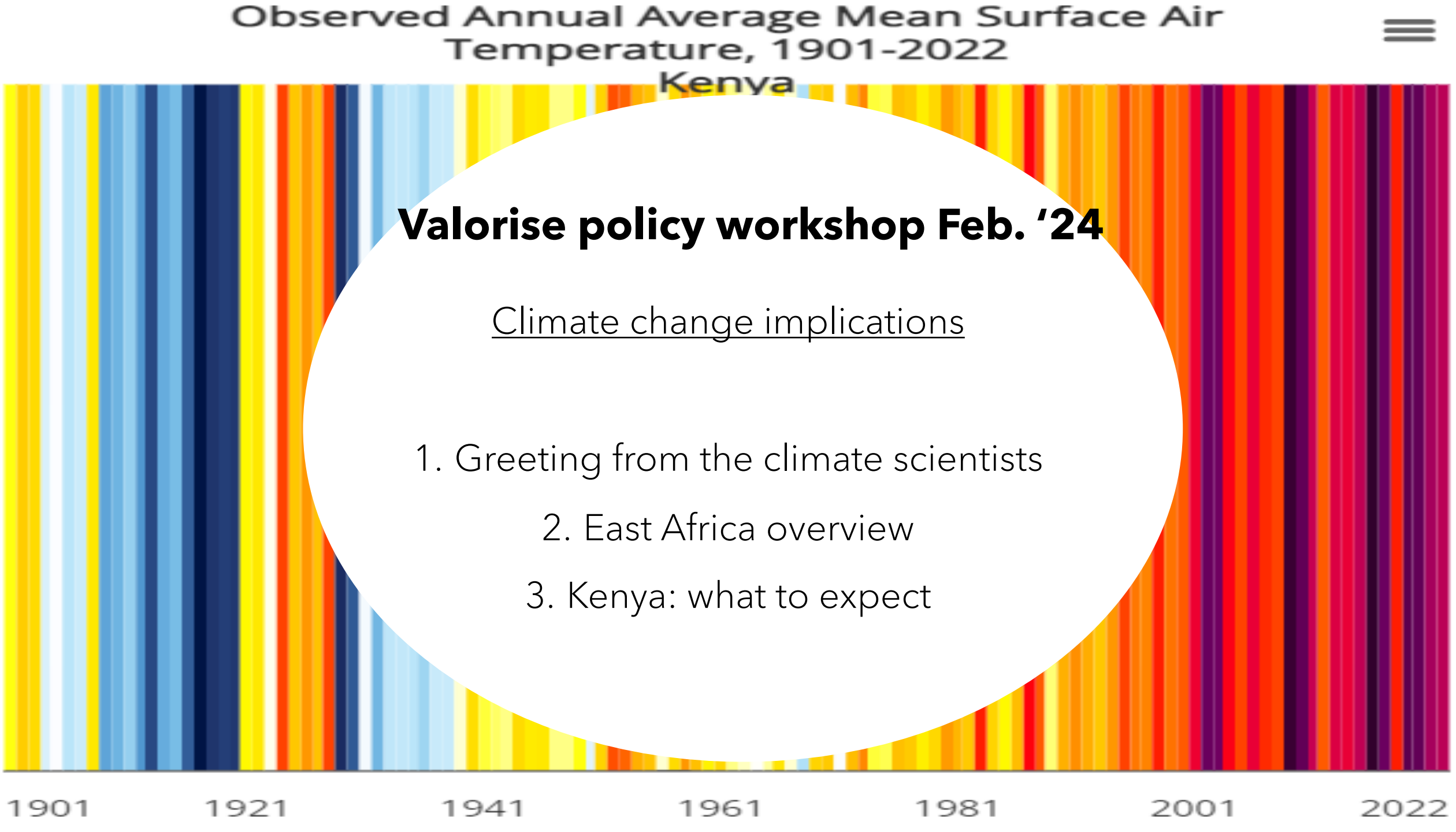


Valorise policy workshop Feb. ‘24

Climate change implications

1. Greeting from the climate scientists
2. East Africa overview
3. Kenya: what to expect

Greeting from the climate scientists

"It's bad. It's getting worse. It's getting worse faster than we thought"

- Observations exceed models
- Several tipping points likely with current warming (1.2 °C) (now: ~1.5 °C)
- No serious political progress, emissions rise with no end in sight

Climate change in East Africa

Africa suffers disproportionately from climate change

- Many people at subsistence level – many more on the way
- 'Fragile states' with lower adaptive capacity
- Higher risk of conflict
- So far, avg. rate of warming higher than global avg., sea level rise by WIO slightly higher than avg.

