World Food Programme

SAVING LIVES
CHANGING LIVES

Southern Africa: Seasonal Overview and Regional Southern African Vulnerability Analysis (2021/2022)

Johannesburg Regional Bureau |09 June 2022

WFP wfp.org

vam food security analysis

Formulation

Monthly rainfall R1H 0.15

Maximum dry spell in the month 0.25

Date of Start of the Growing Season 0.20

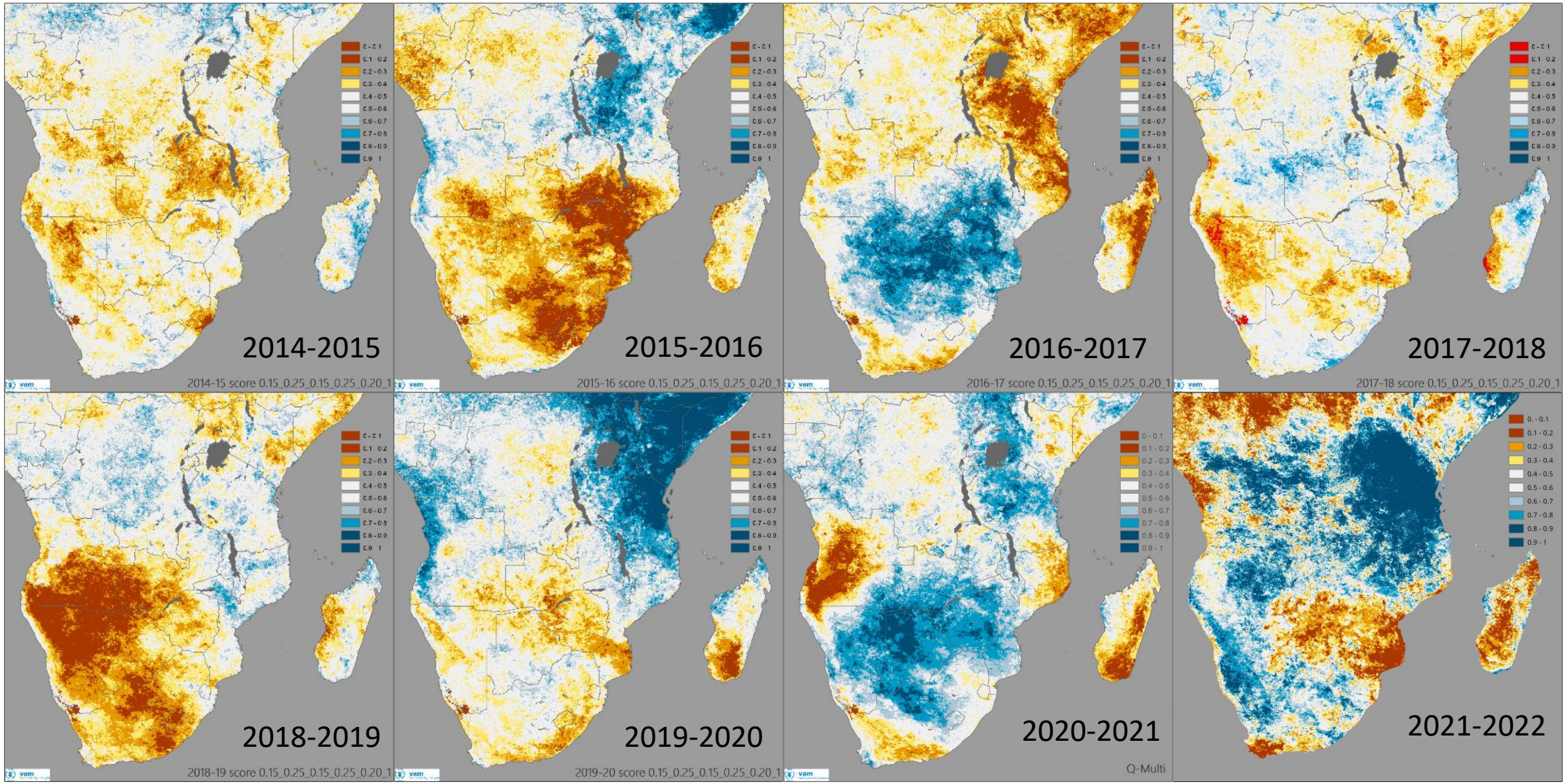
$$Q_{multi} = f(Q_{rainfall}, Q_{dry\ spell}, Q_{start\ of\ season}, Q_{NDVI}, Q_{LST})$$

