

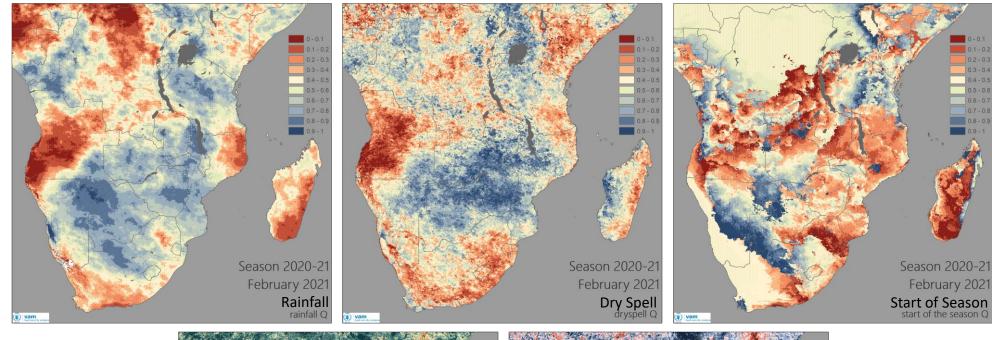


SAVING LIVES CHANGING LIVES

Seasonal Overview and Regional Southern African Vulnerability Analysis (2020/2021)

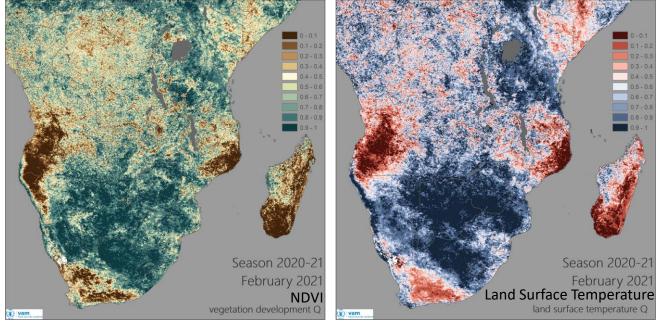


Derivation of Q_{multi} for 2020-2021 (Inputs)



0.7 - 0.8

0.8 - 0.9



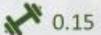
Date of Start of the Formulation **Growing Season** Maximum dry spell 0.20 in the month Monthly rainfall 0.25 R1H 0.15

 $Q_{multi} = f(Q_{rainfall}, Q_{dry spell}, Q_{startof season}, Q_{NDVI}, Q_{LST})$

Where Q is some form of anomaly of the standardized variable, i.e. a measure of how far from the "usual" is a given value. Or more generally, where this given value sits in the historical distribution of values



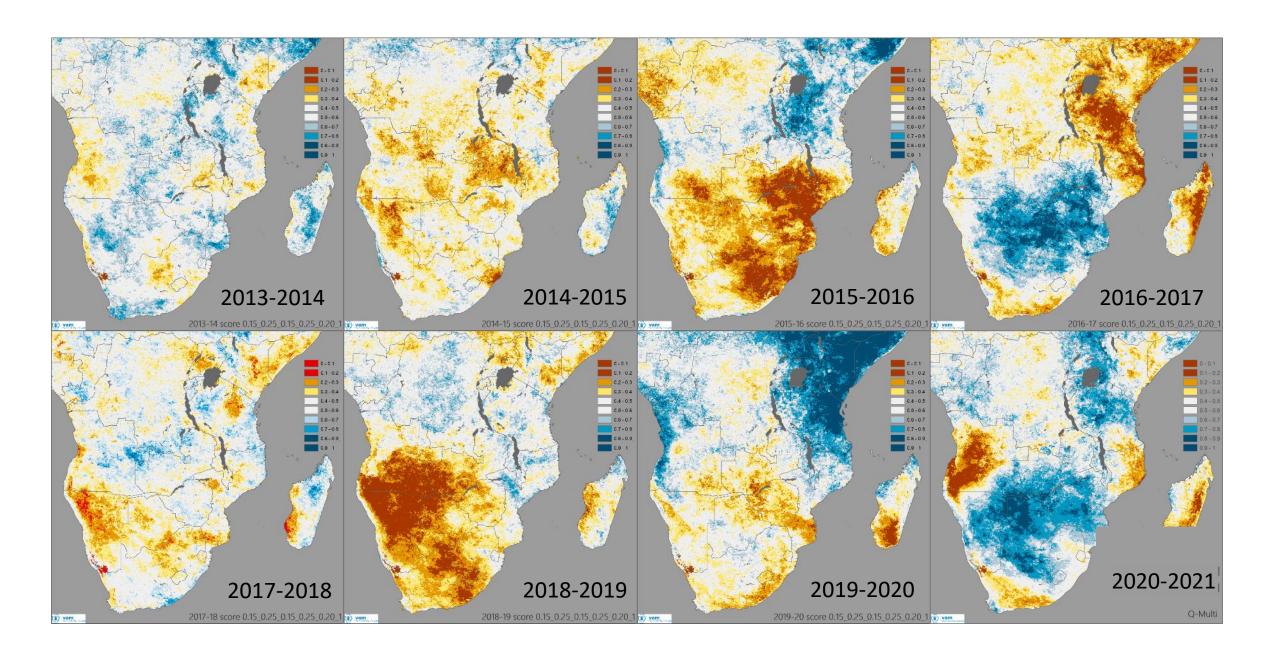
NDVI (monthly average)



