

PROJECT INFORMATION

Project title: Land Resource Efficiency Task of European Environment Agency

Project ID: 92

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PROJECT DESCRIPTION

The aim of this sub-task is assessing and mapping the distribution of topsoil organic carbon content for Europe by applying geostatistical techniques such as Regression-Kriging, Partial Least Squares Regression or Regression trees, etc. with the combination of different soil data which were coming from different EU scale databases such as LUCAS, GEMAS and Biosoil. The combination of the soil samples and spatial predictors (such as slope, aspect, elevation, CTI, CORINE land-cover classification, parent material, texture, WRB soil classification, geological formations, temperature, precipitation, etc.) will be used for this aim. Mainly below steps will be following to produce SOC map;

- a) Aggregating the soil samples together (putting the different databases into same order, data quality check, aggregating the databases)
- b) Preparing auxiliary variables in Europe scale (deciding the variables, putting the variables into same order (same projection system, resolution and spatial extent), preparing the auxiliary variables for analysing (normalization, etc.))
- c) Applying geostatistical technique(s) (deciding the technique that will be apply (Regression-Kriging, Partial Least Squares Regression or Regression trees) and building the model)
- d) Validation of the map