



SADC
CLIMATE SERVICES CENTRE
SEASONAL DROUGHT ADVISORY
SEASON: 2018/19

Release Date: 04/06/2018

HIGHLIGHTS

Extreme drought over most of south western parts of the Southern African Development Community (SADC) due to a deficit in average rainfall during the 2018/19 season. Consequently, to date, Angola, Botswana, Lesotho and Namibia have already declared a drought state emergency.

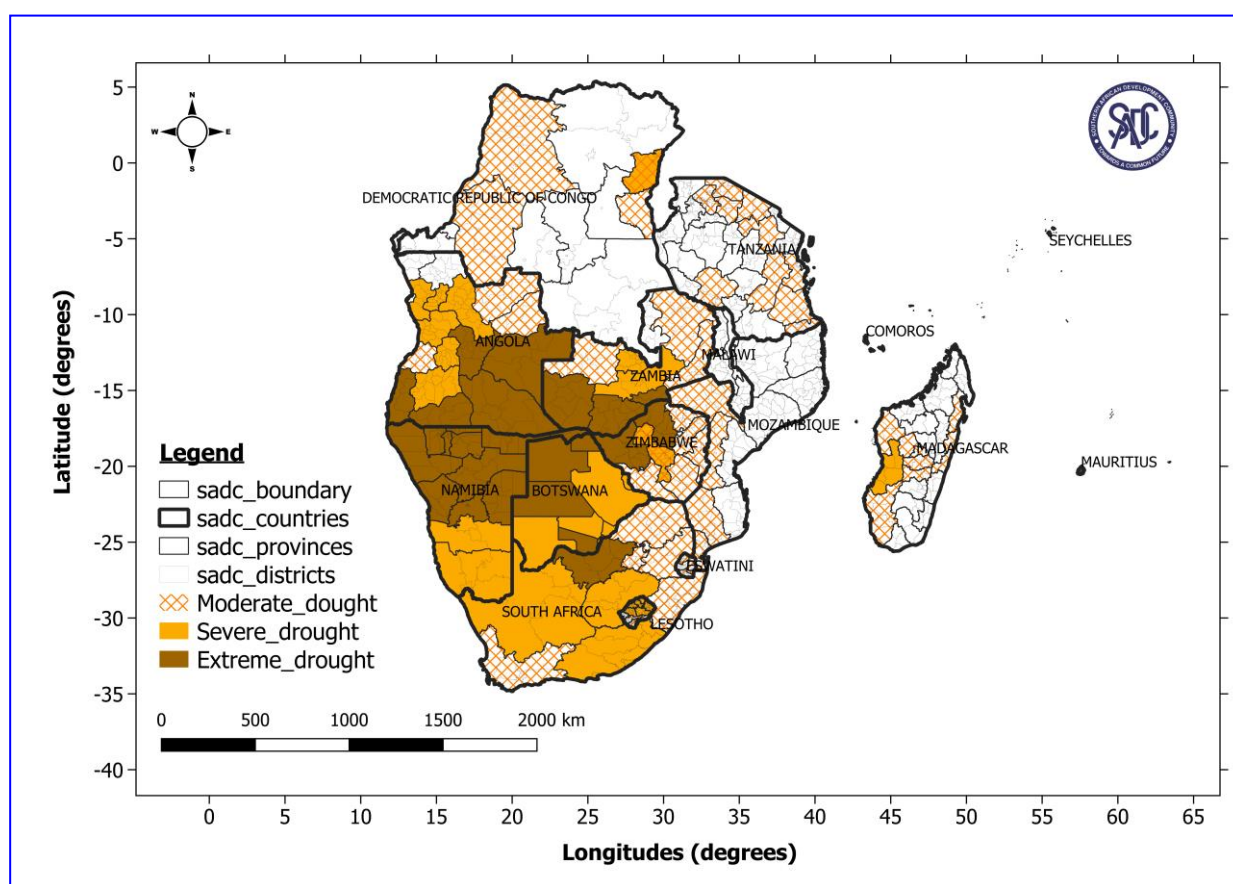


Figure 1: Drought Situation over the SADC Region for 2018/19 rainfall season.

