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# Abbreviations

| **Term** | **Explanation** |
| --- | --- |
| ASTER GDEM | Advanced Spaceborne Thermal Emission and Reflection Radiometer Global Digital Elevation Map Announcement |
| BGR | Federal Institute for Geosciences and Natural Resources |
| c | Climate |
| CLC | Corine Land Cover |
| CN | Code name |
| DLR | German Aerospace Center |
| ee | Ecological - Environmental |
| EEA | European Environment Agency |
| EEA-39 | European Economic Area 39 countries (33 member countries and six cooperating countries) |
| ELSUS | European Landslide Susceptibility |
| ESA | European Space Agency |
| ESD | Ecological Site Descriptions |
| ESDAC | European Soil Data Centre |
| ESDB | European Soil Database |
| ETM + | Landsat Enhanced Thematic Mapper Plus |
| ETRS89-LAEA | European Terrestrial Reference System 1989, Lambert Azimuthal Equal-Area projection coordinate reference system |
| EUNIS | European nature information system |
| FAO | Food and Agriculture Organization |
| FAO | Food and Agriculture Organization of the United Nations |
| FOREGS | (Forum of European Geological Surveys |
| GDP | Gross Domestic Product |
| GIS | Geographic Information System |
| GLASOD | Global Assessment of Human-induced Soil Degradation |
| GOFC-GOLD | Global Observation of Forest Cover and Land Dynamics |
| HH | single polarization (Horizontal - Horizontal) |
| HR | High Resolution |
| HRL | High Resolution Layers |
| HWSD | Harmonized World Soil Database |
| IGBP | International Geosphere-Biosphere Programme |
| IIASA | International Institute for Applied Systems Analysis |
| IPCC | Intergovernmental Panel on Climate Change |
| ISRIC | International Soil Reference and Information Centre |
| ISRIC | International Soil Reference and Information Centre |
| JAXA | Japan Aerospace Exploration Agency |
| JRC | Joint Research Centre |
| lcu | Land cover/use |
| LS-factor | Slope Length and Steepness factor |
| LUCAS | Land Use and Coverage Area frame Survey |
| MAES | Mapping and Assessment of Ecosystems and their Services |
| MERIS | Medium-spectral Resolution, Imaging Spectrometer |
| MODIS | Moderate Resolution Imaging Spectroradiometer |
| NDVI | Normalized Difference Vegetation Index |
| NUTS | Nomenclature des Unités Territoriales Statistiques |
| OCTOP | Topsoil Organic Carbon Content for Europe |
| PTF | Pedo-Transfer Function |
| PTR | Pedo-Transfer Rule |
| RUSLE | Revised Universal Soil Loss Equation |
| se | Socio-economic |
| sg | Soil - geological |
| SMU | Soil Mapping Units |
| SOTER | Soil-Terrain Database |
| SRTM | Shuttle Radar Topography Mission |
| STUs | Soil Typological Units |
| t | Terrain |
| TanDEM-X | TerraSAR-X Add-oN for Digital Elevation Measurement |
| TM5 | Landsat Thematic Mapper 5 |
| UNCED | United Nations Conference on Environment and Development |
| UNEP | United Nations Environment Programme |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| USDA | United States Department of Agriculture |
| VHR | Very High Resolution |
| WGS 84 | World Geodetic System 1984 |
| ASTER GDEM | Advanced Spaceborne Thermal Emission and Reflection Radiometer Global Digital Elevation Map Announcement |

Contents

[MAIL Consortium 3](#_Toc20566796)

[Abbreviations 4](#_Toc20566797)

[Executive Summary 16](#_Toc20566798)

[1. Land cover/use datasets 18](#_Toc20566799)

[1.1 Map of European ecosystem types *(CN: lcu\_1)* 18](#_Toc20566800)

[1.2 Corine Land Cover (CLC) 2018, Version 20 *(CN: lcu\_2)* 19](#_Toc20566801)

[1.3 High Resolution Layers (HRL) 21](#_Toc20566802)

[1.3.1 HRL, Imperviousness Density (IMD) *(CN: lcu\_3.1)* 21](#_Toc20566803)

[1.3.2 HRL, Imperviousness Change (IMC) *(CN: lcu\_3.2)* 23](#_Toc20566804)

[1.3.3 HRL, Imperviousness Classified Change (IMCC) *(CN: lcu\_3.3)* 25](#_Toc20566805)

[1.3.4 HRL, Tree Cover Density (TCD) *(CN: lcu\_3.4)* 27](#_Toc20566806)

[1.3.5 HRL, Tree Cover Density Change (TCDC) *(CN: lcu\_3.5)* 29](#_Toc20566807)

[1.3.6 HRL, Dominant Leaf Type (DLT) *(CN: lcu\_3.6)* 31](#_Toc20566808)

[1.3.7 HRL, Forest Type (FTY) *(CN: lcu\_3.7)* 33](#_Toc20566809)

[1.3.8 HRL, Forest Additional Support Layer (FADSL) *(CN: lcu\_3.8)* 35](#_Toc20566810)

[1.3.9 HRL, Grassland (GRA) *(CN: lcu\_3.9)* 37](#_Toc20566811)

[1.3.10 HRL, Ploughing Indicator (PLOUGH) *(CN: lcu\_3.10)* 38](#_Toc20566812)

[1.3.11 HRL, Grassland Vegetation Probability Index (GRAVPI) *(lcu\_3.11)* 40](#_Toc20566813)

[1.3.12 HRL, Water and Wetness (WAW) *(CN: lcu\_3.12)* 42](#_Toc20566814)

[1.3.13 HRL, Water & Wetness Probability Index (WWPI) *(lcu\_3.13)* 44](#_Toc20566815)

[1.4 GlobCover Land Cover Maps *(CN: lcu\_4)* 46](#_Toc20566816)

[1.5 Land use and Land cover 47](#_Toc20566817)

[1.5.1 Rain-fed cultivated land *(CN: lcu\_5.1)* 48](#_Toc20566818)

[1.5.2 Irrigated cultivated land, according to GMIA 4.0 *(CN: lcu\_5.2)* 49](#_Toc20566819)

[1.5.3 Total cultivated land *(CN: lcu\_5.3)* 51](#_Toc20566820)

[1.5.4 Forest land, calibrated to FRA2000 land statistics *(CN: lcu\_5.4)* 52](#_Toc20566821)

[1.5.5 Grass/scrub/woodland *(CN: lcu\_5.5)* 53](#_Toc20566822)

[1.5.6 Built-up land (residential and infrastructure) *(CN: lcu\_5.6)* 55](#_Toc20566823)

[1.5.7 Barren/very sparsely vegetated land *(CN: lcu\_5.7)* 56](#_Toc20566824)

[1.5.8 Mapped water bodies *(CN: lcu\_5.8)* 58](#_Toc20566825)

[1.6 TanDEM-X Global Forest map *(CN: lcu\_6)* 59](#_Toc20566826)

[1.7 GlobeLand30 (CN: lcu\_7) 61](#_Toc20566827)

[2. Terrain datasets 64](#_Toc20566828)

[2.1 Digital Elevation Model of Europe 64](#_Toc20566829)

[2.1.1 Digital Elevation Model of Europe v1.1 *(CN: t\_1.1)* 64](#_Toc20566830)

[2.1.2 Digital Elevation Model of Europe v1.0 *(CN: t\_1.2)* 66](#_Toc20566831)

[2.1.3 (EU-DEM) Slope *(CN: t\_1.3)* 68](#_Toc20566832)

[2.1.4 (EU-DEM) Aspect *(CN: t\_1.4)* 70](#_Toc20566833)

[2.1.5 (EU-DEM) Hillshade *(CN: t\_1.5)* 72](#_Toc20566834)

[2.2 Terrain 74](#_Toc20566835)

[2.2.1 Elevation (CN: t\_2.1) 74](#_Toc20566836)

[2.2.2 Slopes (CN: t\_2.2) 75](#_Toc20566837)

[2.2.3 Aspect (CN: t\_2.3) 76](#_Toc20566838)

[3. Soil – Geological datasets 79](#_Toc20566839)

[3.1 European Soil Database Derived data 79](#_Toc20566840)

[3.1.1 Area of STU allocation *(CN: sg\_1.1)* 79](#_Toc20566841)

[3.1.2 Depth available to roots *(CN: sg\_1.2)* 80](#_Toc20566842)

[3.1.3 Clay content (topsoil & subsoil) *(CN: sg\_1.3)* 82](#_Toc20566843)

[3.1.4 Sand content (topsoil & subsoil) *(CN: sg\_1.4)* 83](#_Toc20566844)

[3.1.5 Silt content (topsoil & subsoil) *(CN: sg\_1.5)* 84](#_Toc20566845)

[3.1.6 Organic carbon content (topsoil & subsoil) *(CN: sg\_1.6)* 85](#_Toc20566846)

[3.1.7 Bulk density (topsoil & subsoil) *(CN: sg\_1.7)* 86](#_Toc20566847)

[3.1.8 Coarse Fragments (topsoil & subsoil) *(CN: sg\_1.8)* 87](#_Toc20566848)

[3.1.9 Total available water content from PTR (topsoil & subsoil) *(CN: sg\_1.9)* 88](#_Toc20566849)

[3.1.10 Total available water content from PTF (topsoil & subsoil) *(CN: sg\_1.10)* 89](#_Toc20566850)

[3.2 European Landslide Susceptibility Map version 2 (ELSUS v2) 91](#_Toc20566851)

[3.2.1 European Landslide Susceptibility Map version 2 (ELSUS v2) *(CN: sg\_2.1)* 91](#_Toc20566852)

