managed sanitation and hygiene for all by 2030. | N | Y | Water Services Act (Act 108 of 1997)<br><br>2016 Sanitation Policy<br><br>National Sanitation integrated Plan (2025) | DWS & DSTI MOU signed and in a process of appointing WRC as an implementing agent for the establish a dedicated of a Project Management Unit (PMU)for the development and implementation of the National Sanitation Programme of Action | R12.6 million |
| **2.** | Lack of a National Sanitation Information System to monitor, report, evaluate and regulate the entire sanitation sector | Integrated National Sanitation Information System developed and aligned to existing DWS systems | N | Y | 2016 Sanitation Policy<br><br>Strategic Framework for Water Services<br><br>Water Services Act (Act 108 of 1997) | The proposed INSIS will be aligned and implemented as a Commercial Off-The-Shelf (COTS) Monitoring and Evaluation module, of the existing DWS system. This is more cost-effective than | R9.0 million |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | building a new system from scratch. | |
| **3.** | Lack of operation and maintenance of on-site sanitation systems | Rollout the developed Development of the National Faecal Sludge Management Educational and Awareness Material for all role players | N | **Y** | Faecal Sludge Management Strategy<br><br>2016 Sanitation Policy | Other local Institutions participation in promotion of hygiene and user education programmes ( such as schools and clinics) for ensuring an environmentally safe approach to sanitation and health risks. | R1.5 million |
| **4.** | Lack of Financial Mechanism and economic models to implement faecal sludge management services | Development of the guidelines for financial mechanisms and economic models to facilitate Faecal Sludge Management services | N | Y | 2016 Sanitation Policy<br><br>Faecal Sludge Management Strategy (2023) | Collaborate with other institutions to pilot the implementation of draft Financial Mechanism and economic models guidelines to understand its scalability | R2.0 million |
| **5.** | Lack of data available to report on safely managed sanitation in the service value chain per WSA | Upscaling the development of draft Shit/ Excreta Flow Diagram to improve sanitation services in 36 WSAs | N | Y | Water Services Act (Act 108 of 1997)<br><br>2016 Sanitation Policy | Review the developed Shit flow diagrams by Sustainable Sanitation Alliance (SuSanA). | R0.5 million |
| **6.** | Poor uptake and adoption of innovative Water Efficient sanitation solutions (WESS) | Develop model bylaws framework as a guideline to assist municipalities with approval, adoption, and regulation of off-grid, decentralised and non- | Y | Y | 2016 Sanitation Policy<br><br>Compulsory National Water and Sanitation Services Norms and Standards(2025) | Compulsory National Norms and Standards have already created an enabling environment for the implementation of WESS | R0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | and technologies by municipalities. | sewered sanitation systems | | | | | |

## 6.3 - Improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally;

| | SDG 6.3: WASTEWATER AND WATER QUALITY | | | VEHICLES OF CHANGE | | | | |
|---|---|---|---|---|---|---|---|---|
| **No.** | GAP | ACTION [1] | RESPONS-IBILITY | NW&S MP – Is it covered already? | NW&SMP – Can this be a new action? | OTHER (NWSRS, Legislation etc) | Comments | Estimated Budget |
| | [1] WQM 2020 refers to the DWS WQ Drive to tackle deteriorating WQ in RSA, consisting of a high-level Anti-Pollution Task Team and the DWS WQ Strategy Steering Committee | | | | | | | |
| **1.** | **SDG 6.3.1:** Large data gaps with regards to data on the quantity and quality of effluent discharged by Municipalities. | 1.1) Green Drop Assessments (GDA) in IRIS:<br><br>1.1.1) Comprehensive assessments<br>1.1.2) Report discharged volumes | D: Regulation, Compliance and Enforcement<br><br>SD: Water Services Regulation | Yes | Yes | NWSRS<br><br>IWQM Strategy (WQM2020[1])<br><br>Compulsory National Water and Sanitation Service Standards | Many Wastewater Treatment Works (WWTWs) for municipalities do not have flow gauging stations or are monitoring the quality of outflows<br><br>This is addressed in the NW&S MP under:<br><br>Level 2 Action:<br><br>1.4.1 Revitalise the Green, Blue and No Drop programmes and publish results and revise and establish norms and standards.<br><br>(Action 1.5.12, level 3: - Develop and implement an inventive based programme | R30 000 000 |

[1] These actions are equivalent to a "Level 3 and/or 4" action under the NW&S MP

[1] WQM 2020 refers to the DWS WQ Drive to tackle deteriorating WQ in RSA, consisting of a high-level Anti-Pollution Task Team and the DWS WQ Strategy Steering Committee

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | for WQ - in the updated Vol 3 for Water Quality) | |
| **2.** | **SDG 6.3.1:** Gaps in the availability of data on wastewater discharged by authorised non-municipal WWTWs, both into municipal sewer systems and into water resources. | 2.1) Undertake initiatives to collect data on discharges from Non-Municipal WWTW's: | Directorate: Regulation, Compliance and Enforcement<br><br>Sub-Directorate: Water Services Regulation | No | Yes | NWRS<br>IWQM Strategy (WQM 2020)<br>Data Management Strategy for RSA | To compel Water Services Authorities to monitor and record the flow and effluent quality received from industries.<br><br>Compliance Monitoring Data produced by water users who generate and discharge/dispose of waste or water containing waste is submitted currently to the DWS in hard copy format.<br><br>A system is now in place to capture discharge data.<br><br>Regulations are now required to compel existing users to load their data onto iRIS<br><br>(This is Action 1.5.8, level 3: -in the updated Vol 3 for Water Quality) | R200 000 |
| **3.** | **SDG 6.3.2:** Inadequate surface water quality data to enable reporting on SDG 6.3.2 | 3.1) Maintain sampling at SDG 6.3.2 surface water monitoring sites through the National Chemical Monitoring Programme (NCMP) and National Eutrophication Monitoring Programme (NEMP) at all 55 sites. | Directorate: Resource Quality Information Services<br><br>Sub-Directorate: Resource Quality Monitoring | Yes | No | NWRS<br><br>IWQM Strategy (WQM2020[2]) | All of the 55 SDG 6.3.2 surface water sampling sites have been activated.<br><br>The aim for 2026 is to ensure that all sampling is done as per sampling schedule | R1 518 550 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | **SDG 6.3.2:** Inadequate groundwater quality data to enable reporting on SDG 6.3.2 | 3.2) Enhance the coverage of groundwater monitoring sites (For Groundwater to cater for the SDGs, this consists of at least expanding the monitoring to cover all the Hydrogeological Regions)<br><br>3.3) Establishment of 6 new Boreholes for water quality monitoring- with focus on Transboundary Aquifers | Directorate: National Hydrological Services & Regions<br><br>Sub-Directorate: Geohydrological Information Services | Yes | Yes | National Groundwater Strategy (2017)<br><br>National Water Resource Monitoring Network Optimisation Strategy | Level 3 Action:<br><br>Undertake routine national water quality monitoring, considering the recommendations of the Review of the South African Water Resource Monitoring Network Report.<br><br>(Action 1.5.3 in the updated Vol 3 for Water Quality) | R900 000 |
| | [1] These actions are equivalent to a "Level 3 and/or 4" action under the NW&S MP<br>[2] WQM 2020 refers to the DWS WQ Drive to tackle deteriorating WQ in RSA, consisting of a high level Anti-Pollution Task Team and the DWS WQ Strategy Steering Committee | | | | | | | |

