

Information page: Drought Status and Management Dashboard

- *What does this dashboard relate to?*

In order to monitor and manage drought, specific indicators such as precipitation, streamflow, reservoir levels, groundwater levels, and vegetation condition may be used. Thus, drought information systems must have the capability to provide integrated information derived from various indicators. The Drought Status and Management information system is designed to provide regular overview and outlook of drought status in South Africa; to water sector decision makers as well sector wide stakeholders. The Drought Status and Management dashboard currently integrates rainfall data, river flow data, dam level data and groundwater level data as the main indicators for generating up to date drought status information. Other indicators such as vegetation condition will be used in future.

- *What information does the Dashboard aim to Disseminate? What questions does this dashboard aim to answer?*

What information does the Dashboard aim to Disseminate?	What questions does this dashboard aim to answer?	Trend Indicators	Multiple Criteria Decision Analysis (MCDA)
Rainfall Status Overview → National and Provincial state of rainfall in RSA	What is the current National and Provincial state of rainfall in RSA?	Rainfall Trend No Value Very Wet Wet No Drought Moderate Drought Severe Drought Extreme Drought	Allocated MCDA Number 1 ≡ Very Low 2 ≡ Low 3 ≡ moderately Low 4 ≡ Normal 5 ≡ Moderately High 6 ≡ High
Runoff Status Overview → National and Provincial state of streamflow in RSA	What is the current National and Provincial state of streamflow in RSA?	Runoff Trend No Value High Moderately High Normal Moderately Low Low Very Low	Allocated MCDA Number 1 ≡ Very Low 2 ≡ Low 3 ≡ moderately Low 4 ≡ Normal 5 ≡ Moderately High 6 ≡ High
Dams Status Overview → National and Provincial state of dams in RSA	What is the current National and Provincial state of dams in RSA?	Dam Level No Value High Moderately High Normal Moderately Low Low Very Low	Allocated MCDA Number 1 ≡ Very Low 2 ≡ Low 3 ≡ moderately Low 4 ≡ Normal 5 ≡ Moderately High 6 ≡ High
Groundwater Status Overview → National and Provincial state of groundwater in RSA	What is the current National and Provincial state of groundwater in RSA?	Groundwater Status No Value Very Low Low Moderately Low Normal Moderately High High	Allocated MCDA Number 1 ≡ Very Low 2 ≡ Low 3 ≡ moderately Low 4 ≡ Normal 5 ≡ Moderately High 6 ≡ High

<p>Drought Status Overview and Outlook</p> <p>→Current national and provincial state of drought in RSA</p> <p>→Outlook of the national and provincial state of drought in RSA</p>	<p>What is the current state of drought in the Republic of South Africa (RSA), and what is the outlook?</p>	<p>Drought Status Overview</p> <div> <p>Drought Trends</p> <ul style="list-style-type: none"> No Value Very Wet Wet No Drought Moderate Drought Severe Drought Extreme Drought </div> <p>Drought Status Outlook</p> <ul style="list-style-type: none"> Declined Stable Improved 	<p>Drought Status Overview (DSO_v)</p> <p>DSO_v = $sum(\% Indicator \times MCDA Number)$ % Rainfall Indicator $\cong 15\% \cong 0.15$ % Runoff Indicator $\cong 15\% \cong 0.15$ % Dam Indicator $\cong 35\% \cong 0.35$ % Groundwater Indicator $\cong 35\% \cong 0.35$ 1 - 1.833 \cong Extreme Drought 1.833 - 2.667 \cong Severe Drought' 2.667 and 3.500 \cong Moderate Drought' 3.500 - 4.333 \cong No Drought' 4.333 - 5.167 \cong Wet 5.167 - 6 \cong Very Wet</p> <p>Drought Status Outlook (DSO_t)</p> <p>DSO_t = $sum(\% Indicator \times MCDA Number)$ % Rainfall Indicator $\cong 50\% \cong 0.50$ % Runoff Indicator $\cong 50\% \cong 0.50$ % Dam Indicator $\cong 0\% \cong 0$ % Groundwater Indicator $\cong 0\% \cong 0$ 1 - 2.667 \cong Declined 2.667 - 4.333 \cong Stable 4.333 - 6 \cong Improved</p>
<p>Drought Affected Settlements</p>	<p>Which settlements in RSA are affected by moderate, severe and extreme drought?</p>	<ul style="list-style-type: none"> Moderate Drought Severe Drought Extreme Drought 	<p>N/A</p>

- Data Type, Source, Accessibility and Update Frequency**

Data Type	Data Source & Accessibility	Data Update Frequency	Conditions for Data Used
Monthly Average Rainfall Data	→ DWS website (Incomplete) → HYDSTRA (Incomplete) → South African Weather Services (SAWS)	→ Monthly	→ The DWS is not the sole data custodian. → The NIWIS developers are not responsible for the quality and integrity of the data used.
Runoff Data	→ DWS website → HYDSTRA	→ Weekly, Monthly	→ Verified and unverified data may be used. → Where verified data is used, a delay in data update frequency may be experienced. → The NIWIS developers are not responsible for the quality and integrity of both the verified and unverified data used.
Dams Data	→ DWS website → HYDSTRA	→ Weekly, Monthly	→ Verified and unverified data may be used. → Where verified data is used, a delay in data update frequency may be experienced. → The NIWIS developers are not responsible for the quality and integrity of both the verified and unverified data used.
Groundwater Data	→ DWS website → HYDSTRA	→ Monthly	→ Verified and unverified data may be used. → Where verified data is used, a delay in data update frequency may be experienced. → The NIWIS developers are not responsible for the quality and integrity of both the verified and unverified data used.
Affected Settlement Data	→ Agricultural Research centre (ARC)	→ Monthly	→ The NIWIS developers are not responsible for the quality and integrity of the data used. → Data updated as and when available.

- Contact Details of persons who championed the Dashboard**

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- Links to other Sources of related Information**

<http://www.dwa.gov.za/Hydrology/>

<http://www.dwa.gov.za/groundwater/>

<http://www.weathersa.co.za/>

<http://www.arc.agric.za/>

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