[3.2.2 Confidence Level Map of the European Landslide Susceptibility Map (ELSUS v2) *(CN: sg\_2.2)* 93](#_Toc20566853)

[3.2.3 Climate-Physiographic Regions *(CN: sg\_2.3)* 94](#_Toc20566854)

[3.2.4 Slope Angle *(CN: sg\_2.4)* 95](#_Toc20566855)

[3.2.5 Lithology (CN: sg\_2.5) 96](#_Toc20566856)

[3.2.6 Land Cover (CN: sg\_2.6) 98](#_Toc20566857)

[3.3 European map of soil suitability to provide a platform for most human activities (EU28) *(CN: sg\_3)* 99](#_Toc20566858)

[3.4 Global Soil Organic Carbon Estimates *(CN: sg\_4)* 101](#_Toc20566859)

[3.5 Google Earth Files 102](#_Toc20566860)

[Limitation to Agricultural use 103](#_Toc20566861)

[3.5.1 Most important limitation to agricultural use *(CN: sg\_5.1)* 103](#_Toc20566862)

[3.5.2 Secondary limitation to agricultural use *(CN: sg\_5.2)* 104](#_Toc20566863)

[Soil Classification WRB 105](#_Toc20566864)

[3.5.3 WRB-FULL. Full soil code of the STU from the World Reference Base (WRB) for Soil Resources *(CN: sg\_5.3)* 105](#_Toc20566865)

[3.5.4 WRB-ADJ1. First soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources. *(CN: sg\_5.4)* 106](#_Toc20566866)

[3.5.5 WRB-ADJ2. Second soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources. *(CN: sg\_5.5)* 107](#_Toc20566867)

[3.5.6 WRB-LEV1. Soil reference group code of the STU from the World Reference Base (WRB) for Soil Resources. *(CN: sg\_5.6)* 109](#_Toc20566868)

[Texture 110](#_Toc20566869)

[3.5.7 TEXT-DEP-CHG. Depth class to a textural change of the dominant and/or secondary surface 3 of the STU. *(CN: sg\_5.7)* 110](#_Toc20566870)

[3.5.8 TEXT-SRF-DOM. Dominant surface textural class of the STU. *(CN: sg\_5.8)* 111](#_Toc20566871)

[3.5.9 TEXT-SRF-SEC. Secondary surface textural class of the STU. *(CN: sg\_5.9)* 112](#_Toc20566872)

[3.5.10 TEXT-SUB-DOM. Dominant sub-surface textural class of the STU. *(CN: sg\_5.10)* 113](#_Toc20566873)

[3.5.11 TEXT-SUB-SEC. Secondary sub-surface textural class of the STU. *(sg\_5.11)* 114](#_Toc20566874)

[Parent Material 116](#_Toc20566875)

[3.5.12 PAR-MAT-DOM. code for dominant parent material of the STU. *(CN: sg\_5.12)* 116](#_Toc20566876)

[3.5.13 PAR-MAT-DOM1. Major group code for the dominant parent material of the STU. *(CN: sg\_5.13)* 117](#_Toc20566877)

[3.5.14 PAR-MAT-DOM2. Second level code for the dominant parent material of the STU. *(CN: sg\_5.14)* 118](#_Toc20566878)

[3.5.15 PAR-MAT-DOM3. Third level code for the dominant parent material of the STU. *(CN: sg\_5.15)* 119](#_Toc20566879)

[3.5.16 PAR-MAT-SEC. Code for secondary parent material of the STU. *(CN: sg\_5.16)* 120](#_Toc20566880)

[3.5.17 PAR-MAT-SEC1. Major group code for the secondary parent material of the STU. *(CN: sg\_5.17)* 122](#_Toc20566881)

[3.5.18 PAR-MAT-SEC2. Second level code for the secondary parent material of the STU. *(CN: sg\_5.18)* 123](#_Toc20566882)

[3.5.19 PAR-MAT-SEC3. Third level code for the secondary parent material of the STU. *(CN: sg\_5.19)* 124](#_Toc20566883)

[Soil Classification FAO 125](#_Toc20566884)

[3.5.20 FAO85-FULL. Full soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend *(CN: sg\_5.20)* 125](#_Toc20566885)

[3.5.21 FAO85-LEV1. Soil major group code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. *(CN: sg\_5.21)* 126](#_Toc20566886)

[3.5.22 FAO85-LEV2. Second level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. *(CN: sg\_5.22)* 128](#_Toc20566887)

[3.5.23 FAO85-LEV3. Third level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. *(CN: sg\_5.23)* 129](#_Toc20566888)

[3.5.24 FAO90-FULL. Full soil code of the STU from the 1990 FAO-UNESCO Soil Legend. *(CN: sg\_5.24)* 130](#_Toc20566889)

[3.5.25 FAO90-LEV1. Soil major group code of the STU from the 1990 FAO-UNESCO Soil Legend. *(CN: sg\_5.25)* 132](#_Toc20566890)

[3.5.26 FAO90-LEV2. Second level soil code of the STU from the 1990 FAO-UNESCO soil legend *(CN: sg\_5.26)* 133](#_Toc20566891)

[Land Use 134](#_Toc20566892)

[3.5.27 USE-DOM. Code for dominant land use of the STU. *(CN: sg\_5.37)* 134](#_Toc20566893)

[3.5.28 USE-SEC. Code for secondary land use of the STU. *(CN: sg\_5.28)* 135](#_Toc20566894)

[Obstacle-Impermeable-Soil Water Regime 136](#_Toc20566895)

[3.5.29 IL. Code for the presence of an impermeable layer within the soil profile of the STU. *(CN: sg\_5.29)* 136](#_Toc20566896)

[3.5.30 ROO. Depth class of an obstacle to roots within the STU. *(CN: sg\_5.30)* 137](#_Toc20566897)

[3.5.31 WR. Dominant annual average soil water regime class of the soil profile of the STU. *(CN: sg\_5.31)* 139](#_Toc20566898)

[Water Management System 140](#_Toc20566899)

[3.5.32 WM1. Code for normal presence and purpose of an existing water management system in agricultural land on more than 50% of the STU. *(CN: sg\_5.32)* 140](#_Toc20566900)

[3.5.33 WM2. Code for the type of an existing water management system. *(CN: sg\_5.33)* 141](#_Toc20566901)

[Altitude - Slope 142](#_Toc20566902)

[3.5.34 SLOPE-DOM. Dominant slope class of the STU. *(CN: sg\_5.34)* 142](#_Toc20566903)

[3.5.35 SLOPE-SEC. Secondary slope class of the STU. *(CN: sg\_5.35)* 143](#_Toc20566904)

[3.5.36 ZMAX. Maximum elevation above sea level of the STU (in metres). *(CN: sg\_5.36)* 145](#_Toc20566905)

[3.5.37 ZMIN. Minimum elevation above sea level of the STU (in metres). *(CN: sg\_5.37)* 146](#_Toc20566906)

[Primary Properties 147](#_Toc20566907)

[3.5.38 ALT. Elevation *(CN: sg\_5.38)* 147](#_Toc20566908)

[3.5.39 OC\_TOP. Topsoil organic carbon content. *(CN: sg\_5.39)* 148](#_Toc20566909)

[3.5.40 Peat (CN: sg\_5.40) 149](#_Toc20566910)

[3.5.41 TEXT. Dominant surface textural class (completed from dominant STU). *(CN: sg\_5.41)* 150](#_Toc20566911)

[Chemical Properties 151](#_Toc20566912)

[3.5.42 BS\_SUB. Base saturation of the subsoil. *(CN: sg\_5.42)* 151](#_Toc20566913)

[3.5.43 BS\_TOP. Base saturation of the topsoil. *(CN: sg\_5.43)* 152](#_Toc20566914)

[3.5.44 CEC\_SUB. Subsoil cation exchange capacity. *(CN: sg\_5.44)* 154](#_Toc20566915)

[3.5.45 CEC\_TOP. Topsoil cation exchange capacity. *(CN: sg\_5.45)* 155](#_Toc20566916)

[3.5.46 DIFF. Soil profile differentiation. *(CN: sg\_5.46)* 156](#_Toc20566917)

[3.5.47 MIN. Profile mineralogy. *(CN: sg\_5.47)* 157](#_Toc20566918)

[3.5.48 MIN\_SUB. Subsoil mineralogy. *(CN: sg\_5.48)* 158](#_Toc20566919)

[3.5.49 MIN\_TOP. Topsoil mineralogy. *(CN: sg\_5.49)* 159](#_Toc20566920)

[Mechanical Properties 160](#_Toc20566921)

[3.5.50 DR. Depth to rock. *(CN: sg\_5.50)* 160](#_Toc20566922)

[3.5.51 PD\_SUB = Subsoil packing density *(CN: sg\_5.51)* 161](#_Toc20566923)

[3.5.52 PD\_TOP = Topsoil packing density *(CN: sg\_5.52)* 162](#_Toc20566924)

[3.5.53 STR\_SUB = Subsoil structure *(CN: sg\_5.53)* 163](#_Toc20566925)

[3.5.54 STR\_TOP = Topsoil structure. *(CN: sg\_5.54)* 164](#_Toc20566926)

[3.5.55 TD. Rule infered subsoil 3. *(CN: sg\_5.55)* 165](#_Toc20566927)

[3.5.56 VS. Volume of stones *(CN: sg\_5.56)* 166](#_Toc20566928)

[Hydrological Properties 168](#_Toc20566929)

[3.5.57 AWC\_SUB. Subsoil available water capacity. *(CN: sg\_5.57)* 168](#_Toc20566930)