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

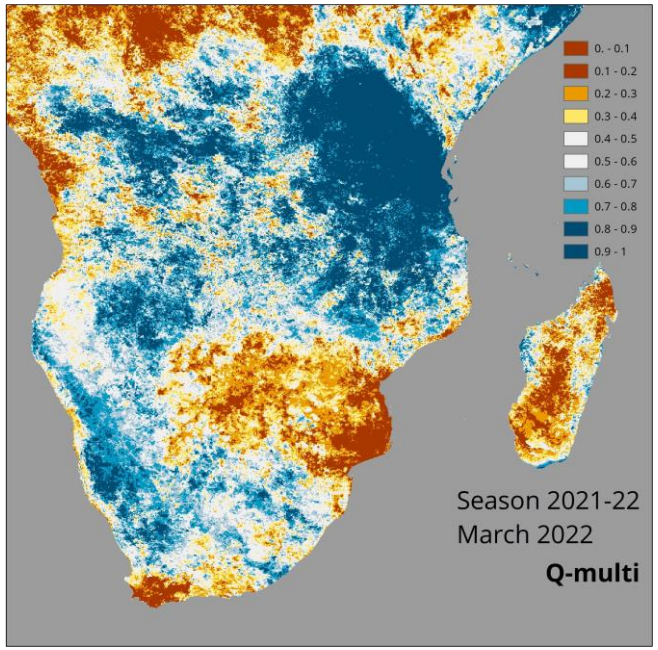
NDVI (monthly average) 0.15

Land Surface Temperature (monthly average) 0.25

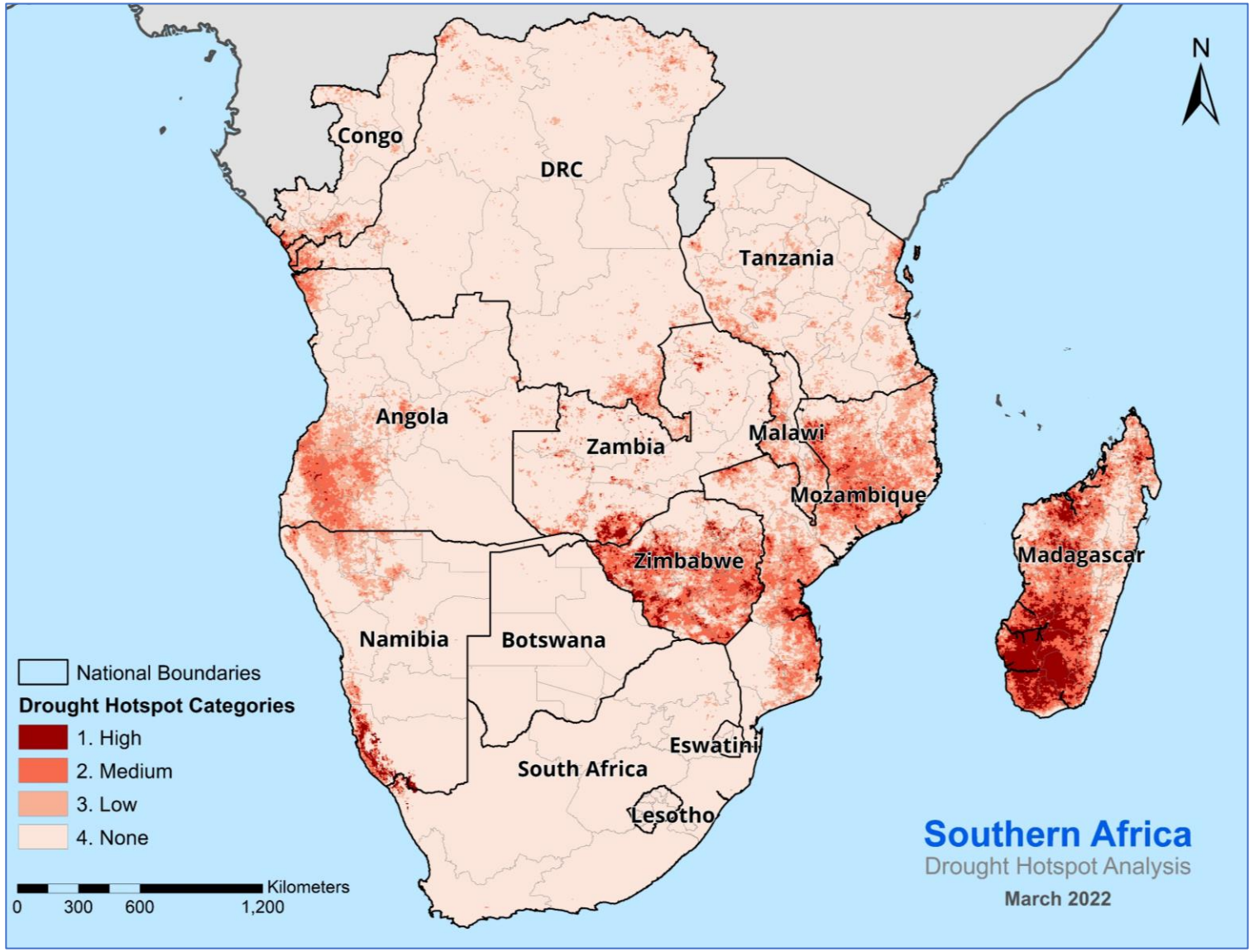
Historical Q_{multi} From 2014 -2022



