

# BIENNIAL SDG 6 STATUS REPORT

REPORT

2017/ 2018



WATER IS LIFE - SANITATION IS DIGNITY



**water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



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## EXECUTIVE SUMMARY

In the year 2000 the South African Government, along with other members of the United Nations (UN), committed to a national and global plan of action to reduce poverty and ensure the development of its people. This sixth and final MDG report provided an overview of the progress South Africa has made towards achieving the eight MDGs. It reflects not only on the successes and challenges but also the lessons learned and how these should be integrated into the post-2015 development agenda and the associated Sustainable Development Goals (SDGs).

The Sustainable Development Goals were endorsed by all Heads of State, including South Africa, who endorsed it “without any reservations”, on 25 September 2015. This commitment was reconfirmed by the President during the World Water Week (March 2017) which took place in South Africa, where he also called for urgent action. The target date for outcomes to be achieved is 2030.

The SDG goals and targets came into effect on 1 January 2016 and will guide the decisions taken over the next fifteen years.

The SDG targets are valid for and applicable to South Africa. They are also in line with the Vision 2030 (the National Development Plan) as well as the current Medium Term Strategic Framework (MTSF) Outcome targets.

The SDG contains 17 goals to be attained by 2030. These goals reflect a flexible global vision, recognising that each country faces specific challenges to achieve sustainable development.

The SDGs include a dedicated water goal, Goal 6, whose mandate has been given to the Department of Water & Sanitation, and with the objective to ensure availability of, and sustainable management of water and sanitation for all. However, water is also reflected and or implied in various other goals. DWS is responsible for delivering Goal 6 by 2030.

This report has been initiated as a bi-annual document that will provide progress regarding achieving of the 2030 Goal, more specifically what has been achieved over the 2 years prior to the report being published.

This report will look at the progress that has been made by the Department of Water and Sanitation during the period 2017 and 2018 inclusive.

This report will also look at the resource requirements necessary to deliver on SDG 6. The reality is that the SDG 6 gaps will not close by themselves. Dedicated resources, including money, people and time is required to close the gaps and meet the 2030 target. Currently we have time, 12 years to be more accurate, but money and resources are few. Yes, the process can continue and indeed the DWS has done an excellent job in providing the right foundations for delivery. It has developed a very sound and effective structure with very capable individuals, but like any business the structure needs systems and processes to drive activities forward; many activities also require funding themselves, whether it is purchasing software/hardware, implementing workshops or producing materials to complete awareness. Competent staff are also required to deliver on the programme countrywide and often with an intensity that cannot exist without finance.

There are 2 key costs we must consider:

- DWS Operational Cost per annum to deliver on SDG 6 - R32 million / annum
- Capital Investment for the whole country – R 100 billion / annum

Without this financial commitment from DWS and the sector as a whole to invest in projects that will address the gaps then we will not succeed. If partial commitment is achieved then only partial achievement of SDG 6 will be made.

Support and leadership is required from the highest level throughout this process. Instructions through the State of the Nations Address would be preferable such that every stakeholder in the country that has water and sanitation requirements within their mandate, can prioritise efforts to drive the business of SDG 6 and the actions that are highlighted through the National Water & Sanitation Masterplan to achieve such.

The SDG 6 Programme is there for us to succeed or fail. It will not happen on its own, but rather through a dedicated, concentrated programme which contains all the right ingredients of success.

# 1 BACKGROUND

The SDG journey continues where the Millennium Development Goals (MDGs) programme ended in 2015. **Key extracts from the MDGs Country Report of South Africa 2015 are shared under this heading below:**

**“Minister TJ Radebe, the Minister in the Presidency: Planning, Monitoring and Evaluation**

“Although the MDGs processes are coming to an end, there are still challenges but we continue to be committed to the journey that we embarked on a few decades ago. As we move to the next fifteen years of the global development agenda through the Sustainable Development Goals, we take note of the fact that our National Development Agenda, Vision 2030, as espoused in our National Development Plan, reflects our commitment to improving the lives of the poor and marginalised in society:”

*“By 2030, we seek to eliminate poverty and reduce inequality. We seek a country wherein all citizens have the capabilities to grasp the ever-broadening opportunities available. Our plan is to change the life chances of millions of our people, especially the youth; life chances that remain stunted by our apartheid history.” (National Development Plan, p5).*

“But as this (MDG) report so vividly illustrates, there are still many challenges that we face as we accelerate our efforts to achieve the MDG goals. We are confident that we have dealt effectively with the goal to halve extreme poverty but we remain deeply concerned that relative inequality remains high, as measured by the Gini Coefficient. This is partly because of the high unemployment rate and the low labour force participation rate in our country.”

Since the Sustainable Development Goals (SDGs) were endorsed “without reservations” by all Heads of State, including South Africa, on 25 September 2015, South Africa has embraced the opportunity to deliver on the SDG requirements and improve water security and the service of water and sanitation business to its people; further committed by the President during the recent World Water Week (March 2017) which took place in South Africa, and where he also called for urgent action.

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.

Table 1: Definition of the SDGs	
	<p>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 “<i>The 2030 Agenda on Sustainable Development</i>” 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.<sup>i</sup></p>

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. However, it is acknowledged that water is inherently reflected and/or implied in all of the other goals

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.

## 2 SUSTAINABLE DEVELOPMENT GOAL 6 (SDG6)

### A *Moving From MDGs To SDGs*

Millennium Development Goals (MDGs) had eight (8) goals to be achieved from the year 2000 until 2015. MDG 7 most linked to the SDG 6. MDG 7 was to ensure environmental sustainability, while SDG 6 is to ensure availability and sustainable management of water and sanitation for all. Specifically MDG indicator 7c focused on access of water and basic sanitation. MDG7c target was achieved 5 years earlier that the intended deadline. After the MDG ended, SDG 6 developed 8 targets all focusing directly on water and sanitation services and water resource management. Each Target contains a number of Global Indicators which Task Teams will be responsible to report on and are highlighted in each specific Terms of Reference (ToR).

Goal 6, Ensure access to water and sanitation for all	
	<p>SDG 6 has eight targets and eleven indicators that will be used to monitor progress toward the targets. Most are to be achieved by the year 2030. One is targeted for 2020. To improve sanitation and access to drinking water, there needs to be increased investment in management of freshwater ecosystems and sanitation facilities on a local level.</p>

The eight Targets of SDG 6 include:

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

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

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;

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

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

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

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;

6. b – Support and strengthen the participation of local communities in improving water and sanitation management.

## ***SUSTAINABLE ACCESS TO DRINKING WATER AND BASIC SANITATION***

MDG Target 7C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

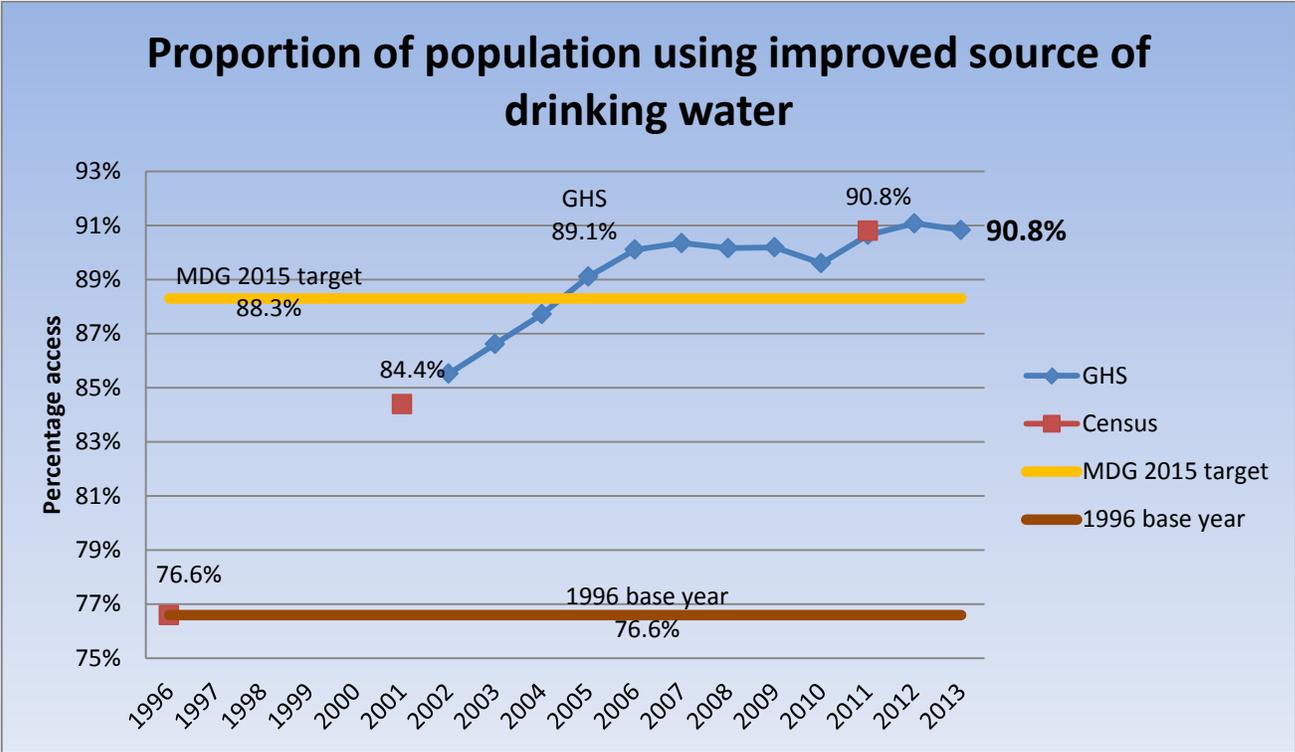
Target 7C covers the following MDG indicators:

- MDG 7.8. Proportion of population using an improved drinking water source (%); and
- MDG 7.9. Proportion of population using an improved sanitation facility (%).

Indicator 7.8: Proportion of population using an improved drinking water source.

The MDG water target was achieved in 2005, with 89.1% of the population having access to improved water sources, as shown in Figure 14. The achievement is due to the South African government's efforts in terms of policy, strategic interventions, resource mobilisation and other initiatives towards ensuring 100% access prior to the adoption of the MDGs.

Figure 1: Indicator 7.8: Proportion of population using an improved drinking water source; Indicator 7.9: Proportion of population using an improved sanitation facility.



**LESSONS LEARNT AND THE POST-2015 AGENDA: FRAMING THE IMPERATIVES**

South Africa still faces challenges in meeting some of the MDGs, nevertheless the government's efforts in adopting relevant strategies, regulatory frameworks and appropriate policies have been successful. Concerted efforts in implementing policy policies and plans are driving sustainable development beyond 2015 and substantial progress continues to be made. **As government approaches the threshold of providing 90% access to water services, it is estimated double the amount of effort and resources will be required for an additional 1% improvement in access.**

## **RECOMMENDATIONS**

South Africa needs to leverage the MDG efforts and foster strong partnerships with stakeholders in order to ensure effective implementation of the post-2015 agenda in order to meet the SDGs. The following aspects are crucial:

- **Provision and maintenance of infrastructure municipal is crucial for sustainable service delivery post-2015.**
- The appropriate interventions for a smooth transition towards the SDGs need to be implemented.
- **SDG indicators, and other national development priorities, must be clearly defined with proper strategies and (funded) programs to drive them. Where such strategies and policies are in place, there is a need to ensure effective implementation and performance monitoring.**
- Since the NDP Vision 2030 sets out clear milestones, time-bound strategies with deliverables need to be strictly adhered to.

### ***B UN-WATER Integrated Monitoring Initiative For SDG 6***

To support countries monitoring progress towards SDG 6, the UN-Water launched the Integrated Monitoring Initiative, building on the experience and lessons learned during the MDG period. All the custodian agencies of the SDG 6 global indicators have come together under the Initiative, which comprises the work of the World Health Organization (WHO)/United Nations Children's Fund (UNICEF) Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP), the Integrated Monitoring of Water and Sanitation-Related SDG Targets (GEMI) and the UN-Water Global Analysis and Assessment of Sanitation and Drinking- Water (GLAAS).

The objectives of the Integrated Monitoring Initiative are to:

- Develop methodologies and tools to monitor SDG 6 global indicators
- Raise awareness at national and global levels about SDG 6 monitoring
- Enhance technical and institutional country capacity for monitoring
- Compile country data and report on global progress towards SDG 6

The joint effort around SDG 6 is important with regards to the institutional aspects of monitoring, in particular the integration of data collection and analysis across different sectors, regions and administrative levels.

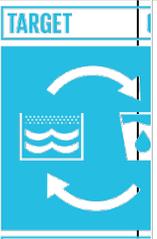
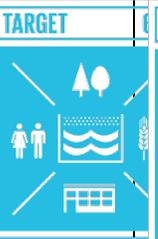
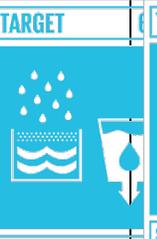
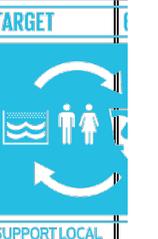
## C DWS – Implementing SDG6

### i SDG Working Group

To facilitate the implementation of SDG 6 programme the DWS SDG 6 Working Group (WG) was established within the Branch Planning & Information (P&I). The working group is an overarching forum that provides strategic direction to various task teams for various SDG 6 Targets. Each task team is therefore expected to develop their own ToR including an action plan on how data specific to its Target and Global Indicators are going to be collected, processed, analysed, reported, etc. It is also the responsibility of task teams to develop indicators and monitoring programmes to monitor the achievement of their respective targets and indicators.

SDG 6 contains eight targets, all focusing directly on water services (including sanitation) and water resource management. The DWS SDG working group has been structured in accordance with the targets and is fully operational and effective. It comprises ten task teams (one for each target and two cross-cutting). Nine reports have been submitted to the UN via StatsSA to date and the national and regional roll out is in full swing.

The six targets and two sub-targets for SDG 6

TARGET	TARGET	TARGET	TARGET	TARGET	TARGET	TARGET	TARGET
							
SAFE AND AFFORDABLE DRINKING WATER	END OPEN DEFECATION AND PROVIDE ACCESS TO SANITATION AND HYGIENE	IMPROVE WATER QUALITY, WASTEWATER TREATMENT AND REUSE	INCREASE WATER-USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES	IMPLEMENT INTEGRATED WATER RESOURCES MANAGEMENT	PROTECT AND RESTORE WATER-RELATED ECOSYSTEMS	EXPAND WATER AND SANITATION SUPPORT TO DEVELOPING COUNTRIES	SUPPORT LOCAL ENGAGEMENT IN WATER AND SANITATION MANAGEMENT

The DWS SDG working group coordinates the eight task teams established to address the eight targets, as well as the two additional cross cutting task teams— one for sector support and coordination and the second being a task team initiated from the Water and Sanitation Sector Leadership Group (WSSLG), to support the eight focused task teams

in communicating their mandates and mobilising outputs to the sector. The ten operational task teams meet regularly to plan, discuss and implement within their respective niche areas.

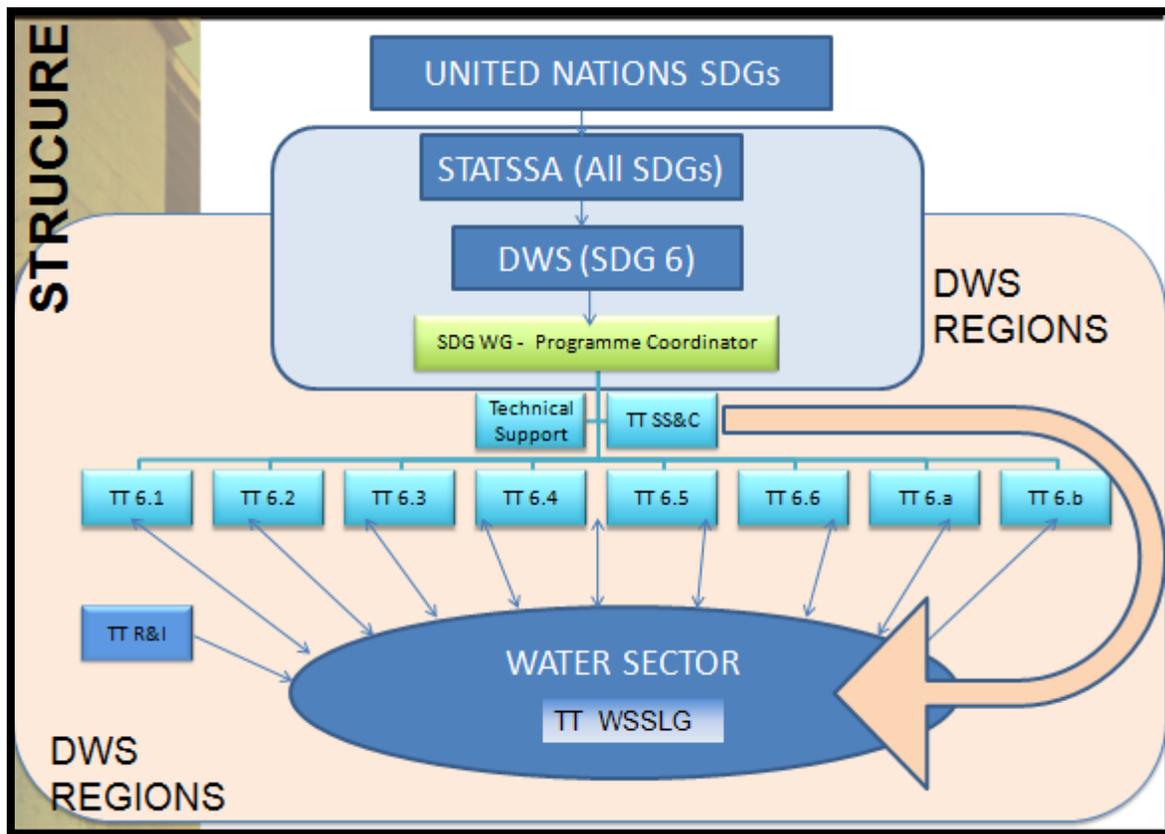
Members of the WSSLG ,initiated by DWS, include representatives from the sectors who are encouraged to join the effort through the relevant task team created for that purpose,Critical partners such as the private sector, civil society, research institutions, three tiers of government, agriculture and the mining sector, for example, are already on board and making valuable contributions to the process.

A further need has been identified to bring in the Water Research Commission to support the other task teams and ensure that they are informed of the most appropriate best practices and tools to deliver on their mandate. As such, the SDG working group has also initiated a research and innovation task team to support the other task teams in this way.

The fundamental structure is now in place, components of the structure are operational in pursuit of the 2030 goal and individuals within the structure are fully committed to make this programme work. The next challenge is to mobilise institutions in the sector and get them active to help close the gaps and deliver on the SDG 6 programme.

DWS regional offices are also represented within the SDG 6 programme, whereby the director responsible for planning, monitoring and evaluation in each region has been identified as the SDG regional champion. Each of these regional champions will be the point of contact for the working group and its members, in rolling out the objectives of each task team. Therefore, all task teams are assured of regional representation in the process.

Each region will also generate their own terms of reference and action plans, aligned with those of the task teams. The SDG working group consists of all the team leaders and the regional directors. They will meet bi-monthly to monitor progress throughout the programme.



**Alignment with key policy directives**

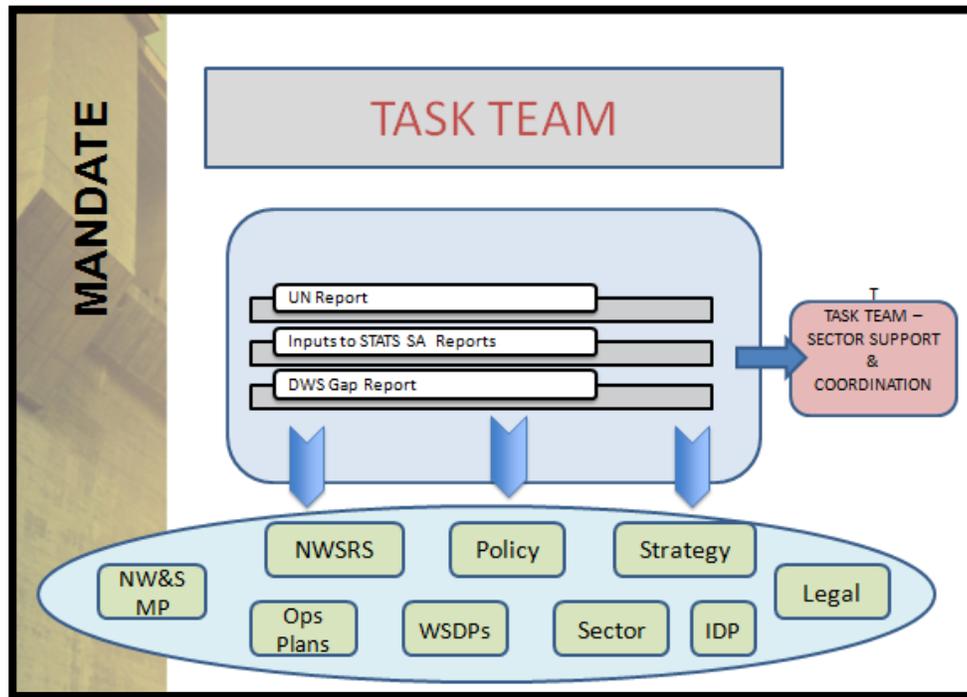
The SDG 6 target is aligned with Vision 2030 (the National Development Plan); the Medium Term Strategic Framework (MTSF) outcome targets; the DWS Annual Performance Plan; the National Water and Sanitation Resources Strategy (NWSRS); the African Ministerial Council on Water; Africa Agenda 63; and last but not least, it is a key driver of the National Water and Sanitation Master Plan (NWSMP).