[3.5.58 AWC\_TOP. Topsoil available water capacity. *(CN: sg\_5.58)* 169](#_Toc20566931)

[3.5.59 DGH. Depth to a gleyed horizon. *(CN: sg\_5.59)* 170](#_Toc20566932)

[3.5.60 DIMP. Depth to an impermeable layer. *(CN: sg\_5.60)* 171](#_Toc20566933)

[3.5.61 EAWC\_SUB. Subsoil easily available water capacity. *(CN: sg\_5.61)* 172](#_Toc20566934)

[3.5.62 EAWC\_TOP. Topsoil easily available water capacity. *(CN: sg\_5.62)* 173](#_Toc20566935)

[3.5.63 HG. Hydrogeological class. *(CN: sg\_5.63)* 174](#_Toc20566936)

[3.5.64 PMH. Parent material hydrogeological type. *(CN: sg\_5.64)* 175](#_Toc20566937)

[Applications 176](#_Toc20566938)

[3.5.65 AGLIM1NNI. Dominant limitation to agricultural use (without no information). *(CN: sg\_5.65)* 176](#_Toc20566939)

[3.5.66 AGLIM2NNI. Secondary limitation to agricultural use (without no information). *(CN: sg\_5.66)* 178](#_Toc20566940)

[3.5.67 ATC. Accumulated temperature class. *(CN: sg\_5.67)* 179](#_Toc20566941)

[3.5.68 CRUSTING. Soil crusting class. *(CN: sg\_5.68)* 180](#_Toc20566942)

[3.5.69 ERODIBILITY. Soil erodibility class. *(CN: sg\_5.69)* 181](#_Toc20566943)

[3.5.70 PHYS-CHIM. Physi-chemical factor of soil crusting & erodibility. (CN: sg\_5.70) 182](#_Toc20566944)

[3.5.71 TEXT-CRUST. Textural factor of soil crusting. (CN: sg\_5.71) 183](#_Toc20566945)

[3.5.72 TEXT-EROD. Textural factor of soil erodibility. (CN: sg\_5.72) 184](#_Toc20566946)

[3.5.73 USE. Regrouped land use class. (CN: sg\_5.73) 185](#_Toc20566947)

[3.6 Heavy metals in topsoil (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc) *(CN: sg\_6)* 186](#_Toc20566948)

[3.7 LS-factor (Slope Length and Steepness factor) for the EU 188](#_Toc20566949)

[3.7.1 European LS-factor map at 100m resolution *(CN: sg\_7.1)* 188](#_Toc20566950)

[3.7.2 LS-factor map at 25m resolution per country *(CN: sg\_7.2)* 189](#_Toc20566951)

[3.8 Maps of indicators of soil hydraulic properties for Europe 190](#_Toc20566952)

[3.8.1 Saturated water content *(CN: sg\_8.1)* 190](#_Toc20566953)

[3.8.2 Water content at field capacity *(CN: sg\_8.2)* 191](#_Toc20566954)

[3.8.3 Water content at wilting point *(CN: sg\_8.3)* 192](#_Toc20566955)

[3.8.4 Saturated hydraulic conductivity *(CN: sg\_8.4)* 193](#_Toc20566956)

[3.9 Potential threats to soil biodiversity in Europe 195](#_Toc20566957)

[3.9.1 Soil biological functions threat *(CN: sg\_9.1)* 195](#_Toc20566958)

[3.9.2 Soil fauna threat *(CN: sg\_9.2)* 196](#_Toc20566959)

[3.9.3 Soil microorganisms threat *(CN: sg\_9.3)* 197](#_Toc20566960)

[3.9.4 Climate change *(CN: sg\_9.4)* 198](#_Toc20566961)

[3.9.5 Compaction (CN: sg\_9.5) 199](#_Toc20566962)

[3.9.6 Erosion (CN: sg\_9.6) 200](#_Toc20566963)

[3.9.7 GMO use (CN: sg\_9.7) 201](#_Toc20566964)

[3.9.8 Habitat fragmentation *(CN: sg\_9.8)* 202](#_Toc20566965)

[3.9.9 Industrial pollution *(CN: sg\_9.9)* 203](#_Toc20566966)

[3.9.10 Intensive human exploitation *(CN: sg\_9.10)* 204](#_Toc20566967)

[3.9.11 Invasive species *(CN: sg\_9.11)* 205](#_Toc20566968)

[3.9.12 Land use change *(CN: sg\_9.12)* 206](#_Toc20566969)

[3.9.13 Organic matter decline *(CN: sg\_9.13)* 207](#_Toc20566970)

[3.9.14 Radioactivity *(CN: sg\_9.14)* 208](#_Toc20566971)

[3.9.15 Salinity (CN: sg\_9.15) 209](#_Toc20566972)

[3.9.16 Sealing (CN: sg\_9.16) 210](#_Toc20566973)

[3.10 Saline and Sodic Soils in the EU (CN: sg\_10) 211](#_Toc20566974)

[3.11 Soil Biomass Productivity maps of grasslands and pasture, of croplands and of forest areas in the European Union (EU27) 212](#_Toc20566975)

[3.11.1 Soil biomass productivity of grasslands and pastures *(CN: sg\_11.1)* 213](#_Toc20566976)

[3.11.2 Soil biomass productivity of croplands *(CN: sg\_11.2)* 214](#_Toc20566977)

[3.11.3 Soil biomass productivity of forest areas *(CN: sg\_11.3)* 215](#_Toc20566978)

[3.12 Soil Erodibility (K- Factor) High Resolution dataset for Europe 216](#_Toc20566979)

[3.12.1 K-factor extrapolated dataset *(CN: sg\_12.1)* 216](#_Toc20566980)

[3.12.2 Kst-factor extrapolated (incorporating Stoniness) dataset *(CN: sg\_12.2)* 217](#_Toc20566981)

[3.12.3 Effect of Stoniness in K-factor (% reduction) *(CN: sg\_12.3)* 219](#_Toc20566982)

[3.13 Soil erosion by water (RUSLE2015) *(CN: sg\_13)* 220](#_Toc20566983)

[3.14 Soil erosion in forestland in Europe 221](#_Toc20566984)

[3.14.1 Forest Cover Change class *(CN: sg\_14.1)* 221](#_Toc20566985)

[3.14.2 Forest Fires class *(CN: sg\_14.2)* 222](#_Toc20566986)

[3.14.3 Soil Loss Potential *(CN: sg\_14.3)* 224](#_Toc20566987)

[3.15 Soil Organic Carbon - Saturation Capacity in Europe *(CN: sg\_15)* 225](#_Toc20566988)

[3.16 Soil pH in Europe *(CN: sg\_16)* 226](#_Toc20566989)

[3.17 Topsoil Organic Carbon Content for Europe (OCTOP) 0 - 30 cm *(CN: sg\_17)* 228](#_Toc20566990)

[3.18 Topsoil physical properties for Europe (based on LUCAS topsoil data) 229](#_Toc20566991)

[3.18.1 Clay content in topsoil (0-20cm) *(CN: sg\_18.1)* 229](#_Toc20566992)

[3.18.2 Silt content in topsoil *(CN: sg\_18.2)* 230](#_Toc20566993)

[3.18.3 Sand content in topsoil *(CN: sg\_18.3)* 232](#_Toc20566994)

[3.18.4 Coarse fragments content in topsoil *(CN: sg\_18.4)* 233](#_Toc20566995)

[3.18.5 Bulk density derived from soil texture datasets *(CN: sg\_18.5)* 234](#_Toc20566996)

[3.18.6 USDA soil textural classes derived from clay *(CN: sg\_18.6)* 235](#_Toc20566997)

[3.18.7 Available Water Capacity (AWC) for the topsoil fine *(sg\_18.7)* 237](#_Toc20566998)

[3.19 Topsoil Soil Organic Carbon (LUCAS) for EU25 238](#_Toc20566999)

[3.19.1 Map of predicted topsoil organic carbon content *(CN: sg\_19.1)* 238](#_Toc20567000)

[3.19.2 Map of standard error of the OC model predictions *(CN: sg\_19.2)* 239](#_Toc20567001)

[3.20 Soil Qualities for Crop Production 241](#_Toc20567002)

[3.20.1 Nutrient availability *(CN: sg\_20.1)* 241](#_Toc20567003)

[3.20.2 Nutrient retention capacity *(CN: sg\_20.2)* 242](#_Toc20567004)

[3.20.3 Rooting conditions *(CN: sg\_20.3)* 243](#_Toc20567005)

[3.20.4 Oxygen availability to roots *(CN: sg\_20.4)* 244](#_Toc20567006)

[3.20.5 Excess salts *(CN: sg\_20.5)* 245](#_Toc20567007)

[3.20.6 Toxicity (CN: sg\_20.6) 246](#_Toc20567008)

[3.20.7 Workability (constraining field management) *(CN: sg\_20.7)* 247](#_Toc20567009)

[3.21 Soil quality rating for cropland in Germany 1: 1.000.000 *(CN: sg\_21)* 248](#_Toc20567010)

[3.22 Global Assessment of Human-induced Soil Degradation (GLASOD) *(CN: sg\_22)* 250](#_Toc20567011)

[3.23 WISE derived soil property estimates on a 30 by 30 arcsec global grid *(CN: sg\_23)* 251](#_Toc20567012)

[4. Climate datasets 254](#_Toc20567013)

[4.1 High-resolution gridded datasets (and derived products) climatological data 254](#_Toc20567014)

[4.1.1 TMP: near-surface mean temperature *(CN: c\_1.1)* 254](#_Toc20567015)