Southern Africa: 2021/22 Drought Hotspots

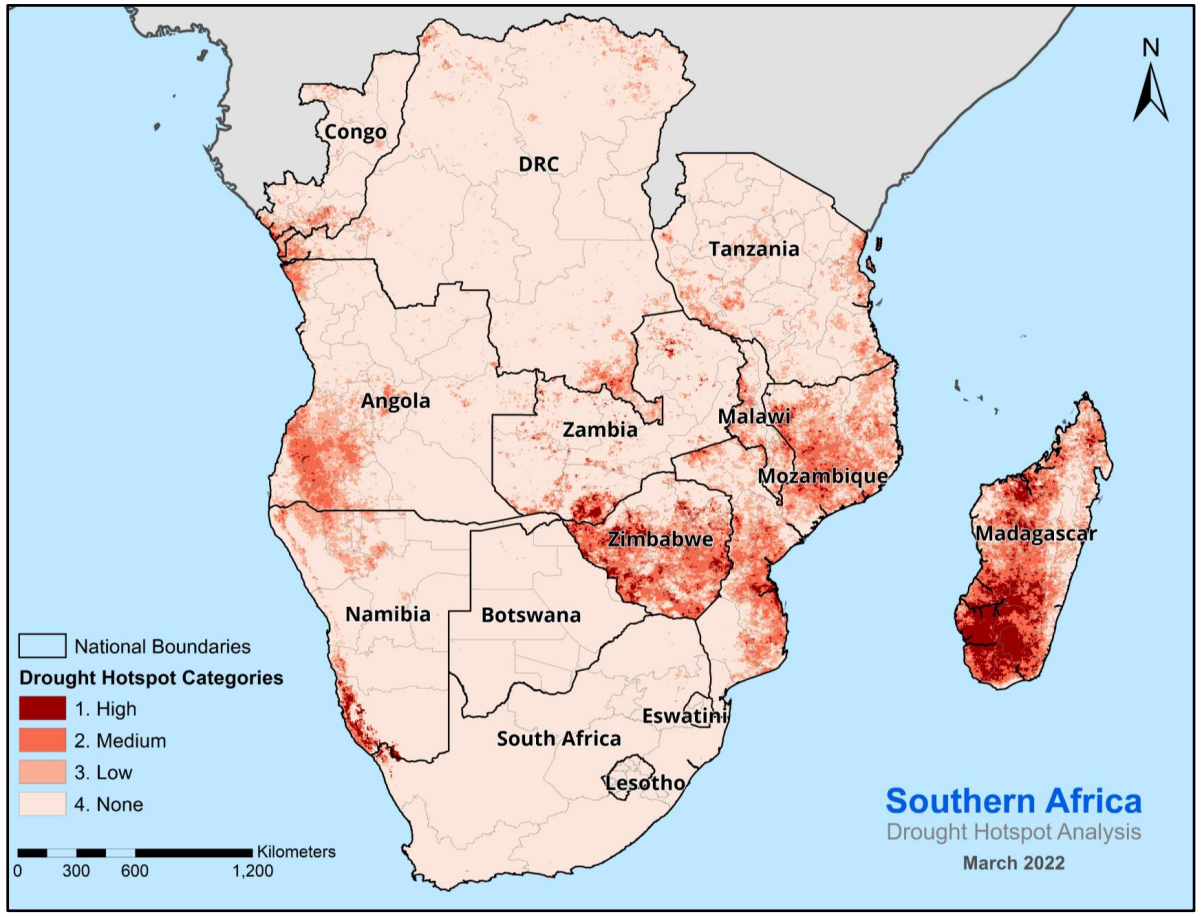


Reclassification

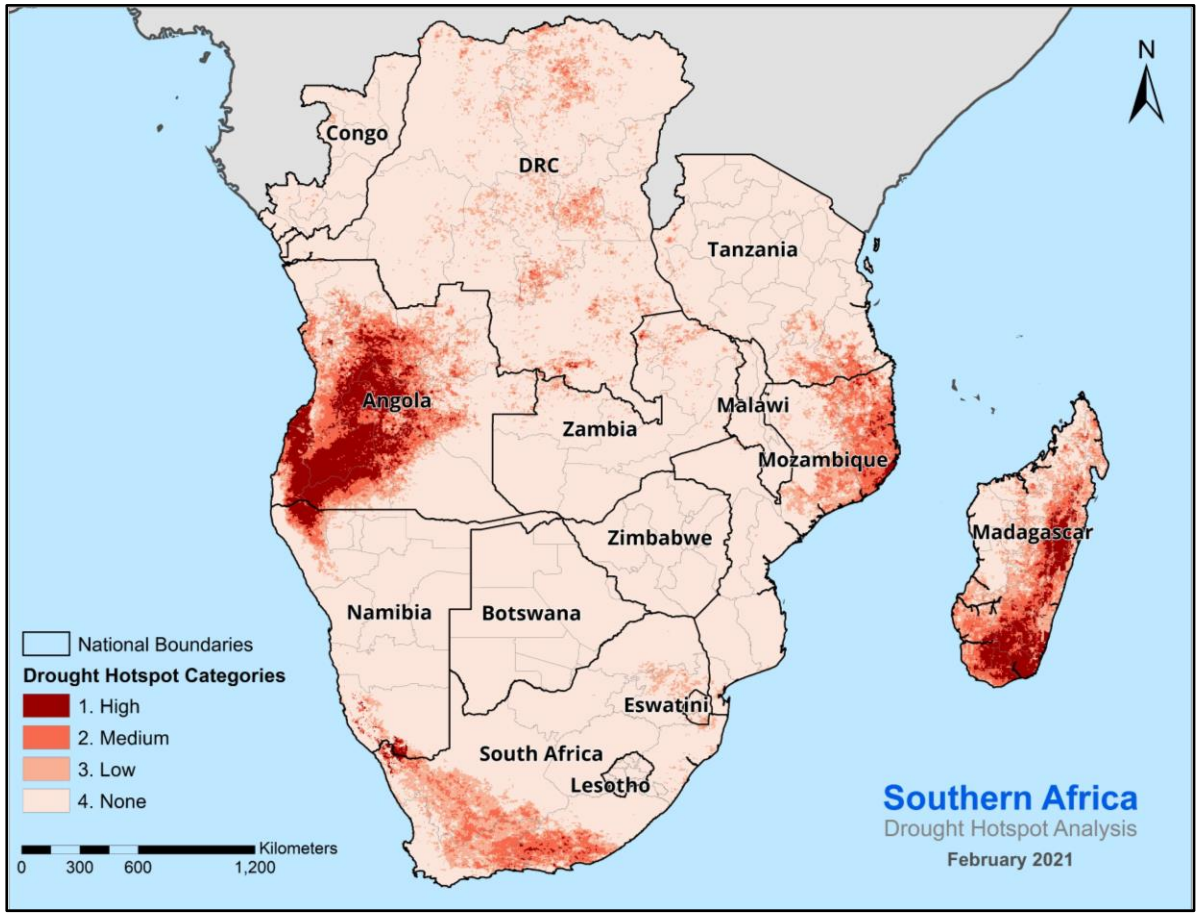


Southern Africa: rSAVA Drought Hotspot 2020-2022

2021/2022



2020/2021



Population Affected by Drought Conditions in the Region

