

File name

TM_soil_B3

Contact name

Pyrenean Institute of Ecology - CSIC

Contact email

info@medacc-life.eu

Metadata Standard Name

ISO19115

Metadata Standard Version

2003/Cor.1:2006

Title

Soils Map of Segre basin (Catalonia - Spain)

Citation Identifier Code

TM_soil_B3

Identifier Code

Thematic Map: Soils. Basin: 3 (Segre)

Description

A soil map has been generated for the three basins. This information has been generated specifically for the project since previously it was not available for the three basins. The previous information about soils within the three basins is very fragmented and specific for agricultural areas. In order to improve the quality of the results, some sources of soil information have been consulted: -Soils Map of Catalonia. -European Soils Map (scale 1:1000000) -Data from soil profiles from specific studies and the European Soils Database -Geologic Map of Catalonia -Digital Elevation Map -C Content Map in forestal soils (Spain) The technology changes, the computational capacity and the new available geostatistical techniques allowed to face the progress in soils maps from a new point of view. A Digital Soil Map has been developed, based on the spatial correlation between the most important soil properties with environmental variables (climate, relief or geology). Moreover, it was possible to develop of singular soil maps with specific properties (bulk density, organic matter content, etc.), in addition to taxonomic classification. The flexibility of the Digital Soil Mapping (DSM) depends on its quantity and quality, which is strongly associated to the threshold error. In this way, a DSM adaptation has been done to generate the maps of the parameters needed for the MEDACC-Life project. Moreover some soil parameters have been mapped attending to the needs of the SWAT and RHESSys models: soil depth, texture, field capacity and organic matter content. The following workflow has been designed depending on the available information (Figure 14): Areas with available soil maps at the scale 1:50000. Layers of the required parameters

generated from the soil classes. Areas without available soil maps at the scale 1:50000: oCrossing the European Soils Map and the Geologic Map. oRegression between the profile data and the unities defined in the previous point. oThe name of the available profiles is not enough for applying geostatistical techniques (except for the Fluvia river case). Finally, the soils have been grouped in terms of similarity through a cluster analysis.

Organisation Name

Life - MEDACC Project

Electronic address

info@medacc-life.eu

Keyword (1)

Soil

Thesaurus Name (1)

GEMET - INSPIRE themes, version 1.0

Keyword (1)

SOILS

Thesaurus Name (1)

GEOSS - Earth Observation Vocabulary, version 1.0

Keyword (1)

Soils of Segre basin

Thesaurus Name (1)

Soils of Segre basin

Use Limitation (1)

geossNonCommercial

Legal Constraints

no limitation

Distribution Format Name

ascii

Distribution Format Version

unknown

Data Quality (Citation title)

Soil Map of Segre Basin

Data Quality (Explanation)

See the referenced specification

Data Quality (Declaration about the validation process)

The quality validation is made by Interfase Research Group of the Geography Department (Autonomous University of Barcelona)