The mass roll-out of the SDG 6 programme of action is carefully aligned with the NWSMP, which is meant to ensure integrated planning and development across the entire water value chain, and which has been under development since January 2017.

*ii Task Team Structure*

There are 8 Targets, for which a Task Team has been developed for each. In addition there is a further cross-cutting (in support of the initial 8) Task Team called Sector

Support and Coordination and another called Water & Sanitation Sector Leadership Group. Therefore there are 10 Task Teams currently operational. A further Task Team has been proposed regarding Research & Innovation



The key functions of each Task Team is as follows:

- ✓ Review systems and processes required to monitor progress regarding achievement of the sub-goal /target given to this Task Team.
- ✓ To complete Global Indicator reports from the United Nations. Each Global Indicator report is expected periodically (to be finalised by the UN – bi-annually, annuallyetc), and must be processed by each respective Task Team in the format requested by the UN and within the deadline provided by the UN.
- ✓ Following submission of GlobalIndicator report to UN, each Task Team will then be responsible to develop an ‘SDG Indicator Gap Report’, to identify the Gaps that exist within that particular indicator, and which will be used to inform other stakeholders and ‘vehicles of change’, so that they may address these Gaps accordingly.
- ✓ Task Team leaders will be responsible to coordinate work within their respective Task Team and allocate tasks to members as required in order to meet their objectives

**iii Water Sector  
Leadership Group**

The Water and Sanitation Sector Leadership Group (WSSLG) is the highest non-statutory strategic sector partnership forum for the South African water sector. The WSSLG serves as a thinking tank for the water sector and prepare overarching national action agenda for implementing the NWRS2 and ensure that sound policies, laws, strategies, programmes and institutions are developed to achieve the goals outlined in the NWRS2. The WSSLG also actively facilitates dialogue between the Department of Water and Sanitation, government departments, civil society and the private sector for input, support and contributions to joint strategic and coordinated actions to improve the implementation of water sector policies, strategies and programmes. In its advisory role, the WSSLG provides recommendations on policies, legislation, programmes and strategies and serves as credible forum for stakeholder consultation and involvement in the development of sector policies, legislation, programmes and strategies.

A high level workshop was held in September 2018 to get a buy in from the institutions. Each institution indicated their interest in different targets in which was aligned with their line of work. Institution. A specific Task Team (WSSLG) was thereafter initiated with members from:

<b>INSTITUTIONS</b>	<b>SDG6 TARGET CONTRIBUTIONS</b>
IUCMA	6.3, 6.4, 6.5, 6.6
MISA COGTA STATSSA	6.1, 6.2, and 6.4 6.1, 6.2, and 6.4 All targets
WRC	6.3
BLOEMWATER MAGALIES WATER	6.3, 6.6 6.1, 6.3, 6.4
WORLDBANK SAAFWUA NEDERLANDS SWIMSA	All targets 6.5 Did not indicate 6.4, 6.6
SALGA	All targets

NBI	6.1, 6.3, 6.4
BBCBE YOUTH CHAMBER	6.3, 6.5, 6.6
COBRA	6.1, 6.2, 6b
SA WATER CAUCUS	6b, 6.1, 6.2, 6.3
CENTRE OF ENVIRONMENTAL RIGHTS	6.6
FEDERATION FOR A SUSTAINABLE ENVIRONMENT	
STRATEGIC WATER PARTNERSHIP NETWORK (SWPN)	6.2, 6.3, 6.4, 6a and 6b
CSIR	6a, 6.3
DST	All targets
SANBI	6.6
SASOL	6.4
ESKOM	6.3, 6.4

Total external stakeholders = 22

DWS= 13 members (8Task Team Leaders, Chairperson, Programme Coordinator, Technical Support plus 2 logistical members )

Total number of Task Team members = 35

#### iv Turning Gaps into Actions of Change

The SDG 6 target is aligned with Vision 2030 (the National Development Plan); the Medium Term Strategic Framework (MTSF) outcome targets; the DWS Annual Performance Plan; the National Water and Sanitation Resources Strategy (NWSRS); the African Ministerial Council on Water; Africa Agenda 63; and last but not least, it is a key driver of the National Water and Sanitation Master Plan (NWSMP).

The mass roll-out of the SDG 6 programme of action is carefully aligned with the NWSMP, which is meant to ensure integrated planning and development across the entire water value chain, and which has been under development since January 2017. Since then Volume 1,2 and 3 of the master plan have been produced and in August

2018 a delegation led by Minister Gugile Nkwinti presented an update on the plan to the Portfolio Committee. A crucial part of the master plan points out the priority actions required until 2030 and beyond to ensure water security and equitable access to water and sanitation services for all. The plan was developed in partnership with all relevant organs of state and water sector stakeholders, to give effect to local, national, regional, continental and international water and sanitation delivery targets and commitments.

The SDG 6 programme is one of the many drivers of the NWSMP. In turn the master plan itself is one of many implementing vehicles of the SDG 6 programme – along with the NWSRS; water utility business plans; and municipal water and sanitation development plans.

It is important to note that the SDG 6 programme will influence infrastructure development plans throughout the water sector, to close the gaps that exist. It is estimated that South Africa needs some R900 billion in the next ten years, just for infrastructure development. For the infrastructure to be effective and sustainable, it also requires an enabling environment – fully functional municipalities for example, constant flow of funds for both capital expenditure and asset management, including efficient operation and maintenance; this does not form part of the R900 billion. That is why involvement of all water and sanitation stakeholders is essential in the process to maximise funding availability and participation.

There is clearly a financial shortfall in the sector, so creative ways will have to be found to secure the resources required for the SDG 6 national implementation budget. The water sector needs to tap into various funding streams to address the gaps that exist towards the 2030 SDG goals. The SDGs are completely achievable with the right approach and mindset and that there are ways to make the SDGs process more cost-effective by ensuring cooperation of all stakeholders, exploiting the symbiotic aspects, minimising trade-offs and maximising impact with appropriate solutions that encourage sustainability, minimise operational costs, maximise employment and protect the environment.

The master plan process is ongoing and will be enriched by further engagements and inputs. It is regarded as a blue print that will guide the provision of water and sanitation services going forward.

## *v Enabling Environment*

The Department of Water & Sanitation has resuscitated the Water & Sanitation Sector Leadership Group (WSSLG). From within the WSSLG a specific Task Team has been initiated which reports to the WSSLG whilst forming part of the SDGWG. Its key responsibilities include mobilising the sector to close the gaps identified within the SDG 6 programme and in line with the National Water & Sanitation Masterplan; identifying new funding opportunities to address such gaps,; sharing of resources, information and funding within the water sector; Involvement of the water sector in all water resources project and Communication / advocate within the water sector.

In addition, and in contribution towards an enabling environment, the Department of Science and Technology (DST) has embarked on an initiative to promote science, technology and innovation (STI) within the delivery of the SDG programme in its entirety.

In committing to the 2030 Agenda, South Africa assessed its alignment to the National Development Plan (NDP) and realised the critical role and cross-cutting nature and contribution that science, technology and innovation will play in implementing these goals. The UN Multi-stakeholder Forum on STI meetings called for member states to develop and implement inclusive STI for SDG action plans / roadmaps or strategies as part of the national responses to the 2030 Agenda.

The Department of Science and Technology (DST) has been tasked to coordinate the national system of innovation to jointly develop and implement the national Science, Technology and Innovation for Sustainable Development Goals (SDGs) Action Plan. An initial workshop took place on the 5 December 2018 with the intention to frame an STI for SDGs Action Plan for the country and as such, demonstrate how South Africa will leverage STI for SDGs, and as much as possible reflect on data needs for reporting purposes.

## 3 TASK TEAM REPORTS

### A Target Task Teams

#### i SDG 6.1 up to 6.b

### **SDG 6.1 - “By 2030, Achieve Universal And Equitable Access To Safe And Affordable Drinking Water For All”**

#### a. OVERVIEW OF TARGET

##### *Team Structure:*

The SDG 6\_Task Team (TT)\_6.1: The Task Team has been established and reports to the SDG6 Working Group which is led by:

- Allestair Wensley (Team Leader)
- And additional Task Team members

SDG 6\_TT\_6.1) is responsible for Target 6.1, which states that “by 2030, achieve universal and equitable access to safe and affordable drinking water for all”; as defined by the indicator 6.1.1, which is further defined as the “Proportion of population using safely managed drinking water services”.

### Functions Of SDG 6\_TT\_6.1:

The SDG 6\_TT\_6.1 will disaggregate the indicator 6.1.1 “Proportion of population using safely managed drinking water services”.

The Millennium Development Goals (MDG), now complete, only measured access to “improved drinking water source” (MDG target 7C).

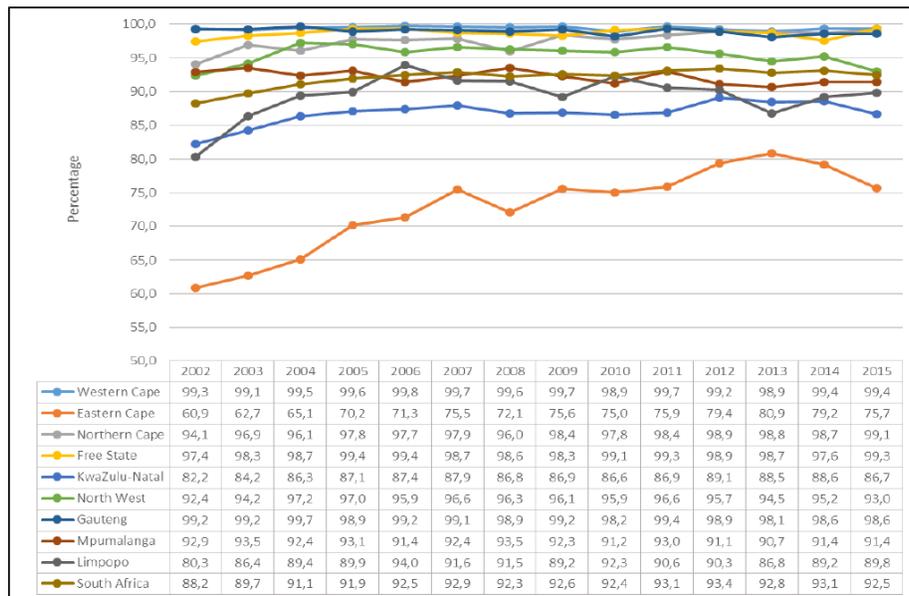
### Background:

To address the MDG requirement, the Department put in place monitoring and evaluation systems to report both locally and internationally, and in this regard, since 1995 the Department has worked very closely with Stats SA by placing questions relating to access to water and sanitation in their survey instruments. In 2002 the Department refined the water and sanitation questionnaire and since 2004 has been tracking service trends via the Stats SA General Household Survey (GHS), which showed that the rate of water services backlog eradication had declined (Figure 6.3 below), notwithstanding the increased grant funding to drive provisioning of water infrastructure.

This decline in performance resulted in a robust debate with Stats SA, and in 2009 questions relating to the functionality of infrastructure (called “stability of supply”) were placed in the GHS, and resulted in a clearer understanding of the role maintenance of infrastructure in backlog eradication.

The new indicator developed was placed in the 2011 Census and also influenced the MTSF 2014 – 2019 Outcomes 9 programme where “reliability of supply” was included as a new indicator.

**Figure 6.3: Percentage of households with access to improved drinking water sources by province, 2002–2015**



*The SDG Definition:*

The percentage of the population using safely managed drinking water services is currently being measured by the percentage of population using an improved basic drinking water source which is located on the premises and available when needed and free of faecal (and priority chemical) contamination.

The Joint Monitoring Programme (JMP) defines a 'Limited service' as a source that is the same as that used for MDG monitoring i.e. piped water into dwelling, yard or plot; public taps or standpipes; boreholes or tubewells; protected dug wells; protected springs and rainwater but within 200 meters of the household.

The SDG target of 100% access to basic water supply (according to the JMP definition) is in line with the RSA NDP (2030) which also states that “**All South Africans must have access to clean running water in their homes**”.

**b. INDICATORS AND METHOD OF CALCULATION**

*Method of Calculation:*

The percentage of population using an improved basic drinking water source categorised according to the JMP ladder is set out below:

**The new JMP ladder for household drinking water services**

Service level	Definition
<b>Safely managed</b>	Drinking water from an improved water source which is located on premises, available when needed and free of faecal and priority chemical contamination
<b>Basic</b>	Drinking water from an improved source provided collection time is not more than 30 minutes for a roundtrip including queuing
<b>Limited</b>	Drinking water from an improved source where collection time exceeds over 30 minutes for a roundtrip to collect water, including queuing
<b>Unimproved</b>	Drinking water from an unprotected dug well or unprotected spring
<b>No service</b>	Drinking water collected directly from a river, dam, lake, pond, stream, canal or irrigation channel

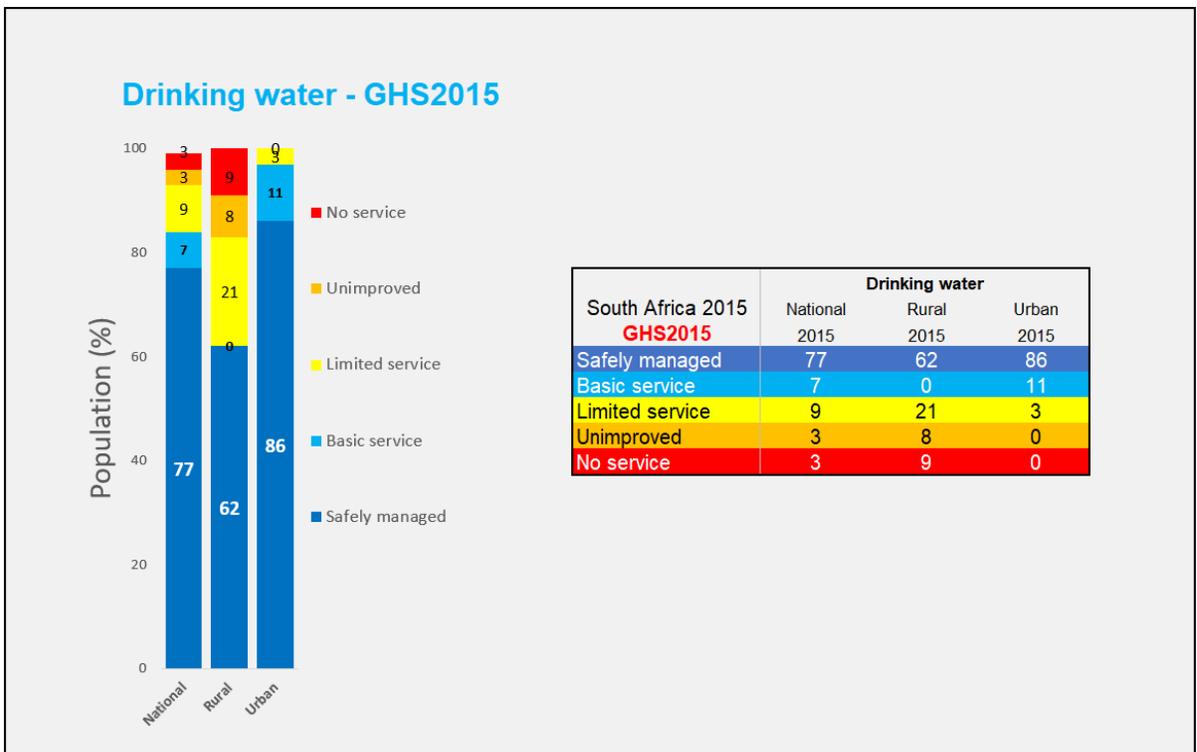
**c. SUMMARY OF 2017 BASELINE REPORT**

The water indicator, overseen by the JMP, from the MDGs through to the SDGs, has evolved to include a global monitoring ladder. Using the new water and sanitation ladder the JMP presented the information according to the SDG ladder below:

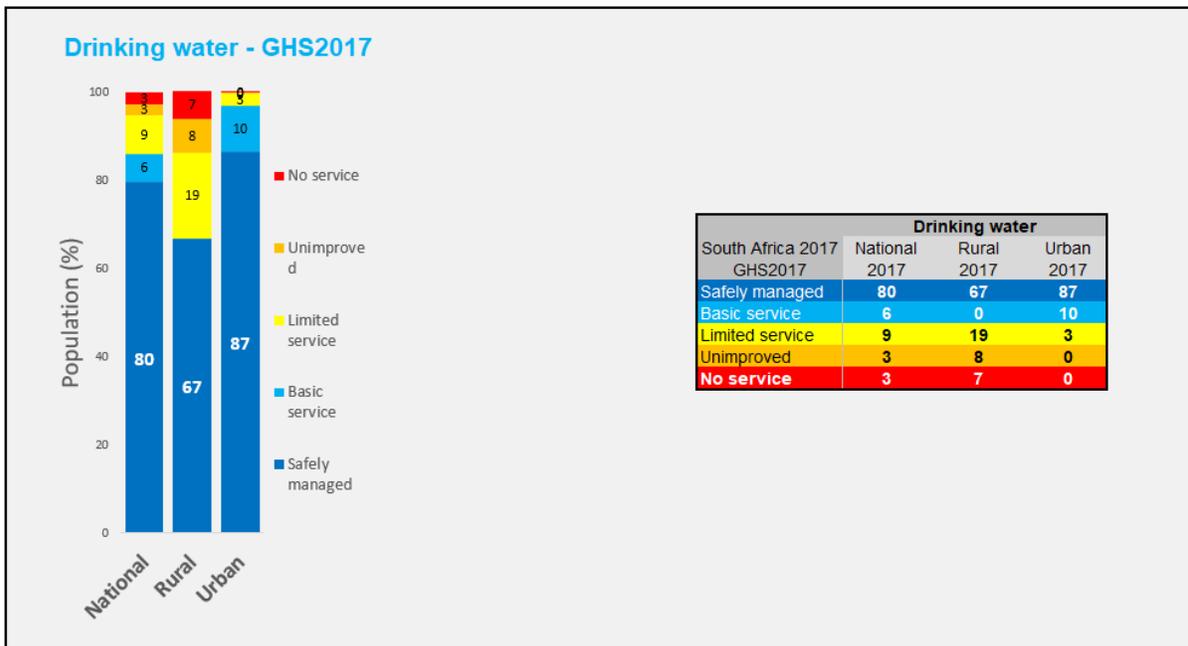
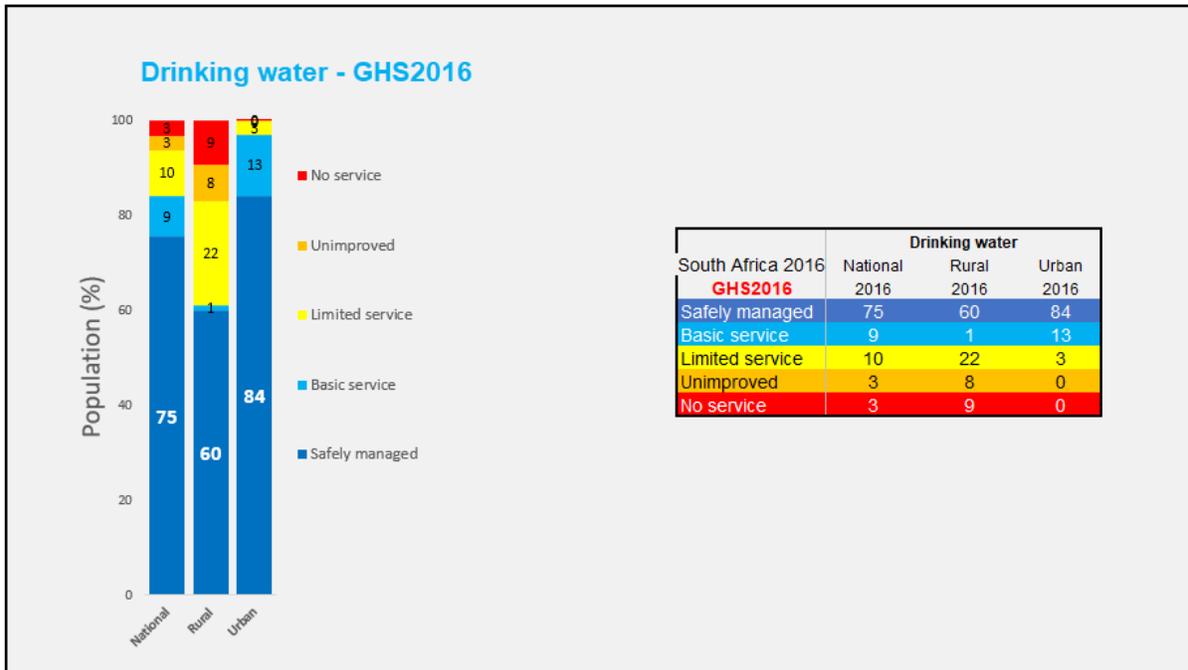


**Note:**The MDG indicator for access to an improve water source are the SDG indicators of basic and limited (summation thereof).