***6.4 - Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.***

| | TARGET SPECIFIC (6.4) DESCRIPTION | | VEHICLES OF CHANGE | | | | |
|---|---|---|---|---|---|---|---|
| **No.** | GAP | ACTION | NW&SMP – Is it covered already ? | NW&SMP – Can this be a new action? | OTHER (NWSRS, Legislation etc | Comments | Estimated Budget |
| **1** | There has been no comprehensive national water balance at Water Management Area level done since the NWRS 1 (2004) issued balances which directly impact 6.4.2 calculation disaggregation | 1)Carry out the national water resource balance studies at a Water Management Area level as a matter of priority. | Yes, high level water balance was issued | No | NWRS3<br>APP Project of DWS | On-going: The national water balances perspective study is being piloted in two WMAs and is expected to be completed in 3 years. | To cover the whole country provisional cost of Study has been put at R14M for 3 years |
| **2** | There is lack of consistent and accurate water use and water loss data in all major water use sectors | Develop tools and web based systems that will enable data collection and verification of such data | No | Yes | NWRS3<br>Regulations<br>Licence Conditions<br>Water Conservation/Water | The Department prioritise the development of the web-system for actual water use reporting. This requires support from the top | The estimated amount required to develop a web-based management system R10M |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | (Agriculture, Industry and Municipalities) | Continue to use best available system (Water Authorisation Regulation Management System-WARMS)<br><br>Local Government water balance (No Drop) data will be incorporated into Integrated Regulatory Information System (IRIS) of the DWS.<br><br>Finalise and pilot Irri-Drop for Agriculture water use data.<br><br>Strengthening enforcement of agricultural water metering regulations. | | | Demand Management Strategies | management and office the Chief Information Officer. | |
| **3** | Update the baseline critical information as per the requirements (agriculture, nonconventional water, e.g. desalination & municipal waste water) of FAO. | Continuous engagement of stakeholders and the collection of the necessary information as per FAO Questionnaire. | No | Yes | Agricultural Outlook | Continuously engage with relevant stakeholders about data collection. Directorate to sponsor a project to SWPN on this activity. | Internal |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **4** | Disaggregation of some variables of the indicator 6.4.2. | Disaggregation of Indicator 6.4.2 to catchment level by 2026. | No | Yes | NWRS3 | Engaging various directorate within the department on the data required to pilot the new FAO disaggregation method that was piloted in other countries. | 0 |
| **5** | Updated Water Resource 2012 national hydrology study. | Updating the WR2012 national hydrology study through Water Research Commission to assess the climate change impacts. | No | Yes | | Request Water Research Commission to update the study. | R50M |

Note:

1. This Table provides a simple overview of the Actions that come from your own Target Gap report and clarifies which 'Vehicle of Change' it can influence and how.
2. You are required to populate the above Table for your own Target - An example is shown in the Table.
3. Pls include up to 6 priority Gaps/Actions from your Target and include this Table as part of your Gap Report

## 6.5 – Implement integrated water resources management at all levels, including through trans-boundary cooperation as appropriate