Willingness of donors to aid will be affected by global CC impacts

Always remember that climate change leads to social disruption

Sources: USAID (2018) - Climate Risk Profile Kenya; World Bank Group (2021) - Climate risk country profile Kenya

Kenya and CC: effect on production and livelihood

Kenya is recognized as highly vulnerable to climate change impacts, ranked 152 out of 181 countries:

+ Freshwater scarcity & Extreme weather events (floods, 'hot days')

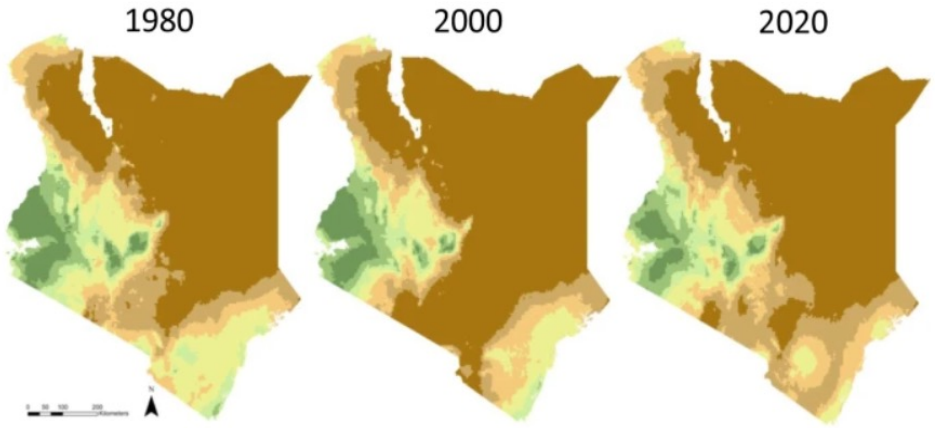
The livestock subsector is expected to suffer significant losses due to heat stress from the projected increase in temperatures.

ASALs are particularly vulnerable: ~85% of area, 38% of population, 70% of livestock.

Average crop yields are projected to increase, due to concentration of crop production in regions where climate change may have positive effects.

Sources: World Bank Group (2021) - Climate risk country profile Kenya; USAID (2018) - Climate Risk Profile Kenya; From Climate Risk to Resilience. Unpacking the Economic Impacts of Climate Change in Kenya.

What does this mean for Kenya's dairy sector



Precipitation Zones	Average Precipitation (mm)	Climate Region Designation	1980 (km²)	2000 (km²)	2020 (km²)	Change (1980-2020)	% Change (1980-2020)
1	>103	Humid	26,654	23,029	12,285	-14,368	**-54%**
2	80-103	Sub-humid	25,034	23,757	25,640	606	**2%**
3	65-80	Semi-humid	28,941	20,190	24,537	-4,404	**-15%**
4	48-65	Semi-humid to Semi-arid	78,493	53,342	46,968	-31,525	**-40%**
5	36-48	Semi-arid	49,894	52,885	65,509	15,615	**31%**
6	25-36	Sub-arid	70,832	56,230	101,497	30,665	**43%**
7	<25	Arid	293,966	344,378	297,376	3,410	**1%**

Shifting climate zones and expanding tropical and arid climate regions across Kenya (1980–2020)

