digiSoft CIS Based DSTs

Socioeconomic Benefits from Climate Forecasts for Action

BY Digitron Software

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Probability of Maize Yield Exceedance Curves for Synthetic (Aug 2021) Vs Near real-time (Nov 2021) data based of SARCOF 25 Statement issued in August 2021 for Chinhoyi, Zimbabwe

Validation Workshop on:

Analysing and Validating Crop Capability Prediction Model for Malawi, Mozambique and Zimbabwe

LILONGWE, Malawi

24 – 26 November 2021

Probability of Maize Yield Exceedance Curves for Synthetic (Aug 2021) Vs Near real-time (Nov 2021) data based of SARCOF 25 Statement issued in August 2021 for Chinhoyi, Zimbabwe

Twenty-fifth Southern African Regional Outlook Forum (SARCOF-25) Statement projects above normal (AN) rainfall category for Planting Horizon, November 2021 to January 2022 for Chinhoyi, Zimbabwe.

- Can use the rainfall projected for the planting horizon as input into the CAMDT model to generate the probability of yield exceedance curves of crop cultivars

- This is done first week of November, giving three months lead for crop capability prediction.

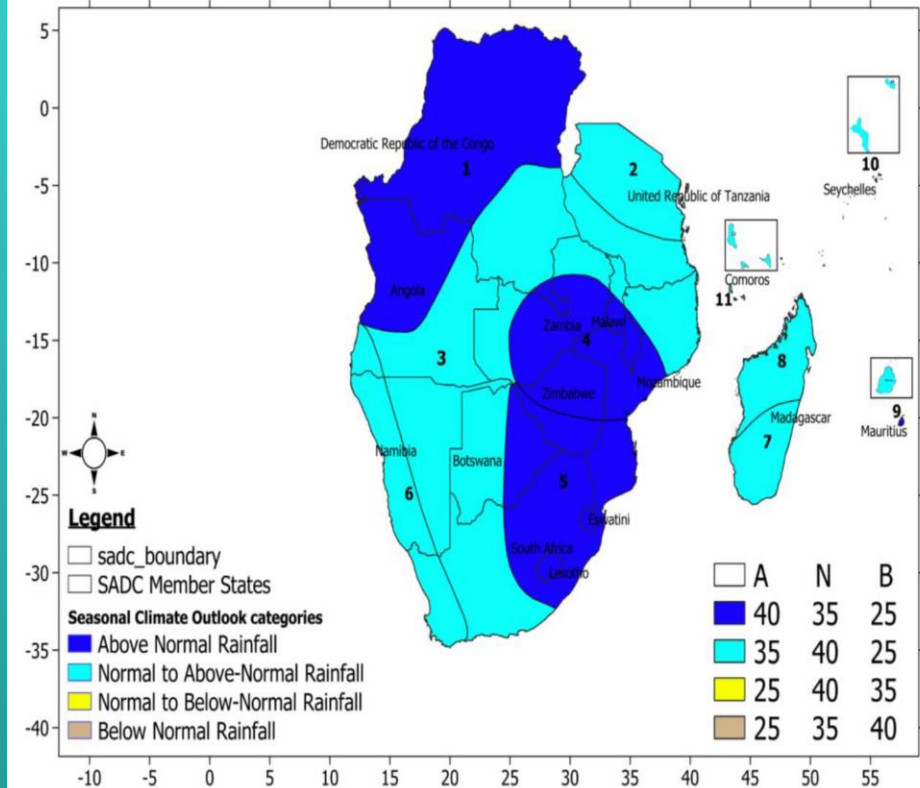- However, we can develop additional schemes for the model to extend the lead time further.