SDG reporting started in 2016 by using the GHS data provided by Stats SA. The year 2015 which fell under the MDG period of measurement is been repeated, as a link to the SDG progress.(When the 2017 water summary baseline report was sent to Stats SA, the periods leading up to 2017, namely 201



and 2016 were also included).



As of 2017 the national average water provision average for South Africa, according to the JMP definition (of access to a basic water service) was 86%, of which 80% was safely managed. However, if during this period, the NDP 2030 basic water service definition of access “to clean running water in their homes” is used, then only 46.7% of the population had access to piped water in dwelling.

#### **d. ANNUAL PROGRESS**

In 2017 the access to a basic water service was 86%. (In 2016 it was 84%, an improvement of 2%). (Although DWS team uses Stats SA statistical data to monitor progress of delivery it also cross checks this with its own Departmental data and is of the opinion that the growth in improved basic water service from 2016 to 2017 was only ½ %.

#### **e. GAP ANALYSIS**

All systems that are reliant on statistical data to measure access to basic water service in accordance with international measures are in place. However, the component of safely managed is still dependent on DWS data.

There are two components to “safely managed”. These are:

- i) “as and when required”; i.e. interruptions of supply which the Department is measuring through Stats SA survey instruments, using the indicator “stability of supply”.
- ii) water quality which is measured through the Blue Drop DWS regulatory process.

The Blue Drop predominately measures water quality in the urban area and does not have a large rural footprint.(Based on this the JMP determined that South Africa does not have all the processes in place to give a national average of safely managed as the rural component of water quality is under-represented in the sample). This is a gap. Water quality in rural areas needs to be provided by the Water Services Regulation via Blue Drop System.In this regard an engagement with water quality experts and Water Services Regulation needs to take place. The SDG 6\_TT\_6.1 team will also engage with our colleagues in SDG 6\_TT\_6.3.1 to develop a domesticated rural water quality indicator.

#### **f. ENABLING FACTORS**

The following enablers need to be in place:

- i) Good Governance – laws, policies and plans supporting the provision of water and sanitation services (at all tiers of government).
- ii) A (funded) water services sector investment framework, and financial model.
- iii) An effective Water Services Regulatory framework that is properly implemented.
- iv) Regulatory standards that are enforced.

- v) Adequately funded sector programmes, with plans and implementation strategies, to ensure the SDGs are achieved in a progressive manner. (The Water and Sanitation Master Plan will assist in this regard).
- vi) Effective progress Monitoring, evaluation and reporting.

The above enabling factors will take time to put in place and have significant manpower and cost implications throughout the sector.

#### **g. BUDGET REQUIRED**

Budget required is difficult to quantify at present so it has not been stated. This is mainly due to the fact that not all the required Regulatory systems and processes are fully functional at present. An accurate estimate needs to be determined.

<b>Task Team Operational Cost</b>				
2019/20	2020/21	2022/23	2023/34	2024/25
R 15 million	R10 million	R 10 million	R 5 million	R 5 million

<b>Capital Investment projection</b>									
2019/20	2020/21	2022/23	2023/34	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
R 50 billion	R 50 billion	R 50 billion	R 50 billion	R 50 billion	R 50 billion	R 50 billion	R 50 billion	R 50 billion	R 50 billion

#### **h. CHALLENGES**

Emanating from the updated United Nations tier classification for indicator 6.1.1, based on changes made by the Inter-agency and Expert Group on SDG Indicators, this indicator was downgraded on 15 December 2017 from tier I to tier II, because data for “safely managed” is not readily available. The Task Team must put systems and processes in place to address this shortcoming.

#### **i. SUPPORT REQUIRED**

The need to overcome the above challenges requires highly qualified professionals in the water sector skilled in the water services field having extensive knowledge relating to the business of water supply and PSP support. (This level of expertise and

knowledge is currently only available in the private sector, and their skills could be used to empower and upskill relevant DWS officials).

**j. ACTION PLAN FOR 2019**

The progressive achievement of the Target 6.1 will require intensive and ongoing engagement with key external water sector stakeholders (such as SALGA, National Treasury, CoGTA and the DPME). Provincial members of SDG 6.1 will be required to assist in providing the task team with practical insights at both tactical and operational levels regarding the successful implementation of these new indicators.

The Task Team will:

- i) Start developing the indicators
- ii) Begin to align the sector requirements
- iii) Ensure alignment of the AU AMCOW programme, and other UN reporting initiatives such as the GLAAS and JMP, and
- iv) Determine the costs for a sectorwide SDG water monitoring programme and implementation thereof.
- v) Appoint a PSP to assist with the above



**SDG 6.2 - “By 2030, 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”.**

**a. OVERVIEW OF TARGET.**

*“By 2030, 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”.*

**b. INDICATORS AND METHOD OF CALCULATION**

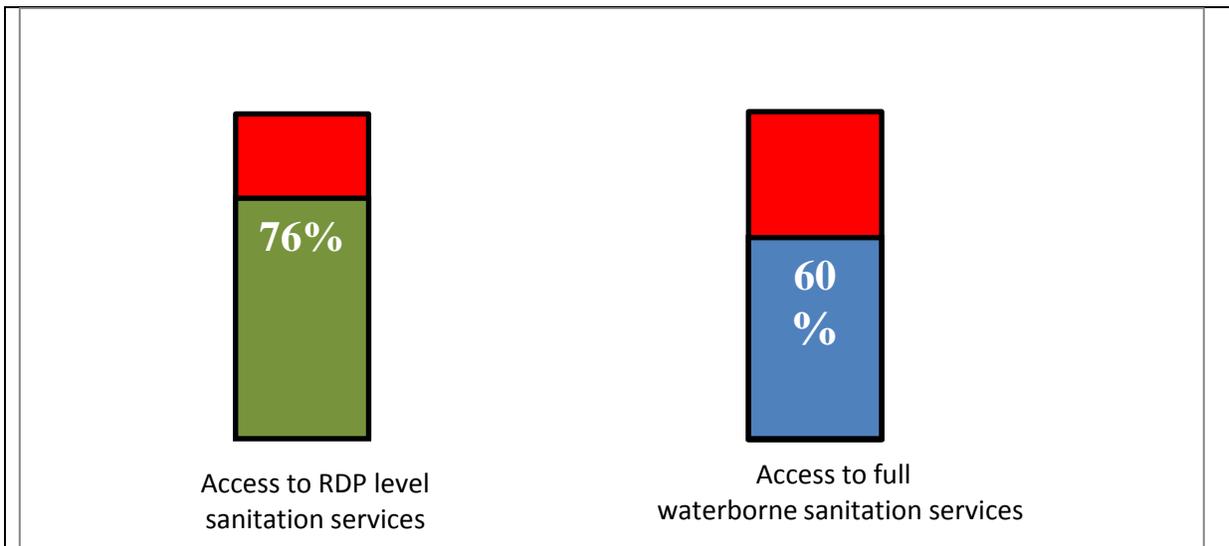
The indicator agreed between the Department and STATS-SA which is also accepted by the United Nations is the “proportion of the population using safely managed sanitation services, including a hand washing facility with soap and water”.

The source of data for this indicator is the General Household Survey or the census data from Stats-SA, whichever will be more recent at the time of reporting. Data from WHO/ UNICEF, or JMP on behalf of UN-Water may be used where data is not available locally e.g. data on hygiene facilities and washing of hands at households level.

**c. SUMMARY OF 2017 BASELINE REPORT**

In 2017 about 76 % of South African households had access to RDP standard of sanitation services while 60% of households had access to water-borne sanitation services. This statistic has since improved as it will be shown under the section of the report discussing the current status of sanitation services delivery in the country.

**Figure 1:**Proportion of population using RDP level sanitation services (2016)  
(Population)



**Source:** Department of Water & Sanitation, Statistics South Africa, Community Survey 2016

#### d. ANNUAL PROGRESS

Government has made a significant progress in addressing the sanitation backlog and providing appropriate sanitation to poor households in the country since 1994. According to the STATS –SA General Households Survey 2017 report, an additional 20, 5% households gained access to improved sanitation between 2012 and 2017 at national level, while in Western Cape and Gauteng provinces sanitation coverage stands at 94,1% and 90,5% respectively.

Limpopo and Mpumalanga are the provinces with least coverage out the nine provinces namely 58, 9% and 67, 6% respectively. Table 1 below shows sanitation delivery per province since 2002 to 2017. From the table below Eastern Cape moved from 33, 4% in 2002 to 85,3 % in 2017 representing an increase of 51,9% in 15 years which represents the highest improvement of all provinces. Other provinces can learn some lessons out of the Eastern Cape sanitation programme. Nationally the percentage of households with access to improved sanitation increased from 61, 7% in 2002 to 82, 2% in 2017. Currently the sanitation backlog stands at 17, 8 % of households which must be eradicated by 2030.

0	2002	2004	2006	2008	2010	2012	2014	2016	2017
WC	92,2	91,8	95,2	93,7	96,7	95,5	94,5	94,3	94,1
EC	33,4	38,5	49,4	54,9	63,6	70,0	78,2	85,1	85,3
NC	75,5	75,9	76,9	76,2	83,7	84,6	83,9	82,6	87,7
FS	64,7	69,7	71,8	76,4	83,4	83,5	83,8	83,2	85,1
KZN	50,9	58,5	63,0	62,8	72,7	68,0	75,9	77,2	80,8
NW	54,1	57,8	54,4	58,1	66,5	72,2	67,0	69,0	71,3
GP	88,9	89,8	89,1	91,3	91,2	91,1	90,9	90,5	90,5
MP	50,7	55,3	53,1	54,4	55,4	62,4	64,4	67,5	67,6
LP	26,9	34,6	33,9	32,1	41,1	49,8	54,0	57,1	58,9
RSA	61,7	65,9	68,3	70,0	75,4	77,0	79,5	81,0	82,2

(Table 1 sanitation delivery since 2002)

Although the sanitation backlog is reducing rapidly, what the sector needs to pay more attention to is the matter of operation and maintenance of the facilities that have been provided so that they remain functional. However this aspect of asset management is grossly neglected in many municipalities.

#### e. GAP ANALYSIS

As indicated above, the percentage of households that are not yet provided with access to adequate sanitation currently stands at 17,8 percent. Most of these households are in informal settlements and rural areas.

To provide sanitation facilities in informal settlements is very challenging as some are either very dense or are located in areas that are unsuitable for human habitation e.g. flood plains or in dolomitic areas. The housing programme of the national Department of Human Settlements is the most suited to address sanitation backlog in informal residential settlements as it provides both the house and the concomitant basic services e.g. water supply, roads, electricity, refuse removal and sanitation.

To address the informal settlements backlog three things would need to happen

- (a) The national housing programme needs to increase fivefold in order to eradicate informal settlements.
- (b) The rate of rural–urban migration needs to be greatly reduced by bringing development and provision of basic services to the rural settlements and
- (c) By growing the economy of the country so that people would get decent jobs to afford their own accommodation in serviced stands.

The rural sanitation backlog is currently in areas which are more difficult to service like areas far away from city centres and means of transport, where building material is very difficult to deliver. This means the rate of service provision in these areas is very slow.

However, the remaining twelve years to 2030 is sufficient to eradicate this backlog provided more support is provided to the 57 identified priority municipalities where the highest sanitation backlog is located.

Municipalities, especially those that are designated as Water Services Authorities have a Constitutional responsibility to provide sanitation services to the poor households in areas of their jurisdiction. However most of the municipalities with the high sanitation backlog are not adequately capacitated to adequately address the sanitation challenges on their own without support from provincial and national governments. The skills that are mostly lacking are planning, programme and project management, financial management, technical and supply management skills.

The Auditor General's report on financial management at local government has consistently shown that financial management skills at local government is at its lowest and the situation is getting worse instead of improving in the past three years. The Inter-Ministerial Committee report of August 2018 developed by the Municipal Infrastructure Support Agent (MISA) identifies critical gaps in basic services delivery at municipal level. Unless these gaps are addressed as a matter of urgency, the 2019 basic services delivery targets will not be met with serious risks of escalating services delivery protests which unfortunately are becoming more violent resulting in destruction of property and even loss of lives.

#### **f. ENABLING FACTORS**

Due to the correlation Target 6.1 has with Target 6.2, the enabling factors reflect those highlighted in the respective section above, and are therefore not repeated here.

#### **g. BUDGET REQUIREMENTS**

South Africa is committed to meet the SDG and the NDP targets in order to meet our own country commitments of fighting inequality, unemployment and poverty. We must therefore commit adequate financial resources to this task to be accomplished.

The required financial resources will fund the support to municipalities to speed up services delivery as well as development of systems and processes for data collection and management for reporting purposes.

It is estimated that a budget of R20 million per annum should be allocated to this project for it to be adequately realised.

## **h. CHALLENGES**

There are many and varied challenges prevailing in the sanitation sector however this report will not discuss all of them but only the most critical ones and they are:

Shortage of technical skills:

Sanitation, especially wastewater treatment works and bulk sewers requires engineering skills to plan, implement, operate and maintain in order to adequately treat all the effluent produced by industries and households in municipalities and meet the treatment standards before effluent is discharged back to the rivers. Most of the Wastewater Treatment Works in the country do not comply with set norms and standards and are discharging untreated sewage to rivers. An example of this is the Emfuleni Municipality in the Vaal area.

High vacancy / turnover rate at executive levels:

In most municipalities the posts of Municipal Managers, Chief Financial Officers, Technical Directors and Supply Chain managers are filled by people who are acting or permanently employed staff does not last the full term of contract. This instability affects governance issues at the concerned municipalities.

Lack of long term comprehensive plans:

There are very few municipalities that have developed comprehensive long term water and sanitation master plans for their areas of jurisdiction resulting in poor infrastructure management and service delivery outcomes. Ageing infrastructure is not maintained until it breaks down thus disrupting service delivery.

Insufficient resources dedicated to municipal support in DWS:

The Constitution, 1996 sec154 (1) requires national government and provincial governments to support and strengthen the capacity of municipalities to manage their own affairs, to exercise their powers and to perform their functions. The Department is expected to ensure delivery of safely managed water services and eradication of water and sanitation in terms of the National Development Plan and the SDG targets. It is therefore expected that the Department fulfils this mandate by deploying technical

expertise to support municipalities to deliver sustainable and adequate sanitation to the South Africans.

**i. SUPPORT REQUIRED**

The need to overcome the above challenges requires highly qualified professionals in the water sector skilled in the water services field having extensive knowledge relating to the business of water supply and PSP support.

**j. ACTION PLAN FOR 2019**

- ✓ Improve the quality and reliability of service delivery data collected from municipalities.
- ✓ Develop systems to incorporate hygiene information in our progress reports as currently this information is not available.
- ✓ Raise the profile of sanitation at all levels of government with special focus at municipal level for it to be adequately resourced and prioritised. Currently sanitation is low in the priority list of municipalities and households.
- ✓ Advocate for inclusion of sanitation and hygiene education into the school curriculum at primary school level.
- ✓ Closely monitor the quality of sanitation facilities provided at schools and household level for sustainability purposes and prevention of learners drowning in pit toilets.



**SDG 6.3 – “By 2030, 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.”**

and...

**SDG 6.6 – “By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes”**

**a. OVERVIEW OF TARGET 6.3 AND 6.6**

Please note from the onset that SDG Targets 6.3 and 6.6 are considered concurrently. Each has their own Task Team to drive the internal requirement of each, however they share the same report template from the UN and the data generated is very much collective. Let us first define each:

**Target 6.3:** “By 2030, 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”

Target 6.3 sets out to improve the water quality in receiving surface and ground water resources by avoiding, minimizing and significantly reducing different sources of pollution reaching bodies of water. This is essential for protecting both ecosystem (Target 6.6, SDGs 14 and 15) and human health (Target 6.1 and SDG 3), and to supply

water that is fit-for-use to economic activities (SDG 8), in support of social development and economic growth in South Africa.

The main sources of water pollution include wastewater from municipal and industrial waste water treatment works (point sources), as well as run-off from urban, industrial and agricultural land, mine residue deposits, and waste being disposed of to waste facilities (non-point sources).

**Target 6.6:** “By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes”

Water related ecosystems provide water services to society. They are important for improving water quantity, because they can capture and store water, they also improve water quality, because they can decompose and/or absorb water pollutants, and for other purposes such as providing fish and construction materials. In South Africa, many of our water resources also provide important cultural and spiritual services.

Target 6.6 seeks to halt the degradation and destruction of these ecosystems, and to assist the recovery of those already degraded. The target includes water-related ecosystems such as vegetated wetlands, rivers, lakes, reservoirs and groundwater, as well as those occurring in mountains and forests, which plays a special role in storing freshwater and maintaining water quality. Target 6.6 directly contributes to wider improvements in ecosystem health, both marine (SDG 14) and terrestrial (SDG 15), and it builds on the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020 (reflected in the target year of 2020), the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Convention on Wetlands) and the United Nations Convention to Combat Desertification (UN Water, 2017).

## **b. INDICATORS AND METHOD OF COMPUTATION (MOC’S)**

### ***Target 6.3: Water Quality***

Target 6.3 has two indicators (6.3.1 and 6.3.2), one focused on monitoring the sources of pollution and one that monitors the change in in-stream water qualities. In each case these “water quality indicators of sustainability” have been domesticated to suit the South African context (Table 1 below). Domestication refers to a change in the description of the indicator or the method that has been proposed by the United Nations to make it contextually relevant for the country.

**Table 1. Indicators for SDG Target 6.3**

SDG Target (UN)	Indicator (UN)	Domesticated (SA Indicators)	Relevance
6.3 By 2030, 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	6.3.1 Proportion of wastewater safely treated	6.3.1D Proportion of water containing waste safely treated and lawfully discharged	Addresses sources of pollution.
	6.3.2 Proportion of bodies of water with good ambient water quality	6.3.2D Proportion of bodies of water that comply to the water quality objectives	Addresses the fitness-for-us of receiving rivers, dams and groundwater resources.

The above indicators and their accompanying MoC have been modified so that they use local terminology, e.g. water containing waste, as per the NWA, 1998 (Act 36 of 1998), instead of wastewater or effluent and so that they are in line with local (South African) mandates and water resource management imperatives (thus measuring change in compliance to water quality objectives, as per section 13 of the NWA and lawfulness of discharges in terms of Section 22 of the NWA).

The MoC's refers to the method used to determine the baseline which is the point in time from which change will be measured. According to the various guidelines, and given that the SDGs were ratified in 2015, the preferred baseline is 2016/2017. Ideally trends (i.e change over time) should be measured against a specified target for 2030.