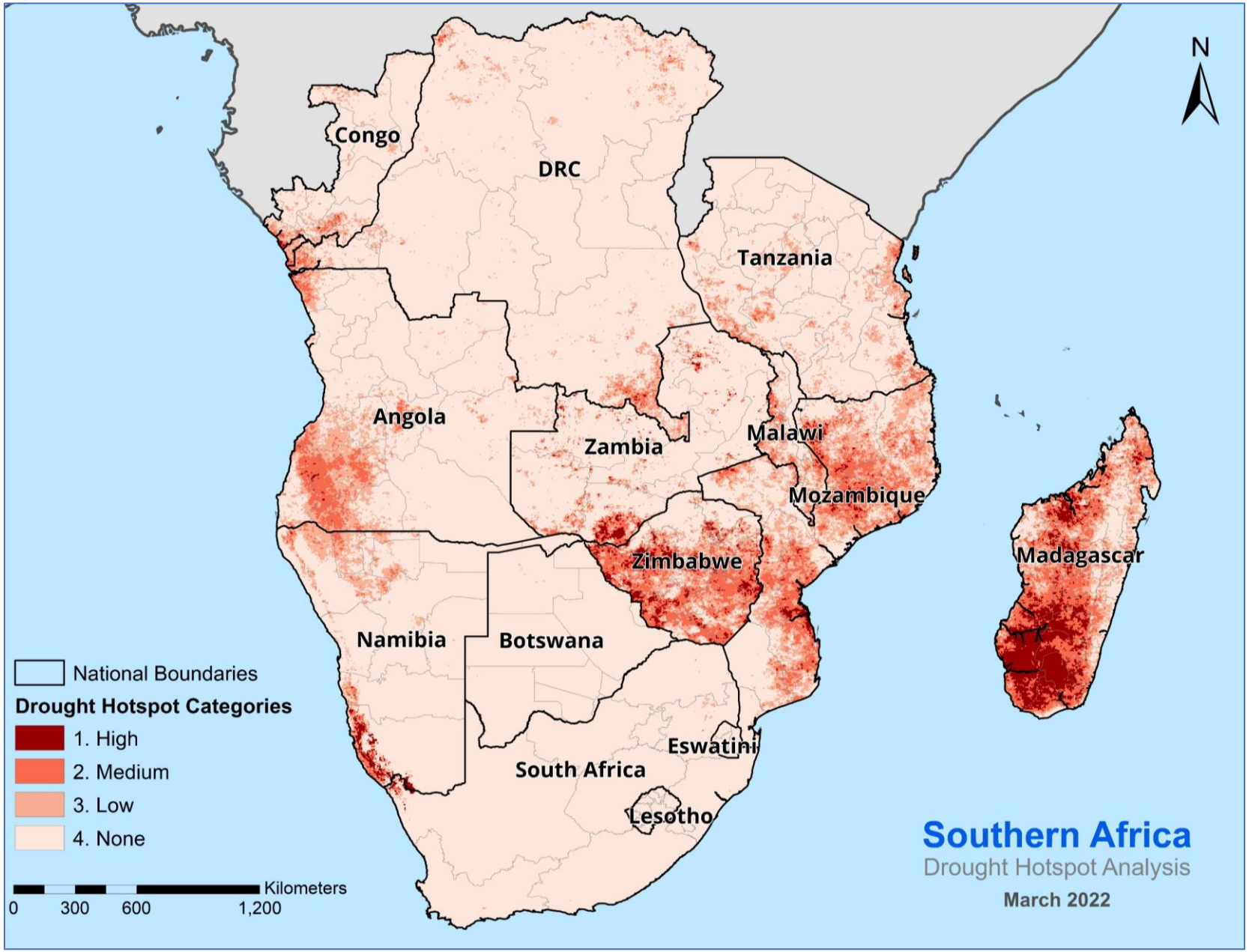
Country	2021/2022	2020/2021	2019/2020
Angola	4,238,200	3,764,700	1,051,800
Botswana*	-	-	116,300
Congo	-	-	-
DRC	-	-	-
Eswatini	200	41,200	147,400
Lesotho	-	-	323,100
Madagascar**	2,938,700	6,134,700	7,221,200
Malawi	1,714,000	66,900	178,200
Mozambique	5,231,200	1,312,400	5,520,100
Namibia	139,900	782,300	317,600
South Africa*	7,600	415,200	8,282,300
Tanzania	2,817,500	917,600	3,600
Zambia	841,500	558,900	3,443,800
Zimbabwe	3,317,800	-	4,147,600
Total	**21,190,300**	**13,993,900**	**30,753,000**