Land Surface Temperature (monthly average)

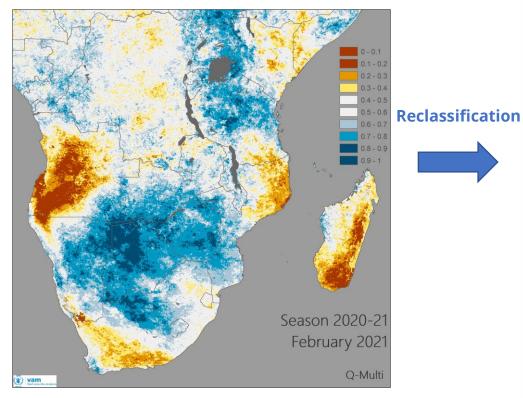


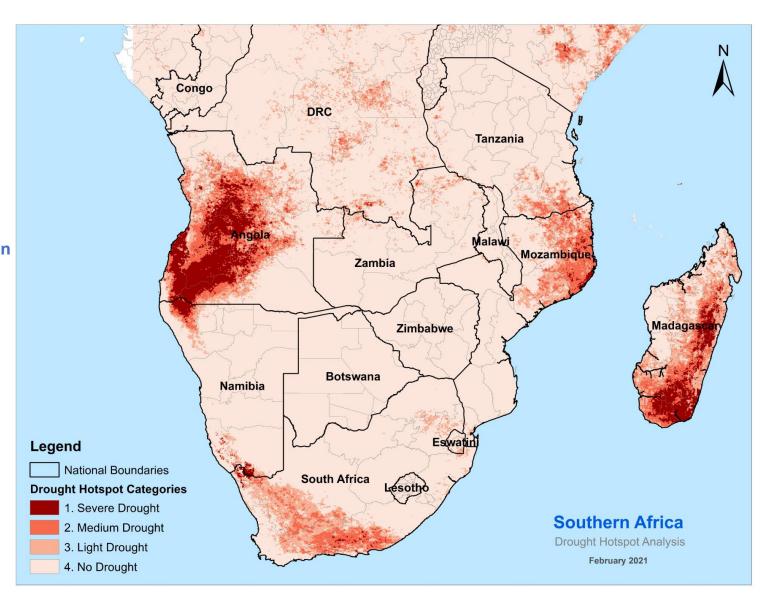
Q_{multi} from 2013-2021



Southern Africa: 2020/21 Drought Hotspots





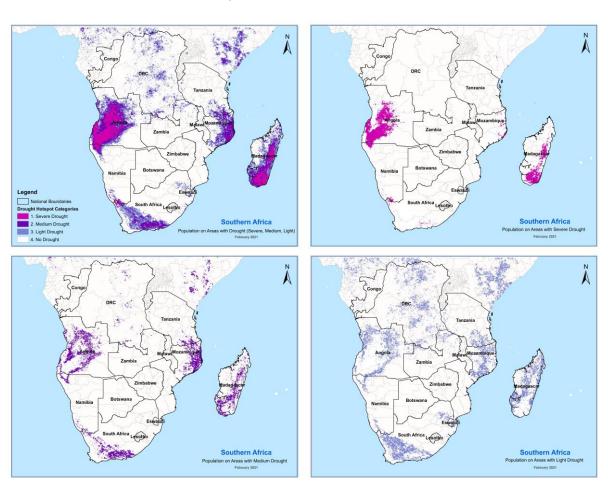


Southern Africa: Extraction of Population Exposed to Drought

2020/2021 Hotspots

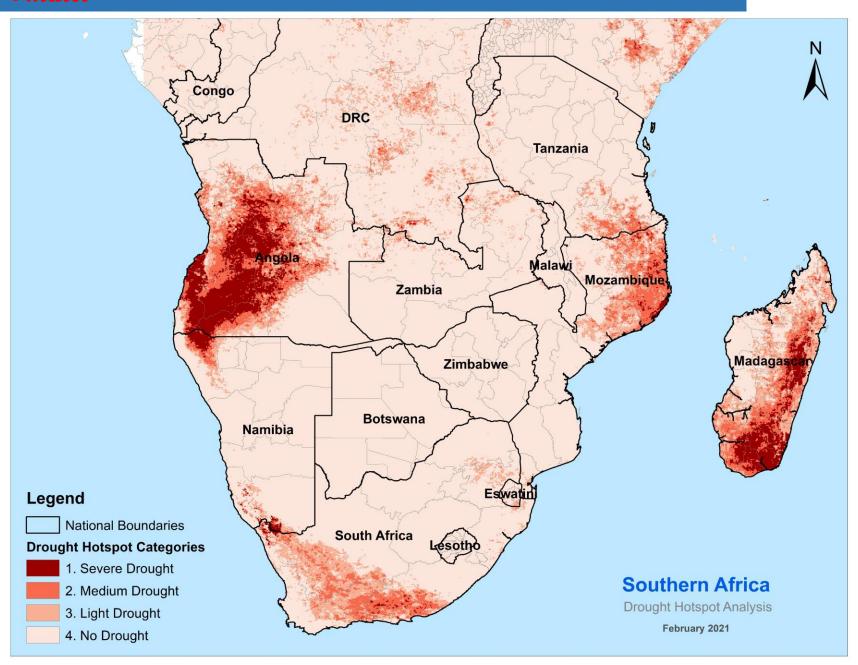
Tanzania Mozambique Zambia **Zimbabwe** Botswana Namibia Eswatin Legend **National Boundaries** South Africa **Drought Hotspot Categories** 1. Severe Drought **Southern Africa** 2. Medium Drought **Drought Hotspot Analysis** 3. Light Drought February 2021 4. No Drought

Population Dataset



Source: World Population 2020

Reclassified *Q_{multi}* for 2020-2021



Population Under Drought Conditions in the Region

Countries	Total Exposed to Drought	Drought Affected (Total Exposed x MPI)
Angola	8,018,800	3,764,700
Botswana		-
Congo	-	-
DRC		-
Eswatini	136,100	41,200
Lesotho		-