The Definition and MoC's for the Indicators are provided below and were developed through consultation with a large number of experts within the DWS. These methods will be further tested and refined in the coming year. The data needed in order to calculate the baseline is summarized in table 2 below. Furthermore, table 3 summarises the data requirements per 6.3.1 sub indicator, and table 4 summarises the indicators for SDG target 6.6

**Table 2. Definitions and Method of Calculation for Indicators 6.3.1 and 6.3.2**

Domesticated (SA Indicators)	Definition	MoC
6.3.1D Proportion of water containing waste safely treated lawfully discharged	<p>Measures the change in the proportion (% Volume in Ml/annum) of water containing waste produced by households and economic activities that is no longer required by the water user (<i>i.e.</i> that is not reused or recycled), that is safely treated and lawfully discharged.</p> <p>The phrase “<i>safely treated</i>” implies treatment that results in water containing waste being discharged that comply with relevant water quality standards.</p> <p>The phrase “<i>lawfully discharged</i>” implies discharge that is permissible in terms of the National Water Act 36:1998.</p>	<p>Calculated by:</p> <p>(1) Dividing the total volume of water containing waste, treated by Waste Water Treatment Works, that is compliant to water quality standards, into the total volume of water containing waste discharged over a 12 month period; and</p> <p>(2) Dividing the total volume of water containing waste that is lawfully discharged by Waste Water Treatment Works into the total volume of water containing waste discharged over a 12 month period.</p>
6.3.2D Proportion of bodies of water that comply to the water quality objectives	<p>Measures the change in the water quality of South Africa’s rivers, dams and groundwater resources, expressed as the percentage of bodies of water that comply to water quality objectives.</p> <p>Water quality is expressed as salinity, nitrogen, phosphorus pH, and the ionic ratio of sulphate to total ions (indicator of mine drainage).</p>	<p>Calculated by:</p> <p>Dividing the bodies of water that comply to water quality objectives into the total number of bodies of water assessed.</p>

**Table 3. Data requirements for SDG 6.3.1D**

SDG 6.3.1 Sub-Indicator	Data Requirements
(1) Proportion of <u>water containing waste safely treated and lawfully discharged by economic activities via sewer systems to municipal WWTWs</u>	- Dischargers Details (name, location, type of waste generating sector) - Is the discharge permissible or unlawful? - Authorisation type
(2) Proportion of <u>water containing waste safely treated and discharged lawfully by Municipal WWTWs to water resources.</u>	- Catchment name and number - Volume authorised - Treatment technology used
(3) Proportion of <u>water containing waste safely treated and lawfully discharged by economic activities to water resources.</u>	- Water Quality Parameters and Limits that Apply - Discharge Volume - Discharge water quality - Compliance Status

**Target 6.6: Water Related Ecosystems:**

Target 6.6 only has one indicator (6.6.1): *“Change in the Extent of Water Related Ecosystems over time”*

This indicator is however highly compounded and consists of an aggregation of a large number of data from numerous data sources. These data relate to three sub-indicators:

1. Change in Spatial Extent
2. Change in Water Quality (which is measured in SDG 6.3.2)
3. Change in Water Quantity

These three sub-indicators refer to wetlands, lakes, estuaries, artificial ecosystems (dams), rivers and aquifers and are categorized by the United Nations

**Table 4. Indicators for SDG Target 6.6**

SDG Target (UN)	Indicator (UN)	Domesticated (SA Indicators)	Relevance
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time	6.1.1D(1) Change in the spatial extent of water related ecosystems over time, including wetlands, reservoirs, lakes and estuaries as a	Addresses the trends in the surface area of ecosystems as a measure of their response to land use and water use impacts.

	percentage of total land area	
	6.1.1D (2) Change in the national discharge of Rivers and Estuaries over time.	Addresses the amount of Surface Water that flows in South Africa's rivers and into its estuaries as an indicator of the flow related pressures

The Definition and MoC for the above Indicators are provided in table 5 below and were developed through consultation with a number of experts within the DWS. The method for wetlands, lakes and estuaries largely draw on the existing methods and data provided by the Council of Scientific and Industrial Research (CSIR) and the South African National Biodiversity Institute (SANBI) as part of the 5 yearly National Biodiversity Assessment for South Africa. These methods will be further tested and refined in the coming year.

**Table 5. Definitions and Method of Calculation for Indicators 6.3.1 and 6.3.2**

Domesticated Indicators)	(SA	Definition	MoC
6.1.1D(1) Change in the spatial extent of water related ecosystems over time, including wetlands, reservoirs, lakes and estuaries as a percentage of total land area		Percentage change in the surface area of wetlands (vegetated and unvegetated/arid), estuaries, reservoirs and lakes over time from a predefined baseline, expressed as a % of the total land area.	<p>Spatial extent of Reservoirs, Estuaries, Wetlands and Lakes measured at a point in time divided by total land area multiplied by 100:</p> $S_p = B / Y \times 100$ <p>Where:  <math>S_p</math> = Percentage change in spatial extent  <math>B</math> = average national spatial extent for the baseline year  <math>Y</math> = national land surface of South Africa (1 220 000 km<sup>2</sup>)</p>

Domesticated (SA Indicators)	Definition	MoC
6.1.1D (2) Change in the national discharge of Rivers and Estuaries over time.	The total cumulative volume (discharge) of water moving downstream during a hydrological year compared to the naturalised flow set as a baseline. This measures the reduction from natural flows, obtained by removing man-made influences such as dams, irrigation schemes, abstractions for mines, industry and towns, return flows from treatment works	<p>Change in discharge is measured as naturalised Mean Annual Runoff minus present day mean annual runoff divided by naturalised mean annual runoff multiplied by 100:</p> $C_f = \frac{(nMAR - pdMAR)}{nMAR} \times 100$ <p>Where:  <math>C_f</math> = % reduction in discharge  nMAR = Naturalised flow  pdMAR = Present day flow</p>

**c. SUMMARY OF 2017 BASELINE REPORT**

The report submitted by South Africa relates to SDG Goal 6 which is a dedicated water and sanitation goal, and coordinated through various UN agencies, which includes but is not limited to, UNECE, UN Environment Programme, (UNEP) and UN Water. UNEP is responsible for gathering data from member states to support the reporting against a number of environment related SDG indicators. The report for SDG 6.3.2 and 6.6.1 was completed in the format requested by UNEP with the level of detail required and the best available information from DWS with the assistance from SANBI for wetlands information. Details within the report will be used as a baseline information by the UNEP in terms of South Africa’s progress in addressing the gaps moving forward. It is however critical to mention that at the time of submitting the baseline report, some of the methodologies were still being tested by the UN. As a result some methods were revised, which then means a revised baseline report can be submitted to the UN.

The information submitted for reporting was on a tertiary catchment level for both 6.3 and 6.6 indicators. The data used was from 2014-2016. As part of reporting for Water Quality, UN required countries to report the Dissolved Oxygen (DO) for all Rivers and Dams. However the Department only measures DO in dams. This is largely due to the

cost, capacity and skills involved in monitoring the DO as part on the Regional Offices monthly monitoring. Indicator 6.6 required countries to report on spatial extent of water related ecosystem as well as quantity within these water related ecosystem.

The table 6 below provides information relating to the state of South Africa's Water Quality for open water bodies (lakes and dams) as well as Rivers.

**Table 6: State of South African water quality**

Number of open water bodies	Number of river water bodies	Number of open water bodies with good quality	Number of river water bodies with good quality	Percentage of open water bodies with good quality	Percentage of river water bodies with good quality
176	278	110	103	62.50	37.05

Based on the available data for the variables reported, in South Africa, we have 63% of open water bodies with good quality and 37% of rivers with good quality.

Table 7 below provides summary of information relating to the spatial extent in Km<sup>2</sup> as well as quantity in Mm<sup>3</sup> of water related ecosystem. The information was drawn from the National Biodiversity Assessment map, 2011 which is done by the Department of Environmental Affairs through SANBI.

**Table 7: Spatial extent of water related ecosystem**

Spatial extent of national vegetated wetlands	Spatial extent of national open water bodies	Spatial extent of national river water bodies	Total spatial extent of all water-related ecosystems	Water quantity of national open water bodies	Water quantity of national river water bodies	Total water quantity of all water-related ecosystems
56227.81167	2090.909808	136.577695	58455.29917	2095.977	5637504894	5637506990

South African Rivers are small as a result, moving forward the team will not be reporting on spatial extent of rivers.

#### d. ANNUAL PROGRESS

We domesticated indicators to make it relevant in South African context. Furthermore we developed MoC's for all indicators. For more information refer to Section 2 of this report.

In 2017, UN was still busy reviewing methods for some of the indicators. Therefore the submitted 2017, baseline information had to be revised and resubmitted to STATSSA in preparation for putting together a country report in September 2019.

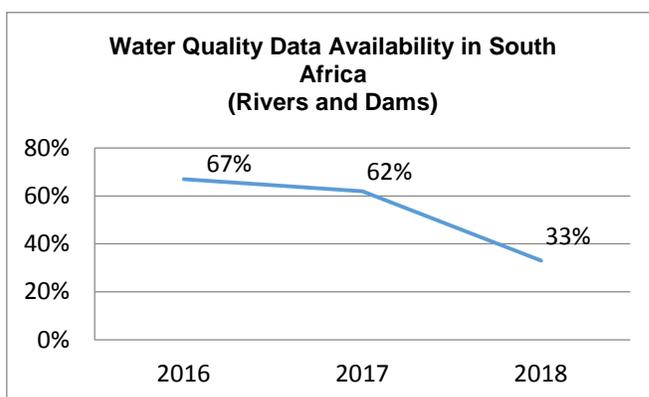
Furthermore a gap analysis tool was developed and compiled. The aim of the tool is to capture all the gaps identified which has a likelihood to prevent us from having the required information for reporting progress to the UN. The gaps tool also works as a risk monitoring tool because it outlines what management actions need to be taken to fill the gaps which includes cost where the cost estimates are known. The gap analysis tool is a working document.

The reason behind succeeding in collating the information is through the coming together of various specialist within the Department based on their relevant expertise as well as involving sector partners like WRC, SANBI and CSIR.

#### e. GAP ANALYSIS SUMMARY

Indicator 6.3.2 aims to measure whether the water quality in South Africa's Dams, Rivers and Aquifers are complying to a set of water quality objectives, where such objectives consider the fitness-for-use requirements of selected receiving water users and in the case of groundwater, the background water quality conditions. Although generic water quality objectives are applied to the whole country, catchment- and aquifer-specific water quality objectives, *i.e.* Resource Quality Objectives (RQOs), determined in terms of Chapter 3 of the NWA 36:1998, should ideally be available and compliance against these objectives should be reported on, for all significant water resources.

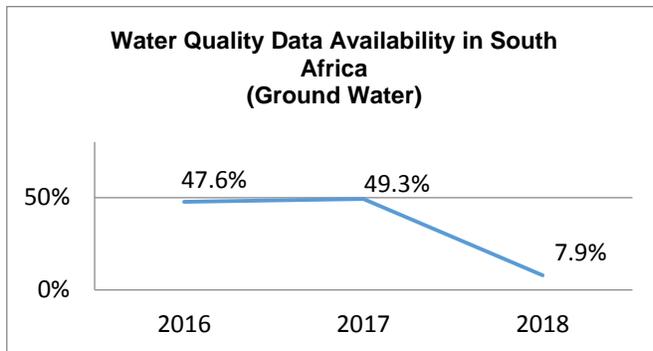
**There are currently gaps in the data required for reporting on SDG 6.3.2 D.**



**Data availability:** Indicator 6.3.2 is highly dependent on the availability of in-stream and in-aquifer water quality monitoring data across South Africa. It is of great concern that the availability of monitoring data (which is sourced from the Department's Water Management

System database) has been steadily declining since 2016(see graph). This is largely due to the current financial constraints of the department which has affected both the collection of water quality samples and the analysis of the samples by the laboratories at DWS: Resource Quality Information Services (in terms of the consistent supply of consumables, human resource capacity and laboratory equipment).

In terms of ground water, in addition to similar negative trends in the availability of monitoring data from existing boreholes (Figure 1b), it has been determined that there are 4 important ground water regions (Vegter, 2001) that do not have any water quality



monitoring boreholes and that the national (ZQM) monitoring programme should be expanded to cover these areas through the addition of 6 monitoring borehole sites.

South Africa is currently unable to report on the compliance to its Resource Quality Objectives (RQOs) at a national scale.

Data is scattered, water quality monitoring at the RQO sites is limited and there is a lack of a dedicated and staffed programme or section within DWS to oversee/drive the process of monitoring and reporting on compliance trends. To date 451 water quality RQOs have been determined, covering roughly 40% of South Africa.

**Figure 1a and b. (a)Trends in the availability of water quality data relating to the SDGs in South Africa for Surface Water resources (Rivers and Dams) and b) the Ground Water resources**

**Research:** The national generic limits and the site specific objectives for reporting on RQOs should also be based on best science. In this regard,

South Africa does have relatively good scientific basis from which the 1996 South African Water Quality Guidelines have been developed. These guidelines are in the process of being updated through the Water Research Commission and priority to such studies should continue to be given.

**Collaboration and coordination:** There are a large number of role-players that undertake water quality monitoring and that collect water quality data. To encourage alignment of the various programmes and approaches, platforms which enable collaboration are essential. DWS support in establishing and maintaining these platforms has declined over recent years due to financial and human capacity constraints and should be reinstated.

In order to address the above gaps and ensure that the sector progressively move towards reporting on compliance to its water quality objectives, the following interventions are recommended:

- Obtain significant investment for re-establishing, expanding and optimising our national and regional WQM monitoring programmes;
- Revitalise and ensure a well-functioning, accredited laboratory at DWS
- Revitalise the departmental , sector wide and provincial monitoring committees and continue to support the DWS Water Quality Management (WQM) Forum
- Determine RQOs in the remaining 60% of South Africa; and
- Build capacity and institutionalise monitoring and reporting on compliance to the RQOs within DWS

#### f. ENABLING ENVIRONMENT

The need of having sufficient personnel and laboratories countrywide is important to ensure sufficient work can be implemented in line with the Target requirements, besides a sustainable flow of funding to make it happen.

#### g. BUDGET REQUIRED

Indicator	Cost <sup>[1]</sup>	Description
<b>6.3.1D Proportion of water containing waste safely treated and lawfully discharged</b>	R 800 000	Cost of expanding IRIS to capture data on the effluent mix that municipal WWTWs receive (water quality and volumes) and to capture actual volume and water quality data by privately owned WWTWs (Mining, Agriculture, Industry, Business) so that this can be compared to their authorisations to calculate compliance status
	R32 000 000 (4 years) (R8 mill per annum)	Cost of specialist support for conducting a comprehensive Green Drop Assessment (4 year contract) R9 000 000 for comprehensive assessment (each year for 2 years = R18 000 000) and R7 000 000 for Partial Assessments (every second year, for two years = R14 000 000)
	R14 000 000	Cost of integrating the Data Systems used by DWS for Authorisations, CME, Green Drop Assessments and Water Quality Monitoring. (WARMS, NCIMS, IRIS, WMS)

<sup>[1]</sup> Costs do not include the day-to-day management costs of the DWS and staff costs are not necessarily reflected in the figures, unless explicitly indicated.

Indicator	Cost <sup>[1]</sup>	Description
		R5 mill development costs* R3 million per annum maintenance costs for three year contract = R9 Million Maintenance includes website maintenance & system enhancements (enhancements requiring < 30 days work), IRIS dedicated Help Desk officials
	R261 000 000	Cost of a V&V Study X 9 for each CMA. Includes water quantity and quantity components. Estimated at R29 Million per Catchment (as per National Water & Sanitation Master Plan) *Alternatively a Mini-V&V for data collection on water quality related water uses may be undertaken at a Cost of R250 000 per catchment by DWS Staff. Costs are for travel.
<b>TOTAL COST</b>	R 307 800 000	

Sub-indicator	Cost <sup>ii</sup>	Description
6.3.2(1) Proportion of Rivers and Dams that comply to the WQOs	R200 000	WMS Programming Cost to include an SDG Programme
	R300 000 / annum	Cost of a Production Scientists annual income (Grade A): needed to drive a programme to monitor and report on compliance to RDMs,
	R4 800 000	Cost of sample collection and analysis of water quality for 327 WQ RQO sites (in Rivers and Dams) Cost is estimated at R3600 per site, with the assumption of a minimum of 4 samples per annum.
	R 1 300 000	Cost of two additional laboratory staff members/ annum

Sub-indicator	Cost <sup>ii</sup>	Description
	R7300 000	Cost of running the national chemical monitoring programme (excluding CoE costs). The assumption is 1 sample (of required parameters for SDG) being taken per month per sampling site for the priority NCMP sites in each province, working at a cost of R800 per sample. If all the water quality parameters are included, cost is R3000 per sample, adding up to 28 Million per annum..
	R80 000	Cost of study to further develop the Water Quality limits for the <b>environment</b>
<b>6.3.2(2)</b> Proportion of geohydrological regions (aquifer systems) that do not exceed WQ baseline values	R600 000	Cost of establishing monitoring boreholes in the Vegtergeohydrological Regions which have 0 water quality monitoring boreholes: <ul style="list-style-type: none"> <li>• Lower Gamtoos Valley – 1 Borehole (at approximately R 100 000)</li> <li>• Oudtshoorn Basin - 1 Borehole (at approximately R 100 000)</li> <li>• Tanqua Karoo – 3 Boreholes (at approximately R 100 000 each)</li> <li>• Tulbach-Ashton Valley– 1 Borehole (at approximately R 100 000 each)</li> </ul>
	R806 400	Cost of sample collection and analysis of water quality for 112 Ground water WQ RQO sites Cost is estimated at R3600 per site, with the assumption of a minimum of 2 samples per year for ground water
<b>TOTAL</b>	R14 580 000	

Sub-indicator	Cost <sup>iii</sup>	Description
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<b>6.6.1 (1) Spatial Extent of Vegetated Wetlands</b>	R11 504 985.00	Cost of establishing the National Wetland Monitoring Programme
<b>6.6.1 (2)Spatial Extent of Arid Wetlands</b>	R 125000	Estimated costs of procuring data (on seasonal variation of open water extents – this will be used to identify wetlands that are seasonally wet)
<b>6.6.1 (3) Spatial Extent of Inland Lakes</b>	R500 000.00	Estimated cost of a specialist limnologist's time for verifying a lakes layer for SA (= approx. 5 days/40 Hours) and costs of verifying the depths of potential lakes.
<b>6.6.1 (4) Change in Water Quantity in Estuaries</b>	R1 500 000.00	For flow modelling on all estuaries every 5 years
<b>6.6.1(5) Change in Water Quantity in Rivers</b>	R2 000 000	Cost of the WR2020 Study (Update of the Water Resources of 2012 study)– as part of the study the present day hydrology of each of the catchments in the RSA will be updated using a combination of data from DWS stations and various modelling techniques.
<b>6.6.1 (5) Change in Water Quality in Estuaries</b>	R600 000/year	RQIS annual funds for running of the estuaries programme and extending it - demand management plan, not allocated budget. Cost as per Review and Optimisation project by DWS (2016)
<b>TOTAL</b>	R16 229 985	

#### **h. CHALLENGES**

Refer to section e) of this report under Gaps for details of relevant challenges.

## i. SUPPORT REQUIRED

The Department is responsible to ensure that the country's water resources are protected, used, developed, conserved managed and controlled in a sustainable manner for the benefit of all people and the environment by developing a knowledge base and implementing effective policies, procedures and integrated planning strategies for water resources and water and sanitation services. To monitor and report progress towards achieving Sub-goal 6.3 and 6.6 the following is required:

- **Cooperative governance, especially the involvement of municipalities:** The involvement of municipalities is critical to ensure data availability required from municipalities.
- **Data collection and reporting method:** The collaboration and coordination of the monitoring (i.e Resource Quality Objectives, network monitoring) effort is required from regional offices engagement with the relevant personnel at the regional offices. Therefore, the ultimate goal is to provide data needed for reporting at national level.
- **Data sharing with other sector partners:** It is of utmost important to develop data partners with approved MoUs to have access to related data.
- **Strengthening compliance and enforcement within the Department:** to strengthen the investigation of non-compliance and enforce compliance.
- **Research and development on advance technologies and innovation:** The adoption of new technologies requires a comprehensive training and development plan on identified skills gap to operate these new technologies
- **Commitment to Financial resources:** The financial resources support is vital in ensuring the SDG targets objectives are met with regard to the significant expenditure requirement. The identified interventions on Gap Analysis require financial resources
- **Stakeholder participation:** Collaboration with stakeholders and building good working relationship to achieve SDGs objectives will results to fundamental changes.
- **Integrate data management system:** The collection of data requires the establishment of clear protocols for collecting, recording and storing data for better reporting.

## j. SDG 6.3 AND 6.6 ACTION PLAN FOR 2019

The main goal for 2019 for SDG 6.3 and 6.6 will be the following:

- i. Further develop, test and finalize the methodologies,
- ii. Provide updated and higher confidence data,
- iii. Improve stakeholder consultation and integration between sustainability indicators utilized by various Sector role-players,
- iv. Where high confidence data is available - Influence the drivers of change (such as the National Water and Sanitation Master Plan – Volume 3) to ensure the sector moves towards obtaining the targets,
- v. Address as many of the gaps as possible through a dedicated plan of action, in partnership with the relevant sector partners, with a key focus on the priority data gaps and challenges.

<b>Date</b>	<b>Action</b>
February 2019	Draft Methodology Reports Produced
March 2019	Draft Targets produced
April-May 2019	Stakeholder Engagements (to workshop the method, agree on actions and targets)
June 2019	Refined Methodology Reports
July 2019	Refined Gaps Analysis and Action Plan
September 2019	Revised Baseline and trend data produced



**SDG 6.4 - ““By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering**

**a OVERVIEW OF TARGET**

By 2030, 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.

**b. INDICATORS AND METHOD OF COMPUTATION (MOC’S)**

The indicators in support of the abovementioned target 6.4 are essentially aimed at measuring water use efficiency and water stress levels over time. There are two indicators which are presented as follows:

<b>Global Indicator</b>	<b>Indicator description</b>
SDG Global Indicator 6.4.1:	Change in water-use efficiency over time
SDG Global indicator 6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

**Indicator 6.4.1:**

Change in water use efficiency over time and the nature of data has been described and classified as Tier III.