DROUGHT SITUATION DURING THE 2018/19 SEASON

Most of the SADC Region is in a drought condition. An extreme drought situation is prevailing over central to western parts, mainly over southern Angola, southern Zambia, northern Zimbabwe, northern Botswana, north-western South Africa and most of central-northern Namibia (Figure 1). Consequently, some of these Member States have declared a state of drought disaster. A moderate to severe drought signal is also affecting most of Angola, Namibia, Botswana, Zimbabwe, South Africa, Lesotho and Zambia.

Pockets of dryness exist over most of Tanzania, western and eastern DRC, Eswatini, southern Mozambique and western Madagascar. These areas are advised to closely monitor the dryness to ensure response actions are activated according to the level of drought impact on the ground.

The Table at Annex1 shows the potential drought affected Provinces based the analysis of the SADC CSC. For detailed information on the specific areas affected by the drought, consult the National Agencies responsible for monitoring droughts.

SEASONAL RAINFALL FOR 2018/19

PRECIPITATION

Areas in most of southern Angola, most of Namibia, south-western Botswana and north-western South Africa experienced a significant deficit in rainfall during the season as they recorded less than 50% of their normal seasonal rainfall. Above average rainfall was measured in some parts of Mozambique, Malawi, most Tanzania, north-eastern Zambia, northern Madagascar, central-to-north Democratic Republic of Congo and the tip of south-western South Africa (Figure 2).

