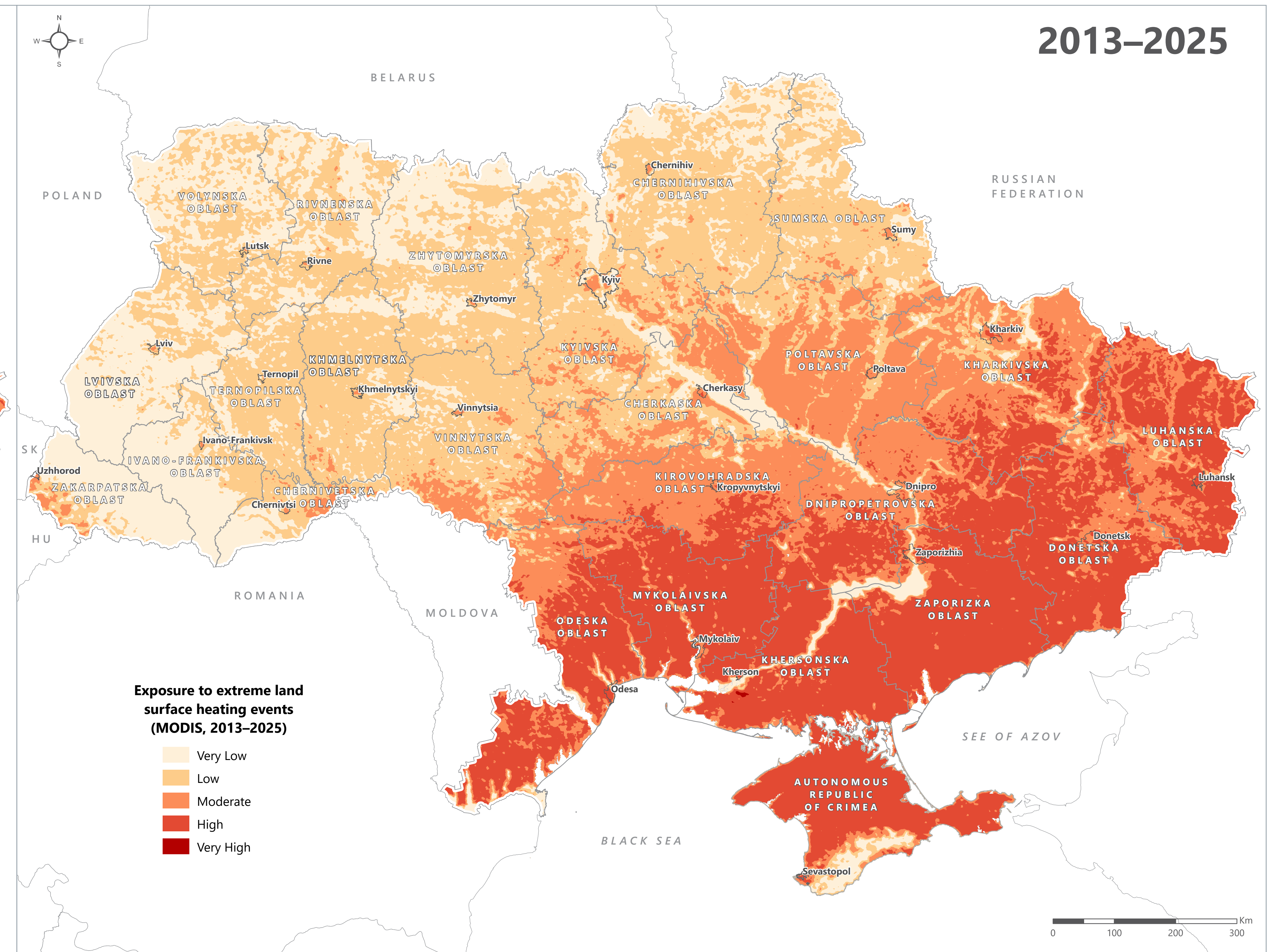
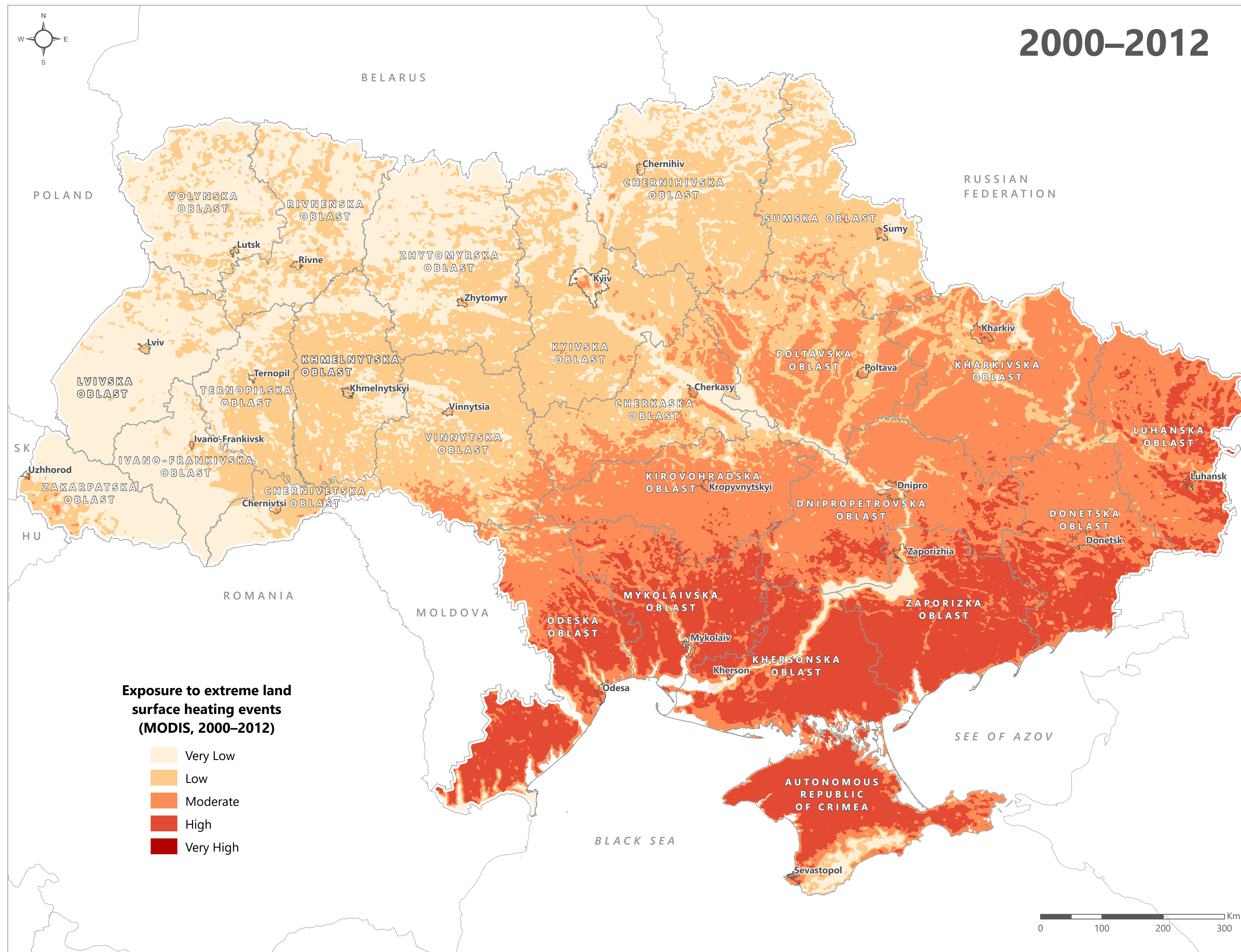