| | TARGET SPECIFIC (6.1…6.b) DESCRIPTION | | VEHICLES OF CHANGE | | | | |
|---|---|---|---|---|---|---|---|
| Target indicat6.5.1 GAP | | ACTION | NW&SMP – Is it covered already? | NW&SMP – Can this be a new action? | OTHER (NWSRS, Legislation etc | Comments | Estimated Budget |
| **Status of policies, laws and plans to support Integrated Water Resources Management (IWRM) at the national level** | | | | | | | |
| | National Water Policy Review of 2013, National Sanitation Policy and Water and Sanitation Climate Change Policy are being incorporated into legislation. | A draft bill was developed and is in consultations | | | Water is managed as a national competency supported by the following primary water policies<br>1. White Paper on Water Supply and Sanitationed water policy positions (1994)<br>2. White Paper on National Water Policy for South Africa (1997)<br>3. White Paper on Basic Household Sanitation (2001)<br>4. National Water Policy Review (2013)<br>5. National Sanitation Policy (2016)<br>6. National Climate Change Response Strategy (2013)<br>7.Water and Sanitation | National water resources policy, or similar. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | Climate Change Policy (2017 | | |
| | 1. National Water Policy Review of 2013, National Sanitation Policy and Water and Sanitation Climate Change Policy incorporated into legislation.<br>2. Review of the National Water Act, 1998 (NWA) and the Water Services Act, 1997 (WSA) to a single legislation.<br>3. National Resource Infrastructure Agency Bill. Will replace Government Notice 277 in Government Gazette No 21017<br>4. Strengthen Section 19 of the NWA that deals with pollution prevention | 1. The National Water Policy Review of 2013, National Sanitation Policy and Water and Sanitation Climate Change Policy are being incorporated into legislation.<br>2.The review of the NWA is in process.<br>3. The National Infrastructure Bill is now at National Assembly<br>4.Address pollution prevention in the National Water and Sanitation Masterplan | | | 1. The National Water Act, 1998 (Act no 36 of 1998) as amended<br>2.The Water Research Act, 1971 (Act no 34 of 1971)<br>3.The Water Services Act (1998)<br>4. South African National Water Resources Infrastructure Agency SOC Limited Act Act 34 of 2024<br>5. 3. Climate Change Act | National water resources law(s). | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1. Sector wide consultations to enable adoption and embedding of the plans across the water sector<br>2. Ensuring cost recovery for water and sanitation services | 1. 2030 25-year planning horizon with 3-to-5-year reviews | | | 1.The National Water Act (1998) requires the establishment of a National Water Resource Strategy (NWRS), and the Minister must give effect to the NWRS when performing duties.<br>2.The NWRS must be reviewed and updated at intervals of not more than (5) years<br>3. A sector wide plan, the National Water and Sanitation Master Plan (NW&SMP) has been developed to give effect to the National Water Resource Strategy.<br>4. The NWSMP is a consolidation of the intervention required across the water value chain over a 10-year horizon..<br>5. Water and Sanitation Sector Policy on Climate Change | National integrated water resources management (IWRM) plans, or similar. | |
| **Status of policies, laws and plans to support IWRM at other levels** | | | | | | | |
| | Creating efficient and effective institutions Establishment of remaining CMAs and | All 6 CMAs established in 2023 | | | The National Water Act assigns the national government as the public trustee of water | Sub-national water resources policies or similar. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | subsequently, the local implementation plans of the CMAs | | | | resources, so that devolution is at the level of implementation plans | | |
| | 1.Establishment of CMAs as one step to development of IWRM plans<br>2. Continuous update and review of the plans listed under "current"<br>3. Embed the plans in related sector plans in other cooperative government and institutional structures<br>4. Alignment of functions amongst national, provincial and CMAs | 1. IWRM plans for CMA's 2024 Interim Targets<br>2. On-going update on a 3-to-5-year cycle of plans<br>3. Require a Monitoring and Evaluation system for plans<br>4. Functions addressed in legislation (2024 targets) | | | Various plans have been developed including among others, as in;<br>1. Reconciliation strategies were developed for the catchments or major water supply systems<br>2. Internal Strategic Perspectives (9/9)<br>3. Catchment Management Strategies were developed for Inkomati-Usuthu and Breede-Olifants. The other 4 units are management on the hybrid model of Political Administrative boundaries and Catchments using the National Plans<br>4. Integrated Water Quality Management Plans (4/9) have been developed for Vaal, and Limpopo (Olifants, Crocodile West)<br>5. Ecosystem plans encompassing Classification of water | Basin/aquifer management plans or similar, based on IWRM. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | resources, Resource quality objectives and Environmental flows (Reserve 6/9)<br>6. Aquifer Management Plans<br>7. Infrastructure operating rules<br>8. Provinces use national plans with exception of Integrated Monitoring Plans<br>9. WUA (Water User Association) and Water Use Efficiency Plans<br>10. 8 Water Boards Plans (Potable water) | | |
| | 1. Alignment of multi-lateral agreements covering basins with bi-lateral agreements<br>2. Harmonisation of data and information management systems | 1. On-going reviews and updates of multi-lateral and bi-lateral aggreements<br>2. Information management system as Per SADC Regional Strategic Action Plans https://www.sadc.int/sites/default/files/2021-11/Regional_Strategic_Action_Plan_-IWRM_III.pdf | | | Basin Commissions for; Limpopo, Incomati and Orange are in place | Arrangements for transboundary water management | |
| **Status of institutions for IWRM implementation at the national level** | | | | | | | |
| | 1. Independent Regulatory Commission: established to | 1. Awareness raising programmes are in place | | | 1. Department of Water and Sanitation<br>2. Department of Forestry and Fisheries | National government authorities for leading IWRM implementation. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | provide strategic regulatory expertise, best practice, insight, advice and guidance on the activities of the regulatory programme, with the initial focus on economic and social regulation of the water sector.<br>2. Public Private Collaboration Programme: DWS is implementing a Public Private Collaboration Programme with the private sector and civil society for assistance with developing and improving water and sanitation services, (example Vaal Gamagara BWSs)<br>3. Water Partnership Office: the Department established the WPO at | 2. Monitor operations of the new Institutions put in place to support IWRM<br>3. Note the sepration of some portfolios like Agriulture and Rural Development in so far as it affects IWRM implementation | | | and the Environmental, (DFFE (Department of Forestry and Fisheries and the Environment))<br>3. Department of Mineral Resources and Energy (DMRE)<br>**4.Department of Agriculture**<br>**4. Department of Land Reform and Rural Development (DLRRD)**<br>5. Department of Basic Education (DBE)<br>6. Cooperative Governance & Traditional Affairs (CoGTA)<br>7. Department of Higher Education and Training (DHET)<br>8. Department of Human Settlements (DHS)<br>9. Department of Public Enterprises (DPE)<br>10. Department of Public Service and Administration (DPSA)<br>11. Department of Trade, Industry and Competition (DTIC).<br>12. Department of Science and Innovation | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Development Bank of Southern Africa (DBSA) to assist municipalities to contract for PPPs and to contract with independent water producers (IWPs). | | | | (SDI)<br>13. South African National Biodiversity Institute (SANBI)<br>**14. South African National Water Resources Infrastructure Agency SOC Limited Act Act 34 of 2024**<br>**15. Water Partnership Office**<br>**16. Public Private Collaboration Programme**<br>1. | | |
| | 1.Awareness creation on cross-sectoral coordination<br>2. Lack of cooperation at operational level – should be improved for implementation<br>3. Climate Change Act | 1 and 2. Focus on improved communication<br>2. Climate Change Act as the lead legislation implemented | | | Political and Policy – There are several inter-governmental structures which facilitate inter-governmental relationships, at a high level, like;<br>a. The President's Coordinating Council – brings together Ministers; Premiers' Provincial heads and leaders in local government to promote co-operation on matters of mutual concern to all three spheres of government<br>b. Committees of Ministers and members of Provincial Executive Councils exist in specific sector focus areas; for | Coordination between national government authorities representing different sectors[1] on water resources policy, planning and management. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | example, agriculture, education, and health. These communities provide a forum for provinces to interact with the relevant Ministers.<br>c. The forum for South African Directors General brings together heads of national and provincial departments with cross-cutting programmes. The forum improves the coordination of policy making and implementation across government.<br>d. The National Council of Provinces ensures that provincial interests are considered.<br>Strategic Level – Government departments with cross-cutting programmes are clustered together to encourage integrated planning, effective decision-making, information-sharing and sound intergovernmental relations as in;<br>a. Economic Sectors, Investment, Employment, and Infrastructure Development<br>b. Social Protection, Community and Human Development | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | c. Governance, State Capacity, and Institutional Development<br>d. Justice, Crime Prevention and Security<br>e. International Cooperation, Trade and Security<br>f. The Forum for South African Directors-General brings together heads of national and provincial departments with cross-cutting programmes.<br>Operational Level – Departmental Bi-laterals, as in;<br>a. MOU/A have been signed amongst government authorities responsible for water and related matters<br>b. A one environment authorisation system is in operation for DWS/DEFF/DMRE<br>c. Joint planning meetings<br>d. Cross-reference and commenting on various planning arrangements<br>e. Shared cross consultation in development of strategic plans, e.g. (Integrated Resource Plans for Energy, Water, Settlements etc)<br>f. District Development Model | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1. Use of various platforms beyond the traditional.The will among water users to be involved in decision making in water management<br>2. Targeting communication over the long term and in across all age groups in schools, secondary and tertiary levels | 1 and 2. Ongoing activities | | | 1. Comments to gazetted documents via invitation in media<br>2. Stakeholder meetings called at nation al level for policy and planning purposes<br>3. Regulated and prescribed processes for public participation in various statutes (NWA, NEMA, MPRDA, PAIA, etc.)<br>Private – Public Partnerships<br>4. Appeal and directives via institutions in Chapter 9 of the Constitution,<br>• Public Protector,<br>• The South African Human Rights Commission,<br>• The Commission for the Promotion and Protection of the Rights of Cultural, Religious and Linguistic Communities,<br>• The Commission for Gender Equality<br>• The Auditor-General and;<br>• The Electoral Commission<br>5. • Lekgotla – planning | Public participation in water resources policy, planning and management at national level. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | meetings at Political level to address issues | | |