Madagascar	16,965,300	6,134,700
Malawi	146,400	965,800
Mozambique	8,036,700	1,312,400
Namibia	137,100	782,300
South Africa*	1,647,000	415,200
Tanzania	2,042,600	917,600
Zambia	1,097,900	558,900
Zimbabwe		-
<u>Total</u>	39,747,400	14,892,800

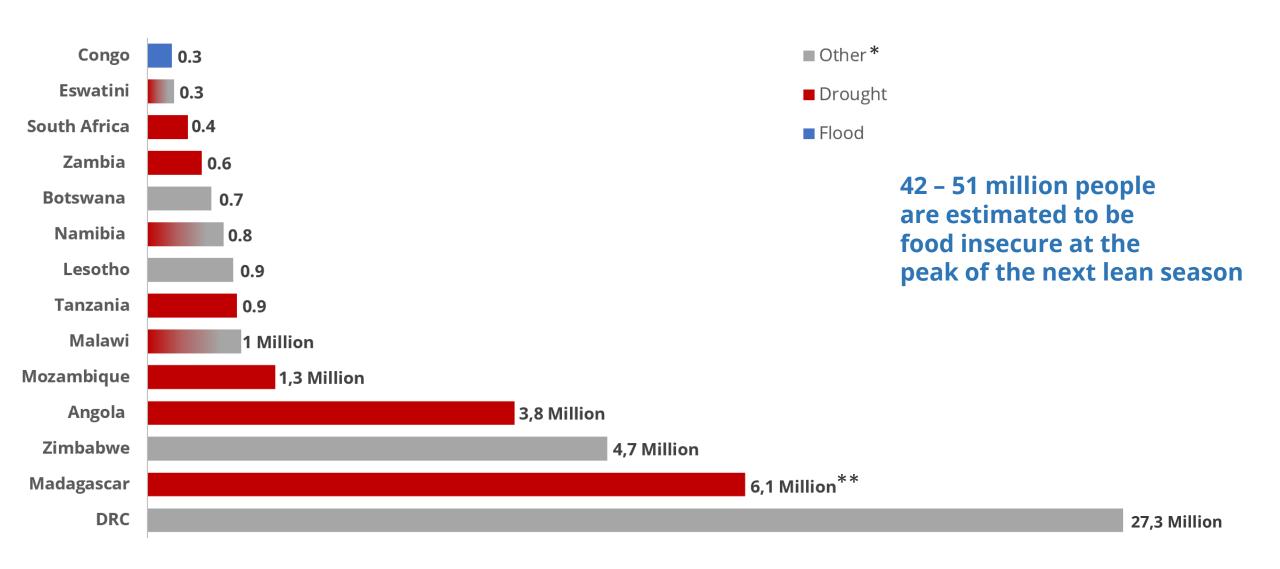
40 Million

People exposed to drought

15 Million

People affected by drought

Food Insecure Population Due to Drought & Other Shocks



^{* &}quot;Other" refers to the cereal adequacy ratio for all countries except DRC. DRC estimates are from the IPC figures.

^{**} In the Grand Sud and Atsimo Atsinanana, 2.4 million people are estimated to be food insecure.

Next Steps

Develop and improve flood models and analysis;

 Training on the rSAVA methodology, its application and usage in terms of the vulnerability numbers for each country;

Automation of analytical processes to improve turnaround time;

Assess inter-seasonal effects of drought on the vulnerable population.