This indicator includes water use by all economic activities, focusing on agriculture (excluding forestry and fisheries), Mining, Power Generation (Eskom, currently excluding IPP), and water collection, treatment and supply (looking at distribution efficiency and capturing network leakages, Broadly Local Government) and Industries

This indicator has been designed to address the economic component of SDG Target 6.4.1 and together with indicator 6.4.2, it will provide vital information to ensure that water resources support the world's ecosystems and continue to be available for future generations

This indicator is also multipurpose and can be used to report on targets 2.4, 8.4, 9.4, 12.2 and 12.3

### **Method of Computation:**

The indicator is disaggregated by sector, in order to allow for different metrics in different sectors.

### ***Agriculture***

*Water efficiency in irrigated agriculture* is calculated as the agricultural value added per agricultural (net) water withdrawn, expressed in USD/m<sup>3</sup>.

In formula:

$$A_{we} = \frac{GVA_a \times (1 - C_r)}{V_a - R_a}$$

Where:

- *Awe* = *Irrigated agriculture water efficiency [USD/m<sup>3</sup>]*
- \_ *GVA<sub>a</sub>* = Gross value added by agriculture (excluding river and marine fisheries and forestry) [USD]
- \_ *Cr* = Proportion of agricultural GVA produced by rainfed agriculture
- \_ *V<sub>a</sub>* = Volume of water withdrawn by the agricultural sector (including irrigation, livestock and aquaculture) [m<sup>3</sup>]
- \_ *R<sub>a</sub>* = Volume of water returned to the hydrologic system (return flow) [m<sup>3</sup>]

The volume of water withdrawn by the agricultural sectors (*V*) is collected at country level through national records and reported in questionnaires, in units of km<sup>3</sup>/year or million m<sup>3</sup>/year.

The *Cr* coefficient can be estimated as *Cr*= 37%, on the basis of the general FAO assumption on the ratio between rainfed and irrigated yield. More detailed estimations are however possible and encouraged at country level.

### ***Industry (Mining and industry)***

*Water efficiency of industries* is calculated as the industrial value added per unit of industrial (net) water withdrawn, and expressed in USD/m<sup>3</sup>.

In formula:

$$I_{we} = \frac{GVA_i}{V_i - R_i}$$

Where:

- \_  $I_{we}$  = Industrial water efficiency [USD/m<sup>3</sup>]
- \_  $GVA_i$  = Gross value added by industry (excluding energy) [USD]
- \_  $V_i$  = Volume of water withdrawn by the industries (excluding energy) [m<sup>3</sup>]
- \_  $R_i$  = Volume of water returned to the hydrologic system (return flow) [m<sup>3</sup>]

Industrial water withdrawal (V) is collected at country level through national records and reported in questionnaires, in units of km<sup>3</sup>/year or million m<sup>3</sup>/year.

### **Power Generation**

*Energy (power) water efficiency* is calculated as the value added of power production per unit of (net) water withdrawn for energy production, and expressed in MWh/m<sup>3</sup>.

In formula:

$$E_{we} = \frac{TEP}{V_e - R_e}$$

Where:

- \_  $E_{we}$  = Energy water efficiency [MWh/m<sup>3</sup>]
- \_ TEP = Total energy production [MWh]
- \_  $V_e$  = Volume of water withdrawn for energy production, i.e. for the cooling of power plants (including evaporation from reservoirs created behind dams for hydropower) [m<sup>3</sup>]
- \_  $R_e$  = Volume of water returned to the hydrologic system (return flow) [m<sup>3</sup>]

### **Local Government**

*Municipal water supply efficiency* is the ratio between water effectively distributed to the municipal users and the water withdrawn for municipal use by water supply utilities (i.e. distribution efficiency, size of network losses).

In formula:

$$M_{we} = \frac{Mu_d}{V_m}$$

Where:

- $M_{we}$  = Municipal water supply efficiency [-]
- $Mu_d$  = Water distributed to municipal users [m<sup>3</sup>]
- $V_m$  = Volume of water withdrawn by municipal utilities (i.e. the public distribution network) [m<sup>3</sup>]

## **Indicator 6.4.2**

The purpose of this indicator is to show the degree to which water resources are being exploited to meet the country's water demand. It measures a country's pressure on its water resources and therefore the challenge on the sustainability of its water use. It tracks progress in regard to “withdrawals and supply of freshwater to address water scarcity”, i.e. The environmental component of target 6.4.

The indicator shows to what extent water resources are already used, and signals the importance of effective supply and demand management policies. It indicates the likelihood of increasing competition and conflict between different water uses and users in a situation of increasing water scarcity.

Increased water stress, shown by an increase in the value of the indicator, has potentially negative effects on the sustainability of the natural resources and on economic development. On the other hand, low values of the indicator indicate that water does not represent a particular challenge for economic development and sustainability.

### **Method of Computation**

$$Stress = \left( \frac{TW\!W}{TR\!W\!R - Env} \right) \times 100$$

Where: TW\!W = Total Water Withdrawal (surface + groundwater)  
TR\!W\!R = Total Renewable Freshwater Resources  
Env= Environmental flow requirements

## **c SUMMARY OF 2017 BASELINE REPORT**

### **Indicator 6.4.1**

Water use efficiency for the agricultural sector was determined to be **0.097,31 USD per m<sup>3</sup>** of water supplied. The industrial water use efficiency was determined to be **16.960 USD per m<sup>3</sup>**. Note however that the efficiency of the energy sector was included in the Total Industrial Water Efficiency calculation and was not separated as per the formula above.

**the efficiency for the services sector was ‘The total water use efficiency for the country for the 2017 base year is……?’**

AQUASTAT			
Computation of the Indicator 6.4.1 on Water Use Efficiency (in USD/m <sup>3</sup> )			
Country:	South Africa		Update [year]
		2017	Base Year
<b>Note:</b> Fill in blue cells, for green cells to be automatically calculated			
<b>IRRIGATED AGRICULTURE WATER USE EFFICIENCY (Awe)</b>		<b>UNIT</b>	<b>CALCULATION RULES</b>
Ratio between rainfed and irrigated yields	[1] 0.375	decimals	0.375 default ratio used if no data enter
Proportion of irrigated land on the total arable land (Ai)	[2] 0.093	decimals	=[3]/[4]
Irrigated land	[3] 1	Mhactres	
Arable land	[4] 14	Mhactres	
Proportion of agricultural GVA produced by rainfed agriculture (Cr)	[5] 0.786	decimals	=(1/(1+((2)/((1-2)*[1])))
Volume of water withdrawn by the agricultural sector (including irrigation, livestock and aquaculture)	[6] 10.00	km <sup>3</sup>	
Gross value added by agriculture (excluding river and marine fisheries and forestry)	[7] 4 515 310 527.07	USD	
<b>Irrigated Agriculture Water Use Efficiency</b>	[8] 0.097	USD/m <sup>3</sup>	=(7)*[1-5]/[6]
<b>INDUSTRIAL WATER USE EFFICIENCY (Iwe)</b>		<b>Total</b>	<b>Unit</b>
Gross value added by industries (including energy)	[9] 50 880 409 534.76	USD	
Volume of water withdrawn by the industries (including energy)	[10] 3.00	km <sup>3</sup>	
<b>Industrial Water Use Efficiency</b>	[11] 16.960	USD/m <sup>3</sup>	=[9]/[10]
<b>SERVICES WATER USE EFFICIENCY (Swe)</b>			
Gross value added by services	[12] 3 100 000 000	USD	31.000
Volume of water withdrawn by the services	[13] 2.98	km <sup>3</sup>	
<b>Services Water Use Efficiency</b>	[14] 1.041	USD/m <sup>3</sup>	=[12]/[13]
<b>WATER USE EFFICIENCY (WUE)</b>			
Proportion of water withdrawn by the agricultural sector over the total withdrawals	[15] 0.626	decimals	=[6]/([6]+[10]+[13])
Proportion of water withdrawn by the industry sector over the total withdrawals	[16] 0.188	decimals	=[10]/([6]+[10]+[13])
Proportion of water withdrawn by the service sector over the total withdrawals	[17] 0.186	decimals	=[13]/([6]+[10]+[13])
<b>Water Use Efficiency</b>	[18] 3.439	USD/m <sup>3</sup>	=(15)*[8]+([16]*[11])+([17]*[14])
<b>Notes:</b>			
The definitions of the variables listed in the form are available in AQUASTAT: <a href="http://www.fao.org/nr/water/aquastat/data/glossary/search.html?lang=en">http://www.fao.org/nr/water/aquastat/data/glossary/search.html?lang=en</a>			
Definition: Agricultural irrigated land refers to agricultural areas purposely provided with water, including land irrigated by controlled flooding.			

**Figure 1: 2017 Baseline Report**

These values can be improved upon through implementation of water use efficiency measures by the various sectors. It is the mission of this Department together with partners in the sector to drive efficiency improvement measures and targets over a period of time. When applying the formula as presented by UN, it is important to improve quality and confidence of data for the actual water supply and use within the sectors.

### **Indicator 6.4.2**

The water stress indicator for the base year 2017 shows a high value of 41.4 % which indicates a likelihood of increased competition and conflict between different water uses

and users in a situation of increasing water scarcity. Empirical evidence is available on the ground wherein is some stressed catchments competing uses and users are making more robust engagements in terms of assurance of supply, water allocations, restrictions during times of droughts and cost apportionment for future schemes or infrastructure costs. Examples are the Algoa Water Supply System and the Western Cape Water Supply System were competing uses between Agriculture and Domestic share the water resources in the respective catchments.

WATER STRESS				UNIT	CALCULATION RULES
Total freshwater withdrawn (surface + groundwater)	[1]	15.000	in km <sup>3</sup>		= [2]-[3]-[4]-[5]
Total water withdrawal	[2]		in km <sup>3</sup>	ERROR	
Desalinated water produced	[3]	0.023	in km <sup>3</sup>		
Direct use of treated municipal wastewater	[4]		in km <sup>3</sup>		
Direct use of agricultural drainage water	[5]		in km <sup>3</sup>		1.000
Total renewable freshwater resources	[6]	54.102	in km <sup>3</sup>		
Environmental flow requirements	[7]	33.0	in %		
Environmental flow requirements (volume)		17.854	in km <sup>3</sup>		
<b>Water Stress</b>	[8]	41.381	%		= [1]/([6]-([6]*[7]/100))
<b>Notes:</b>					
The definitions of the variables listed in the form are available in AQUASTAT:					
<a href="http://www.fao.org/nr/water/aquastat/data/glossary/search.html?lang=en">http://www.fao.org/nr/water/aquastat/data/glossary/search.html?lang=en</a>					

## d ANNUAL PROGRESS

### Indicator 6.4.1

A task team for the indicator 6.4 was established and Terms of Reference (TORs) for the task team were developed. As part of functions outlined in the TORs, data requirements for the computation of the indicator were identified and a gap analysis report was drafted. An action plan was also developed for the 2019 reporting period and budget estimates to implement the action plan were done. Annexure 1

A preliminary baseline report for 2017 base year was developed as indicated in Figure 1 above.

### Indicator 6.4.2

No.	Report Name	Date Submitted	Comments
2	Goal 6.4.2 Level of	25 July 2017	

	water stress or pressure - Indicators required for SDG Baseline Report		
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## e GAP ANALYSIS

Water Use Sector	Baseline water use efficiency levels 2017	Target water use efficiency levels by 2030	Comments
Irrigation Agriculture (More crop per drop)	65% (current water losses 35 to 45%.)	75%	
Industries incl energy and Mining. (More production output per water use)	75%	85%	
Water Services (Reduce water losses and Non Revenue Water)	59% (NRW 41%)	85%	

### **Indicator 6.4.1**

#### **Accountability**

Institutional arrangements within the department are not clear. Subsequently, there are no dedicated officials in the regional offices to coordinate and drive water use efficiency as well as data collection. This is applicable to all the water use sectors.

The water use efficiency will engage P and I directors to second officials to address Water Use efficiency in all the economic sectors within their provinces.

#### **Baseline**

The data used for the baseline report was mostly estimates or registered volumes obtained from the departmental Water Administration and Registration Management System (WARMS). The lack of actual water use information coupled with lack of uniformity and accuracy where reporting is taking place means that the computation the WUE indicator gives a distorted version of the economic efficiency, which is not reflective of the actual volumes of water used per unit measure of production.

The Directorates is in constant engagement with various economic sectors about the significance, in especial in reporting to this SDG indicator 6.4.1, of providing the actual water data to the Department.

### **Data gathering, Storage and Reporting**

There is a need to develop processes for data management and processing of information. In the agricultural sector, DWS must resolve the impasse with regard to the adoption and use of the Water Administration System at Scheme levels.

A computerized tool based Standardised Water Accounting Framework (SWAF) principle has been developed for the mining sector to centralise data gathering and reporting in a standardised format. There is a need to develop the same tool for power generation and wet industries.

### **Links to other SDGs**

This indicator is multipurpose and can be used to report on targets 2.4, 8.4, 9.4, 12.2 and 12.3. There is therefore a need to collaborate efforts with the said indicator task teams to avoid any possible contradictions

### **Partnerships and Collaboration**

Management of water supply and use is the collective responsibility for all partners in the sector. It is thus critical that DWS together with partners and sector representatives forges close working relationships such as planning for water use efficiency improvement projects, data and information generation and management. Promote massive facilitation and adoption of technology transfer amongst the sector partners. This can be done through Memorandums of Understanding and similar vehicles.

### **Research**

Collaboration with research and academic institutions such as the Water Research Commission (WRC), Agricultural Research Commission (ARC) and the Council for Scientific and Industrial Research (CSIR) etc., is needed to identify areas of research around water use efficiency.

### **Regulatory Tools**

Water management regulations talking to water use efficiency must be developed, promulgated and implemented throughout the water value chain.

## **Indicator 6.4.2**

According to the Guide developed for the SDG Goals and Targets: *Data on water withdrawals and total water resources available are commonly collected by ministries/institutions related to water, agriculture and/or environment. In terms of progressive monitoring, national aggregates can be estimated based on data that is internationally available or through modelling, and then continuously refined with nationally generated data, for example, through metering, enabling disaggregation by water basin and by sector. Countries can use the MDG indicator as a starting point, and gradually incorporate increasingly accurate information about the environmental water requirements . Data on 6.4.2 feeds directly into the monitoring of 6.4.1.*

*Proposed frequency of national data collection and reporting to the global level: every three years.*

With this in mind as a Task Team in identifying the gaps, the above guideline serves a purpose of defining the methodology, potential sources of data and problems encountered to report on the level of water stress.

According to the National Water and Sanitation Master Plan there are over 90 institutions managing water in the Country in various capacities and roles as mandated by the enabling legislations. This in itself presents a headache in terms of how data and information is managed to elevate to a fully integrated national repository.

<b>Indicators</b>	<b>Current</b>	<b>Gap</b>	<b>Action plan</b>
National water Balances perspectives for RSA (Accounting for all water uses versus water availability)	The water balance information produced in the National Water Resource Strategy first edition (NWRS) was developed over a period of several years, based on 1995 primary data adjusted to the year 2000.	Latest Water Balance information on a Provincial, catchment, smaller systems not available	- Update the National water balances accounting for information in the systems context of the Reconciliation Strategies, All Towns Strategies and WRSM 2015 Data sets
Data and information sharing within	1. National Water Information	1. The systems are not fully integrated	1. work towards systems integration

countries at all levels	Management System (NIWIS) 2. Various systems in place across water sectors		
National water resource yield model framework	Currently modelling is done on systems based (i.e. major river systems and reconciliation of water requirements versus water availability)	The systems approach in all intents and purposes is effective in managing the water resources of the country at catchment level/system level. A national balance is not effective for Policy Makers as water is not transferred easily like electricity to areas of water stress. But the situation assessment based on systems informs decision makers to prioritise areas of development.	Systems approach to modelling water availability versus requirements should be maintained for effective water resource management.
<b>Indicators</b>	<b>Current</b>	<b>Gap</b>	<b>Action plan</b>
Trans-boundary data and information sharing between countries	1. Water sharing agreements 2. Flood warning systems	1. Some commissions are not yet fully established hence there is no proper conduit for data sharing	1. Commissions should be empowered
High Confidence Environmental Flow requirements	Currently as seen in the computation EWR have been estimated at a certain percentage of total water use.	Comprehensive Reserve determination, classification and determination of Resource Quality Objectives for all River systems in RSA	Monitor progress of Comprehensive Reserve determination nationally and account for it in the national balance with firmer figures.
National budget for investment	National budget for investment	Estimated R30 million/annum funding	1 Increase funding

including water resources infrastructure.	including water resources infrastructure.	shortfall	
National budget for the recurrent costs of the IWRMelements	National budget for investment including water resources infrastructure.	Estimated R30 million/annum funding shortfall	1. Increase funding 2. Need to increase private public partnerships for funding.
Training/capacity building	NWRP Senior staff capacitate Candidate Scientists with day to day requirements of the reporting	No structured plan or training in tools and interpretation of technical meaning of definitions in the SDG reporting framework.	Devise a structured training program and requirements for benefit of all reportees.

## f ENABLING FACTORS

### **Metering and Water Measurements**

The availability of accurate metered volumes and flow measurements helps to inform both the water user and the department about the quantity, timing, and location of water use. It also improves the confidence levels of the water balance and the continuous improvement of water use efficiency within the sectors.

In agriculture, most of the water schemes are manually operated systems with no telemetry infrastructure linked to any of the existing flow measurements. The ideal system for improving irrigation water use efficiency would be to provide data on a real-time basis through the use of automated and data transmission devices.

For the industrial sectors especially mining, the use of a computerised water balance with simulation capabilities is ideal. This enables the water user to use the water balance as a management tool, where different scenarios can be simulated to identify the best management practices.

### **Stakeholder support and buy-in**

The buy-in from relevant stakeholders especial the economic sectors will ease the access to the required data needed for reporting.

### **Regulatory tools**

Clear regulations to enable the implementation of water use efficiency are needed. The current regulationsi.e.509 water services, GN 704 for mining, Metering regulation for

agriculture, should strengthen reporting on the actual use ,At the moment, implementation and reporting is voluntary and hence most users are not reporting. Licence conditions also need to be reviewed to include Water Conservation and Water Demand Management (WC/WDM) specific conditions.

## Training

Training on statistical analyses and handling of megadata is needed for the operational staff.

## g BUDGET REQUIREMENTS

A key principle behind the proposed budget requirements is to ensure effective implementation of water use efficiency improvement measures. These budget requirements are in line with the budget outlined in the National Water and Sanitation Master Plan.

Through implementation of water use efficiency measures, better data and information will be generated. These will ease the burden of reporting as related to SDG. The budget takes into account austerity measures put in place generally in government and strives for effective and efficient implementation of measures in the Master Plan. The Master Plan and other programmes implemented in the sector will substantially improve the reporting status moving from Tier III to at least tier II. The required budget is stated below:

**Table 1:** Budget Requirements as per Master Plan

<b>Budget required to fulfil SDG Reporting</b>				
<b>Item</b>	<b>Key Pectoral Activities</b>	<b>Budget breakdown</b>		
		<b>2018-2020 (000,00)</b>	<b>2021-2025 (000,00)</b>	<b>2026-2030 (000,00)</b>
Substantially improve water use efficiency in all water use sectors and thereby reduce water demand	1.1.1. Reduce Non Revenue Water (NRW) and water losses in all municipalities to 15% below the business as usual.	19 795	92 486	60 760
	1.1.2. Set cap on municipal water use with reducing targets over time			
	1.1.3. Reduce the water demands and water losses at all major			

	irrigation and agricultural schemes by 2030, without affecting productions			
	1.1.4. Reduce water demand and increase water efficiencies of industrial users			
<b>Total</b>				<b>173 041</b>

Over and above the budget indicated in table 1 which talks to the measures aimed at enhancing water use efficiency within the country. Underlying these measures is the data collection which is key in measuring performance in water use efficiency for the country.

<b>Task Team Operational Cost</b>				
2019/20	2020/21	2022/23	2023/34	2024/25
R2 mill	R1 mill	R0.5 mill	R0.5 mill	R0.5 mill

<b>Capital Investment projection</b>									
2019/20	2020/21	2022/23	2023/34	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
R19.8 mill	R18.5 mill	R18.5 mill	R18.5 mill	R18.5 mill	R18.5 mill	R18.5 mill	R18.5 mill	R18.5 mill	R18.5 mill

## **h CHALLENGES**

### **Data availability**

- Hydrological data: Reliability
- WARMS data: Validation and Verification project not complete in some catchments and this will have an impact on the baseline report.
- Data from the stakeholders: Confidentiality and sensitivity of data for industrial sectors, accuracy and credibility of data needs to be verified, frequency of reporting
- Central database

### **Budget**

The department currently doesn't have a budget for new projects.