| | 1. Strengthen coordination for citizen science<br>2. Priority Actions and targets detailed in National Water and Master Plan | 1. Require partnerships, target of 2030<br>2. Implement priority actions in the NWSMP | | | 1. Participation in water user organisations as members/Associations as water users in mining, industry, manufacturing, irrigation, energy generation<br>2. Stakeholders/ Interested and affected parties in water resource planning and management platforms<br>3. Financing partners in water resource development and infrastructure management<br>4. Private/Public Partnerships<br>5. Water Management technology e.g., software, valves, and detectors<br>6. Water sector collaboration initiatives with sector organisations<br>7. Use of citizen science (private farmers rainfall data)<br>8. Research activities | Private sector participation in water resources development, management and use. | |
| | 1. Assessment of sector skills and | 1. Bursary program within Department of | | | 1. General Education (schooling phase) | Developing IWRM capacity. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | capacity building needs<br>2. Strengthen middle tier of training for technicians, which is lacking, for infrastructure maintenance<br>3. Develop high end skills (postgraduate) to ensure a future science, technology, and innovation capability | Water<br>2. Large pool of Academic Institutions with specialist capabilities<br>3. Institutions that have technician training programmes | | | 2. Further Education and Training (vocational post schooling phase)<br>3. Higher Education and Training<br>4. Workplace - work integrated learning<br>5. Sector excellence (research and innovation) | | |
| **Status of institutions for IWRM implementation at other levels** | | | | | | | |
| | 1. Establish financially sustainable CMAs across the country, and transfer staff and budget and delegated functions, including authorisation of water use and monitoring and evaluation of water resources<br>2. Transform all | 1. Achieved CMA establishment (2023)<br>2. Ongoing transformation of WUA's<br>3. Transformation embed in legislation<br>4. Establish a National Water Resources and Services Agency | | | 1. National Department for water covers the policy and regulatory sphere<br>2.Catchment Management Agencies<br>3. Water Users Associations/ Organisation<br>4. Irrigation Boards<br>5.Water Boards | Basin/aquifer level organizations for leading implementation of IWRM. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | WUAs into Local water resources management institutions as per the developed roadmap<br>3. Transformation to represent all ethnic groups | | | | | | |
| | 1. Increase inclusivity and advance notices of forum<br>2. Raise awareness on public participation at all levels | 1. Continuation of Catchment Management Forums<br>2. Multiple languages media broadcasting | | | 1. Comments to gazetted documents via invitation in media and complimented by stakeholder consultations<br>2. Legislated/regulated and prescribed processes for public participation in<br>-various environmental related laws/statutes like NEMA, NWA, MPRDA, WSA, Water Research Act, as well as the Constitution<br>-Subsidiary statutes like Regulations<br>3. Appeal and directives via institutions in Chapter 9 of the Constitution;<br>• Public Protector,<br>• The South African Human Rights Commission,<br>• The Commission for | Public participation in water resources policy, planning and management at the local level. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | the Promotion and Protection of the Rights of Cultural, Religious and Linguistic Communities,<br>• The Commission for Gender Equality<br>• The Auditor-General and;<br>• The Electoral Commission<br>4. Lekgotlas (local consultative meetings) conducted in local languages<br>5. Operational procedures in;<br>• Catchment Management Agencies<br>• Catchment Management Forums<br>• Water Users Associations<br>• Irrigation boards<br>• Related develop<br>6. Membership in advocacy groups | | |
| | 1. Priority actions and targets detailed in the National Water and Sanitation Masterplan | 1.Increase M&E of the NWSMP | | | 1. Stakeholder platforms as legislated<br>2. Legislated/regulated and prescribed processes for public participation in various statutes<br>3. Comments to gazetted documents via | Participation of vulnerable groups in water resources planning and management. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | invitation in media<br><br>4. Appeal and directives via institutions in Chapter 9 of the Constitution<br>5. Lekgotlas<br>6. Catchment Management Forums | | |
| | 1. Training/ capacity building on gender mainstreaming<br>- Water sector training must be conducted on gender mainstreaming in water management<br>2. Changing policies that hitherto hindered women's access to the economy<br>- Review and update strategic and operational policies in water and related organisations to promote gender equality<br>- Monitoring of outcomes | 1. The Transformation and Gender Unit in the Department of Water took on a more active role and reports on gender mainstreaming | | | 1. Policies<br>• South African National Policy Framework for Women empowerment and Gender equality (nPFWeGe), 2000<br>• National Gender Policy Framework<br>• White Paper on the Rights of People with Disabilities in South Africa 2016<br>2. Laws<br>• Constitution of South Africa<br>• Employment Equity Act 55 of 1998<br>• National Environment Management Act (NEMA) – makes clear that role of women and youth in environment management must be recognised<br>3. Plans and Strategies<br>• Government authorities, Catchment | Gender mainstreaming in water resources management | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | Management Agencies, Water Users Associations have gender sensitive policies | | |
| | 1. Increase powers and functions of the basin authorities<br>2. Increase powers and functions of the Basin Authorities and making RBOs (River Basin Organisations) autonomous | 1. Long term target with progressive development of basins and bilateral arrangements<br>2. Mobilising financial and technical resources for project preparation for delivery of transboundary water infrastructure projects (2030 target) | | | Basin Commissions for;<br>- Limpopo,<br>- Incomati and<br>- Orange are in place<br>At a bi-lateral level, various Joint Water Commissions, or other iterations of a similar nature, as in<br>South Africa – Botswana<br>South Africa – Eswatini<br>South Africa – Lesotho<br>South Africa – Mozambique<br>South Africa – Namibia<br>South Africa – Zimbabwe | Organizational framework for transboundary water management | |
| | 1. Training programs for awareness raising<br>2. Transformation of irrigation Boards into Water Users Association<br>3. Infrastructure Agency for implementing water resource | 1. Focus on local issues<br>2 and 3. Progress in implementing legislation | | | 1. Catchment Management Agencies /<br>Basin Management Authorities<br>2. Local Water Resource Management Institutions<br>- Water Users Organisation /Associations<br>- Irrigation Boards | Sub-national authorities for leading IWRM implementation | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | development projects | | | | | | |
| **What is the status of management instruments to support IWRM implementation at the national level?** | | | | | | | |
| | 1.Monitoring site coverage<br>2. Meteorological moniroing<br>3. Include citizen science monitoring<br>4. Upgrade of monitoring technology | 1.Monitoring protocols established in catvahment management plans<br>2. Memorandum of Understanding with the South African Weather Services<br>3. 5-year monitoring plan<br>4. Supply Chain Policy | | | 1. National Monitoring Programme<br>2. Wetland monitoring programme<br>3. River Eco status Monitoring Programme<br>4. Water Authorisation and Registration Management System (WARMS) | National monitoring of water availability (includes surface and/or groundwater, as relevant to the country). | |
| | 1. Implementation of targets and monitoring of WC/WDM across water use sectors<br>2. Implementation of financial instruments<br>3. Education and awareness raising to reduce water use and/or improve water-use efficiency<br>4. Technical interventions on infrastructure<br>5. Strategy for water re-use communication | 1. Monitoring of WC/WDM plans<br>2. Update of raw water pricing strategy<br>3. Bolster public awareness programmes<br>4. Strengthen finance through public-private partnerships<br>5. In the NWRS 3 | | | 1. Development and Implementation of water management plans to improve water use efficiency in agricultural sector<br>2. Demand management measures technical measures<br>-Education and awareness raising to reduce water use and/or improve water-use efficiency<br>-Water conservation<br>3. Recycling and re-use<br>4. Financial Instruments<br>5. Water metering | Sustainable and efficient water use management from the national level, (includes surface and/or groundwater, as relevant to the country). | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1. Compliance monitoring<br>2. Enforcement<br>3. Effluent water quality monitoring | 1. National Toxicity Monitoring Programme is and is intended to assess status and trends of toxicity and toxicants in water resources.<br>2. National Toxicity Monitoring Programme is and is intended to assess status and trends of toxicity and toxicants in water resources.<br>3. Strengthen Compliance Monitoring and Enforcement<br>4. Green Drop monitoring programme | | | 1. Water Quality Strategies and plans<br>2. Water quality monitoring<br>3. Resource parameters, or Resource Directed Measures<br>4. Water quality guidelines<br>5. Regulations/ gazettes for point and non-point pollution sources<br>6. Economic Instruments<br>- Water use pricing,<br>- Polluter pays principle<br>- Waste discharge charge system<br>- Controlled release<br>7. Education campaigns<br>8. Community-based social marketing | Pollution control from the national level. | |