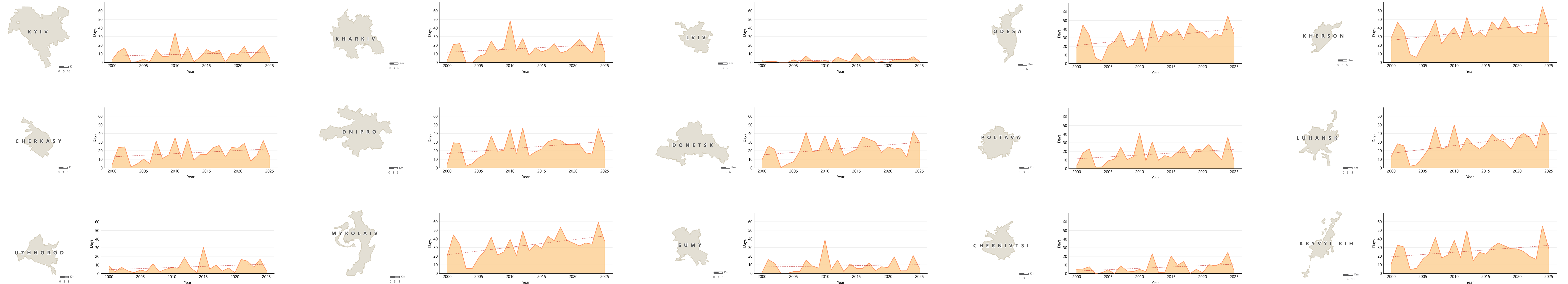
# Ukraine

## Extreme summer temperature (2000–2025)

For Humanitarian Purposes Only  
Production date : 19 March 2026



## Hot days per year requiring air conditioning (T > 25°C, 2000–2025)



Maps highlight areas where populations may be more exposed to extreme surface heat conditions. When frequent land surface heating coincides with high population density, particularly in urban areas, heat-related health risks increase and electricity demand for cooling is likely to rise (see graphs). A comparison between 2000–2012 and 2013–2025 indicates a clear increase and spatial expansion of areas with high and very high exposure, particularly from southern and eastern oblasts toward central regions. Southern and eastern Ukraine consistently experience the highest frequency of extreme land surface heating, while central oblasts show a noticeable intensification in the later period. The map can support the prioritization of heat risk mitigation measures, including cooling centers, urban greening, and targeted preparedness actions in areas where exposure has increased over time. Methodology: The percentage of days with land surface temperature (LST) when the daily maximum temperature exceeds 30 °C is calculated using Google Earth Engine (GEE), MODIS dataset. High values indicate areas where the surface frequently experiences intense daytime heating, rather than the frequency of atmospheric heatwaves. The data for the graphs were calculated in GEE using ERA5 data (2 m temperature dataset) and show how many days per year have temperatures above 25 °C in cities of Ukraine. The calculated number of days may be underestimated or imprecise. Local temperature peaks, especially in urban areas or small regions, may not be fully captured. Additionally, uncertainties arise from the reanalysis model and data assimilation.

Data sources:  
LST: MODIS (2000–2025, GEE code); Days per year requiring air conditioning: ERA5 (2000–2025, GEE code); Administrative boundary: OCHA.

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere  
Contact: mapping.ukraine@impact-initiatives.org

Note:  
Data, designations and boundaries contained on this map are not warranted to be error-free and do not imply acceptance by REACH partners, associates or donors mentioned on this map.

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