[4.1.2 TMN: near-surface minimum temperature *(CN: c\_1.2)* 255](#_Toc20567016)

[4.1.3 TMX: near-surface temperature maximum *(CN: c\_1.3)* 256](#_Toc20567017)

[4.1.4 DTR: near-surface diurnal temperature range *(CN: c\_1.4)* 256](#_Toc20567018)

[4.1.5 PRE: precipitation *(CN: c\_1.5)* 257](#_Toc20567019)

[4.1.6 WET: wet day frequency *(CN: c\_1.6)* 258](#_Toc20567020)

[4.1.7 FRS: frost day frequency *(c\_1.7)* 259](#_Toc20567021)

[4.1.8 VAP: vapour pressure *(CN: c\_1.8)* 260](#_Toc20567022)

[4.1.9 PET: potential evapotranspiration *(CN: c\_1.9)* 260](#_Toc20567023)

[4.1.10 CLD: cloud cover *(CN: c1.10)* 261](#_Toc20567024)

[4.2 WorldClim - Global Climate Data - Free climate data for ecological modeling and GIS 262](#_Toc20567025)

[4.2.1 Precipitation *(CN: c\_2.1)* 262](#_Toc20567026)

[4.2.2 bioclimatic variables *(CN: c\_2.2)* 263](#_Toc20567027)

[4.2.3 tmax (*CN:* c\_2.3) 264](#_Toc20567028)

[4.2.4 tmean (*CN:* c\_2.4) 265](#_Toc20567029)

[4.2.5 tmin (*CN:* c\_2.5) 266](#_Toc20567030)

[5. Ecological – Environmental datasets 267](#_Toc20567031)

[5.1 Nationally designated areas (CDDA) *(CN: ee\_1)* 267](#_Toc20567032)

[5.2 Natura 2000 data - the European network of protected sites *(CN: ee\_2)* 268](#_Toc20567033)

[6. Socio-economic datasets 270](#_Toc20567034)

[6.1 Gross domestic product (GDP) at current market prices by NUTS 3 regions *(CN: se\_1)* 270](#_Toc20567035)

[6.2 NUTS 2016 (CN: se\_2) 271](#_Toc20567036)

[7. Conclusions 273](#_Toc20567037)

[References 274](#_Toc20567038)

[Annex I: Table of figures 278](#_Toc20567039)

# Executive Summary

The task is led by AUTH and has been implemented by HOMETECH secondees to CESEFOR.

An extended review was realized in order to detect and evaluate all the available European or Global scale datasets that will help to assess land cover and characteristics regarding marginality (acidity, salinity, nutrition, organic matter, slope values, etc.), through the proper indicators / variables.

The collected datasets were separated in the following main categories. For visibility reasons each category is represented with a different color.

|  |  |  |
| --- | --- | --- |
| **Category** | **Datasets** | **Subsets** |
| Land cover/use | 7 | 26 |
| Terrain | 2 | 8 |
| Soil - Geological | 21 | 147 |
| Climate | 2 | 15 |
| Ecological - Environmental | 2 | 2 |
| Socio-economic | 2 | 2 |
| **SUM** | **36** | **200** |

**Folder naming and structure**

For each Category a directory with the same name was created. Each directory consists by several related datasets organized into subfolders named after the original data source. Into the subfolders, a Code Name (CN) was given to each subset in order to have a consistent and understandable filename format. The CN is a combination of dataset category, source, dataset name and reference period, connected with an underscore “\_”.

*E.g.* The dataset Corine Land Cover - CLC2018 has CN: *lcu\_copernicus\_clc\_2018*

*Where:*

* *lcu:* Land cover/use category
* *copernicus:* Data source
* *clc:* Corine Land Cover
* *2018:* Reference period

For each dataset a table describing its specifications was generated and presented below. The color of these tables follows the color of their category.

*E.*g. The tables of Land cover/use category have this color.

In most of the cases (24) the coordinate reference system is ETRS89-LAEA Europe, as proposed by the Inspire directive, while in 12 cases the coordinate reference system is WGS 84. It must be noted that dataset collection will be a dynamic process that will run through the project’s lifetime, since free datasets are becoming available in a fast manner.

# Land cover/use datasets

In this category datasets with land use/cover information were classified. In total 7 datasets were collected with different coverage. Three of them have global coverage, while the remaining 4 have European coverage (whole Europe, Europe 39, etc.). Many of these datasets include subsets, as a result 26 subsets in the Land cover/use category, were collected.

## Map of European ecosystem types *(CN: lcu\_1)*

The dataset combines the Copernicus land service portfolio and marine bathymetry and seabed information with the non-spatial EUNIS habitat classification for a better biological characterization of ecosystems across Europe. As such it represents probabilities of EUNIS habitat presence for each MAES ecosystem type. (European Environment Agency, Ecosystem types of Europe, 2019)

| **Map of European ecosystem types** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Map of European ecosystem types | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | Feb. 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe (EEA-39) | Acquisition Date | 2012 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif)  ArcGIS Layer (.lyr) |  |  |
| File size | 341MB |  |  |
| Download site | <https://www.eea.europa.eu/data-and-maps/data/ecosystem-types-of-europe-1> (European Environment Agency, Ecosystem types of Europe, 2019) | | |
| Comments | Data sources:  CORINE Land Cover 2012 accounting layer  HRL Forests 2012 (Forest Type, Tree Cover Density)  HRL Imperviousness 2012  OpenStreetMap (OSM) data 2015  Urban Atlas 2012  Riparian Zones 2012  Natura 2000 (N2k) 2012  HRL Grassland 2012  HRL Permanent Water Bodies 2012  Emodnet bathymetry  Emodnet seabed-habitats | | |
| Preview  Source: EEA |  | | |

## Corine Land Cover (CLC) 2018, Version 20 *(CN: lcu\_2)*

The CORINE Land Cover (CLC) inventory was initiated in 1985 (reference year 1990). Updates have been produced in 2000, 2006, 2012, and 2018. The 2018 version was stored in the MAIL repository. It consists of an inventory of land cover that uses 44 classes. CLC uses a Minimum Mapping Unit (MMU) of 25 hectares (ha) for surface phenomena and a minimum width of 100 m for linear phenomena. (Copernicus, Corine Land Cover- CLC 2018, 2019)

| **Corine Land Cover (CLC) 2018, Version 20** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Corine Land Cover (CLC) 2018, Version 20 | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 14-06-2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EEA 39 | Acquisition Date | 2012-2018 |
| Grid size | 25ha/ 500 m | Grid size | - |
| Positional Accuracy | 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | AutoCAD Slide (.sld)  ArcGIS Layer (.lyr) |  |  |
| File size | 3.37 GB |  |  |
| Download site | <http://land.copernicus.eu/pan-european/corine-land-cover/clc-2012> (Copernicus, Corine Land Cover- CLC 2018, 2019) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

## High Resolution Layers (HRL)

Pan-European High Resolution Layers (HRL) provide information on specific land cover characteristics, and are complementary to land cover / land use mapping such as the CORINE land cover (CLC) datasets. The HRLs are produced from satellite imagery through a combination of automated processing and interactive rule based classification. Since the production of the 2015 reference year the production is increasingly based on analyzing time series of satellite images from a number of different sensors, including the combination of optical and radar data. The main sources are the Sentinel Satellites (in particular Sentinel-2 and Sentinel-1). In addition to high resolution (HR) data, since 2015, very high resolution (VHR) imagery were also used for some of the products.

Five themes have been identified so far, corresponding with the main themes from CLC, i.e. the level of sealed soil (imperviousness), tree cover density and forest type, grasslands, wetness and water, and small woody features. Two out of these five products are continuing existing products (Imperviousness and forest), two products are new baseline products that fully replace the previous 2012 products (grassland, and the currently combined wetness and water products), and one product is completely new (small woody features). All products are mapping the features under consideration for the whole of the EEA-39 area. (Copernicus, High Resolution Layers, HRL, 2012, 2015)

### HRL, Imperviousness Density (IMD) *(CN: lcu\_3.1)*

| **(HRL) Imperviousness Density (IMD)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Imperviousness Density (IMD) 2015 | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Sentinel-1: synthetic-aperture radar(SAR) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2)  Sentinel-1:   * Raw Level 0 data * Processed Level 1 Single Look Complex (SLC) data * Ground Range Detected (GRD) Level 1 data * Level 2 Ocean (OCN) data |
| Production Date | Mar 22, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Sentinel-1: 5m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2006-2015 |
| Grid size | 20 meter | Grid size | - |
| Positional Accuracy | 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 4.37 GB |  |  |
| Download site | <https://land.copernicus.eu/pan-european/high-resolution-layers> (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

### HRL, Imperviousness Change (IMC) *(CN: lcu\_3.2)*

| **(HRL) Imperviousness Change (IMC)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Imperviousness Change (IMC) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Sentinel-1: synthetic-aperture radar(SAR) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2)  Sentinel-1:   * Raw Level 0 data * Processed Level 1 Single Look Complex (SLC) data * Ground Range Detected (GRD) Level 1 data * Level 2 Ocean (OCN) data |
| Production Date | Apr 30, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Sentinel-1: 5m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2006-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 2.47 GB |  |  |
| Download site | <https://land.copernicus.eu/pan-european/high-resolution-layers> (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |

### HRL, Imperviousness Classified Change (IMCC) *(CN: lcu\_3.3)*

| **(HRL) Imperviousness Classified Change (IMCC)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Imperviousness Classified Change (IMCC) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Sentinel-1: synthetic-aperture radar(SAR) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2)  Sentinel-1:   * Raw Level 0 data * Processed Level 1 Single Look Complex (SLC) data * Ground Range Detected (GRD) Level 1 data * Level 2 Ocean (OCN) data |
| Production Date | Apr 30, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Sentinel-1: 5m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2006-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 2.89 GB |  |  |
| Download site | <https://land.copernicus.eu/pan-european/high-resolution-layers> (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |

### HRL, Tree Cover Density (TCD) *(CN: lcu\_3.4)*

| **(HRL) Tree Cover Density (TCD)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Tree Cover Density (TCD) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | Mar 22, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2012-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | Less than one pixel | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 14.3 GB |  |  |
| Download site | <https://land.copernicus.eu/pan-european/high-resolution-layers> (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

### HRL, Tree Cover Density Change (TCDC) *(CN: lcu\_3.5)*

| **(HRL) Tree Cover Density Change (TCDC)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Tree Cover Density Change (TCDC) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | May 15, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2012-2015 |
| Grid size | 100 m | Grid size | - |
| Positional Accuracy | Less than one pixel | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 306 MB |  |  |
| Download site | <https://land.copernicus.eu/pan-european/high-resolution-layers> (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

### HRL, Dominant Leaf Type (DLT) *(CN: lcu\_3.6)*

| **(HRL) Dominant Leaf Type (DLT)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Dominant Leaf Type (DLT) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | Apr 13, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, -Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2012-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 4.26 GB |  |  |
| Download site | <https://land.copernicus.eu/pan-european/high-resolution-layers> (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

### HRL, Forest Type (FTY) *(CN: lcu\_3.7)*

| **(HRL) Forest Type (FTY)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Forest Type (FTY) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | Apr 30, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2012-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 3.98 GB |  |  |
| Download site | https://land.copernicus.eu/pan-european/high-resolution-layers (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

### HRL, Forest Additional Support Layer (FADSL) *(CN: lcu\_3.8)*

| **(HRL) Forest Additional Support Layer (FADSL)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Forest Additional Support Layer (FADSL) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | May 08, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2012-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | < 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 1.98 GB |  |  |
| Download site | https://land.copernicus.eu/pan-european/high-resolution-layers (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |

### HRL, Grassland (GRA) *(CN: lcu\_3.9)*

| **(HRL) Grassland (GRA)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Grassland (GRA) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | Apr 09, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | - |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 2.69 GB |  |  |
| Download site | https://land.copernicus.eu/pan-european/high-resolution-layers (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

### HRL, Ploughing Indicator (PLOUGH) *(CN: lcu\_3.10)*

| **(HRL) Ploughing Indicator (PLOUGH)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Ploughing Indicator (PLOUGH) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | May 04, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2010-2016 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 1.54 GB |  |  |
| Download site | https://land.copernicus.eu/pan-european/high-resolution-layers (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |

### HRL, Grassland Vegetation Probability Index (GRAVPI) *(lcu\_3.11)*

| **Grassland Vegetation Probability Index (GRAVPI)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Grassland Vegetation Probability Index (GRAVPI) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | May 04, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2014-2016 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | 100 m | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 4.36 GB |  |  |
| Download site | <https://land.copernicus.eu/pan-european/high-resolution-layers> (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |

### HRL, Water and Wetness (WAW) *(CN: lcu\_3.12)*

| **(HRL) Water and Wetness (WAW)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Water and Wetness (WAW) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | Mar 22, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2009-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 2.66 GB |  |  |
| Download site | https://land.copernicus.eu/pan-european/high-resolution-layers (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |
| Preview  Source: Copernicus |  | | |

### HRL, Water & Wetness Probability Index (WWPI) *(lcu\_3.13)*

| **(HRL) Water & Wetness Probability Index (WWPI)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Water & Wetness Probability Index (WWPI) | Sensor | Sentinel-2: (multi-spectral instrument (MSI)  Landsat 8: Operational Land Imager (OLI) |
| Coordinate System | ETRS89 LAEA | Data type | Sentinel-2:   * TOA reflectances (Level 1) * TOA radiances   in sensor geometry  (L1B)(Level 1)   * BOA reflectances   in cartographic  geometry (L1C) (Level 2) |
| Production Date | May 08, 2018 | Sensor resolution | Sentinel-2: 10 m to 60 m  Landsat 8: 30 meters (visible, NIR, SWIR), 100 meters (thermal), and 15 meters (panchromatic) |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2009-2015 |
| Grid size | 20 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | Complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 3.32 GB |  |  |
| Download site | https://land.copernicus.eu/pan-european/high-resolution-layers (Copernicus, High Resolution Layers, HRL, 2012, 2015) | | |
| Comments | - | | |

## GlobCover Land Cover Maps *(CN: lcu\_4)*

GlobCover is an ESA initiative which began in 2005 in partnership with JRC, EEA, FAO, UNEP, GOFC-GOLD and IGBP. The aim of the project was to develop a service capable of delivering global composites and land cover maps using as input observations from the MERIS sensor (300m spatial resolution) on board the ENVISAT satellite mission. ESA provides the land cover maps, which cover 2 periods: December 2004 - June 2006 and January - December 2009. (European Space Agency (ESA), GlobCover, 2010)

| **GlobCover Land Cover Maps** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | GlobCover Land Cover Maps | Sensor | ENVISAT: Medium Resolution Imaging Spectrometer (MERIS) |
| Coordinate System | WGS84 | Data type | georeferenced TOA radiance data (Level 1b) |
| Production Date | 18/02/2011 | Sensor resolution | Fine resolution 290\*260m  Reduced resolution 1.2 km x 1.04 km |
| Coverage (top L, BR coordinates) | Global, Upper left corner: 90°N, 180°W  ,Lower right corner: 65°S, 180°E | Acquisition Date | 2009 |
| Grid size | 1/360o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | 2000 m |
| Vertical Accuracy | - | Vertical Accuracy | 2000 m |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif),  ArcGIS Layer (.lyr) |  |  |
| File size | 818 MB |  |  |
| Download site | <http://due.esrin.esa.int/page_globcover.php> (European Space Agency (ESA), GlobCover, 2010) | | |
| Comments | - | | |
| Preview  Source: ESA |  | | |

## Land use and Land cover

This is the result of a collaboration between the FAO with IIASA, ISRIC-World Soil Information, Institute of Soil Science, Chinese Academy of Sciences (ISSCAS), and the Joint Research Centre of the European Commission (JRC).

The Harmonized World Soil Database is a 30 arc-second raster database with over 15,000 different soil mapping units that combines existing regional and national updates of soil information worldwide (SOTER, ESD, Soil Map of China, WISE) with the information contained within the 1:5,000,000 scale FAO-UNESCO Soil Map of the World (FAO, 1971-1981).

The resulting raster database consists of 21,600 rows by 43,200 columns, which are linked to harmonized soil property data. The use of a standardized structure allows for the linkage of the attribute data with the raster map to display or query the composition in terms of soil units and the characterization of selected soil parameters (organic Carbon, pH, water storage capacity, soil depth, cation exchange capacity of the soil and the clay fraction, total exchangeable nutrients, lime and gypsum contents, sodium exchange percentage, salinity, textural class and granulometry). (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009)

In this section only the Land Use and Land Cover subset of this database is presented. The other subsets were classified accordingly to the MAIL categories.

### Rain-fed cultivated land *(CN: lcu\_5.1)*

| **Rain-fed cultivated land** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Rain-fed cultivated land | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |
| Preview  Source: FAO |  | | |

### Irrigated cultivated land, according to GMIA 4.0 *(CN: lcu\_5.2)*

| **Irrigated cultivated land, according to GMIA 4.0** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Irrigated cultivated land, according to GMIA 4.0 | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |
| Preview  Source: FAO |  | | |

### Total cultivated land *(CN: lcu\_5.3)*

| **Total cultivated land** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Total cultivated land | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |
| Preview  Source: FAO |  | | |

### Forest land, calibrated to FRA2000 land statistics *(CN: lcu\_5.4)*

| **Forest land, calibrated to FRA2000 land statistics** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Forest land, calibrated to FRA2000 land statistics | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |
| Preview  Source: FAO |  | | |

### Grass/scrub/woodland *(CN: lcu\_5.5)*

| **Grass/scrub/woodland** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Grass/scrub/woodland | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |
| Preview  Source: FAO |  | | |

### Built-up land (residential and infrastructure) *(CN: lcu\_5.6)*

| **Built-up land (residential and infrastructure)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Built-up land (residential and infrastructure) | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |
| Preview  Source: FAO |  | | |

### Barren/very sparsely vegetated land *(CN: lcu\_5.7)*

| **Barren/very sparsely vegetated land** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Barren/very sparsely vegetated land | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |
| Preview  Source: FAO |  | | |

### Mapped water bodies *(CN: lcu\_5.8)*

| **Mapped water bodies** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Mapped water bodies | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | * SRTM Non-Void Filled * SRTM Void Filled * SRTM 1 Arc-Second Global |
| Production Date | March 2009 | Sensor resolution | 1 arc-second for global coverage (~30 meters)  3 arc-seconds for global coverage (~90 meters) |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | 16m |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.01 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Source databases:   * Soil Map of the World * SOTER regional studies * The European Soil Database   Soil parameter estimates based on the World Inventory of Soil Emission Potential (WISE) database | | |

## TanDEM-X Global Forest map *(CN: lcu\_6)*

The TanDEM-X Forest/Non-Forest Map is a project developed by the Microwaves and Radar Institute at the German Aerospace Center (DLR), within the activities of the TanDEM-X mission. The goal is the derivation of a global forest/non-forest classification mosaic from TanDEM-X bistatic interferometric synthetic aperture radar (InSAR) data, acquired for the generation of the global digital elevation model (DEM) in Stripmap single polarization (HH) mode.