| | 1. Many of the areas have been significantly degraded, and require efforts to restore.<br>2 Protection of Strategic Water Source Areas | 1. Priority Actions and targets detailed in the National Water and Sanitation Master Plan<br>2. Implementation of strategic water source areas regulation | | | 1. Setting of standards on Resource parameters, or Resource Directed Measures (designated<br>2. Resource allocation for water (the Reserve)<br>3. Authorisations with various permits<br>4. Monitoring of aquatic and related ecosystems | Management of water-related ecosystems and biodiversity from the national level | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | 5. Designation Protection of areas and species<br>6. Delineation of Strategic Water Source Areas | | |
| | 1. The developed risk and vulnerability assessments provide short-, mid- to long-terms climate impacts on the water sector, these are updated when new downscaled climate scenarios are available from GCMs and are a companioned by nation-wide training on their interpretation and operationalisation. These assessment are available over an interactive GIS platform on the Departmental website, free access to anyone.<br>2. Water Use | 1. Early-warning systems is being developed in collaboration with international (UNESCO) and national partners (DFFE, SAWS), and will be hosted at the South African Water Services to enable for warnings to be issues nationally<br>2. Inclusion in the WARMS (Water Authorisations and Registration Management System) database at DWS regional offices | | | 1. Disaster preparedness and institutions/ enabling acts<br>2. Real-time monitoring system flood monitoring system<br>3 Rainfall measurement and monitoring (South African Weather Service and HydroNET)<br>4. Climatological (drought)<br>5. Emergency Preparedness Plans<br>6. Water Use Authorisation | Management instruments to reduce impacts of water-related disasters from the national level. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | License Monitoring | | | | | | |
| **What is the status of management instruments to support IWRM implementation at other levels?** | | | | | | | |
| | 1. Metadata of the associated database/GIS data developed<br>2. Citizen Science database | 1. Data Management Strategy<br>2. Require database provided by the Water Research Commision | | | 1.The Water Management Areas delineated and reduced to quinaries<br>2Catchment Management Strategies<br>4. Local Water Management Area plans<br>5.Monitoring networks Various databases | Basin management instruments | |
| | 1. Expansion of Acid Mine Drainage Monitoring in South Africa.<br>2. Updating the Hydrogeological Map of South Africa and mapping of aquifers<br>3. Mapping Deep geological structures, deep aquifers and artesian aquifers.<br>4. Determine baseline water quality in proposed fracking | 1. 1new monitoring site added to DRD Shaft in central basin<br><br>Monitoring extended into Dundee area since 2022<br><br>Witbank coal fields monitoring network design in progress.<br>2. Pilot Hydrogeological map series – for the Polokwane Area in process through the support from SADC GMI sub grants.<br>3. Memorandum of Agreement between the Department of Water | | | 1.National Groundwater Monitoring system<br>2.Geohydrological Report System<br>3 Water use authorisation<br>4. National Integrated Water Information System (NIWIS)<br>5. Development of Aquifer Management Plans<br>6. Development of Groundwater Operating Rules<br>7. Water Resource Classification | Aquifer management instruments | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | areas, groundwater water-level baseline via baseline monitoring in the Karoo Basin | and Sanitation (DWS), Municipal Infrastructure Support Agent (MISA) and Council for Geoscience (CGS) - funding is needed from DWS to support the project activities within its areas as per the MoU<br>4. Draft regulations for the use of water for exploration and production of onshore naturally occurring hydrocarbons that require hydraulic fracturing published in Government Gazette No. 44545 7 May 2021 | | | | | |
| | 1. Strengthen cross sector information sharing<br>2. Open-source platforms | 1. Communication strategy<br>2. Use South African Space Agency, South African National Biodiversity Institute | | | 1. National Water Information Management System (NIWIS)<br>2.Water research publications<br>3. Catchment Management Areas Data<br>4. Basin Development Authorities<br>5. Council for Scientific and Industrial Research<br>6. International Basin organisation<br>7. Statistics South | Data and information sharing within countries at all levels | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | Africa<br>8. Water Institute of Southern Africa<br>9. South African Weather Service (SAWS) | | |
| | 1. Some commissions are not yet fully established hence there is no proper conduit for data sharing | 1. SADC Regional database or information exchange platform with a river basin organization including technical requirements for data submission | | | 1. Joint water commissions with co-basin states<br>2.Meetings and workshops<br>3. Established procedures<br>4. Joint studies that are undertaken | Transboundary data and information sharing between countries | |
| **Status of financing for water resources development and management at other levels** | | | | | | | |
| | 1.Estimated funding gap has increased substantially since 2020 | 1.Financial independence of sub-national activities<br>2. Accelerated operationalisation of Catchment Management Agencies | | | 1. The large water development infrastructure is financed at national level.<br>2. Estimated capital funding requirement has significantly increased since 2020<br>3. Most sub-national or basin structures have limited funding, and are currently limited to soft management rather than the hard infrastructure | Sub-national or basin budgets for water resources infrastructure (investment and recurrent costs). | |
| | 1. Increase private sector partnerships | 1. Ongoing<br>2. Iestablishment of Water Partnership | | | 1. Water Resources Management Charges<br>• Covers the charges | Revenues raised for IWRM elements. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2. Strengthen development institutions roles<br>3. Implementation of the Waste Discharge Charge System<br>4. Continuous update of pricing strategy | Office<br>3. Ongoing, WDCS has been implemented in 2 catchments<br>4. Update Pricing Strategy 2024-2027 | | | required to manage water resources within the 6 water management areas gazetted<br>2. Water Resources Infrastructure Charges<br>• Charges relating to the development and use of waterworks, covering charges related to planning, capital costs, operation and maintenance, depreciation, and future infrastructure build on government water schemes.<br>3. Waste Discharge Mitigation<br>• Charges which cover the charging for discharge of water containing waste into a water resource or onto land<br>4. Water Research Commission Charges<br>• Paid into a National Water Research Fund and used by the (WRC) to fund water-centred Research and Development<br>5. Economic Regulation Charges | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | • Charges intended to fund the activities of the Economic Regulator – introduced in National Water Amendment Bill | | |
| | 1.Financial capacity Institutional capacity<br>2. Country's allowing autonomous operations of RBOs | 1. Expand basin level activities beyond sharing of information to undertake activities<br>2. Autonomous RBOs | | | 1. Contributions by the partner countries forming the basin commissions<br>2. External funding for start-up and initial operations by development partners<br>3. Development partners to finance infrastructure | Financing for transboundary cooperation. | |
| | | | | | | | |
| **Target indicator 6.5.2 GAP** | | **ACTION** | **NW&SMP – Is it covered already?** | **NW&SMP – Can this be a new action?** | **OTHER (NWSRS, Legislation etc** | **Comments** | **Estimated Budget** |
| **1** | To confirm the extent of territory for South Africa | website searches and confirm extent of the area of SA | | | a. The territorial extent of South Africa of 1 219 602 km2 was used in the current reporting cycle. This is sourced from the South African government website https://www.gov.za/about-sa/geography-and-climate. This is a change from the 1 221 037 km2 used during the 2020 reporting, | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | which was from the STATSSA website. | | |
| 2 | To confirm the extent of territory for Limpopo River Basin in South Africa | conduct literatire review and also do GIS measurements | | | The size of the Limpopo River basin adopted on the website Home Page - Limpopo River Awareness Kit (limpoporak.org)<br>i. The area of the Orange River basin used is 1,000,000 km2, from the ORASECOM website (https://orasecom.org/overview-of-the-orange-senqu-river-basin/).ii. There are some discrepancies in literature on the area of the river basin, and as well on the proportion of territorial area of each of the four countries contributing to the river basin area. The scan of open-source literature gives basin size area in the range 855 000 km2 to 1 004 230 km2. An exercise to update the area is required if primary data are not available | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | iii. The sub-basins in the 4 different countries also show some variations in literature. For South Africa, the 642 000 km2 on the ORASECOM website was maintained though this is deemed an overestimate. The preliminary estimate done for South Africa's area gives a lower area than that on the ORASECOM website. Other sources also quote lower areas. | | |
| 3 | the extent of the area in South Africa needs to be verified | verify the methodology with ORASECOM | | | The extent of the Karoo Sedimentary aquifer is estimated in the range 135 000 to 140 000 km2 across Lesotho and South Africa. The figure of 135 000 km2 was used.<br>ii. The area of the aquifer in South Africa is estimated at 104 665 km2 after accounting for the area of the Kingdom of Lesotho (30 335 km2), where the aquifer is estimated to occur across the whole country | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | iii. The part of the aquifer in the Orange River basin is covered by the ORASECOM and other Orange River agreements. This was estimated at 67 893 km2.<br>iv. The balance of 36 752 km2 of the aquifer occurs in areas that drain towards the eastern coastal areas and are not covered by the agreement | | |
| | 4) The Coastal Aquifer VI was | check with INMACOM on how the matter is treated | | | in 2020 considered to be outside the agreement of Mozambique South Africa agreement. Further interrogation of the South Africa/Mozambique Joint Water Commission of 1996 agreement shows that Article 2 addresses management of water resources of common interest. The aquifer is a water resource of common interest. | | |
| | | | | | | | |

