

## **New ISTAT ‘microzones’ layer: a new way to read land cover statistics**

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### **Abstract**

The aim of this paper is to describe the procedures used to integrate geographic datasets in order to produce new ISTAT microzones layer, an upgrade of the 2011 Census cartography.

This is an experimentation based on the activities regard the management and fusion between Land Cover data concerning hinterland areas (i.e cadastral data) and thematic maps produced by regional or local authority.

This integration and elaboration to realize the implementation of the enumeration areas layer called ‘microzones’ is in progress and under assessment.

All integration and elaboration procedures were realized using many GIS and image processing tools. The main result was to produce integrated geographic datasets and to link microzones land cover and use legend with LUCAS (Land Cover and Land Use Survey) one.

Another important dataset is represented by four band high resolution aerial images; calculating simple radiometric indices (SAVI, ENDVI), it can be possible to estimate the vegetation cover, over all in urban areas.

All the information collected can be a very useful instrument to improve the quality of land cover/use data although the integration of data that came from different source can involve an accuracy loss and a generalization of the final product; the extension of the elaboration to the entire Italian territory increase the value of the input data. The future activity will be planned to automate all data processing and integration with other geographic database sources, to increase the data details and to reduce the generalization of the data.