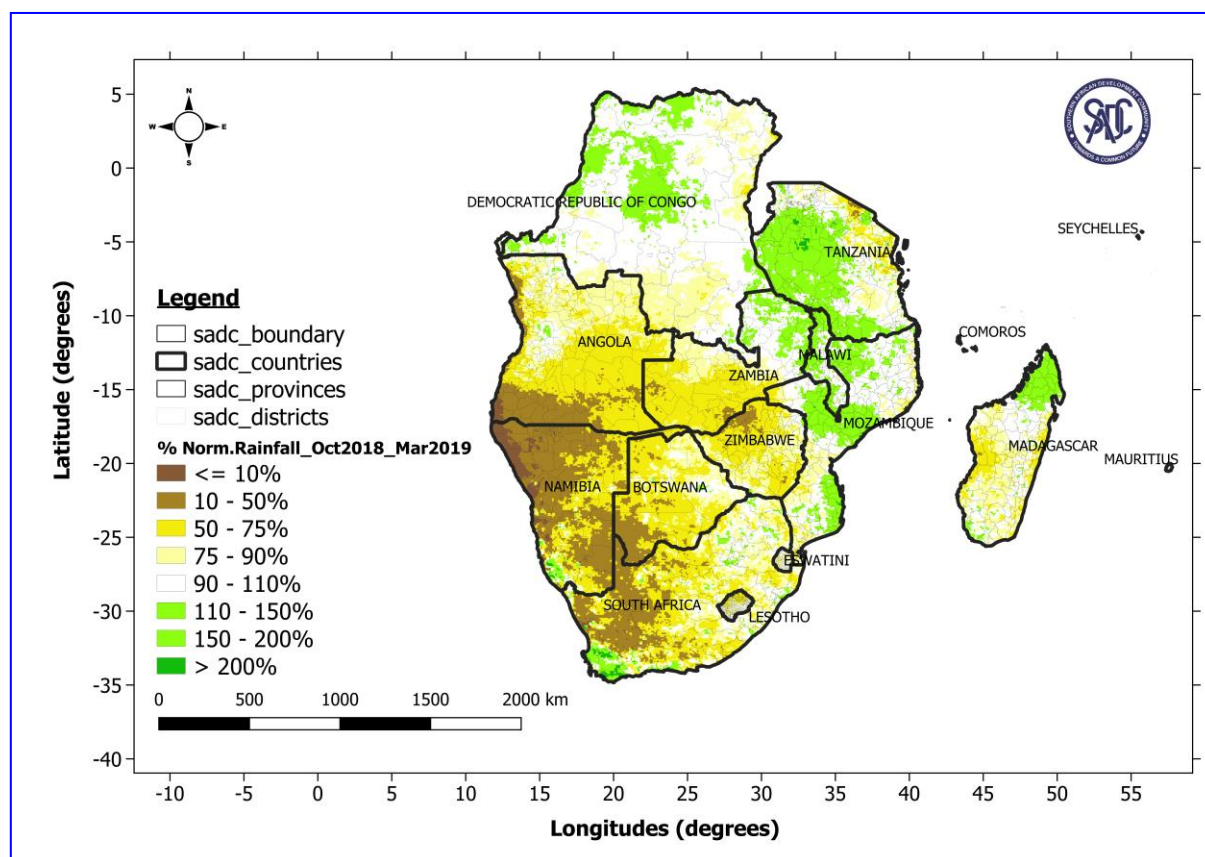


Figure 2: Percentage of normal rainfall for the 2018/2019 season (Data source ARC2).

The area along Lake Kariba between southern Zambia and northern Zimbabwe also recorded much less rainfall compared to the long-term average (Figure 3).

The observed decline in rainfall performance is in line with the seasonal outlook from the SARCOF-22 meeting of August 2018 held in Lusaka, Zambia, where it was predicted that normal-to-below normal rainfall will be observed over most of the SADC region during the 2018/19 rainfall season.

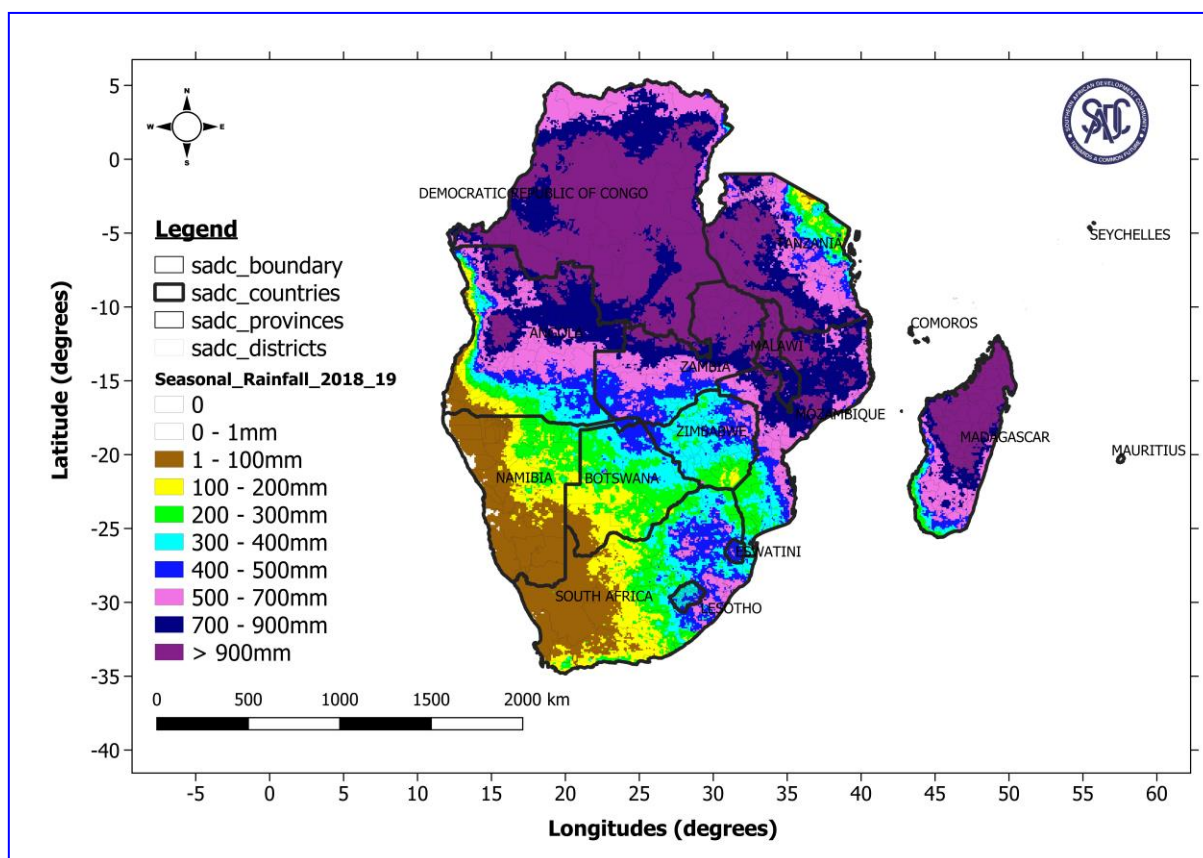


Figure 3: Observed rainfall totals for the 2018/2019 rainfall season. (Data source ARC2).