Note:

1. This Table provides a simple overview of the Actions that come from your own Target Gap report and clarifies which 'Vehicle of Change' it can influence and how.
2. You are required to populate the above Table for your own Target - An example is shown in the Table.
3. Pls include up to 6 priority Gaps/Actions from your Target and include this Table as part of your Gap Report

## 6.6 – By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

| | SDG 6.6: WATER-RELATED ECOSYSTEMS | | | VEHICLES OF CHANGE | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | GAP | ACTION [2] | RESPONSIBILITY | NW&SMP – Is it covered already ? | NW&SMP – Can this be a new action? | OTHER (NWSRS, Legislation etc | Comments | Estimated Budget |
| **1** | **Groundwater level data is insufficient** (16 Geohydrological Regions having only 1 borehole and 4 having none at all. In total it is estimated that 54 boreholes need to be reactivated/developed in these areas) | New geosites coverage estimation will be based on the density rule (25km buffer per borehole) for each Vegter Region | **DWS: SGWI** | **No** | **Yes** | NWSRS<br>National Data Management Strategy<br>National GW Management Strategy | (This is Action 1.6.2, level 3: -in the updated Vol 3 for Water Quality) | R4 000 000 to put in place/refurbish monitoring boreholes for Vegter regions with low coverage (pending the outcomes of the density exercise) |
| **2** | **Lack of groundwater operating rules in high groundwater use areas to ensure** | 1) Undertake detailed Groundwater assessments and establish Groundwater operating rules in high groundwater use | **DWS: WRPS** | **Partially** | Yes | National GW Management Strategy | This action could fit in with Action Level 2: 1.1.12<br>Increase groundwater use (including artificial recharge) and re-use of water | R300 000 per project/area. (can range between R50 000 to R800 000) |

[2] These actions are equivalent to a "Level 2 and/or 3" action under the NW&S MP