SARCOF-25 Forecast for 21/22 Rainfall Season
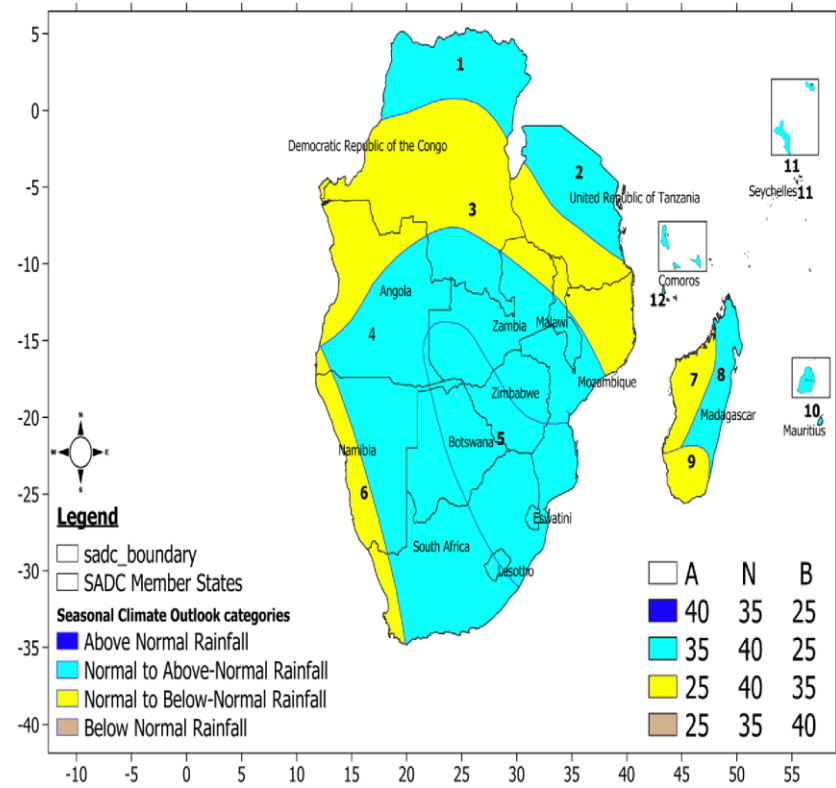
Oct-Nov-Dec (2021)   Nov-Dec-Jan (2021/22)

SARCOF-25 Forecast for 21/22 Rainfall Season
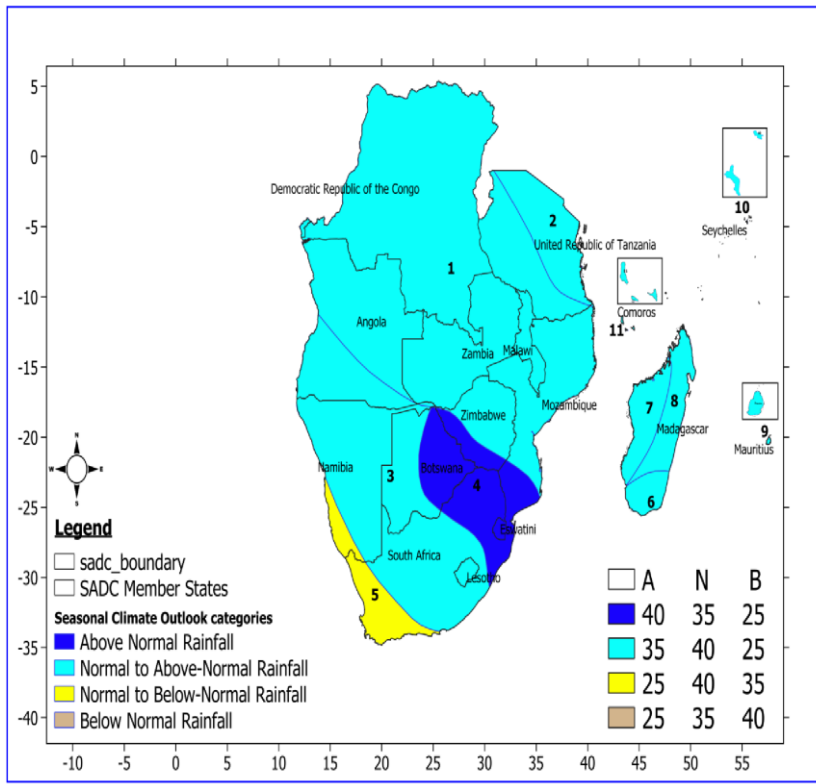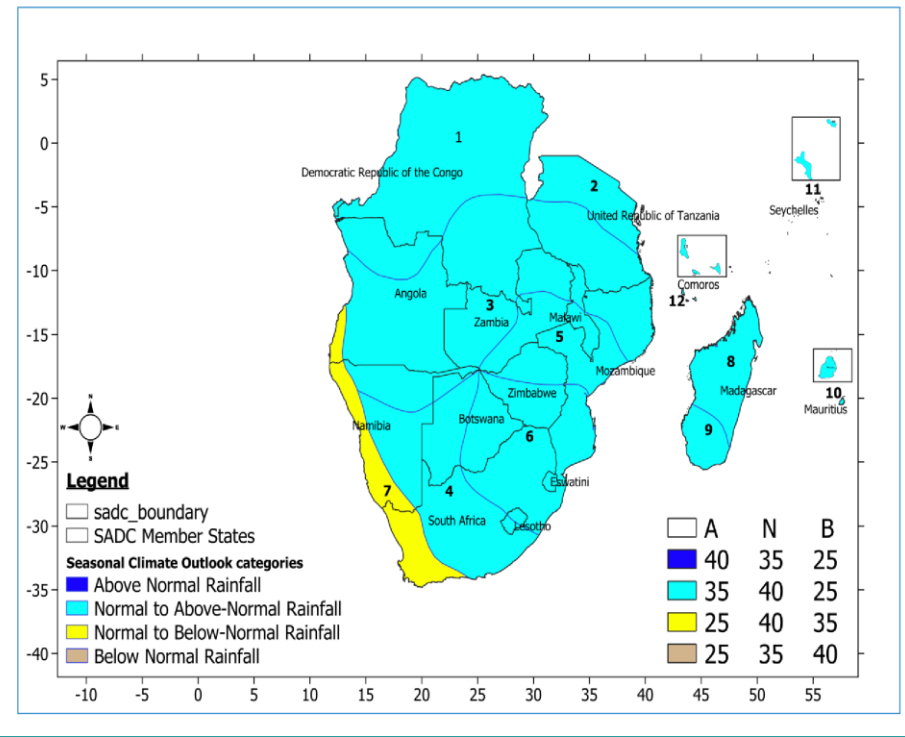
Dec-Jan-Feb (2021/22)