## **i SUPPORT REQUIRED**

Buy in and support from the economic sectors and relevant researchers

- Top Management must support the programme by approving projects that are directed at improving data generation.
- Capacity Building: Training from StatsSA and/or United Nations

## **j ACTION PLAN FOR 2019**

### **Indicator 6.4.1**

1. Continue to engage with sector partners to share information about the programmes implemented to improve water use efficiency.
  - Hold liaison meetings with DAFF, ARC and WRC and other relevant agriculture research institutions
  - Hold liaison meetings with industrial umbrella bodies ( MINCOSA, Eskom, Nedlac etc, DoE, DPE, DTI, NCPC)
  - Hold liaison meetings with municipal sector partners (SALGA, COGTA)
2. Identify internal and external data sources such as:
  - WARMS
  - Hydstra
  - NIWIS
  - eWULAAS etc
3. Development of data collection tools
4. Collection and interpretation of data collected
5. Establish existing water use and efficiency improvement data generation and management processes and systems
6. Lobby for dedicated financial and human resources to support implementation of SDG's commitments
7. Partake in the task team meeting for 6.4
8. Report as required

### **Indicator 6.4.2**

The action plan is informed by the following:

- SDG reporting requirements
- Medium Term Strategic Framework (MTSF) 2014 – 2019
- 2018/19 to 2020/21 Annual Performance Plan

➤ Terms of Reference for the Task Team

Number	Baseline	Programmes in Support	Intervention/activity	Outcome	Responsibility	Timeframe	Risk
6.4.2	2018 Annual SDG Report on the indicator	National water and Sanitation Master Plan Reconciliation strategy studies Feasibility studies for bulk water supplies National groundwater strategy Water quality strategy Water monitoring network International water management WRC 2012 report	Update of the indicator	Improved calculator tool	Task team Programme managers in DWS	2019/2020 FY	Non acceptance of the localisation or improvements in the calculator



**SDG 6.5 - “By 2030 Implement Integrated Water Resources Management (IWRM) at All Levels, Including Through Trans-boundary Cooperation as Appropriate”.**

**a. OVERVIEW OF TARGET**

Target 6.5 states that, “By 2030 Implement Integrated Water Resources Management (IWRM) at All Levels, Including Through Trans-boundary Cooperation as Appropriate”.

**b. INDICATORS AND MOC’S**

<b>Global Indicator</b>	<b>Indicator description</b>
SDG Global Indicator 6.5.1:	Degree of integrated water resources management implementation
SDG Global indicator 6.5.2	Proportion of trans-boundary basin area with an operational arrangement for water cooperation

**c. SUMMARY OF 2017 BASELINE REPORT**

Overly a score of 70% has been obtained by RSA, this indicates that a lot of input has been made by the national government to create a conducive environment for implementation of IWRP through putting up policy establish relevant institutions’, developing of instruments and sufficient funding for water resources development. However, a lot of work still needs to be done to ensure policies; strategies and plans are implemented on the ground.

**d. ANNUAL PROGRESS**

***Enabling Environment***

- i. Water is managed as a national competency supported by the following primary water policies
  - a) White paper (1997) on National water Policy
  - b) 2013 updated water policy positions

- c) Sanitation policy"
- ii. National Water Act 37 of 1998
- iii. National Water Services Act (1998)"
- iv. National Water Resource Strategy 1
- v. National Water Resource Strategy2"
- vi. Internal Strategic Perspectives
- vii. Catchment management strategy (2/9)
- viii. Reconciliation Strategies (9/9)
- ix. Integrated Water Quality Management thematic Plans (3/9)
- x. Ecosystems (6/9)"
- xi. 10.Basin Commissions for:
  - a) Limpopo
  - b) Inkomati and
  - c) Orange are in place

### ***Institutions and Participation***

- i. There are a number of national institutions with cross cutting responsibilities for IWRM, including DWS, DEA - oversight of environmental competencies, DAFF, DMR, DoE, DRDetc
- ii. There are a number of MOUs across the national institutions with cross cutting responsibilities for IWRM, including DWS, COGTA, DEA - oversight of environmental competencies, DAFF, DMR, DoE, DRDetc to support coordination
- iii. Water Sector Partners network
- iv. WSSLG
- v. Public participation enshrined in the relevant water legislation
- vi. National Planning Commission
- vii. Water Users Associations
- viii. Irrigation boards"
- ix. Water Sector Partners network
- x. 10 WSSLG, CoM, BUSA, AGRiSA, "
- xi. Constitution of SA promotes equality and equity
- xii. Rio-Dublin principles
- xiii. IWRM enshrined in legislation
- xiv. Woman Incubation Program which is ran by the DWS andWRC"
- xv. Awareness creation
- xvi. Higher institutions of learning are running various IWRM capacity initiatives
- xvii. Various research initiatives in IWRM
- xviii. IWRM DANIDA Programme (2000) accelerated the implementation integration in within the DWS "
- xix. Commissions for transboundary basins

- xx. CMAs for National
- xxi. WUA within the basin at National"
- xxii. Public participation enshrined in the relevant water legislation
- xxiii. Water Users Associations
- xxiv. Irrigation boards
- xxv. Non-governmental organisations (NGOs)"
- xxvi. Constitution of SA promotes equality and equity
- xxvii. Rio-Dublin principles
- xxviii. IWRM enshrined in legislation
- xxix. Woman Incubation Program which is ran by the DWS and WRC"
- xxx. Constitution of SA promotes equality and equity
- xxxi. Rio-Dublin principles
- xxxii. IWRM enshrined in legislation
- xxxiii. Woman Incubation Program which is ran by the DWS and WRC"  
 "Basin Commissions for:
  - a) Limpopo,
  - b) Inkomati and
  - c) Orange are in place"

***Management Instruments***

- i. National Water Resources Strategies
- ii. Reconciliation strategies developed and updated for the main catchments and systems in the country
- iii. Groundwater Strategy developed,
- iv. National water monitoring strategy
- v. Integrated Water Quality Management Strategy and Thematic Plans"
- vi. Waste water waste discharge system
- vii. Polluter pays principle
- viii. Authorisation system in place
- ix. Pollution management system enshrined in the legislation"
- x. Resource classification system
- xi. Reserve determination
- xii. Source directed"
- xiii. National Water Information Management System (NIWIS)
- xiv. National Disaster Command Centre
- xv. Provincial Disaster Management Plans
- xvi. Flood monitoring network
- xvii. Water quality monitoring"
- xviii. ISPs,
- xix. Catchment Management Strategies
- xx. Draft Climate Change Strategy

## ***Financing***

- i. National budget for investment including water resources infrastructure.
- ii. Basin budgets mostly funded through donors"
- iii. National budget for the recurrent costs of the IWRM elements
- iv. Tariff setting mechanisms and policy in place"
- v. ZAR24 million towards ORASACOM
- vi. ZAR22 million LIMCOM total
- vii. Inko-Maputo ZAR 200 000 hosting and logistics"

## **e. GAP ANALYSIS**

### ***Enabling Environment***

- i. Limited cooperative governance
- ii. Human capacity
- iii. Lack of cooperative governance
- iv. MOUs not fully operational across the inter-governmental institutions
- v. Transformation of irrigation boards to WUAs
- vi. CMAs not fully established
- vii. Communication across water sectors
- viii. Gender mainstreaming targets still to be achieved
- ix. Continuous learning development in IWRM still required

### ***Institutions and Participation***

- i. International commission not established, although it is in process of establishment
- ii. CMAs not fully established
- iii. Not all WUAs are established
- iv. Transformation of irrigation boards to WUAs
- v. CMAs not fully established
- vi. Gender mainstreaming targets still to be achieved
- vii. No permanent commission for the Inkomati basin.
- viii. Operational plans for the Limpopo, Inkomati and Orange basins are being developed
- ix. Integrated management of groundwater resources at river basin level
- x. Role of basin commissions not fully developed

### ***Management Instruments***

- i. Operational plans for desalination and water re-use
- ii. Compliance monitoring
- iii. Enforcement
- iv. Water quality alert system weak
- v. Lack of funding

- vi. Climate Change Strategy not yet gazetted
- vii. GWMS is not being fully rolled out as well as limited awareness on the side of Primary Stakeholders
- viii. The systems are not fully integrated
- ix. Some commissions are not yet fully established hence there is no proper conduit for data sharing

**Financing**

- i. Inadequate funding for sub-national basin budgets
- ii. Donor funding for basin budgets is unsustainable in the long term
- iii. Cost recovery not fully implemented across the country at basin, aquifer or sub-national
- iv. No mechanisms for apportionment of revenue collected
- v. Tariff structure does not reflect true value of water
- vi. Inadequate funding for sub-national basin budgets
- vii. Donor funding for basin budgets is unsustainable in the long term

**f. ENABLING FACTORS**

Enabling Environment  
 Institutions and Participation  
 Management Instruments  
 Financing

**g. BUDGET REQUIRED**

Budget required to run SDG 6.5 successfully would be R 829 345.50

<b>TASK DESCRIPTION</b>	<b>AMOUNT</b>
Preparation	R 11 880.00
Workshop	R 22 880.00
After workshop	R 10 340.00
Communication and administration	R 4 510.00
Disbursements	R 900.00
Additional questions	R 9 620.00
Travel and accommodation	R 20 000.00
Sub-total	R 80 130.00
VAT	R 12 019.50
<b>Total</b>	<b>R 92 149.50</b>

<b>PROVINCE</b>	<b>AMOUNT</b>
Northern Cape	R 92 149.50
Eastern Cape	R 92 149.50
Free State	R 92 149.50
Western Cape	R 92 149.50
Limpopo	R 92 149.50
North West	R 92 149.50
KwaZulu-Natal	R 92 149.50
Mpumalanga	R 92 149.50
Gauteng	R 92 149.50
<b>Total</b>	<b>R 829 345.50</b>

**h. CHALLENGES**

- i. Lack of involvement of stakeholders
- ii. Financial challenges
- iii. Lack of interest in the SDG 6.5 by water sector

**i. SUPPORT REQUIRED**

Sharing of resources, information and funding within the water sector

Involvement of the water sector in all water resources project

Communication within the water sector

Conduct workshop with stakeholders comprised of the water sector as a whole:

- i. Update stakeholders with updated legislative and institutional set up of water resources
- ii. Improving the SDG 6.5.1 questionnaire
- iii. Allow the stakeholders to fill the questionnaire (data collection)
- iv. Identify gaps to be addressed

Have a water sector representative of the national score

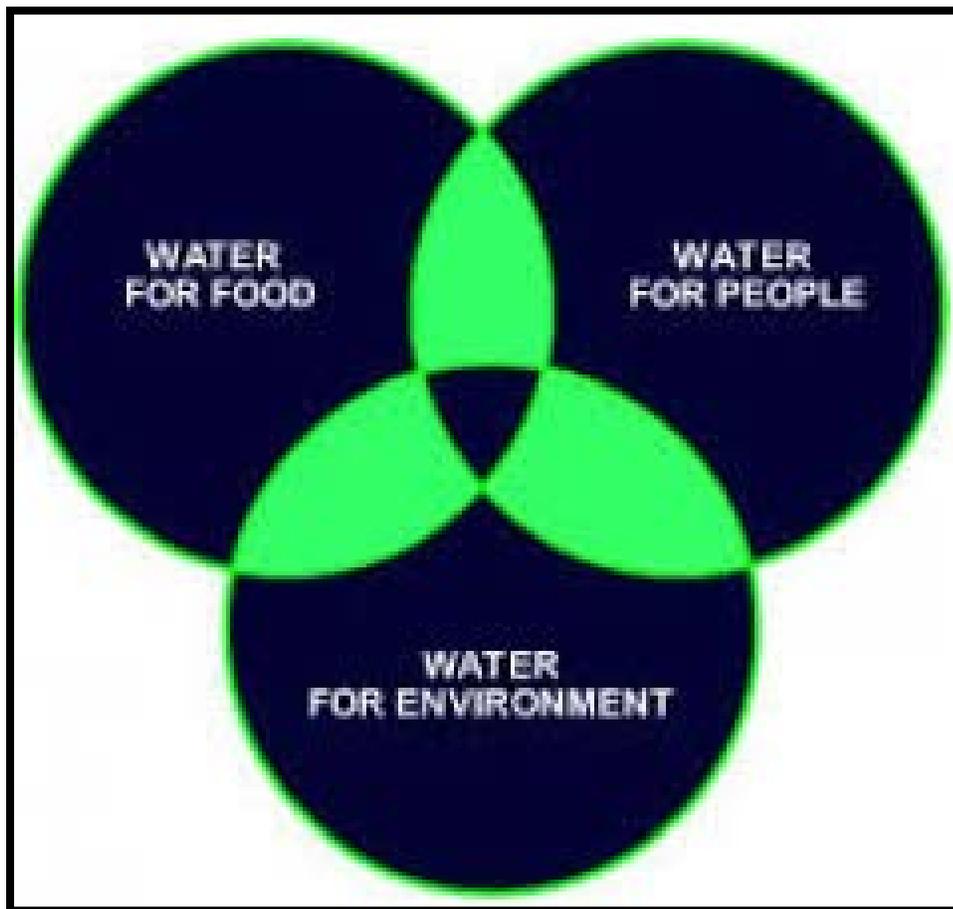
Monitor any changes within the water sector and incorporate changes onto national score

**j. ACTION PLAN FOR 2019**

The detailed Action Plan for Task Team 6.5 is captured with the Terms of Reference, however in summary key activities to be implemented include:

- ✓ Reviewing systems and processes required to monitor progress regarding achievement

- ✓ Take forward the Questionnaire and present a final version of the questionnaire (Monitoring Tool) to the DWS TT
- ✓ Consult with the DWS regions and CMAs to identify and send questionnaire to their own stake holders
- ✓ Send out background information to new stakeholders identified by RO and CMA
- ✓ Data processing from the survey
- ✓ Identify gaps per system
- ✓ Compile report on areas of IWRM weakness
- ✓ Identify barriers to progress and ways in which they can be addressed
- ✓ Compare outcome of Catchment Management Area with the National Outcome from the National workshop in 2017
- ✓ Develop the annual Global Indicator Gap Report



**SDG 6.a. “By 2030, expand International Cooperation and Capacity-Building Support to Developing Countries in Water and Sanitation related activities and programmes, including water harvesting, desalination,**

**a. OVERVIEW OF TARGET 6a**

SDG 6 contains six targets on outcomes across the entire water cycle, and two targets on the means of implementing the outcome targets. The ‘Means of Implementation’ refer to the interdependent mix of financial resources, technology development and transfer, capacity-building, inclusive and equitable globalization and trade, regional integration, as well as the creation of a national enabling environment required to implement the new sustainable development agenda.

The scope of the overview for SDG6a is limited to indicator 6.a.1 and methodology for the means of implementation for **target 6.a. “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”**.

**b. INDICATOR AND MOC’S OF TARGET 6a**

The indicator was not domesticated the target was accepted as formulated by the United Nations: The Global indicator for which this Task Team is responsible is 6.a.1 **“Amount of water- and sanitation-related official development assistance (ODA) that is part of a government-coordinated spending plan”**.

“International cooperation and capacity-building support” implies aid and the proportion of total water and sanitation-related official donor assistance (ODA) that is channeled through the National Treasury which will be reported on as follows:

**Amount of water & sanitation-related ODA channeled through Treasury**  
**Total amount of water & sanitation-related ODA disbursements**

South Africa is the recipient of ODA funding for water programmes aligned to the mandate of the DWS from the Belgium authorities amounting to 2 million.

ODA channeled through National Treasury indicates a high level of cooperation and alignment between the donors and national government in which the donors channel funds through the national budget process.

#### **c. SUMMARY OF 2017 BASELINE REPORT**

The amount of ODA received from the National Treasury amounted to 2 million from the Belgium government to be dispersed over 2 years and contributing to 6.4; this amount was allocated in 2016 as a portion of water and sanitation ODA to support to strengthen sector systems/ capacity.

#### **d. ANNUAL PROGRESS**

ODA disbursements for the water sector have been steadily rising but have remained relatively constant as a proportion of total ODA disbursements at approximately 5% since 2005.

#### **e. GAP ANALYSIS**

The classification of South Africa as a middle income country has impacted negatively on the avenue of potential funding from external donors. We have to be more innovative in our approach to attract external income through international relations and identify opportunities where external funding can be leveraged optimally to assist with the eradication of water and sanitation backlogs.

#### **f. ENABLING FACTORS**

The creation of a national enabling environment (foreign policy, strategic planning, legal framework and financing) required to ensure delivery includes:

1. Review of existing bilateral and multilateral engagements
  - ✓ Stock taking analysis of the existing programmes
  - ✓ Communicate with the Water Sector regarding progress of SDG6.
2. Forging Partnerships
  - ✓ Supporting the region
  - ✓ Assist Africa to achieve the implementation of Sustainable Development Goals, in particular,
  - ✓ Provide recommendations to the region/sector in terms of how they can close the Gaps identified within the respective Task Teams
3. Monitoring areas of cooperation targeted to achieve SDG6 by 2030

- ✓ Harness the implementation of the SDG in particular Goal 6 through investment in Africa.
- ✓ Align processes required to monitor progress regarding achievement of the SDG6a sub target
- ✓ Report on progress annually

#### **g. BUDGET REQUIRED**

The Ministry of Water and Sanitation has recognised the need to ensure that effective platforms are created with key development partners who are active in the water sector landscape in South Africa. To this end the Department of Water and Sanitation (DWS)'s International obligations and integrated governance branch has identified the establishment of a **development cooperation roundtable platform** with key international and national stakeholders as an important vehicle to share information, coordinate activities, ensure alignment according to the strategic vision of water resource management in South Africa.

#### **h. CHALLENGES**

The building of steadfast relationships with donors and the signing agreements as per a country's foreign policy involves an ever changing environment. Official Donor Assistance to South Africa is on the decline. South Africa is classified as an upper middle income country by the OECD and thus not perceived as eligible for ODA.

The current trend is for South Africa to use bilateral agreements to strengthen activities in the sector.

This might account for the low amount of disbursements the water sector has received. The data available from the National Treasury reflects official donor funding received from the government of Belgium as the only source of ODA.

#### **i. SUPPORT REQUIRED**

The implementation of the 2030 Development Agenda will require States and other relevant actors, acting individually and collectively, to adopt policies and mobilize resources to advance equitable, human rights-based, sustainable development.

In this regard, a renewed and strengthened global partnership for mobilizing the means of implementation needs to:

- (i) Address the social, economic and environmental dimensions in an integrated manner;

- (ii) Build on existing commitments and governance structures, ensuring that new initiatives reinforce previous successes;
- (iii) Reinforce coherence in the implementation of a universal post-2015 agenda, leveraging resources across diverse funding mechanisms; and
- (iv) Strengthen governance and accountability frameworks, providing for multi-stakeholder engagement, including for financing, technology innovation and diffusion, and capacity building for people and institutions.

#### **j. ACTION PLAN FOR 2019**

The International Cooperation and Capacity-Building (ICCB) Task Team have developed an Action Plan for the year based on what members currently know and understand. The Action Plan is a living document driven by political decisions and strategic prescripts of DIRCO as the foreign policy custodian. The costs pertaining to delivery will be aligned to the work of the Branch International Obligations and Integrated Governance's existing programmes of work. This Action Plan will be reviewed bi-annually in the first year and annually from thereon, as additional content becomes available.

- ✓ The Action plan will be aligned to current and existing programmes of IWS for 2019/12;
- ✓ Identified countries of the south to be targeted for engagements as per the areas of cooperation needed;
- ✓ The targets for sub goals 6.1 – 6.6 should ideally form the discussion points at an international level.
- ✓ In order to strengthen the means of implementing and working towards the achievement of SDG 6, on water the DWS need to encourage and promote effective public, public-private and civil society partnerships;
- ✓ Report on the current activities pertaining to the gaps and areas of cooperation that is needed.
- ✓ Governance, through sustainability and capacity of institutions to remain a priority.
- ✓ Advocate for political commitment, increased fiscus financing for water infrastructure and management, encourage cross sector cooperation, extend informed stakeholders for joint partnerships, encourage water data management, strengthen and resource water-sanitation institutions as well as transboundary management.



