

Abstract

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Title:

Experimental statistics: Use of satellite data for measure area and condition of green areas in Poland

Topic:

4. Mapping Sustainability and Support Environmental Risks Management

(oral presentation)

Keywords:

green areas, remote sensing, statistics, Poland

The aim of the presentation is to show the possibilities of using satellite data to monitor the area and condition of green areas. The first part of the presentation will present the assumptions and research methodology, and the second will show the obtained data and their comparison with data collected using previous methods.

Green areas play an important role in maintaining the sustainability in a local scale. Plants helps limits flash-flooding risks, minimise dustiness, noise and excessive sunlight. Maintaining high quality green areas is therefore one of the most important public services in the domain of environmental protection.

So far, Statistics Poland has obtained the data from municipal reports. In order to improve the quality of data and obtain additional information on the condition of green areas, work has been undertaken using satellite remote sensing techniques. The result of collaboration with the Institute of Geodesy and Cartography is the methodology using HR-VPP products by Copernicus (ESA). Information is delivered at 10x10 m spatial detail. These data are specifically dedicated to monitoring the extent and condition of vegetation, also in urban agglomerations. The final product is a Toolbox to obtain automatic statistics for all municipalities in Poland for a specific growing season. The values of the NDVI index are generated on the basis of Sentinel-2 data.