Jan-Feb-Mar (2022)

Part synthesized vs NASA data for Sept & Oct 2021

2021244	22.3	30.5	14.0	0.0
2021245	19.5	28.9	14.4	0.1
2021246	13.7	30.7	14.2	0.0
2021247	20.5	30.0	14.8	0.0
2021248	21.3	30.5	14.9	0.0
2021249	23.0	30.4	14.3	0.0
2021250	23.2	31.2	14.4	0.0
2021251	23.2	30.3	13.9	0.0
2021252	23.0	30.9	13.3	0.0
2021253	18.4	28.1	13.8	0.3
2021254	23.8	27.1	9.8	0.0
2021255	21.5	28.0	10.9	0.0
2021256	21.5	29.3	14.3	0.0
2021257	23.5	32.7	15.6	0.0
2021258	23.7	34.3	16.7	0.0
2021259	24.0	35.0	17.6	0.0
2021260	23.1	35.1	18.0	0.0
2021261	16.9	29.9	15.9	0.0
2021262	23.6	30.7	12.6	0.0
2021263	24.6	33.7	12.4	0.0
2021264	24.6	35.7	13.8	0.0
2021265	24.3	31.5	13.7	0.0
2021266	21.2	30.3	14.1	0.0

ZW-CHIN_SORGUM 2021/2022 ABOVE NORMAL with SYTHESISED DATA

2021244	22.1	31.4	12.7	0.0
2021245	21.4	31.5	13.1	0.0
2021246	22.4	32.3	13.9	0.1
2021247	22.3	32.6	13.8	0.0
2021248	22.7	32.8	14.6	0.0
2021249	22.3	32.8	14.4	0.0
2021250	22.1	33.0	14.7	0.0
2021251	21.6	32.2	14.8	0.0
2021252	21.4	32.5	15.4	0.1
2021253	22.1	33.0	15.4	0.0
2021254	22.4	33.2	15.2	0.0
2021255	23.2	32.4	14.8	0.0
2021256	22.7	32.3	14.6	0.1
2021257	23.7	32.2	14.3	0.1
2021258	23.0	32.0	13.8	0.0
2021259	22.9	32.2	14.5	0.0
2021260	22.3	32.8	15.1	0.1
2021261	22.8	32.7	15.3	0.2
2021262	22.9	33.2	15.3	0.2
2021263	22.8	32.9	15.5	0.4
2021264	22.9	32.6	15.2	0.2
2021265	22.8	32.7	15.3	0.1
2021266	23.2	33.2	15.8	0.1