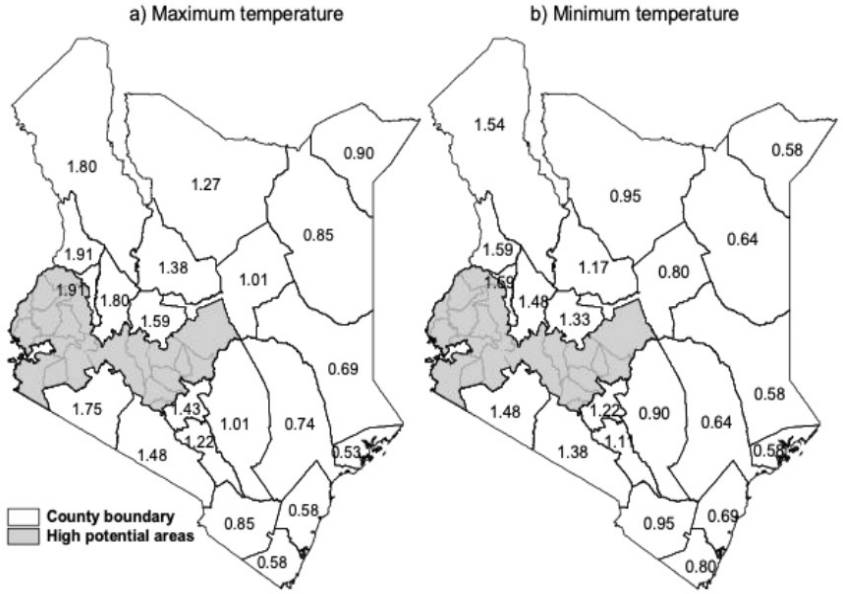
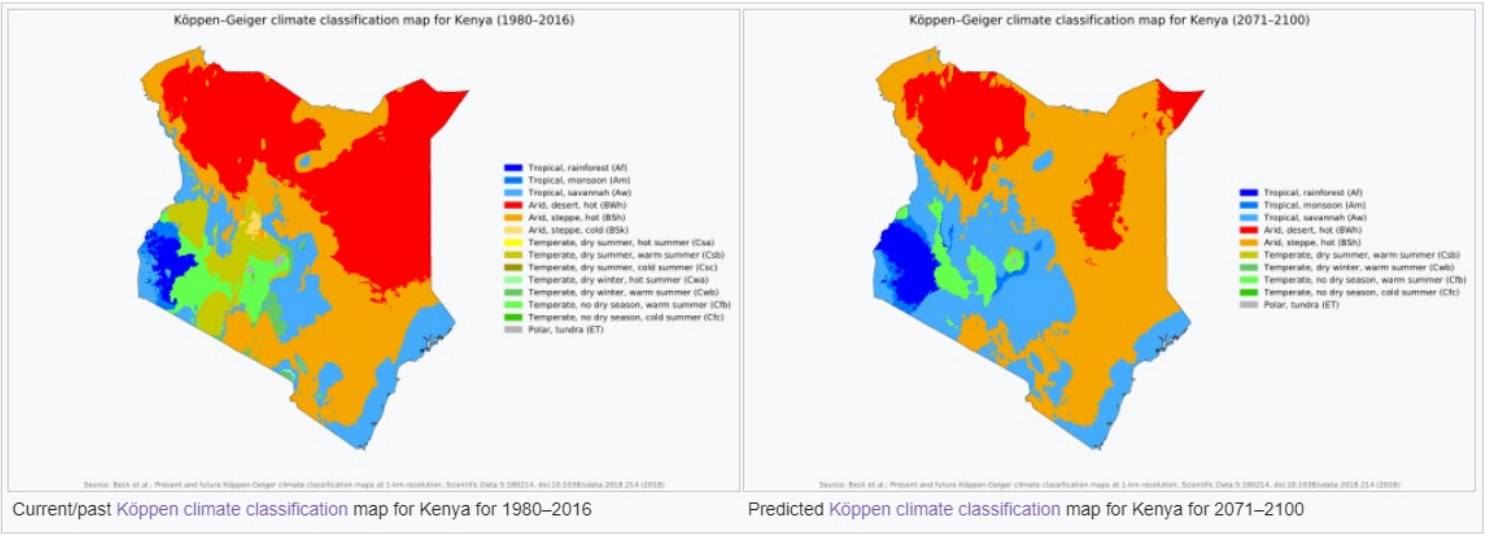


Figure 2: Temperature changes in Kenya ASAL counties from 1960–2014

Contextualising Pathways to Resilience in Kenyas ASALs under the Big Four Agenda



Current/past Köppen climate classification map for Kenya for 1980–2016

Predicted Köppen climate classification map for Kenya for 2071–2100

https://en.wikipedia.org/wiki/Climate_change_in_Kenya