STANDARDIZED PRECIPITATION INDEX

Standardized Precipitation Index shows that most of the SADC Region has been through a dry 2018/19 season (Figure 4) with few parts of the region depicting signal for a wetter season over eastern and north-central parts. These dry conditions are more extreme over central to western parts, mainly over southern Angola, southern Zambia, northern Zimbabwe, northern Botswana, north-western South Africa and most of central-northern Namibia.

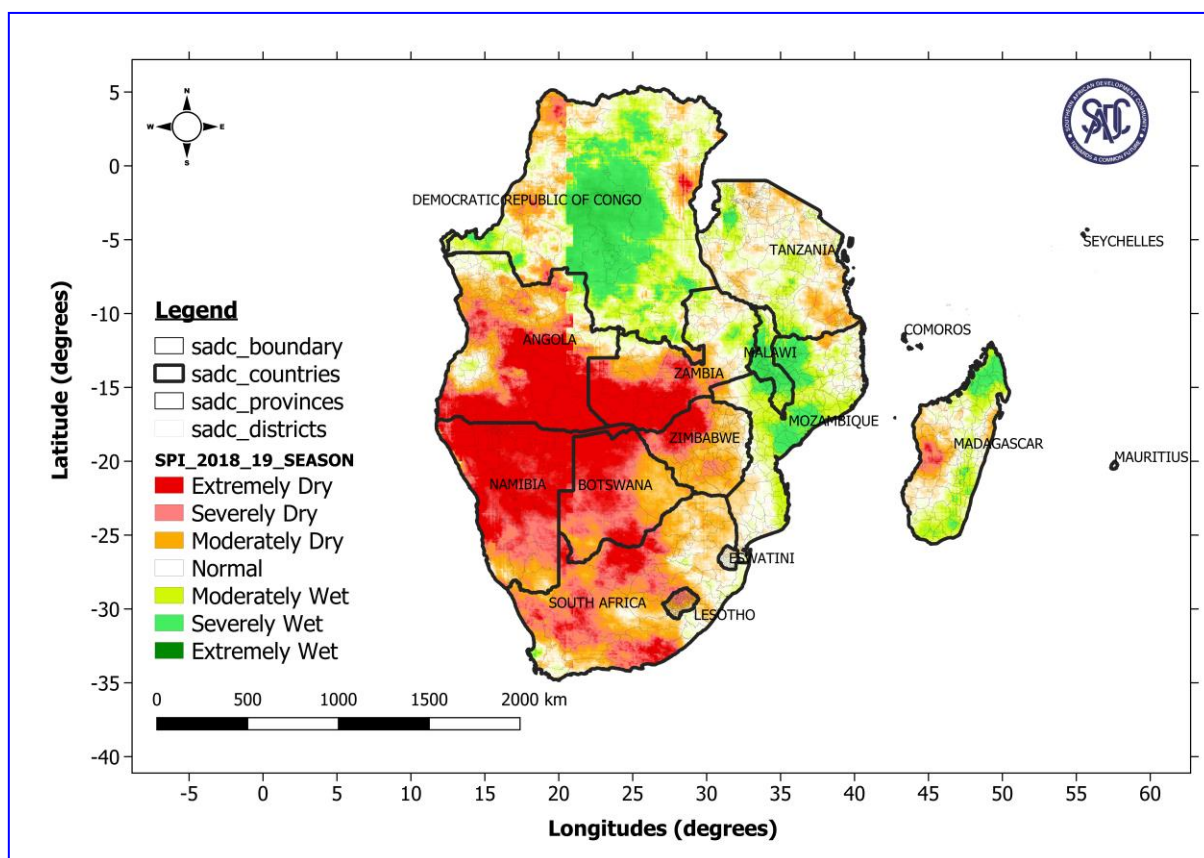


Figure 4: Standardized precipitation index for the 2018/19 season

VEGETATION RESPONSE

Standardized Vegetation Index (SVI) measures the vegetation response to a drought hazard. It is further a measure of the effects of climate on vegetation. The lower values of the SVI indicate reduced vegetation due to amongst other factors the climate variation over time. The current season's SVI depicts clearly the areas hugely impacted by the drought conditions as depicted by the Standardized Precipitation Index earlier, as most of southern parts of the SADC region are in the range of an SVI of -2 and lower (Figure 5). This depicts reduced moisture availability for plant growth, thus a lower SVI and subsequently an indication of drought.

