



Qualitative analysis of precipitation distribution in Poland with use of different data sources

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Geographical Information Systems can be used for integrating data from different sources (remotely sensed data, ground measurements) and in different formats (raster, vector, descriptive or tabular) to perform interesting spatial and temporal climatological analysis.

The main objective of the study is to compare rainfall distribution in Poland obtained from satellite data (NOAA/AMSU, MSG), radar network (8 units in Poland with covering with its horizontal beam extent almost the whole area of the country) and automatic rain gauges (nearly 1000 posts of telemetric network). Only rainy days were selected for the analysis.

Scalable GRID-based approach was applied to store data from these three different sources in comparable layout.

Geoprocessing algorithm was created within ArcGIS 9.2 environment. The algorithm includes data conversion, reclassification and raster algebra.

The results are automatically visualised as maps. Pixel statistics and accuracy assessment of performed geoprocessing will be analysed and discussed.