The TanDEM-X Forest/Non-Forest Map (FNF) has been generated by processing and mosaicking more than 500,000 TanDEM-X bistatic images acquired from 2011 to 2015. The map has a spatial resolution of 50 x 50 m. Forested and non-forested areas are depicted in green and white, respectively. Water bodies are depicted in blue and black is used for identifying urban areas and invalid pixels. (German Aerospace Center (DLR), TanDEM-X Forest/Non-Forest Map - Global, 2019)

| **TanDEM-X Global Forest map** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TanDEM-X Global Forest map | Sensor | InSAR: Interferometric synthetic aperture radar |
| Coordinate System | WGS84 | Data type | Differential-InSAR (D-InSAR) |
| Production Date | 04/04/2019 | Sensor resolution | Standard resolution: 2-3 m  High resolution: 1-2 m |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2011 - 2015 |
| Grid size | 50m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | PNG image (.png)  TIFF image (.tiff) |  |  |
| File size | 3.26 GB |  |  |
| Download site | <https://download.geoservice.dlr.de/FNF50/> (German Aerospace Center (DLR), TanDEM-X Forest/Non-Forest Map - Global, 2019) | | |
| Comments | - | | |
| Preview  Source: DLR |  | | |

## GlobeLand30 (CN: lcu\_7)

GlobeLand30 refers to the land cover of the earth between latitude 80N to 80S. The images utilized for the GlobeLand30 classification are multispectral images with 30 meters spatial resolution, including the TM5 and ETM + of America Land Resources Satellite (Landsat) and the multispectral images of the China Environmental Disaster Alleviation Satellite (HJ-1). Besides multispectral images, plenty of auxiliary data are also used in the process of data production such as sample collection and classification, etc. They mainly contain: the existing land cover data (global and regional), MODIS NDVI, global geographic information, global DEM, thematic data (global mangrove forest, wetland and glacier, etc.) and online resources (Google Earth, Bing Map, OpenStreetMap and Map World) and so on.

The data are classified in 10 land cover types, namely cultivated land, forest, grassland, shrubland, wetland，water bodies, tundra, artificial surfaces, bareland, permanent snow and ice. The GlobeLand30 classification scheme is explained below:

1. **Cultivated Land**: Lands used for agriculture, horticulture and gardens, including paddy fields, irrigated and dry farmland, vegetation and fruit gardens, etc.
2. **Forest**: Lands covered with trees, with vegetation cover over 30%, including deciduous and coniferous forests, and sparse woodland with cover 10 - 30%, etc.
3. **Grassland**: Lands covered by natural grass with cover over 10%, etc.
4. **Shrubland**: Lands covered with shrubs with cover over 30%, including deciduous and evergreen shrubs, and desert steppe with cover over 10%, etc.
5. **Water bodies**: Water bodies in the land area, including river, lake, reservoir, fish pond, etc.
6. **Wetland**: Lands covered with wetland plants and water bodies, including inland marsh, lake marsh, river floodplain wetland, forest/shrub wetland, peat bogs, mangrove and salt marsh, etc.
7. **Tundra**: Lands covered by lichen, moss, hardy perennial herb and shrubs in the polar regions, including shrub tundra, herbaceous tundra, wet tundra and barren tundra, etc.
8. **Artificial surfaces**: Lands modified by human activities, including all kinds of habitation, industrial and mining area, transportation facilities, and interior urban green zones and water bodies, etc.
9. **Bareland**: Lands with vegetation cover lower than 10%, including desert, sandy fields, Gobi, bare rocks, saline and alkaline lands, etc.
10. **Permanent snow and ice**: Lands covered by permanent snow, glacier and icecap.

(National Geomatics Center of China, Globeland30, 2010)

| **GlobeLand30** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | GlobeLand30 | Sensor | Landsat:   * Thematic Mapper (TM) * Enhanced Thematic Mapper (ETM)   HJ-1:   * Wide View CCD Cameras (WVC) * Hyperspectral Imager(HSI) * Infrared Multispectral Scanner (IRMSS) |
| Coordinate System | WGS84 | Data type | - |
| Production Date | May 2014 | Sensor resolution | Landsat: 120 m  HJ-1: 30-100m |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2008 - 2011 |
| Grid size | 30 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | 75m |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif)  shapefiles |  |  |
| File size | 2.05 GB |  |  |
| Download site | <http://www.globallandcover.com/GLC30Download/index.aspx> (National Geomatics Center of China, Globeland30, 2010) | | |
| Comments | The overall accuracy of GlobeLand30 – 2010 reaches 83.51%. the k indicator is 0.78. | | |
| Preview  Source: Global Land Cover |  | | |

# Terrain datasets

In this category layers with elevation, slope and aspect information were classified. There are many freely available datasets but only two were selected for the needs of the MAIL project based on their resolution and European coverage

* Digital Elevation Model of Europe, by EEA
* Terrain, by FAO

Alternatives, such as the JAXA’s World Elevation Data (30-meter mesh version) were not selected due to the incomplete coverage of MAIL’s area of interest.

## Digital Elevation Model of Europe

EU-DEM is a digital surface model (DSM) of EEA member and cooperating countries representing the first surface as illuminated by the sensors. It is a hybrid product based on SRTM and ASTER GDEM data fused by a weighted averaging approach. (European Environment Agency, Digital Elevation Model over Europe (EU-DEM), 2017)

### Digital Elevation Model of Europe v1.1 *(CN: t\_1.1)*

This is the v1.1 of EU-DEM, based on data acquired in 2011.

| **(EU-DEM) Digital Elevation Model of Europe v1.1** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Digital Elevation Model of Europe v1.1 | Sensor | (GLAS) Geoscience Laser Altimeter System |
| Coordinate System | ETRS89 LAEA | Data type | level 1A, 1B, 2 and 3 data products |
| Production Date | Apr 20, 2016 | Sensor resolution | 60 m to 70 m x 60 m to 70 m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2011 |
| Grid size | 25 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | +/- 7 m RMSE | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Geotiff 32 bits |  |  |
| File size | 47.0 GB |  |  |
| Download site | <http://www.eea.europa.eu/data-and-maps/data/eu-dem#tab-european-data> (European Environment Agency, Digital Elevation Model over Europe (EU-DEM), 2017) | | |
| Comments | - | | |
| Preview  Source: EEA |  | | |

### Digital Elevation Model of Europe v1.0 *(CN: t\_1.2)*

This is the v1.1 of EU-DEM, based on data acquired in 2000.

| **(EU-DEM) Digital Elevation Model of Europe v1.0** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Digital Elevation Model of Europe v1.0 | Sensor | (SRTM) Shuttle Radar Topography Mission  (ASTER) Advanced Spaceborne Thermal Emission and Reflection Radiometer : VNIR, SWIR, TIR |
| Coordinate System | ETRS89 LAEA | Data type | •SRTM Non-Void Filled  •SRTM Void Filled  •SRTM 1 Arc-Second Global |
| Production Date | Apr 20, 2016 | Sensor resolution | SRTM: 1-arc second  ASTER: 15 to 90 m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2000 |
| Grid size | 25 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 86.4 GB |  |  |
| Download site | <http://www.eea.europa.eu/data-and-maps/data/eu-dem#tab-european-data> (European Environment Agency, Digital Elevation Model over Europe (EU-DEM), 2017) | | |
| Comments | - | | |
| Preview  Source: EEA |  | | |

### (EU-DEM) Slope *(CN: t\_1.3)*

That subset is based on v1.0 of EU-DEM, based on data acquired in 2000.

| **(EU-DEM) Slope** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Slope | Sensor | (SRTM) Shuttle Radar Topography Mission  (ASTER) Advanced Spaceborne Thermal Emission and Reflection Radiometer : VNIR, SWIR, TIR |
| Coordinate System | ETRS89 LAEA | Data type | •SRTM Non-Void Filled  •SRTM Void Filled  •SRTM 1 Arc-Second Global |
| Production Date | Apr 20, 2016 | Sensor resolution | SRTM: 1-arc second  ASTER: 15 to 90 m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2000 |
| Grid size | 25 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 4.50 GB |  |  |
| Download site | <http://www.eea.europa.eu/data-and-maps/data/eu-dem#tab-european-data> (European Environment Agency, Digital Elevation Model over Europe (EU-DEM), 2017) | | |
| Comments | - | | |
| Preview  Source: EEA |  | | |

### (EU-DEM) Aspect *(CN: t\_1.4)*

That subset is based on v1.0 of EU-DEM, based on data acquired in 2000.

| **(EU-DEM) Aspect** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Aspect | Sensor | (SRTM) Shuttle Radar Topography Mission  (ASTER) Advanced Spaceborne Thermal Emission and Reflection Radiometer: VNIR, SWIR, TIR |
| Coordinate System | ETRS89 LAEA | Data type | •SRTM Non-Void Filled  •SRTM Void Filled  •SRTM 1 Arc-Second Global |
| Production Date | Apr 20, 2016 | Sensor resolution | SRTM: 1-arc second  ASTER: 15 to 90 m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2000 |
| Grid size | 25 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 17.0 GB |  |  |
| Download site | <http://www.eea.europa.eu/data-and-maps/data/eu-dem#tab-european-data> (European Environment Agency, Digital Elevation Model over Europe (EU-DEM), 2017) | | |
| Comments | - | | |
| Preview  Source: EEA |  | | |

