



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

**SPEECH BY DEPUTY MINISTER OF WATER AND SANITATION, MRS PAMELA
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**DURING THE DEBATE AT THE NATIONAL COUNCIL OF PROVINCES CLIMATE
CHANGE AND WATER IN SOUTH AFRICA**

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Chairperson of the National Council of Provinces

Honourable Members of the NCOP

Honoured Guests

It is a pleasure to be addressing this session on the State of Water situation in South Africa under the theme of “The impact of climate change and unpredictable rainfall”.

This is a fitting topic, given that the 23rd Conference of the Parties (COP23) to the United Nations Framework Convention on Climate Change (UNFCCC) will be meeting in Bonn, Germany this month to advance the work programme under the Paris Agreement reached in 2015, as well as the climate action during the 2020 period.

South Africa as we are all aware is one of the forty (40) driest countries in the world, receiving less than world average rainfall under natural conditions. These conditions are now exacerbated by a highly variable climate characterised by sudden or abrupt changes in temperature and rainfall.

In the hydrological context, such climate change typically expresses itself in terms of changes either in average temperature or in rainfall over decades or longer time.

We are also informed that South Africa like the rest of the world is experiencing extreme weather driven by strong El Niño and La Niña events. This manifests itself in droughts and flooding, often in close succession.

We have seen this with the country's very severe drought conditions being followed by the severe storm events like recently experienced in KwaZulu-Natal.

Weather variability and longer-term climate change is a real threat and as a country we need to develop and strengthen our adaptation and coping mechanisms to this **"new normal"**.

It is a reality that is not in the distant future anymore – it is here and we are in it. Nationally and in many parts of the **Southern African Development Community (SADC)** region, severe drought conditions directly impact on our water, energy and food security.

Research by the Water Research Commission shows that **ninety-percent (90%)** of the **Southern African Development Community (SADC)** area will experience drought by the end of this century. Consecutive seasons will show below average rainfall impacts on our water availability for domestic use and economic growth.

The most resource poor and our vulnerable communities are always worse off in situations such as these drought conditions because they do not have adequate means to adapt.

We now have to ask ourselves this question with this reality upon us: **"What then should we do as a people?"**

The real solution lies in implementing what Minister Mokonyane has been calling the **"Water and Sanitation Revolution."**

Excellent research, development and innovation products have been developed by **South Africa's Research and Innovation Community** and are available from the **Water Research Commission (WRC)** for implementation and up-scaling to aid the country in dealing with this threat.

I am glad to indicate that in this regard, the **Water Research Commission (WRC)** is convening with other key stakeholders, including the **South African Weather Services (SAWS)**, **Agricultural Research Council (ARC)**, **Council for the Scientific and Industrial**

Research (CSIR), and universities, an advisory panel to provide short, medium and long-term forecasts to enhance planning within the water and related sectors.

We can become a resilient nation and lead the world in ensuring continued water and food supplies for all our people and the environment; but we need to follow up on these activities.

The other challenge that is brought about by the impact of climate change is with regards to rainfall as predicted going forward.

Studies show that the Limpopo Catchment is projected to experience a decrease in rainfall of up to **thirty five per cent (35%) by 2050**.

However, some catchments such as parts of the Thukela are projected to experience increases in stream flow of between **sixteen to thirty eight percent (16 - 38%)**.

This is an unfortunate contradiction that may result in some areas that require water getting a deficit, while those that have ample water getting more than they need.

Transfer of water is also costly and may not be practically feasible. We all know that the sea has more water than we need but pumping it inland is economically not feasible.

Climate change impacts also include a reduction of runoff and groundwater recharge through evaporation, increased sea water level through increased temperature, causing heat waves and water-borne diseases such as diarrhea.

Adaptation remains key for our country and the world. The key question is: **“What measures should be put in place to adapt to the climate change impacts?”**

The fact that under natural conditions, even before we take account of climate change impacts, the nation has less than world average rainfall, is subjected to high evaporation rate and has less water available than required, means adaptation measures are inevitable.

South Africa’s main source remains surface water. This is over-subscribed or over-allocated with relatively fewer sites that are appropriate for dam building. The bottom line therefore is that South Africa needs to go for an unconventional approach towards water access. More groundwater development needs to be undertaken, water reuse must be enhanced, brackish and sea-water desalinated, and most definitely upscale rainwater harvesting.

We may even explore banking water by artificially recharging aquifers with treated raw water and then pump it out for later use.

In truth, what might turn out to be a comparatively cost effective and lasting solution remains sustainable management of our water resources.

As a country we need to be more efficient in water use including reducing the non-revenue water by attending to water losses and leaks from the system.

We must refrain from polluting the limited water resources that we have. The necessary vehicle to achieve this is through awareness raising and education on more efficiency in water management and use.

Participation of stakeholders at local government level is very important because the country can only reduce the non-revenue water through communication and collaboration with local government.

The water infrastructure is also not always optimally functional. Operation and maintenance, including development and implementation of operating rules for boreholes must not be overlooked. Boreholes must be operated according to prescripts and rules, rather than used unsustainably.

Regular data and information monitoring are necessary parts of a good adaptation strategy. We need to keep track of how much water is used relative to what is available and taking account of the changing climate.

Early preparedness, early warning tools and climate forecasts should be used to inform planning and management of water resources.

We need to be aware of and track potential drought events before they happen, wherever and whenever possible. This must also mean working collaboratively with our partners such as **South African Weather Services and climate modellers** to not only ensure access to forecasts, but clearly interpret what those mean to water and how they can warn us of looming disasters before they occur.

One of the most important adaptation strategies that need to be prioritized and strengthened is the water conservation and demand management. Without this, climate change will continue to negatively impact on us.

I thank you.