**, SDG 6.b - Support And  
Strengthen The Participation Of  
Local Communities For Improving  
Water and Sanitation Management”**

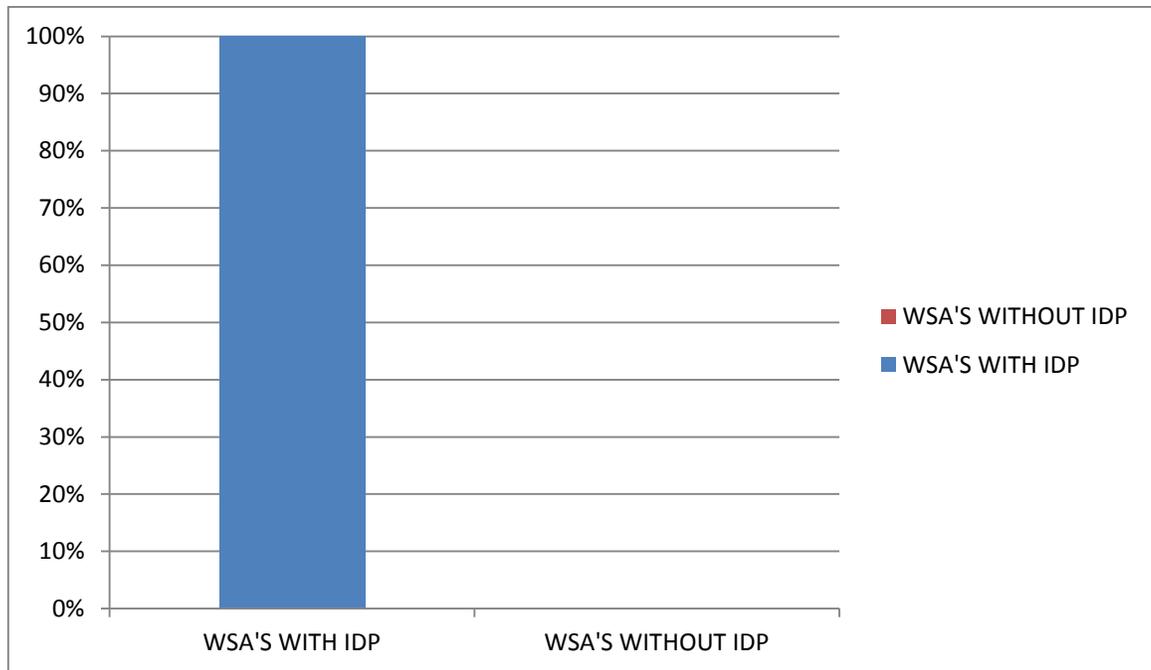
**a. OVERVIEW OF TARGET**

**SUPPORT AND STRENGTHEN THE PARTICIPATION OF LOCAL COMMUNITIES FOR IMPROVING WATER AND SANITATION MANAGEMENT”**

This indicator is intended to show the degree of participation of local communities in water and sanitation planning and management, which is essential for ensuring that the needs of all people are being met. It measures the country planning procedures to ensure that communities are involved in water and sanitation planning and management.

**b. INDICATORS AND MOC'S**

<p><b>Definition:</b> This indicator is intended to show the degree of participation of local communities in water and sanitation planning and management, which is essential for ensuring that the needs of all people are being met. It measures the country planning procedures to ensure that communities are involved in water and sanitation planning and management.</p>	<p><b>Method of Computation:</b> There are 144 Water Service Authorities (both District and Local Municipalities) in South Africa. Each are required by law to develop their own “Integrated Development Plan” (IDP) as a method to plan future development in their areas. The 144 IDPs that are developed annually by the 144 WSA’s will be used to check the degree of participation of local communities in water and sanitation planning and management. The formal structures highlighted in the IDP process are called ‘Representative Forums’ namely community stakeholder structures and ward committees. IDPs will not be approved by Government without a community participation policy in place. It is a mandatory document. The number of WSA’s that have IDP’s in place will be used versus those that do not have IDP’s which will formulate the national picture for 2017/18</p>
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### c. SUMMARY OF 2017 BASELINE REPORT

DWS reporting for the first time on the SDG6B report. All Water Services Authorities have a legislative mandate to develop their Integrated Development Plan which culminate a Water Services Development Plan (WSDP). The findings are such that in South Africa all WSA's have an Integrated Development Plan approved which by default says that all WSAs will have community participation policies and procedure in place.

### d. ANNUAL PROGRESS

SDG 6b task team was established in April 2018 were TOR's and action plan were developed and endorsed. SDG task team done presentation to regional official and Water Sector Support Leadership Group, compile report SDG 6b to STASSA. Held Global Analysis and Assessment of Sanitation and Drinking-water (GLAAS) workshop on SDG 6a and 6bandmade recommendation for improving the indicator.

### e. GAP ANALYSIS

Community participation has become widely accepted through legislation as a critical component of managing water resources as water services in South Africa. However, achieving meaningful participation continues to be a challenge especially for the previously disadvantaged communities. It is therefore important that more emphasis be placed on the development of skills and capacity of participants to understand and

make meaningful contributions, especially participants from the disadvantaged communities.

**f. ENABLING FACTORS**

Promote community participation in the protection, use, development, conservation, management and control of water resources in their Water Management Areas and Water Services Authorities area of jurisdiction. Promote the implementation of any development plan established, such as Integrated Development Plan(IDP), Water Services Development Plan as well IDP process. In order to achieve these, participation of STATSSA, CoGTA, MISA, SALGA , WRC and Collaboration with the GLAAS team is critical.

**g. BUDGET REQUIRED**

Source funding from the GLAAS team

<b>SDG 6B TASK TEAM ACTION PLAN</b>							
<b>No</b>	<b>Intervention / Activity</b>	<b>Current Programmes in support</b>	<b>Outcome</b>	<b>Responsibility</b>	<b>Timeframe</b>	<b>Risk</b>	<b>Budget</b>
1.	Domestication of the SDG indicator	GLAAS programme	measurable indicator	SDG 6b Task Team	April 2019		200 000.00
	Stakeholder identification / analysis and engagement	IDP process, River health programmes, Water Forums , Project based Stakeholder engagement	Understanding of Stakeholder and their different roles	Task Team members	30 May 2019	Omission of critical stakeholders	20 000.00
2.	Data source identification.	Water and Sanitation forum, IDPect.	Understanding of the existing forums and its functions	Task Team members	30 July 2019	Forums take are not fully active	80 000.00
3.	Reporting framework	SDG 6 Task teams	Develop indicators.	Task Team members	30 June 2019	Different approach	20 000.00

	alignment		Clarification on how the reporting will be conducted			es per Task Team	
4.	Data collection and management	IDP, River health programme, ect.	Customised template (tool) for Data collection	Task Team members	30 September 2019	Staff capacity and the credibility of information collected	120 000.00
5.	Data analysis	DWS, COGTA, Research Institutions ect	Checking the data reliability and gabs	Task Team members	30 January 2020	No trends data	10 000.00
6.	Reporting	SDG 6 Task team	Compilation of the Annual report	Task Team members	30 March 2020	Not enough information to finalise the report	20 000.00
<b>TOTAL</b>							<b>R470 000</b>

<b>Task Team Operational Cost</b>				
2019/20	2020/21	2022/23	2023/34	2024/25
R400 000	R500 000	R 600 000	R 650 000	R 800 000

<b>Capital Investment projection</b>									
2019/20	2020/21	2022/23	2023/34	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
R 1M	R 1.5	R 2M	R 3M	R 3.5	R 4M	R 5M	R 5.5M	R 6M	R 7M

## **h. CHALLENGES**

The indicator, however only tells part of the story – there is one thing having a policy or procedure in place, however the effective use of the same policy and the efficient quantitative participation of community participation is not considered within this indicator. The 6b target talks to Stakeholder participation to ensure sustainable Water and Sanitation, while the indicator only speaks to the existence of Policies and Procedures for community participation and defining the formal mechanism to ensure participation of users in planning for Water and Sanitation. The fact that the indicator does not cover effective participation issues eg. proof of participants, leaves it incomplete. This indicator is only addressing 20% of the actual target and additional indicators will be developed in the future to substantiate the usefulness and effectiveness of these policies.

## **i. SUPPORT REQUIRED**

There are a number of activities which are reflected on the action plan above that might need support particularly the skills support, data capturing and funding.

## **j. ACTION PLAN FOR 2019**

The Department of Water and Sanitation in collaboration Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) should unpack this indicator and the methodology of computation. The SDG 6b task team will compile a report to STATSSA as and when its needed in 2019.



**SDG 6 SECTOR SUPPORT  
AND COORDINATION (SS&C)**

**1 Role Of Task Team**

There are 4 key functional areas for which this Task Team is responsible. These 4 Functions can be unpacked as follows:

Communication with the Sector

- ✓ To communicate with the Water Sector regarding progress of SDG6.
- ✓ Provide a linkage to other similar work in both the national sector and international representative.

Supporting the Sector

- ✓ The support broadly, involves providing strategic guidance and identifying and implementing special projects contributing to the SDG 6.
- ✓ Provide strategic support and recommendations to the sector in terms of how they can close the gaps identified within their respective sub goals.
- ✓ Coordinate support activities where possible

Reporting National progress towards achieving SDG6 by 2030

- ✓ Develop a reporting framework, implement systems and processes required to report progress regarding achievement of this particular task team SDG6 target
- ✓ Report on progress of this particular task team annually

General Operations

- ✓ To coordinate monthly/quarterly meeting as required with each of the Task Team members to assess progress, challenges and other points of discussion. Minutes must be maintained accordingly and copied to the Programme Coordinator for information.
- ✓ The Task Team Leader to participate on the Quarterly **SDG6 Working Group** meetings.

- ✓ To provide quarterly progress reports to the **SDG6 Working Group** relating to the Task Team Functions.
- ✓ To consider other areas of importance relating to the target as they arise and assess the level of support, if any.
- ✓ To review this ToR every year in line with the action plan.
- ✓ To implement the Action Plan of the Task Team.

## **2 Annual Progress**

The following was achieved during 2018/19 financial year:

- Draft Indicators were developed
- Terms of reference developed
- Action plan/list developed
- Internal DWS workshop conducted at Roodeplaat Training Centre on the 22 may 2018
- SDG Task team meeting was held in April and August 2018
- Special WSSLG meeting held on the 13<sup>th</sup> September 2018 dedicated to the SDG 6 launch. The meeting was held at the CSIR and the WRC provided catering for the event.
- Web link developed
- WSSLG SDG Task Team established
- WSSLG SDG Task Team meeting held
- SDG Sector Support and Coordination Task Team (SS&CTT) meetings were held during 2018.
- Task Team Draft Stakeholder Analysis developed

### **Internal DWS workshop conducted at Roodeplaat Training Centre on the 22 may 2018**

The workshop was held on the 22 May 2018 at the Roodeplaat Training Centre. Purpose of the workshop was to introduce the SDG 6 and its Sub goals to DWS Regional Directors. The workshop also focussed on the action plans of SDG sub goals towards achieving 2030 targets. Finally, the workshop also focussed on Planning for the provincial workshops to introduce the SDGs to the regional partners and establish the support that may be required by regions

### **Special WSSLG meeting dedicated to the SDG 6 launch.**

The meeting was held on the 13 September 2018 at the CSIR.

The purpose of the Special WSSLG Meeting was among others to deliberate on the Sustainable Development Goals (SDG) 6 and its Sub-Goal with the sector. The purpose also included to facilitate partnerships and strengthen relations with sector partners to

ensure the sustainable implementation of the SDGs Nationally towards achieving 2030 targets. Finally, the meeting also focused on establishing an SDG Task Team which will report to the WSSLG.

### **WSSLG SDG Task Team established and Task Team meeting held**

The WSSLG SDG Task Team was established and its first meeting was held on the 17 October 2018 at the DWS offices in Pretoria.

The purpose of the meeting was to discuss Task Team Terms of Reference, to elect a Task Team deputy leader and to deliberate on issues that will assist in developing the SDG6 Sector consolidated action plan for South Africa.

### **3 Gaps identified**

Workshops were not conducted with DWS Regional Offices. This means Regions will have the challenge of engaging provincial sector partners on the subject of the SDG6.

### **4 Action Plan for 2019**

Task team will have to meet in early 2019 to develop an action plan for 2019/20 taking into account budgetary constraints in the DWS.

# SDG 6 WATER SECTOR LEADERSHIP GROUP (WSSLG)

## **1 Role of Task Team**

The Water and Sanitation Sector Leadership Group (WSSLG) is the highest non-statutory strategic sector partnership forum for the South African water sector. The WSSLG serves as a thinking tank for the water sector and prepare overarching national action agenda for implementing the NWRS2 and ensure that sound policies, laws, strategies, programmes and institutions are developed to achieve the goals outlined in the NWRS2. The WSSLG also actively facilitates dialogue between the Department of Water and Sanitation, government departments, civil society and the private sector for input, support and contributions to joint strategic and coordinated actions to improve the implementation of water sector policies, strategies and programmes. In its advisory role, the WSSLG provides recommendations on policies, legislation, programmes and strategies and serves as credible forum for stakeholder consultation and involvement in the development of sector policies, legislation, programmes and strategies.

The WSSLG has initiated a number of Task Teams to drive issues for which they have been mandated. In order to facilitate the involvement of the water sector in the SDG6 programme the Water Sector Leadership Group SDG 6 Task Team (WSSLGTT) has also been established.

The WSSLGTT will among others influence and monitor roleplayers and programmes that can address the gaps that have been identified in achieving the 2030 SDG Goals, and more specifically the achievement of the 8 Targets of SDG 6.

## **2 Annual Progress**

The WSSLG was revived during a meeting with sector stakeholder on the 13 September 2018.

One of the outcomes from this meeting was to create a specific Task Team Water and Sanitation Sector Leadership Group (TT:WSSLG)

The TT: WSSLG held its first official meeting on the 17 October 2018. The functions of the Task Team are, amongst others, as follows:

- To oversee the Goal 6 programme from a sector perspective, analyse the Gaps identified within the 8 targets identified through the SDGWG and strategise how best the sector can turn around shortfalls to meet the targets
- To mobilise the sector, through their strategies developed, in closing the Gaps identified within the 8 Targets and report on progress, challenges and actions to address To collaborate with Task Team Sector Support and Coordination (TT\_SS&C), whose key function is to inform and communicate SDG 6 progress to the sector, so that this WWSLGTT provides a practical arm to the process in making sure Sector Groups implement 'Gap-closing' activities into their operational plans. To support information exchange and communications between sector role players and sharing of lessons, knowledge and ideas regarding SDG 6.. This will be administered through Task Team Sector Support and Coordination (TT\_SS&C), to compliment work being done
- To make recommendations on the 8 Targets and to ensure alignment, coherence and institutional clarity.
- To play an advocacy role, mobilise resources and facilitate coordination of funding opportunities to achieve the targets of the SDG 6.To review the Terms of Reference every 3 years and develop a 5 year Action plan, updated annually toward achieving the 2030 SDG 6 objectives

Nandha Govender from ESKOM volunteered to be the TT Deputy Leader of the Task Team

### **3 Gaps identified**

Numerous Gaps were identified under the 6 key functional areas namely:

- Oversight of SDG 6
- Strategic intervention\Partnerships
- Advocacy
- Funding
- Reporting

These gaps were then translated into actions as shown below but included issues such as the unavailability of sufficient and accurate data from within the sector, poor advocacy of the SDGs in the sector and lack of alignments with respective Business / Operational Plans, insufficient funding and partnerships to minimize effort but maximize impact etc

#### **4 Action Plan for 2019**

Oversight of SDG 6:

- ✓ Align the existing data systems with the SDG 6 Programme to easily access and monitor SDG 6 Progress
- ✓ The DWS Regulatory system to be revived and effective as soon as possible
- ✓ Identify areas that need improvement
- ✓ Inform CD:CM&E and see what actions can be taken to strengthen
- ✓ Identify areas that need improvement
- ✓ Inform Branch: Infrastructure and see what actions can be taken to strengthen
- ✓ Include actions in NW&SMP
- ✓ Develop a Strategy for SDG 6 Benchmarking
- ✓ Identify participants within TT WSSLG to implement

Strategic Intervention:

- ✓ Identify a strategy for linking the SDG's with service delivery . Implement strategy
- ✓ An effective M&E system to be created at a National level
- ✓ Identify which policies and in which Departments require strengthening
- ✓ Complete an analysis of specific areas and follow through a process of enhancement
- ✓ Develop a strategy to identify and implement business opportunities
- ✓ Strategy document - Identify opportunities within community programmes, enterprise development, SMMEs, localisation, job creation, outreach programme
- ✓ Identify how the SWPN can be utilized as a vehicle of change
- ✓ Develop a strategy for implementation
- ✓ Consult the Forum and see how it can be used as an effective platform for SDG 6
- ✓ Identify current Innovation opportunities and develop a strategy to maximize innovation within SDG 6
- ✓ Use of relevant smart technologies (i.e remote sensing)
- ✓ Accelerate Water Use Licensing and Environment Impact Assessment (EIA)
- ✓ Identify ways of improving IWM and maximizing participation between stakeholders

#### Partnerships:

- ✓ Work session to Identify stakeholders and partnership (Stakeholder Analysis)
- ✓ Define clear roles& responsibilities of stakeholders
- ✓ Identify Research Institutions related to the SDG 6 programme.
- ✓ Clarify their roles so that they compliment the process.
- ✓ Share with relevant institutions
- ✓ Identify what components are required, Develop a Strategy and implement.
- ✓ Address challenges with CMAs & Local Water Management Institutions
- ✓ Identify areas to be strengthened together with the means of implementation.
- ✓ Action Plan required
- ✓ Ensure all PSP Contracts include a section that makes sharing of data a mandatory responsibility
- ✓ Finalise SDWG web page

#### Advocacy:

- ✓ Include narrative of the SDG programme in SONA to gain National buy-in and support to 2030
- ✓ Develop a Marketing Strategy, including campaigns at schools, media, and social networks. This should be completed for the entire SDG programme
- ✓ Translate the SDG Programme into SA vernacular languages

#### Funding:

- ✓ Programme approach developed for the SDGs- that is funded & ring-fenced
- ✓ Financial monitoring of expenditure in the sector related to the SDG programme
- ✓ Identify suitable opportune funding streams
- ✓ Fund-raising Strategy to be developed and implemented

#### Reporting:

- ✓ Develop a Baseline / Status Report showing where SDG 6 is moving towards the 2030 objectives
- ✓ Identify gaps on received data and information
- ✓ Establish Wetland unit
- ✓ Identify potential risks
- ✓ Identify monitoring process for the duration of the SDG reporting period
- ✓ Monitor & Evaluation Progress reports

# SDG 6 RESEARCH & INNOVATION (R&I)

## 1. Role of Task Team

A need was identified to bring in the Water Research Commission to support the other Task Teams and ensure that they are informed of the most appropriate best practices and tools to deliver on their mandate. As such, the SDGWG has initiated a Task Team – "Research and Innovation" (TT-R&I) to support the other Task Teams in this way.

This initiative is underway and the Task Team – Research & Innovation is expected to be operational from the beginning of 2019

## 4 SUMMARY OF SDG 6 GAPS

### *A Key Gaps identified within SDG 6 Targets for 2019*

#### **6.1 "By 2030, Achieve Universal And Equitable Access To Safe And Affordable Drinking Water For All"**

#### **2030 Target: 100% Universal And Equitable Access To Safe And Affordable Drinking Water**

In 2017 the access to a basic water service was 86%. (In 2016 it was 84%, an improvement of 2%).

This indicator is a progression from the MDGs in particular, to additionally measure 'safely managed' water supply which in turn considers interruptions of supply and water quality. This additional component has downgraded the indicator from a Tier 1 to a Tier 2, as 'safely' managed has not been measured previously. The Blue Drop is currently

dysfunctional and requires a process to revive and make it fully effective and operational once more.

A (funded) water services sector investment framework at an estimated value of R50 billion per annum

**6.2 “By 2030, 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”.**

**2030 Target: 100% access to adequate and equitable sanitation**

In 2017, 82 % of South African households had access to RDP standard of sanitation services while 60% of households had access to water-borne sanitation services. 5% households gained access to improved sanitation between 2012 and 2017 at national level

Key challenging areas to address is that of informal settlements and rural areas. The remaining twelve years to 2030 are sufficient to eradicate this backlog provided more support is provided to the 57 identified priority municipalities where the highest sanitation backlog is located.

Due to the correlation between Target 6.1 and Target 6.2, the challenges are similar. Similarly the Green Drop is currently dysfunctional and requires a process to revive and make it fully effective and operational once more.

**6.3 “By 2030, 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.”**

And....

**6.6“By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes”**

The following applies:

**2030 Target (6.3)**

**6.3.1 By 2030 halve the proportion of water containing waste that is not safely treated and lawfully discharged**

**6.3.2 By 2030, 100% of all instream or in-aquifer monitoring sites to have 80% Compliance to instream or in-aquifer water quality objectives**

**2030 Target (6.6) : The 2030 Targets will be finalized during 2019 as measurement is not straight forward**

State of South African water quality

Number of open water bodies	Number of river water bodies	Number of open water bodies with good quality	Number of river water bodies with good quality	Percentage of open water bodies with good quality	Percentage of river water bodies with good quality
176	278	110	103	62.50	37.05

Based on the available data for the variables reported, in South Africa, we have 63% of open water bodies with good quality and 37% of rivers with good quality.