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **sustainable use of groundwater.** There is a drive to use more groundwater in RSA. To effectively regulate this process and to **prevent overuse of groundwater resources**, the development of groundwater operating rules will be necessary. For SDG 6.6 this is particularly important for areas where ecosystems are highly groundwater dependant | areas. This should be undertaken as part of Groundwater management plans. | | | | | | |
| **3** | **Insufficient data to report on dams/lakes affected by high turbidity and trophic status.** **NB:** Only 16 of the 18 SDG 6.6 selected dams were monitored during 2023. | -DWS Regional offices to conduct sampling<br>-RQIS to conduct laboratory analysis of samples collected.<br>-Sampling compliance is conducted monthly. | DWS: Resource Quality Information Services (RQIS) | Yes | No | National Water Act, 36 of 1998 (Chapter 14) Eutrophication Management Strategy for South Africa, 2nd Edition 2023 | Monitoring is currently ongoing in all 18 SDG 6.6 dams. NEMP expansion has been undertaken to incorporate the 2 dams that were inactive. (provide the list of dams as an annexure to enable specific tracking). | RQIS Operational budget for sample analysis to be used for this action. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4 | **Incorrectly formulated dam balance formulas** | In situ auditing of dams components for reprogramming of dam balance formulas | **DWS: NHS and Regions** | **Yes** | No | NW, Data quantity management strategy | -Training of Regions on the dam balance<br>-Bilateral engagements (DWS and Municipalities) for data exchange between the two parties as some dams are owned by municipalities. | R150 000-R200 000 |
| 5 | **Poor quality data** | Improvement of data quality | **DWS: NHS and Regions** | **Yes** | No | Data quantity management strategy | Continuous training on data processing, documenting of sites visits and archiving thereof. | |
| 6 | **DWS Isolon Server (DHQWGIS 201) down** | Development of dashboards (for Lakes and Estuaries) | **DWS: Spatial Information** | **No** | **Yes** | Spatial Data Infrastructure Act 54 of 2003 | The Server is down and is impacting on the uploading of data on the ArcSDE.<br>For the data to be available on the Dashboards, the Server should be accessible. | R200 000 |

**6. a – Expand international cooperation and capacity building support to developing countries in water and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies**

| | | | | |
|---|---|---|---|---|
| | TARGET SPECIFIC (6.1…6.b) DESCRIPTION | VEHICLES OF CHANGE | | |

| No. | GAP | ACTION | NW&SMP – Is it covered already? | NW&SMP – Can this be a new action? | OTHER (NWSRS, Legislation etc | Comments | Estimated Budget |
|---|---|---|---|---|---|---|---|
| **1.** | Enhancing existing and new cooperation | Conduct benchmarking and comparison assessments | Yes | No | IWC programmes of work<br>Strategic plan of the dept. | Enhanced cooperation to create awareness on the content of targets for goal6 | ± R 50 000 |
| **2.** | ODA declining is also true for the South African water sector | Identify developing partners and engagements to be targeted | Yes | No | Foreign policy of SA<br>NWSRS | This is an existing action that can contribute to attracting external investment | ± R50 000 |
| **3.** | Finding innovative ways to attract ODA | Explore diverse innovative financing options and increased public spending. | Yes | No | Foreign policy of SA<br>NWSRS | Intensify existing programmes | ± R100 000 |
| **4.** | Finding ways to close the gap on dispersed ODA taking into account the international response strategies in place after the pandemic | Strengthen existing Partnerships within the region<br><br>Actively strengthen the Public-Private Partnerships to attract investment and technical expertise | Yes | No | NT<br>ODA policy<br>NWSRS | Motivate all water use sectors to embrace water stewardship, strengthen their collaboration, and participate in integrated water resource management. | ± R 50 000 |
| **5.** | ODA utilised to assist Africa to achieve SDG6 | Support regional agenda and scope of work in both bilateral and multilateral fora | Yes | No | NT<br>ODA policy<br>NWSRS | Intensify existing programmes | ± R100 000 |
| | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**Note:**

There is an increasing shift towards public-private partnerships and innovative financing beyond relying solely on Official Donor Assistance (ODA). While the need for ODA still exists in step with changes occurring in the community of nations, the recovery remains far behind the necessary funding levels required and efficient action remains a challenge therefore the status on ODA for water and sanitation projects remains the same for target 6a1.

**6a2: Assessment of water education at the tertiary level of the formal education systems in South Africa.**

Target 6a1 and its Indicator do not currently provide means to verify whether or not Member States have the necessary human resources capacities to improve the baseline related to water targets. Therefore, it was proposed to develop an additional indicator, SG Indicator **6.a.2**, dedicated to assessing human resources needs to reach sustainable, full water and sanitation coverage.

| SDG 6 TARGET | GLOBAL INDICATOR | INDICATOR MONITORING COMPONENTS |
|---|---|---|
| 6a INTERNATIONAL COOPERATION AND CAPACITY BUILDING<br>"By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies" | 6a2.<br>The monitoring over time of the number of graduates in water-related diploma degrees, expressed as a percentage of the total number of graduates in higher education and also as a percentage of the total population of the country. | The objective is to gauge the availability of water education programs at tertiary and professional levels, within the national formal education system in South Africa |

| | | |
|---|---|---|

Member State representatives at the 56th Session of the IHP Bureau in February 2018 recognized the need for an indicator on Water Education. This resolution requests IHP to develop a methodology, in cooperation with OECD, WHO and UNEP, for a robust, credible and efficient indicator on water education, in view of a potential submission to the IAEG-SDGs as a new SDG indicator or as a substantial contribution to the 2030 Agenda. Once the method of computation and monitoring has been finalised by UNESCO the established Task Team for 6a2 comprising of DWS and Department of Higher Education officials will develop an Action Plan for implementation.

| 6. b – Support and strengthen the participation of local communities in improving water and sanitation management. | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **TARGET SPECIFIC (6.b) DESCRIPTION** | | **VEHICLES OF CHANGE** | | | | |
| **No.** | **GAP** | **ACTION** | **NW&SMP – Is it covered already?** | **NW&SMP – Can this be a new action?** | **OTHER (NWSRS, Legislation etc** | **Comments** | **Estimated Budget** |
| **2** | Transformation of Irrigation board into Water User Association (278 irrigation boards) | Fast track the transformation of remaining 179 irrigation boards | Yes | No | NWA<br>NWRS 2 | This action is already covered on NW&SMP | To be determined by Institutional Oversight Directorate |

## SDG 6 AND INTERFACES WITH VEHICLES OF CHANGE

### Introduction

The SDG6 Programme measures the Gaps within the 8 Targets for which it is responsible. These Gaps must be closed by 2030 in terms of the commitment made by South Africa to the United Nations.

For the Gaps to close, relevant Projects and Programmes must be implemented within the sector and by all stakeholders involved in the water and sanitation business. There are a number of Vehicles of Change that can be utilised including the National Water & Sanitation Master Plan (NW&SMP), the National Water and Sanitation Resource Strategy (NWSRS), National Development Plan (NDP), DWS Annual Performance Plan (APP), Water Board Business Plans, Water Service Development Plans (WSDPs), Legislation and Policy etc. For the purpose of this section, two of the key vehicles to translate Gaps into Projects / Programmes for SDG6 is the NW&SMP and the NWRS. Both the NW&SMP and the NWRS informs the sector stakeholder of their responsibility to specific actions which will contribute towards the 2030 Goals of both SDG6, the NW&SMP and the NWRS. In turn, the sector stakeholders must then align their own plans (IDPs, WSDPs, Utility Business Plans etc) with the actions in the NW&SMP? NWRS.