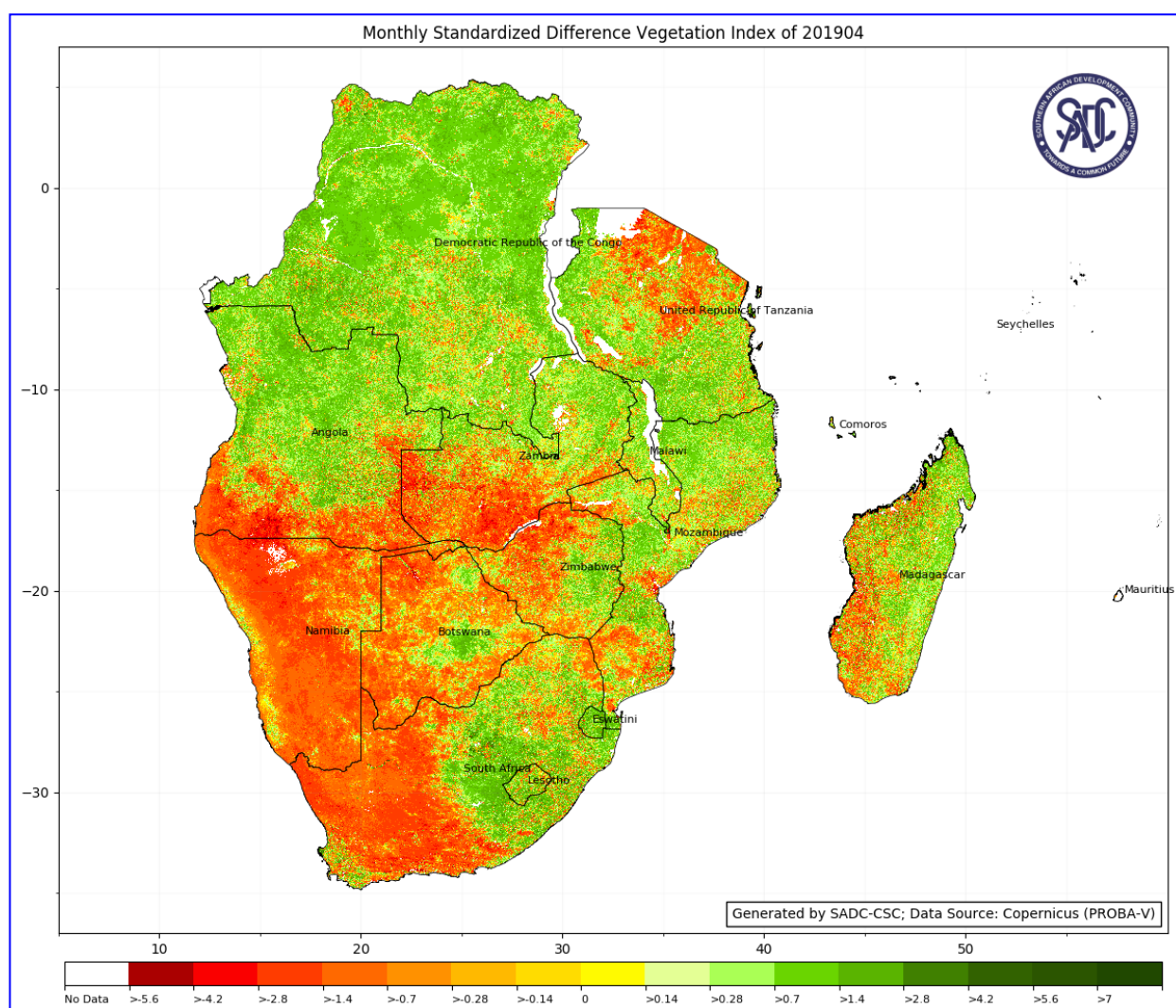


Figure 5: Monthly Standardized Difference Vegetation Index as of April 2019

RECOMMENDATIONS

Activation of drought contingency plans in most of the affected Member States is advised to guide response actions in an effort to sustain livelihoods and protect loss of life and assets such as livestock. Increased coordination of the drought response is also recommended at all levels to ensure effectiveness of response actions.

