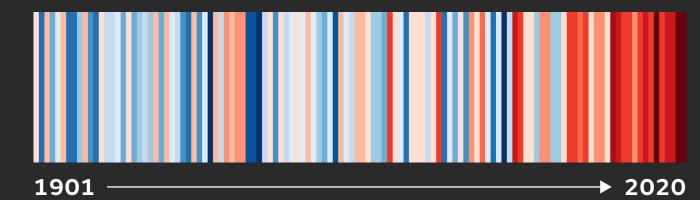


## **Ukraine Climate Headlines**

Ukraine is already experiencing a changing climate. Ukraine and the rest of Europe experienced the hottest year on record in 2020, and each of the last 20 years in Ukraine were warmer than the long-term average<sup>1</sup>. Since 2010 Ukraine has experienced a range of climate-related impacts such as severe drought, extensive flooding, and devastating fires, resulting in loss of life and livelihoods, and negatively impacting GDP<sup>2</sup>.

# Climate stripes for Ukraine

Ukraine and the surrounding region have warmed by almost 1.5 °C over the last 30 years. The below climate stripes<sup>3</sup> show how warming is becoming increasingly evident.



https://showyourstripes.info/

1. WMO. State of the Global Climate 2020.

https://library.wmo.int/index.php?lvl=notice\_display&id=21880#.YJfRi3VKiHt (2021)

2. World Bank. Climate Change Knowledge Portal: Ukraine.

https://climateknowledgeportal.worldbank.org/country/ukraine (2021)

3. Climate Stripes. Graphics and lead scientist: Ed Hawkins, Data: Berkeley Earth, NOAA, UK Met Office, MeteoSwiss, DWD, SMHI, UoR, Meteo France & ZAMG

Temperature



Annual mean temperatures are projected to increase by 1.2°C to 3.0°C by mid-21st century and by 1.6°C to 3.5°C by late-21st century under a **moderate** greenhouse gas concentration scenario (RCP4.5), compared to the late-20th century.

Annual mean temperatures are projected to increase by 1.7°C to 4.1°C by mid-21st century and by 3.4°C to 6.2°C by late-21st century under a **high** greenhouse gas concentration scenario (RCP8.5), compared to the late-20th century.





There is potential for large decreases in summer rainfall, especially for southern and south-eastern Ukraine, by the late-21st century. There is potential for an increase in winter rainfall, especially across northern Ukraine.



#### Snow

Despite increasing winter precipitation, projections show potential for decreased snow cover extent and snow pack and reduced runoff from less available water during the Spring melting season in western mountainous regions in a warmer climate.



## Extreme temperature

The number and severity of heatwaves have increased in Ukraine in recent decades and are projected to further increase in the future. In a 4°C warmer world, heatwaves which previously occurred once-in-50 years may occur nearly every year.



### Extreme rainfall

The frequency and intensity of very heavy rainfall events is projected to increase by 10% to 25% by the late-21st century.