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ABSTRACT

Comparing *bottom-up* and *top-down* population density grids: The Spanish Census 2011

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After the Census 2011 the Spanish National Statistical Institute (INE) published, in April 2014, a fully bottom-up population density grid of 1 km² resolution. Casual comparison with the GEOSTAT 2006 population grid for Spain shows significant differences, since the inhabited grid cells are reduced by 1/3 in the Census 2011 grid.

The GEOSTAT 2006 grid for Spain was produced by top-down methods. Enumeration district population data (from the municipal registry) was disaggregated using a high resolution land cover data set as auxiliary information (SIOSE).

Using an updated land cover data set with the same resolution, and the enumeration district population data from the Census 2011, we update the Spanish grid using the same top-down approach (so this new one is temporally consistent with the previous GEOSTAT 2006 population grid for Spain). After the disaggregation exercise a full comparison between both grids is performed and the discrepancies illustrated.