National Meteorological and Hydrological Services are encouraged to provide a national breakdown of the specific areas under drought to assist response agencies to properly target areas under threat.

Drought assessment are encouraged in all SADC Member States as there are pockets of drought affected areas in all the countries within the region.

ANNEX I

Table 1 Potential drought affected Provinces in SADC region based on analysis of the SADC CSC

SEVERE DROUGHT EFFECT		MODERATE DROUGHT EFFECT		MINIMAL DROUGHT EFFECT	
Member State	Province	Member State	Province	Member State	Province
Angola	Cunene	Angola	Malanje	Angola	Lunda Norte
Angola	Moxico	Angola	Huambo	Angola	Lunda Sul
Angola	Namibe	Angola	Huila	Angola	Benguela
Angola	Bie	Angola	Kuanza Norte	Democratic Republic of the Congo	Equateur
Angola	Cuando Cubango	Angola	Cuanza Sul	Democratic Republic of the Congo	Sud-Kivu
Botswana	Southern	Angola	Bengo	Democratic Republic of the Congo	Bandundu
Botswana	Ngamiland	Botswana	South-East	Lesotho	Qacha's Nek
Botswana	Chobe	Botswana	Kgatlang	Lesotho	Quthing
Botswana	Ghanzi	Botswana	Kweneng	Lesotho	Mafeteng
Namibia	Oshikoto	Botswana	North East	Lesotho	Mohale's Hoek
Namibia	Otjozondjupa	Botswana	Central	Madagascar	Vakinankaratra
Namibia	Ohangwena	Botswana	Kgalagadi	Madagascar	Itasy
Namibia	Omaheke	Democratic Republic of the Congo	Nord-Kivu	Madagascar	Melaky
Namibia	Omusati	Lesotho	Berea	Madagascar	Amoron I Mania
Namibia	Oshana	Lesotho	Butha Buthe	Madagascar	Analanjirifo
Namibia	Kavango	Lesotho	Mokhotlong	Madagascar	Bongolava
Namibia	Khomas	Lesotho	Thaba Tseka	Madagascar	Atsimo Andrefana
Namibia	Kunene	Lesotho	Leribe	Madagascar	Atsinanana
Namibia	Caprivi	Lesotho	Maseru	Mozambique	Tete
Namibia	Erongo	Madagascar	Menabe	Mozambique	Maputo
South Africa	North West	Namibia	Karas	Mozambique	Manica
Zambia	Western	Namibia	Hardap	Mozambique	Gaza
Zambia	Lusaka	South Africa	Northern Cape	South Africa	Mpumalanga
Zambia	Southern	South Africa	Eastern Cape	South Africa	Limpopo
Zimbabwe	Mashonaland West	South Africa	Free State	South Africa	Gauteng

Zimbabwe	Matabeleland North	Zambia	Central	South Africa	KwaZulu-Natal
		Zambia	Copperbelt	South Africa	Western Cape
		Zimbabwe	Midlands	Eswatini	Hhohho
				Eswatini	Lubombo
				Eswatini	Shiselweni
				United Republic of Tanzania	Manyara
				United Republic of Tanzania	Mara
				United Republic of Tanzania	Mbeya
				United Republic of Tanzania	Kilimanjaro
				United Republic of Tanzania	Lindi
				United Republic of Tanzania	Arusha
				United Republic of Tanzania	Pwani
				United Republic of Tanzania	Morogoro
				United Republic of Tanzania	Mtwara
				United Republic of Tanzania	Mwanza
				United Republic of Tanzania	Simiyu
				Zambia	North-Western
				Zambia	Northern
				Zambia	Eastern
				Zimbabwe	Manicaland
				Zimbabwe	Mashonaland Central
				Zimbabwe	Mashonaland East
				Zimbabwe	Masvingo
				Zimbabwe	Matabeleland South