ZW-CHIN_SORGUM 2021/2022 ABOVE NORMAL with NASA DATA

Probability of maize yield exceedance curves for Chinhoyi from SARCOF-25 Statement for 2021/22 rainfall season
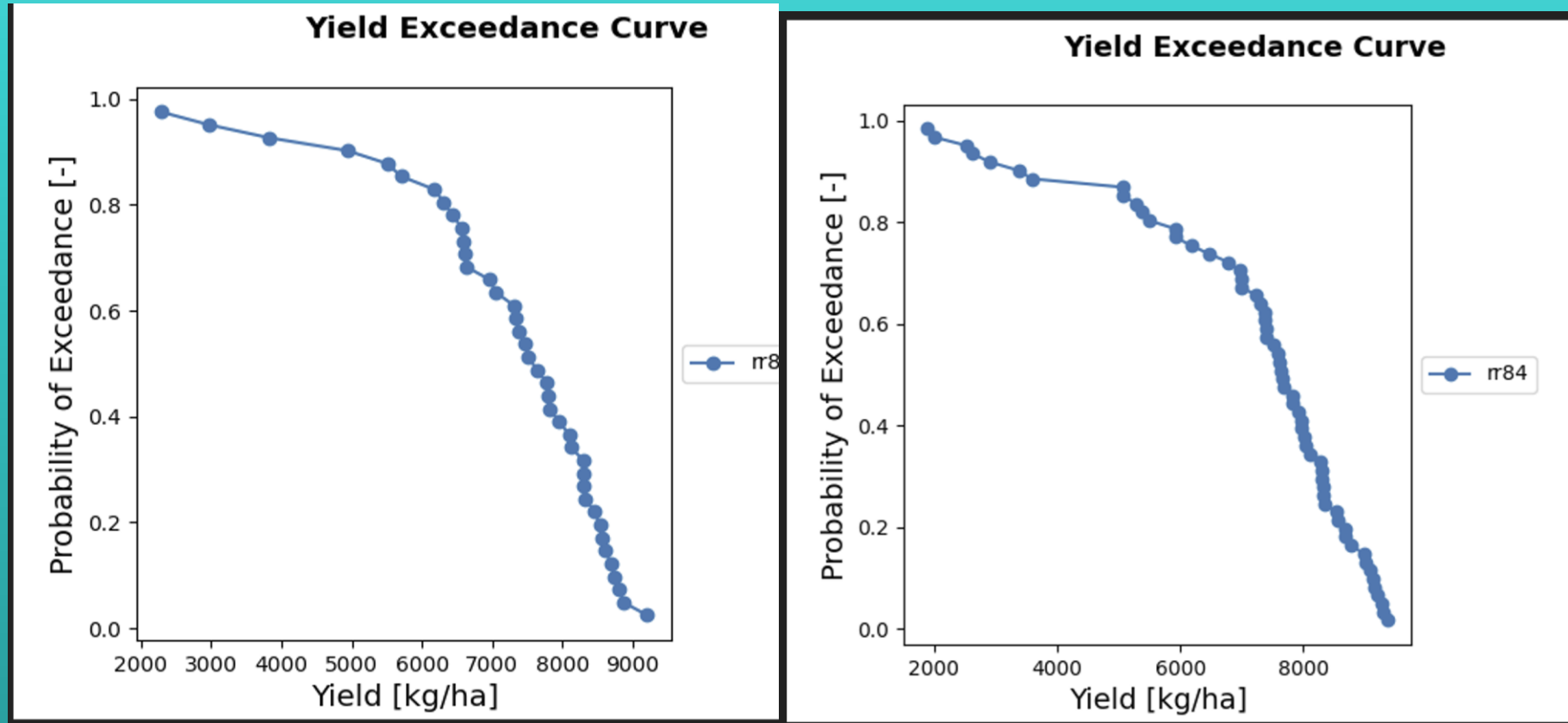
The probability of maize yield exceedance curves Right Panel (needs further development gives five (5) month lead can be issued in Sept) the Left Panel is current which gives three (3) months lead to be issued in November)

Advisory!

Further work!

There is need for additional development of schemes to take full advantage of the seasonal climate forecast from RCOF issued can provide a much longer lead time of five months of crop yield prediction.

- Currently crop yield prediction from CAMDT gives a three month lead time after planting. Further work on the model can stretch the lead time to five months:

- The extended lead time is significant in that it provide decision on what inputs to procure even before the agricultural season commences.

- This will increase further Socioeconomic Benefits of Climate Information Services.

- The work can be scaled up across other countries on the African Continent.

Thank You; Merci; Obrigado; Zikomo; Siyabonga; Tatenda

11/24/2021

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