Spatial extent of water related ecosystem

Spatial extent of national vegetated wetlands	Spatial extent of national open water bodies	Spatial extent of national river water bodies	Total spatial extent of all water-related ecosystems	Water quantity of national open water bodies	Water quantity of national river water bodies	Total water quantity of all water-related ecosystems
56227.81167	2090.909808	136.577695	58455.29917	2095.977	5637504894	5637506990

South African Rivers are small as a result, moving forward the team will not be reporting on spatial extent of rivers.

Those initiatives and sections that are in place for collecting data required report on the SDGs need financial prioritisation. In particular this refers to the Water Quality Monitoring Programmes and Laboratory and the revitalization of the green, blue and no-drop systems. Financial prioritisation for the data management systems that need to be developed or expanded to allow for missing data to be captured needs to be prioritised. This includes the expansion of IRIS to allow for capturing data directly from water users on compliance to effluent discharge standards.

**6.4 “By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity”**

**2030 Target: 15% NRW**

Water Use Efficiency (Water Services)- in 2018 Non Revenue Water stands at 41% as a national average which compares with 39% in 2016. A downfall of 2%. One of the highest consumers (Agriculture) is losing up to 45%. Industrial is losing approximately 25% of its water and so there is a long way to go.

Improve metering of water services use is required to inform both the water user and the department about the quantity, timing, and location of water use. The ideal system for improving irrigation water use efficiency would be to provide data on a real-time basis through the use of automated and data transmission devices. For the industrial sectors especially mining, the use of a computerised water balance with simulation capabilities is ideal.

The water stress indicator for the base year 2017 shows a high value of 41.4 % which indicates a likelihood of increased competition and conflict between different water uses and users in a situation of increasing water scarcity.

Clear regulations to enable the implementation of water use efficiency are needed. Licence conditions also need to be reviewed to include Water Conservation and Water Demand Management (WC/WDM) specific conditions

**6.5 “By 2030 Implement Integrated Water Resources Management (IWRM) at All Levels, Including Through Trans-boundary Cooperation as Appropriate”.**

**2030 Target: 100% integrated water resource management**

Overly a score of 70% has been obtained by RSA, this indicates that a lot of input has been made by the national government to create a conducive environment for implementation of IWRP through putting up policy establish relevant institutions’, developing of instruments and sufficient funding for water resources development. However, a lot of work still needs to be done to ensure policies; strategies and plans are implemented on the ground.

A series of workshops are required with stakeholders to update stakeholders with revised legislative and institutional set up of water resources and to

Identify gaps to be addressed

**6.a “Amount of water- and sanitation-related official development assistance (ODA) that is part of a government-coordinated spending plan”.**

**2030 Target: The 2030 Targets will be finalized during 2019 as measurement is not straight forward**

The amount of ODA received from the National Treasury amounted to 2 million from the Belgium government to be dispersed over 2 years and contributing to 6.4; this amount was allocated in 2016 as a portion of water and sanitation ODA to support to strengthen sector systems/ capacity.

ODA disbursements for the water sector have been steadily rising but have remained relatively constant as a proportion of total ODA disbursements at approximately 5% since 2005.

One of the challenges is that South Africa is now seen as a middle income country and therefore does not attract as many disbursement from overseas since we are more self sufficient than other developing countries. We have to be creative in attracting international donors through building relationships and use of bilateral agreements

**6.b “Support And Strengthen The Participation Of Local Communities For Improving Water and Sanitation Management”**

**2030 Target: 100% local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management**

This indicator is already measured at 100% completed. The Target in its present form is achieved in terms of UN requirements

The Task Team is busy challenging the Target with the intention of developing new indicators. The existing indicator only measures if community involvement policies are in place, which they are in all Water Service Authorities. It doesn't measure the performance of such policies and the effectiveness of community involvement in projects.

### **National Water & Sanitation Masterplan (NW&SMP):**

The Department of Water and Sanitation (DWS) embarked on, and is leading the initiative to develop the master plan, which is a plan intended to guide the water sector with investment planning for the development of water resources and the delivery of water and sanitation services over the horizon until 2030, and beyond. This development is a first for South Africa, and we must applaud all stakeholders involved for having finally taken this important step. The Sustainable Development Goal 6 is a key Driver of the NW&SMP and in turn the NW&SMP is a key 'vehicle of change' for the SDG6 Goal

Cabinet identified the need to develop a comprehensive integrated master plan, which will incorporate and coordinate relevant water sector plans available from the many, sources and initiatives. The core purpose of the NW&SMP is to provide an overall perspective of the scope of the water and sanitation business to provide a comprehensive schedule of actions needed to address present challenges, to estimate the investments required to ensure effective water resources, and water and sanitation services delivery, as well as to facilitate effective integrated investment planning, implementation of actions and evaluation of achievements.

The master plan is the plan that identifies key actions in the water sector and allocates roles and responsibilities to all in the water sector, from the various tiers of government, the private sector and other stakeholders for the implementation of the plan.

The NW&SMP is currently in preparation and is constantly being updated during this process. This web site contains the latest revisions of the available documentation forming part of the NW&SMP, which includes the following key elements:

- Volume 1: Call to Action (a summary document highlighting only the key challenges and the key actions required for their resolution)
- Volume 2: Plan to Action (Full NW&SMP document)
- Volume 3: Schedule of actions (not available yet)

### **National Water and Sanitation Resource Strategy 2**

This National Water Resource Strategy 2 sets out how we will achieve the following core objectives:

- water supports development and the elimination of poverty and inequality
- water contributes to the economy and job creation, and
- water is protected, used, developed, conserved, managed and controlled sustainably and equitably.

The major focus of the NWSRS2 is equitable and sustainable access and use of water by all South Africans while sustaining our water resource. Equity and redistribution will be achieved through the authorisation process and other mechanisms and programmes, such as water allocation reform, financial support to emerging farmers and support to urban and rural local economic development initiatives.

- Whilst South Africa benefited from a surplus of water available in 2000, the time has now come where a mix of water resources is required to reconcile supply and demand. Towards this end, Reconciliation Strategies have been developed to assess water balance against future needs. These strategies will inform our future water resource planning, management and investment and key issues include:
  - greater focus on WCWDM – every drop counts and we cannot afford to waste any more water, anywhere
  - increased value and utilisation of ground water • re-use of waste water at the coast as well as in inland systems
  - opportunity for more dams (though limited) and transfer schemes (and where the opportunity exists, it is at great cost)
  - desalination:
    - Small scale seawater desalination already being used in certain areas
    - Treated mine water desalination becoming more important
    - Desalination of seawater on a large scale
  - catchment rehabilitation, clearing of invasive alien plants and rainwater harvesting is growing in importance
  - making more water available in the future, but at sharply rising costs.

Gaps identified within the SDG 6 programme will inform the NWSRS2 annually so that actions are developed to address such gaps moving forward

## **Water Utility Annual Business Plans**

The primary function of a water board is to provide water services to other water services institutions such as Water Services Authorities. Every year each of the 9 Water Boards are expected to develop their own Annual Business Plan to guide their work for the following five years.

As a key sector stakeholder involved in the turnaround of gaps identified within the SDG Programme, each Water Board will be expected to translate gaps within their area of jurisdiction into tangeable actions which will contribute to closing such gaps. The SDG 6 programme is responsible for monitoring such activities and their contribution towards reaching the SDG 6 objectives.

### **Municipal Intergrated Development Plans & Water Services Development Plans**

Water services business planning is essentially a strategic approach that brings together physical, financial, socioeconomic and organisational aspects. In terms of the Strategic Framework for Water Services, a Water Services Authority or municipality with the executive authority and the right to administer water services as authorised in terms of the Municipal Structures Act, 1998 (Act No. 117 of 1998), is required to prepare a Water Services Business Plan (WSDP- as adopted in terms of the Water Services Act No. 108 of 1997). The status quo and targets information from the water services providers should be incorporated into the water services development plan prepared by the water services authority. The WSDP then forms a component of the Integrated Development Plan as envisaged in the Municipal Systems Act (Act No 32 of 2000)

The SDG 6 programme being implemented by the Department of Water & Sanitation will identify gaps every year which are directly related to the area of jurisdiction falling under specific municipalities. Municipalities are expected to equip themselves with the findings of the SDG programme and build in corrective measures into their IDPs and WSDPs accordingly.

### **Legislation, Policy and Strategy**

Other such vehicles of change will be impacted by the SDG programme. Particularly in terms of developing new and / or revising of existing legislation besides the policies, strategies and guidelines that are used to shape the water business and evolve it into an inclusive, sustainable and resourceful environment.

## C *SDG 6 Progress towards 2030 Objectives*

This is an area which requires attention for specific progress information by DWS in the form of a dedicated Monitoring & Evaluation system (currently being initiated) which can effectively and efficiently quantify the impact that all the work done thus far towards achieving the 2030 goal. This is in process and should be operational within 2019.

In the meantime Task Teams have highlighted their own specific progress towards the 2030 Targets as detailed above.

That having been said, the SDGWG and its 10 Task Teams are fully functional and operational, and reporting as required. Each has its own ToR / Action Plan to which they are implementing their mandate.

All Regional Offices are on board, holding internal workshops with the anticipation of each having their own ToR / Action Plan by January 2019.

The WSSLG have been revived and a dedicated Task Team initiated to bring the sector on board and productive

A new website has been developed to transfer information to the sector, keep them informed and provide the necessary information for them to be productive in addressing the Gaps identified.

Currently the DWS has developed strong foundations to implement the SDG 6 Programme. The work DWS has achieved to date has been Internationally recognized by the UN. Nationally STATSSA has proclaimed that DWS is the best performer in the sector

Specific Target Reports have been requested by the United Nations and STATSSA alike, as per the Table below. Each report request has been addressed timorously and accurately as per the UN requirements.

SUMMARY OF REPORTS COMPLETED										
No.	SDG Sub-Goal	SDG Indicator	Description	Report Ownership		Date Received by Prog Coord	Task Team Leader	Training Provided (Y/N)	Due Date	Date Submitted
				UN	STATSSA					
1	6.5	6.5.2	Transboundary Cooperation	Yes (UNECE)		12-May-17	Terrence Tlala	N	14-Jun-17	14-Jun-17
2	6.3	6.3.2	Water Quality	Yes (UNEP)		14-Jun-17	Lebogang Matlala		31-Jul-17	15-Aug-17
3	6.6	6.6.1	Water related ecosystems	Yes (UNEP)		14-Jun-17	Lebogang Matlala	Y (Webinar- 20 June 2017)	31-Jul-17	15-Aug-17
4	6.1	6.1.1	Water - universal and equitable access		Yes	18-Jul-17	Allestair Wensley	N	21-Jul-17	21-Jul-17
5	6.2	6.2.1	Sanitation - universal and equitable access		Yes	18-Jul-17	Cyprian Mazubane	N	21-Jul-17	21-Jul-17
6	6.3	6.3.1	Wastewater Safely Treated		Yes	18-Jul-17	Zanele Bira-Mupariwa	N	21-Jul-17	21-Jul-17
7	6.4	6.4.2	Water Stress		Yes	18-Jul-17	Thabo Masike	N	21-Jul-17	21-Jul-17
8	6.4	6.4.1	Water Use Efficiency	Yes (UN - Food and Agric)		09-Sep-17	Thabo Masike	Y (Webinar- 18 December 2017)	20-Sep-17	31-Oct-17
9	6.5	6.5.1	IWRM	Yes (UNEP)		19-Sep-17	Patrick Mlilo	N	20-Oct-17	24-Nov-17

**D Budget Required to address SDG 6**

TT	Task Team Operational Cost (Rmillion)				
	2019/20	2020/21	2022/23	2023/34	2024/25
6.1	R 15	R10	R 10	R 5	R 5
6.2	R 20	R 20	R 20	R 20	R 20
6.3					
6.4	R2	R1	R0.5	R0.5	R0.5
6.5	R1			R1	
6.6					
6.a	R0.5	R0.5	R0.5	R0.5	R0.5
6.b	R0.4	R0.5	R 0.6	R 0.6	R 0.
<b>TOTAL</b>	<b>R38.9</b>	<b>R32</b>	<b>R31.6</b>	<b>R27.7</b>	<b>R26</b>

	<b>Capital Investment projection (Rmillion)</b>									
TT	2019/20	2020/21	2022/23	2023/34	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
6.1	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000
6.2	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000	R 50 000
6.3										
6.4	R20	R19								
6.5	-	-	-	-	-	-	-	-	-	-
6.6										
6.a	-	-	-	-	-	-	-	-	-	-
6.b	R 1	R 1.5	R 2	R 3	R 3.5	R 4	R 5	R 5.5	R 6	R 7
TOTAL	R100 021	R100 020	R100 021	R100 022	R100 023	R100 023	R100 024	R100 024	R100 025	R100 026

In essence approximately R35 million Operational Cost is required per annum to run the SDG 6 Programme internally, and a further R100 billion per annum of investment by the sector required in order to achieve the SDG 6 Goal by 2030.

## 5. IMPLEMENTATION APPROACH AND WAY FORWARD

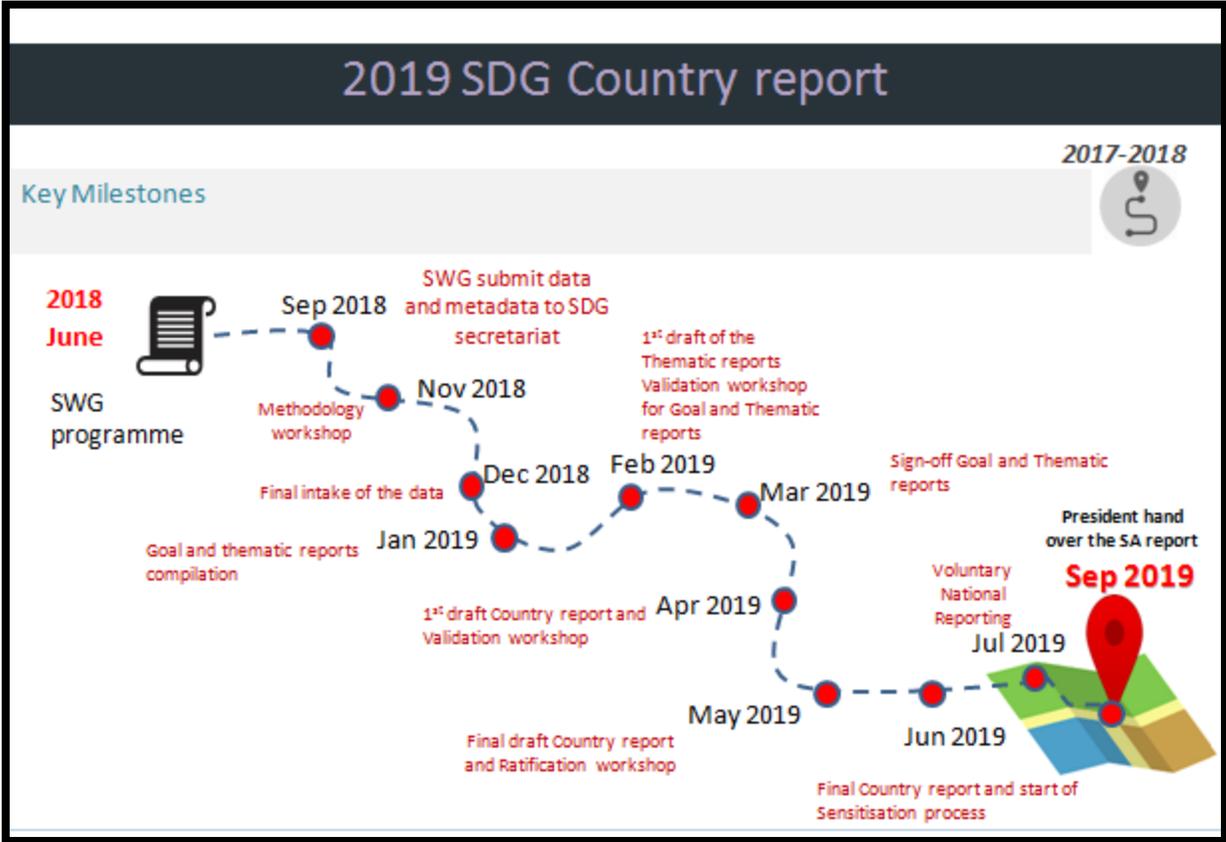
### A *STATS South Africa*

An SDG Baseline Report was completed in 2017 with inputs from DWS for SDG 6. STATSSA are now planning the completion of an SA SDG Country Report in 2019.

As part of the process STATSSA initiated SDG Groups (DWS Leader) to collect data and formulate Metadata files which were completed, consolidated and submitted in Oct 2018

A Roadmap has been developed for which DWS will participate until final submission in September 2019.

The process will then start again as the Country Report is bi-annual. The Roadmap is as follows:



The DWS is ready and available to support the other 16 SDG Goals that are being coordinated by STATSSA. The respective Goal Leaders such as the Dept of Education, Dept of Health for example, must indeed take the Lead and bring in DWS to their process, now rather than later. DWS made this point very clear at the recent Department of Science and Technology (DST) workshop on the 5 December 2018 where all Goals were represented

## B DWS

The DWS has initiated an SDG6 Website which will be linked to the main DWS website. It is planned for this website to go live at the beginning of 2019 with the intention of sharing information with the sector.

The SDG 6 Programme being implemented by DWS highlights the Gaps and monitors the progress per Target towards the 2030 Goal, however it is up to the sector to translate these Gaps into Action that can turn things around. It is through the number of 'vehicles of Change' such as the NW&SMP and the NWSRS2 that this turnaround is achieved. In addition it is up to every sector stakeholder to consult the SDG6 website, identify the gaps that apply to their business and implement change into their own Business / Operational Plans.

**water & sanitation**  
Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

WATER IS LIFE, SANITATION IS DIGNITY

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### General

The Statistics South Africa (STATSSA) is the focal point for all 17 SDGs in the country. The DWS is responsible for the implementation of SDG 6 and the Deputy Director General: Planning & Information is responsible to oversee the implementation of such in SA on behalf of the Department and with collaboration with STATSSA. The day to day implementation of SDG6 programme is the responsibility of the Chief Director: Water Services and Local Water Management. SDG 6 contains 8 targets, all focusing directly on water and sanitation services and water

As such, the Department of Water & Sanitation is mandated to drive and implement SDG 6 in South Africa. It is also expected to support the other 16 SDG's, through STATSSA as the national coordinator, which include water and sanitation components.

SDG 6 contains eight targets, all focusing directly on water services (including sanitation) and water resource management.

The DWS has initiated an SDG working group (SDGWG) internally whose objective is to coordinate activities related to the 8 Targets of SDG 6 besides inputs to other SDG's. It has been structured in accordance with the targets and is fully operational and effective. It comprises ten task teams (one for each Target and two cross-cutting). The terms of reference and action plans for each have been approved for implementation. Nine reports have been submitted to the UN via StatsSA to date and the national and regional role out is in full swing.

#### The eight Targets for SDG 6

TARGET 6-1	TARGET 6-2	TARGET 6-3	TARGET 6-4	TARGET 6-5	TARGET 6-6	TARGET 6-A	TARGET 6-B
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DWS is currently developing a Business Case for a Monitoring system that will suitably oversee the SDG 6 Programme and provide current progress on all Targets and overall

status as time move forward. The M&E system will also taken into account other monitoring programmes such as the African Agenda 63, AMCOetc and allow linkages to vehicles of change responsible for the implementation of specific tasks that will close the Gaps before 2030

## 6 CONCLUSION

This report has been initiated as a bi-annual document that will provide progress regarding achieving of the 2030 Goal, more specifically what has been achieved over the 2 years prior to the report being published.

This report has considered the progress that has been made by the Department of Water and Sanitation during the period 2017 and 2018 inclusive.

The report was initiated by the SDGWG and will be shared with the Minister of DWS and the sector as a whole, through the newly created SDG 6 website in the public domain.

There is a lot of work to be achieved in the next 12 years, however the DWS has positioned itself strongly to address the challenges that lay ahead and is confident that these Goals will be achieved by South Africa in 2030 provided all stakeholders work together as a team.

DWS believe it is ahead of the curve in this regard and will drive forward the passion and momentum it had created into 2019 and beyond

There are 2 key costs that must also have finance made available to deliver successfully. These being:

- DWS Operational Cost per annum to deliver on SDG 6 - R32 million / annum
- Capital Investment for the whole country – R 100 billion / annum

Although this is a high level cost it has been identified through a process, with the inclusion of the National Investment Framework and the National Water & Sanitation Master Plan for example, to fund the programme throughout the next 12 years.

If South Africa is to deliver on its commitment to the United Nation then it must put its 'money were its commitment is' so that all sector stakeholders can deliver on the requirements.

## 7 REFERENCES

UN Water :Integrated Monitoring Guide for Sustainable Development Goal 6 on Water and Sanitation Targets and global indicators ( Version: 14 July 2017)

Sustainable Development Solutions Network : Getting Started with the Sustainable Development Goals (Dc 2015)

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