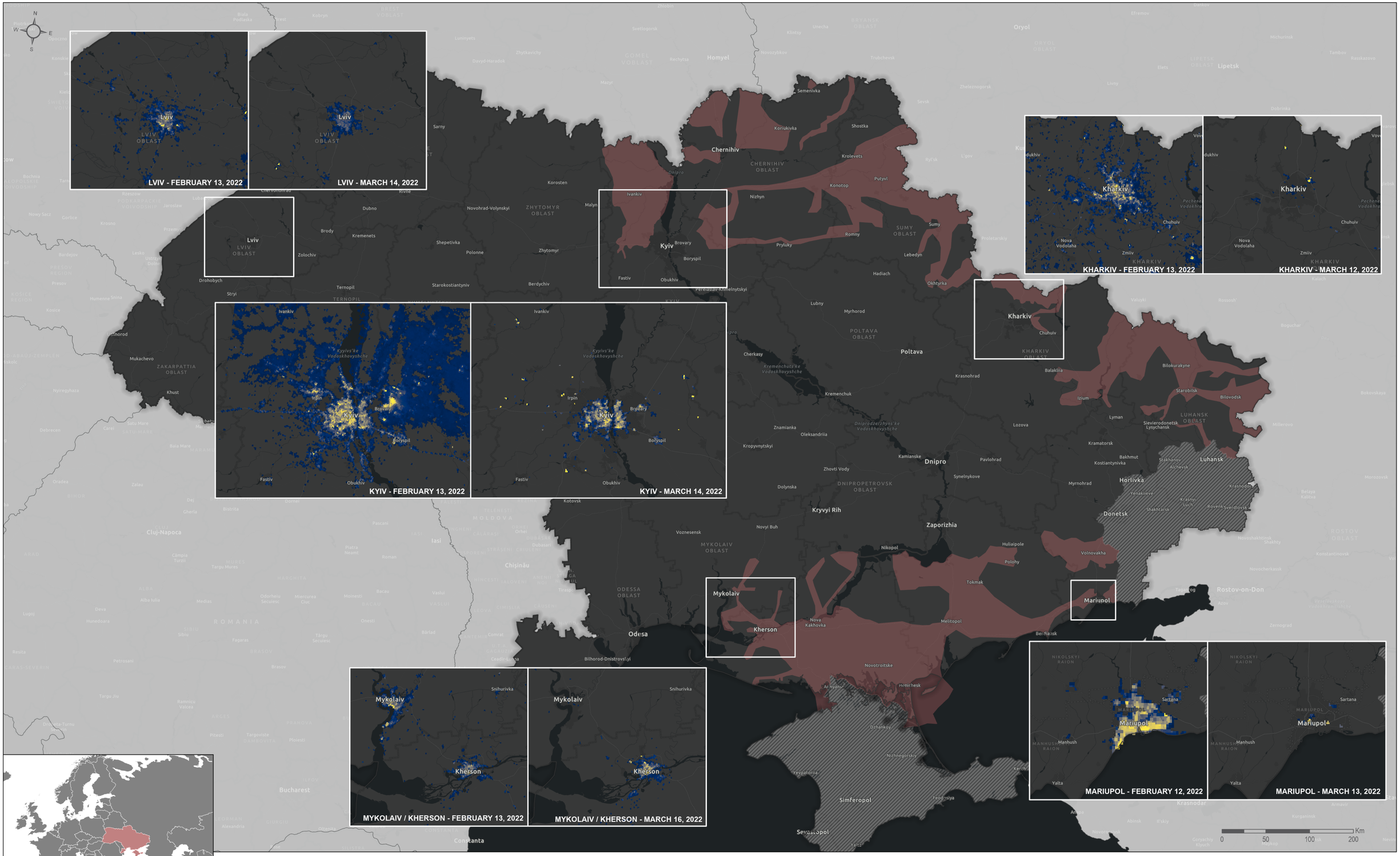
Ukraine

Night-time Lights Pre and Post Conflict Escalation - February vs. March 2022

For Humanitarian Use Only
Production date : 17 March 2022



Legend

Light Intensity

High

Low

Conflict Area as of 16 March (liveuamap.com)

Night-time luminosity analysis has been conducted to better understand the impact of hostilities on densely populated urban areas in Ukraine. Nighttime luminosity, a measure of surface radiance captured by the Visible Infrared Imaging Radiometer Suite (VIIRS), is frequently used as a proxy of changing conditions in settlements and countries.

The maps on this page summarise the analysis undertaken on luminosity emanating from affected cities and their surroundings before and after the escalation.
The analysis shows a decline in lighting intensity between mid-February and mid-March. Such decline in night-light may be caused by:
- Damage, close-down or decreased activity of urban infrastructure, including airports and construction sites,
- Damage of public infrastructure,
- Change in human activity connected to the norms established through martial law or curfew regime,
- Change in human activity connected to the ongoing evacuations and relocation of residents to other parts of the country or neighboring countries.

Data sources:
Detected Light - VNP46A1 - VIIRS/NPP Daily Gridded Day Night Band 500m
https://ladsweb.modaps.eosdis.nasa.gov/missions-and-measurements/products/VNP46A1/
Conflict Escalation - liveuamap.com as of 16 March 2022
Administrative Boundaries - OCHA
Basemap - ESRI

Contact: reach.mapping@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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