MPI: Multidimensional Poverty Index composed of three dimensions (health, education and living standards) and ten indicators

*National Poverty Line (NPL) used for South Africa and Botswana.

** 2021/22 drought affected numbers for *Grand Sud* only.

Regional Drought Map - 2021/22



Population Exposed Drought Conditions in the Region (2021/22)

Country	Exposed to Drought	Drought Affected (Total Exposed x MPI)
Angola	7,474,700	4,238,200
Botswana	-	-
Congo	-	-
DRC	-	-
Eswatini	1,000	200
Lesotho	-	-
Madagascar	17,586,000	2,938,700
Malawi	9,055,300	1,657,700
Mozambique	7,612,430	5,231,200
Namibia	367,800	139,900
South Africa	29,800	7,600
Tanzania	6,275,900	2,817,500
Zambia	1,745,200	841,500
Zimbabwe	8,930,200	3,317,800
Total	**59,078,330**	**21,190,300**

59 Million

People exposed to drought

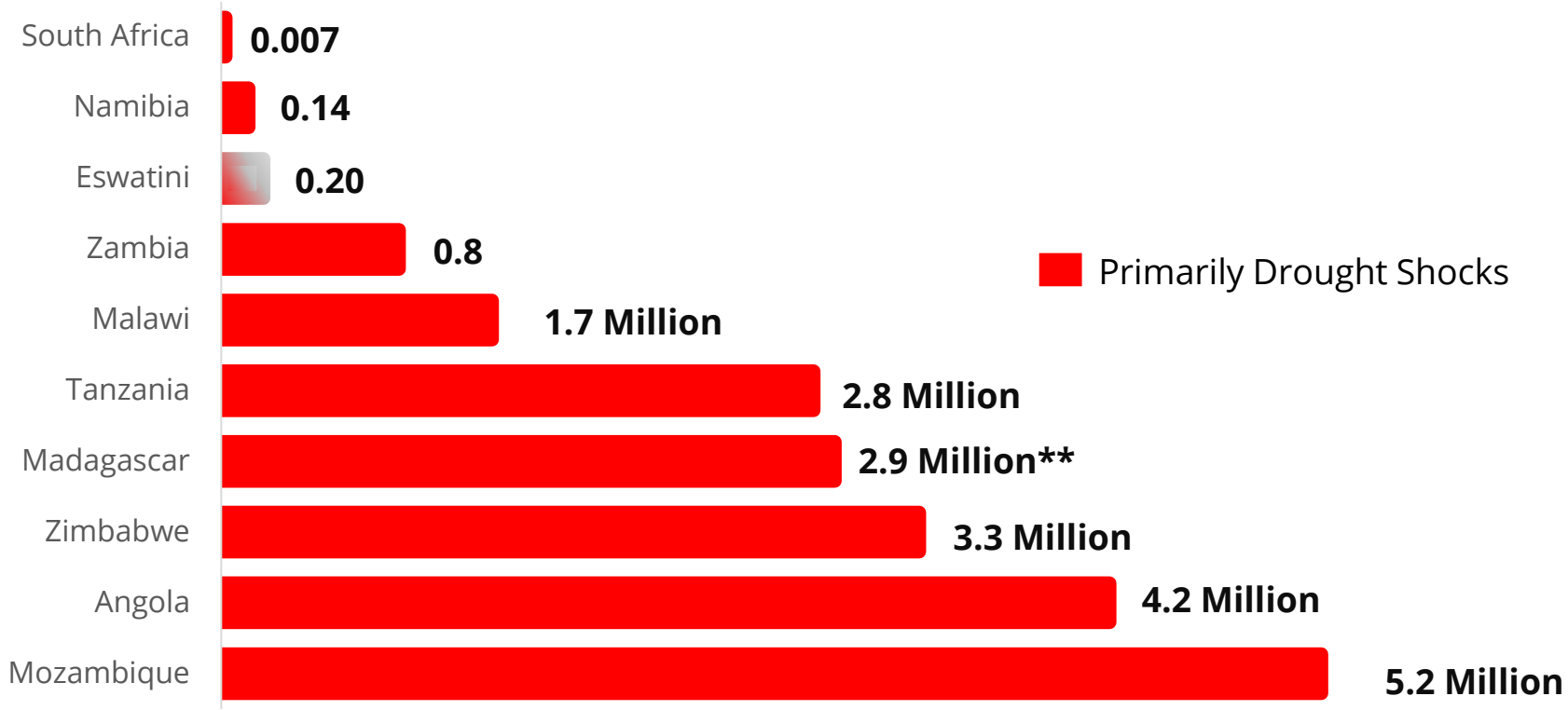
21 Million

People affected by drought