### (EU-DEM) Hillshade *(CN: t\_1.5)*

That subset is based on v1.0 of EU-DEM, based on data acquired in 2000.

| **(EU-DEM) Hillshade** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Hillshade | Sensor | (SRTM) Shuttle Radar Topography Mission  (ASTER) Advanced Spaceborne Thermal Emission and Reflection Radiometer : VNIR, SWIR, TIR |
| Coordinate System | ETRS89 LAEA | Data type | •SRTM Non-Void Filled  •SRTM Void Filled  •SRTM 1 Arc-Second Global |
| Production Date | Apr 20, 2016 | Sensor resolution | SRTM: 1-arc second  ASTER: 15 to 90 m |
| Coverage (top L, BR coordinates) | Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom | Acquisition Date | 2000 |
| Grid size | 25 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 9.23 GB |  |  |
| Download site | <http://www.eea.europa.eu/data-and-maps/data/eu-dem#tab-european-data> (European Environment Agency, Digital Elevation Model over Europe (EU-DEM), 2017) | | |
| Comments | - | | |
| Preview  Source: EEA |  | | |

## Terrain

This dataset is based in FAO’s Harmonized World Soil Database which is a 30 arc-second raster database. The data include an elevation map describing the median elevation in each grid cell, eight slope maps, and five aspect maps describing distributions (i.e. pixel counts) of the respective slope or aspect classes calculated for 3 arc-sec data and accumulated to 30 arc-sec and 5 minutes latitude/longitude grid cells respectively. (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009)

### Elevation (CN: t\_2.1)

| **(Terrain) Elevation** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Elevation | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | •SRTM Non-Void Filled  •SRTM Void Filled  •SRTM 1 Arc-Second Global |
| Production Date | - | Sensor resolution | 1-arc second |
| Coverage (top L, BR coordinates) | 60º N. and 56º S. latitude | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII files  grid format |  |  |
| File size | 2.97 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | - | | |

### Slopes (CN: t\_2.2)

| **(Terrain) Slopes** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Slopes | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | •SRTM Non-Void Filled  •SRTM Void Filled  •SRTM 1 Arc-Second Global |
| Production Date | - | Sensor resolution | 1-arc second |
| Coverage (top L, BR coordinates) | 60º N. and 56º S. latitude | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII files  grid format |  |  |
| File size | 2.97 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | - | | |
| Preview  Source: FAO |  | | |

### Aspect (CN: t\_2.3)

| **(Terrain) Aspect** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Aspect | Sensor | (SRTM) Shuttle Radar Topography Mission |
| Coordinate System | WGS84 | Data type | •SRTM Non-Void Filled  •SRTM Void Filled  •SRTM 1 Arc-Second Global |
| Production Date | - | Sensor resolution | 1-arc second |
| Coverage (top L, BR coordinates) | 60º N. and 56º S. latitude | Acquisition Date | 2008 |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII files  grid format |  |  |
| File size | 2.97 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | - | | |
| Preview  Source: FAO |  | | |

# Soil – Geological datasets

Twenty-three datasets consisting of 147 subsets were collected in this category. Nineteen of these datasets have European Coverage and use the ETRS 89 LAEA projection system while 4 of them have Global Coverage and use the WGS84 projection.

## European Soil Database Derived data

A number of layers for soil properties have been created based on data from the European Soil Database in combination with data from the Harmonized World Soil Database (HWSD) and Soil-Terrain Database (SOTER). The available layers include: Total available water content, Depth available to roots, Clay content, Silt content, Sand content, Organic carbon, Bulk Density, Coarse fragments. The layers of soil properties of Soil Typological Units (STUs) are only intended to facilitate modelling purposes. The final result of the modelling activity should be aggregated to SMUs or another larger mapping unit. The derived data have mainly the following features (compared to the past - European Soil Database):

* Represent a soil property from all STUs pertaining to an SMU in a single raster layer was made by mapping the STUs to geographic positions
* The attribute data are in part based on the STU table of the ESDB and other data sources: Harmonized World Soil Database (HWSD), Soil and Terrain Database (SOTER)
* The range of parameters is broadened by using Pedo-Transfer Rules (PTRs) to derive estimates of additional parameter (European Soil Data Centre (ESDAC), Derived data, 2013)

### Area of STU allocation *(CN: sg\_1.1)*

| **Area of STU allocation** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Area of STU allocation | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 25.8 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Depth available to roots *(CN: sg\_1.2)*

| **Depth available to roots** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Depth available to roots | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 25.8 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Clay content (topsoil & subsoil) *(CN: sg\_1.3)*

| **Clay content (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Clay content (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 207 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-dat> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Sand content (topsoil & subsoil) *(CN: sg\_1.4)*

| **Sand content (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Sand content (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 207 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Silt content (topsoil & subsoil) *(CN: sg\_1.5)*

| **Silt content (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Silt content (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 207 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Organic carbon content (topsoil & subsoil) *(CN: sg\_1.6)*

| **Organic carbon content (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Organic carbon content (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 207 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Bulk density (topsoil & subsoil) *(CN: sg\_1.7)*

| **Bulk density (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Bulk density (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 207 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Coarse Fragments (topsoil & subsoil) *(CN: sg\_1.8)*

| **Coarse Fragments (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Coarse Fragments (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 51.7 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Total available water content from PTR (topsoil & subsoil) *(CN: sg\_1.9)*

| **Total available water content from PTR (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Total available water content from PTR (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 207 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

### Total available water content from PTF (topsoil & subsoil) *(CN: sg\_1.10)*

| **Total available water content from PTF (topsoil & subsoil)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Total available water content from PTF (topsoil & subsoil) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2013 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2013 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi raster format |  |  |
| File size | 207 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/european-soil-database-derived-data> (European Soil Data Centre (ESDAC), Derived data, 2013) | | |
| Comments | layer has been created based on:   1. data from the European Soil Database 2. data from the Harmonized World Soil Database (HWSD) 3. Soil-Terrain Database (SOTER). | | |
| Preview  Source: ESDAC / JRC |  | | |

## European Landslide Susceptibility Map version 2 (ELSUS v2)

ELSUS v2 shows levels of spatial probability of generic landslide occurrence at continental scale. It covers all the European Union member states except Malta, and several neighbouring countries. The map has been produced by regionalizing the study area based on elevation and climatic conditions, followed by spatial multi-criteria evaluation modelling using pan-European slope angle, shallow sub-surface lithology, and land cover spatial datasets as the main landslide conditioning factors. In addition, the location of over 149,000 landslides across Europe, provided by various national organizations or collected by the authors, has been used for model calibration and map validation. Additional information is given in both the metadata and the references below.

Compared with the previous version ELSUS1000 v1, ELSUS v2 provides larger geographical coverage, higher spatial resolution and higher prediction model performance. (European Soil Data Centre (ESDAC), European Landslide Susceptibility Map version 2 (ELSUS v2), 2018)

### European Landslide Susceptibility Map version 2 (ELSUS v2) *(CN: sg\_2.1)*

The landslide susceptibility map is available to download together with ancillary maps including confidence level of the classified landslide susceptibility, climate-physiographic regions, slope angle, lithology, and land cover. ELSUS v2 is to be viewed at scales up to 1:200,000 and should not be used to deduce local information on landslide susceptibility.

| **European Landslide Susceptibility Map version 2 (ELSUS v2)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | European Landslide Susceptibility Map version 2 (ELSUS v2) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 12 February 2018 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | All European Union member states except Malta, in addition to Albania, Andorra, Bosnia and Herzegovina, Croatia, FYR Macedonia, Iceland, Kosovo, Liechtenstein, Montenegro, Norway, San Marino, Serbia, and Switzerland | Acquisition Date | 2018 |
| Grid size | 200 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Esri ASCII Grid |  |  |
| File size | 747 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/european-landslide-susceptibility-map-elsus1000-v1> (European Soil Data Centre (ESDAC), European Landslide Susceptibility Map version 2 (ELSUS v2), 2018) | | |
| Comments | Derived from heuristic-statistical modelling of main landslide conditioning factors using also landslide location data. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Confidence Level Map of the European Landslide Susceptibility Map (ELSUS v2) *(CN: sg\_2.2)*

| **Confidence Level Map of the European Landslide Susceptibility Map (ELSUS v2)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Confidence Level Map of the European Landslide Susceptibility Map (ELSUS v2) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 12 February 2018 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | All or most of Albania, Austria, Bulgaria, Czech Republic, Cyprus, France, Greece, Hungary, Ireland, Italy, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and UK, and part of Belgium, Denmark, and Germany | Acquisition Date | 2018 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Esri Shapefile |  |  |
| File size | 6.46 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/european-landslide-susceptibility-map-elsus1000-v1> (European Soil Data Centre (ESDAC), European Landslide Susceptibility Map version 2 (ELSUS v2), 2018) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Climate-Physiographic Regions *(CN: sg\_2.3)*

| **Climate-Physiographic Regions** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Climate-Physiographic Regions | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 12 February 2018 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | All 28 European Union member states, in addition to Albania, Andorra, Bosnia and Herzegovina, Croatia, FYR Macedonia, Iceland, Kosovo, Liechtenstein, Montenegro, Norway, San Marino, Serbia, and Switzerland | Acquisition Date | 2018 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Esri Shapefile |  |  |
| File size | 23.2 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/european-landslide-susceptibility-map-elsus1000-v1> (European Soil Data Centre (ESDAC), European Landslide Susceptibility Map version 2 (ELSUS v2), 2018) | | |
| Comments | Derived from intersection of Köppen climate zones with NORDREGIO mountain classification deduced from GTOPO30 information. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Slope Angle *(CN: sg\_2.4)*

