



Urban Heat Island Effect - Brussels, July 31st, 2018

Clockwise from top-left:

- (i) satellite imagery of the study area from Landsat 8;
- (ii) land cover raster generated by a maximum likelihood image classification;
- (iii) land surface temperature raster of the study area.

Combining information from maps (ii) and (iii) in a Zonal Statistics as Table tool, we were able to determine average temperatures for the following land use categories:

- urban areas 28.9°C
- agriculture areas 26.8°C
- vegetation areas (forest, parks) 23.6°C

Which indeed suggests that a significant urban heat island effect was affecting Brussels that day. The results of this analysis have important implications for health experts, economists and urban planners.

Credits

Satellite data: USGS LandSat 8

Data processing: geogeek.xyz/how-to-calculate-land-surface-temperature-with-landsat-8-images.html