MPI = Multidimensional Poverty Index composed of three dimensions (health, education and living standards) and ten indicators

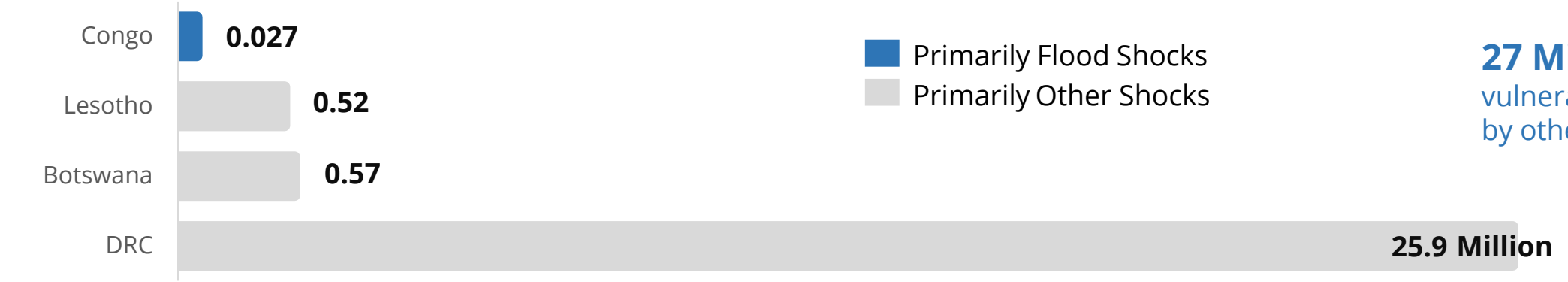
* National Poverty Line (NPL) used for South Africa

Vulnerable Population (in millions)



42 – 48.5 Million
people projected to be vulnerable at the peak of the lean season in the region.

21 Million
vulnerable people affected by drought



27 Million
vulnerable People affected by other shock

* Other being Cereal adequacy calculations excluding DRC and Congo. DRC estimate are IPC published numbers.
** Grand Sud figures reported for Madagascar

Next Steps

- **Develop and improve flood models and analysis.**
- **Develop drought hotspot trend analysis.**
- **Automation of analytical processes to improve turnaround time.**
- **Assess the inter-seasonal effects of drought to vulnerable.**