

Data integration at the regular grid level: an Italian example

ABSTRACT

‘Grids are a powerful tool to describe our society and to study the interrelationships between human activities and the environment. They are particularly useful for analysing phenomena, and their causes, which are independent of administrative boundaries, such as flooding, commuting and urban sprawl, to name but a few.’¹

From the above, the production of the Eurostat population grid is considered a fundamental statistical data at continental level. ISTAT (Italian National Institute of Statistics), in the grid production process plays a very important part because it represents the institutional body for data collection and the release of the Italian Legal Population.

The Italian grid is composed by 319.000 regular cells that cover all the entire Italian territory.

Each cell is identified by an explaining ID where are indicated the x, y coordinates of the lower left vertex and the EPSG reference system code CRS 3035.

Integrating the population grid with other data represented on the same basis can certainly be useful for better defining the characteristics of a specific area.

By integrating the three products (Population, Land Cover and Morphometric characteristics), it is possible to obtain a synthesis that characterizes a specific homogeneous geographical area.

This paper describes the methodology, which is based on the one used for DEGURBA (Degree of Urbanization) and the results obtained from the integration of only three layers, but the versatility of statistics for regular grids allows for synthesis derived from many informational layers.

¹ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Population_grids