This section defines the process or interface between the SDG6 programme and the NW&SMP/NWRS to ensure that the Gaps identified within SDG6 do indeed get translated into Projects / Programmes within the NW&SMP/NWRS.

The NW&SMP Volume 3 was supposed to be revised annually in March of each year. However, the launch of the NW&SMP was delayed to September 2019 and is only being revised now in 2024. The process described below will ensure that identification of Target Gaps by the SDG6 team, creation of Target Actions by the SDG6 team and inclusion of these projects / programmes within Volume 3 of the NW&SMP and the NWRS by their respective teams are adhered to.

In terms of Monitoring and Evaluation of these Programmes, both the SDG6 programme the NW&SMP and the NWRS programme must have their own specific M&E systems that will be aligned to one another. The proposed SDG6 M&E system will focus on the 8 Targets and the Gaps to be closed towards the 2030 Goal, whereas the NW&SMP / NWRS M&E system will focus on the projects and programmes within the Master Plan and the performance thereof.

**SDG6 / NW&SMP / NWRS Interface**

Process:

1. Each SDG6 Task Team Leader to develop their Target Gap Report by end of January of each year and submit to SDG6 Programme Coordinator

2. Each SDG6 Task Team Leader to submit proposed Target Actions to close remaining Gaps for their respective Target. These Target Actions to be ideally written in the format provided in Volume 3 of the National Water and Sanitation Master Plan. The proposed Target Actions from TT Leaders will be Level 2 Actions (as per Vol 3). TT Leaders will clarify which Level 1 Action they are aligning with. Task Team Leaders to submit their proposed Level 2 Actions to the SDG6 Programme Coordinator by end of January

3. All SDG 6 Target Actions to be consolidated by the SDG6 Programme Coordinator and submitted to the Service Delivery Unit of the NW&SMP / NWRS by end of February each year.

4. A meeting to be held in May between the SDG6 Working Group and the NW&SMP / NWRS team to confirm the proposed Target Actions for inclusion as Level 2 Actions of the NW&SMP and NWRS respectively.

5. The NW&SMP will monitor progress of all NW&SMP Actions detailed in Volume 3 and similarly for the NWRS. The SDG6 Working Group will monitor the Target and corresponding indicators against the Gaps to be closed by 2030

6. A research project was completed by the WRC in 2020 to identify inter-linkages with all other SDGs (17 in total including SDG 6) so that the water and sanitation needs of Health, Education, Human Settlements, for example, are included in the process whilst influencing the proposed Actions that are captured in Volume 3 of the NW&SMP / NWRS and other Vehicles of Change.

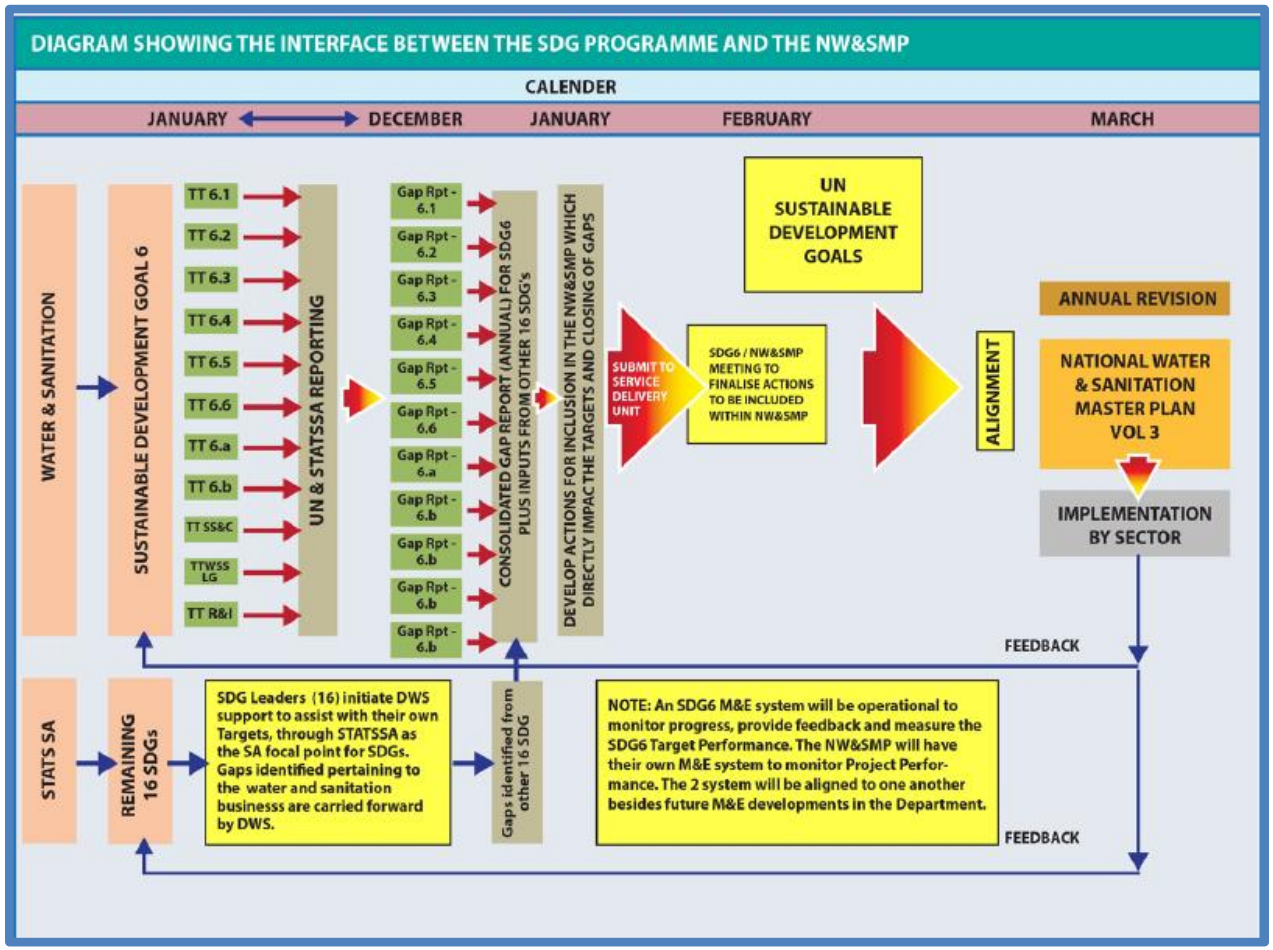


**Table 2 – SDG / NW&SMP Interface**