CLIMATE CHANGE

- **Temperature**

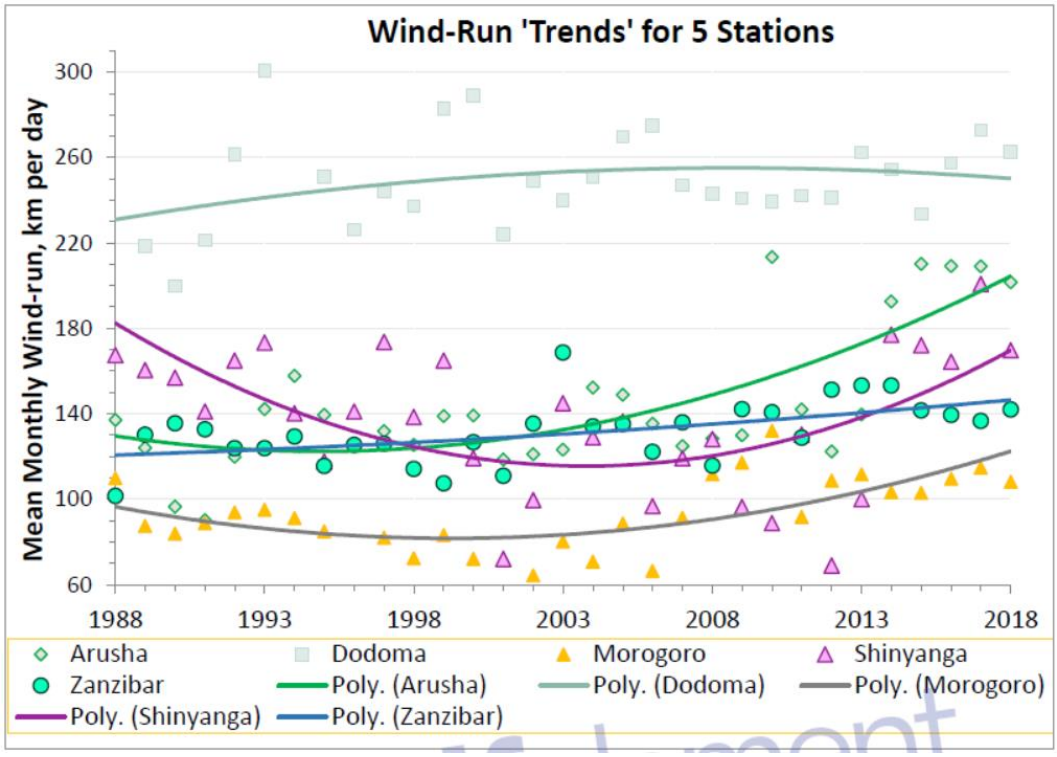
  More warming is projected over the Western side of the country, whereby a warming of up to 3.4ºC is projected by 2100. A warming of less than 1.76^0C for 2050 and 3.28^0C for 2100 is projected over parts of the northern coast regions and north-eastern highlands. A warming in excess of 1.77^0C for 2050 and 3.3^0C for 2100 is projected over the Lake Victoria zone. A warming in excess of 1.39^0C for 2050 is projected in central Tanzania zone. And a warming of 3.18^0C for 2100 is projected for the southern coast including Mtwara and Lindi regions (UNIQUE, 2020).

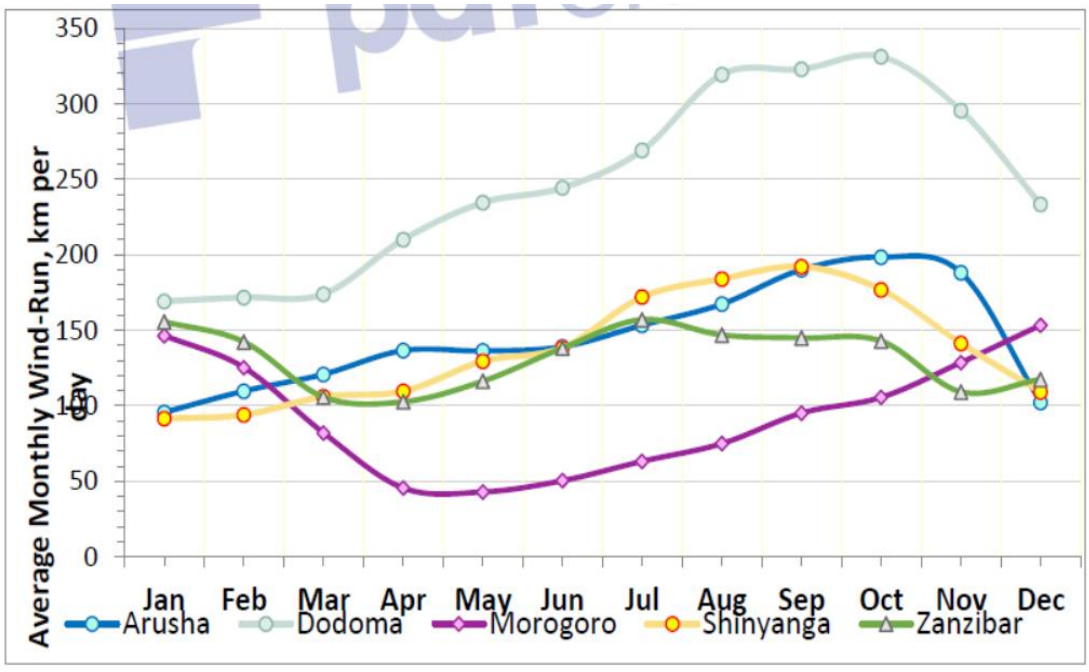
- **Precipitation**

  Rainfall projections indicate that some parts of the country may experience an increase in mean annual rainfall of up to 18-28% by 2100, particularly over the Lake Victoria Basin and North-Eastern Highland. The South Western Highlands and Western Zones of the country are projected to experience an increase in annual rainfall by up to 9.9% in 2050 and by up to 17.7% in 2100. The North Coast Zone is projected to have an increase of about 1.8% in 2050 and 5.8% in 2100 while the Central Zone is projected to have an increase of up to 9.9% in 2050 and up to 18.4% in 2100. The Southern Coast Zone is projected to have a decrease of up to 7% in 2050 and an increase of annual rainfall of about 9.5% in 2100.

- **Evapotranspiration**

  Beyond a generalized tendency for warmer conditions to generate stronger winds, the current state of research is inadequate to quantify forward projections of wind. Here we suggest a ‘guesstimate’ of 5% increased wind-run by 2050, and a 10% increase by 2090, for all stations except Zanzibar.


Wind-Run 'Trends' for 5 Stations
Mean Monthly Wind-run, km per day
300
260
220
180
140
100
60
1988
1993
1998
2003
2008
2013
2018
Arusha
Dodoma
Morogoro
Shinyanga
Zanzibar
Poly. (Arusha)
Poly. (Dodoma)
Poly. (Morogoro)
Poly. (Shinyanga)
Poly. (Zanzibar)


Average Monthly Wind-Run, km per day
350
300
250
200
150
100
50
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Arusha
Dodoma
Morogoro
Shinyanga
Zanzibar