

# GREEN WELLBEING INDICATORS IN POLAND

## What it is about

Copernicus Sentinel data is being used by Statistics Poland (GUS) to improve the quality of its national and local data and to better monitor green areas and wellbeing indicators. Urban green spaces are important for the quality of life and health, but policies affecting them are often characterised by inconsistent evidence. By integrating traditional data with satellite imagery, GUS can provide comprehensive information on citizens' wellbeing—including the state of green spaces—with

the goal of increasing transparency and ultimately improving public wellbeing. This integration also helps local authorities address data inconsistencies and errors. Using Sentinel-2, the Polish Research Institute of Geodesy and Cartography (IGiK), in collaboration with GUS, has developed a methodology to create new wellness-related environmental quality indicators, contributing to more informed policymaking.



## What we found

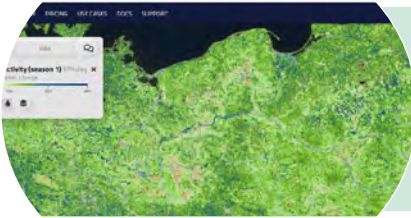
- There are significant gaps and inconsistencies in the statistical data on urban green areas in Poland, due to human error, multiple sources, and untimely updates.
- In order to improve the methodologies and statistical accuracy, GUS participated as one of the pilots in ESA's [GAUSS project](#), which aimed to integrate traditional data with satellite imagery to develop the next generation of statistical data collection and analysis methods.
- IGiK specifically developed an [application](#) for GUS based on vegetation indexes derived from the Sentinel-2 mission to analyse the wellbeing condition of all green areas in Poland between 2017 and 2021.

## GREEN WELLBEING INDICATORS IN POLAND



### The Satellite Data

Copernicus Sentinel-2 provides free-of-charge frequent wide-swath, high-resolution multispectral imagery with 13 spectral bands over Poland.



### The Service Provider

The Polish Research Institute of Geodesy and Cartography (IGiK), established almost 80 years ago, operates according to the provisions of the scientific institutes and focuses mainly on remote sensing, spatial data, and GIS processing. IGiK is using Sentinel-2 data to assess the extent and condition of Polish vegetation statistics in urban areas, to develop two sets of indices and to make this information available to citizens.



### The Primary User

Statistics Poland (Główny Urząd Statystyczny, GUS in Polish) provides reliable, objective, and systematic information on the socio-economic situation of the country. It is entrusted with collecting, analysing, and disseminating statistics regarding the country's economy, population, and society, at both national and local levels. Thanks to the dedicated application developed with Sentinel data, current and historical statistics can be collected more quickly and efficiently.



### Secondary Beneficiaries

In this case, local administrations, governments, and ministries have benefited from better-quality data to help with the monitoring of public services and improve decision-making processes.



### End User Beneficiary

Citizens now have access to more trustworthy and homogenised data, which consists of comprehensive information on their country's vegetation and wellbeing indicators

## About the project

Through a series of case studies, EARSC aims to gather quantitative evidence that the usage of Copernicus Sentinel data provides an effective and convenient support to various market applications. These studies are undertaken in the frame of the project "Showcasing the benefits brought by

the usage of Sentinels data to society, Environment and economy: a bottom-up assessment based on traceable impacts along selected value chains", under an assignment from the European Space Agency (ESA) funded by the European Union as part of the Copernicus programme.

Download the full report from the project website



<http://earsc.org/sebs>