| **Slope Angle** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Slope Angle | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 12 February 2018 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | All 28 European Union member states, in addition to Albania, Andorra, Bosnia and Herzegovina, Croatia, FYR Macedonia, Iceland, Kosovo, Liechtenstein, Montenegro, Norway, San Marino, Serbia, and Switzerland | Acquisition Date | 2018 |
| Grid size | 200 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | GeoTIFF |  |  |
| File size | 374 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/european-landslide-susceptibility-map-elsus1000-v1> (European Soil Data Centre (ESDAC), European Landslide Susceptibility Map version 2 (ELSUS v2), 2018) | | |
| Comments | Derived mainly from BGR’s EU 27 DEM data, resampled to 200 m resolution. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Lithology (CN: sg\_2.5)

| **Lithology** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Lithology | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 12 February 2018 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | All 28 European Union member states, in addition to Albania, Andorra, Bosnia and Herzegovina, Croatia, FYR Macedonia, Iceland, Kosovo, Liechtenstein, Montenegro, Norway, San Marino, Serbia, and Switzerland | Acquisition Date | 2018 |
| Grid size | 200 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | GeoTIFF |  |  |
| File size | 374 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/european-landslide-susceptibility-map-elsus1000-v1> (European Soil Data Centre (ESDAC), European Landslide Susceptibility Map version 2 (ELSUS v2), 2018) | | |
| Comments | Derived from BGR’s IHME1500 data, rasterized to 200 m resolution. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Land Cover (CN: sg\_2.6)

| **Land Cover** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Land Cover | Sensor |  |
| Coordinate System | ETRS89 LAEA | Data type |  |
| Production Date | 12 February 2018 | Sensor resolution |  |
| Coverage (top L, BR coordinates) | All 28 European Union member states, in addition to Albania, Andorra, Bosnia and Herzegovina, Croatia, FYR Macedonia, Iceland, Kosovo, Liechtenstein, Montenegro, Norway, San Marino, Serbia, and Switzerland | Acquisition Date | 2018 |
| Grid size | 200 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | GeoTIFF |  |  |
| File size | 374 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/european-landslide-susceptibility-map-elsus1000-v1> (European Soil Data Centre (ESDAC), European Landslide Susceptibility Map version 2 (ELSUS v2), 2018) | | |
| Comments | derived from ESA GlobCover2009 data (http://due.esrin.esa.int/page\_globcover.php) resampled to 200 m resolution. | | |
| Preview  Source: ESDAC / JRC |  | | |

## European map of soil suitability to provide a platform for most human activities (EU28) *(CN: sg\_3)*

This dataset (map) presents the suitability of soil as a platform for most human activities.

Human activities on the earth’s surface are linked to the various types of land uses. Most of the human activities are performed on artificial surfaces, such as urban and industrial areas or in areas of commercial, transport or sport facilities. Therefore the evaluation of the partial soil quality index for the soil function to provide a platform for most human activities are considered with respect to the suitability for these artificial surfaces. Other main areas of human land use, such as agriculture and forestry are considered in other domains of the evaluation framework. The term artificial surfaces means built environment, where the soils function is to support the construction. Although advanced construction technologies can achieve development on all kind of soils possible, the costs may rise dramatically on less suitable lands and can also cause environmental problems (contamination, flooding, etc.).

Suitability of a given soil is calculated on the basis of its structural stability. The strength of the soil is considered in terms of resistance against compaction and shearing stress. The basic standpoint for the evaluation of soil strength is: the more stable the soil structure is, the higher its supporting ability for construction and other human activities. Most guidelines for construction purposes apply a kinematic approach for the suitability evaluation of soils of construction sites (Turner and Schuster 1996). Assessments also take the slope and underlying hydrological parameters into account.

Although soil susceptibility to compaction can be regarded as a good proxy of structural stability, from the viewpoint of construction suitability, mineral soils mostly show little differences. (European Soil Data Centre (ESDAC), European map of soil suitability to provide a platform for most human activities (EU28), 2016)

| **European map of soil suitability to provide a platform for most human activities (EU28)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | European map of soil suitability to provide a platform for most human activities (EU28) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | - |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 39.7 MB |  |  |
| Download site | <http://eusoils.jrc.ec.europa.eu/content/european-map-soil-suitability-provide-platform-most-human-activities-eu28> (European Soil Data Centre (ESDAC), European map of soil suitability to provide a platform for most human activities (EU28), 2016) | | |
| Comments | The data have been internally produced by JRC (Joint Research Centre) | | |
| Preview  Source: ESDAC / JRC |  | | |

## Global Soil Organic Carbon Estimates *(CN: sg\_4)*

Global estimates of soil organic carbon stocks have been produced in the past to support the calculation of potential emissions of CO2 from the soil under scenarios of change land use/cover and climatic conditions (IPCC, 2006), but very few global estimates are presented as spatial data. For global spatial layers on soil parameters, the most recent and complete dataset is available as the Harmonized World Soil Database (HWSD). The HWSD represents a step forward towards a spatially more detailed and thematically more refined set of global soil data. (European Soil Data Centre (ESDAC), Global Soil Organic Carbon Estimates, 2012)

| **Global Soil Organic Carbon Estimates** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Global Soil Organic Carbon Estimates | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | March 2012 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Idrisi |  |  |
| File size | 6.95 GB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/global-soil-organic-carbon-estimates> (European Soil Data Centre (ESDAC), Global Soil Organic Carbon Estimates, 2012) | | |
| Comments | The data has been created based on the amended Harmonised World Soil Database. | | |
| Preview  Source: ESDAC / JRC |  | | |

## Google Earth Files

At this chapter Google Earth Files (with ".kmz" extension) that correspond to 73 attribute maps derived from the European Soil Database v2 (ESDB v2) for EU27 countries are presented. The nature of each dataset is clarified by its name. (European Soil Data Centre (ESDAC), Google Earth Files, 2008)

### Limitation to Agricultural use

### Most important limitation to agricultural use *(CN: sg\_5.1)*

| **Most important limitation to agricultural use** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Most important limitation to agricultural use | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Secondary limitation to agricultural use *(CN: sg\_5.2)*

| **Secondary limitation to agricultural use** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Secondary limitation to agricultural use | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Soil Classification WRB

### WRB-FULL. Full soil code of the STU from the World Reference Base (WRB) for Soil Resources *(CN: sg\_5.3)*

| **WRB-FULL. Full soil code of the STU from the World Reference Base (WRB) for Soil Resources** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WRB-FULL. Full soil code of the STU from the World Reference Base (WRB) for Soil Resources | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### WRB-ADJ1. First soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources. *(CN: sg\_5.4)*

| **WRB-ADJ1. First soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WRB-ADJ1. First soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### WRB-ADJ2. Second soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources. *(CN: sg\_5.5)*

| **WRB-ADJ2. Second soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WRB-ADJ2. Second soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### WRB-LEV1. Soil reference group code of the STU from the World Reference Base (WRB) for Soil Resources. *(CN: sg\_5.6)*

| **WRB-LEV1. Soil reference group code of the STU from the World Reference Base (WRB) for Soil Resources.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WRB-LEV1. Soil reference group code of the STU from the World Reference Base (WRB) for Soil Resources. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Texture

### TEXT-DEP-CHG. Depth class to a textural change of the dominant and/or secondary surface 3 of the STU. *(CN: sg\_5.7)*

| **TEXT-DEP-CHG. Depth class to a textural change of the dominant and/or secondary surface 3 of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT-DEP-CHG. Depth class to a textural change of the dominant and/or secondary surface 3 of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TEXT-SRF-DOM. Dominant surface textural class of the STU. *(CN: sg\_5.8)*

| **TEXT-SRF-DOM. Dominant surface textural class of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT-SRF-DOM. Dominant surface textural class of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TEXT-SRF-SEC. Secondary surface textural class of the STU. *(CN: sg\_5.9)*

| **TEXT-SRF-SEC. Secondary surface textural class of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT-SRF-SEC. Secondary surface textural class of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TEXT-SUB-DOM. Dominant sub-surface textural class of the STU. *(CN: sg\_5.10)*

| **TEXT-SUB-DOM. Dominant sub-surface textural class of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT-SUB-DOM. Dominant sub-surface textural class of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TEXT-SUB-SEC. Secondary sub-surface textural class of the STU. *(sg\_5.11)*

| **TEXT-SUB-SEC. Secondary sub-surface textural class of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT-SUB-SEC. Secondary sub-surface textural class of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Parent Material

### PAR-MAT-DOM. code for dominant parent material of the STU. *(CN: sg\_5.12)*

| **PAR-MAT-DOM. code for dominant parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PAR-MAT-DOM. code for dominant parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size |  |
| Positional Accuracy | - | Positional Accuracy |  |
| Vertical Accuracy | - | Vertical Accuracy |  |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PAR-MAT-DOM1. Major group code for the dominant parent material of the STU. *(CN: sg\_5.13)*

| **PAR-MAT-DOM1. Major group code for the dominant parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PAR-MAT-DOM1. Major group code for the dominant parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PAR-MAT-DOM2. Second level code for the dominant parent material of the STU. *(CN: sg\_5.14)*

| **PAR-MAT-DOM2. Second level code for the dominant parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PAR-MAT-DOM2. Second level code for the dominant parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PAR-MAT-DOM3. Third level code for the dominant parent material of the STU. *(CN: sg\_5.15)*

| **PAR-MAT-DOM3. Third level code for the dominant parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PAR-MAT-DOM2. Second level code for the dominant parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PAR-MAT-SEC. Code for secondary parent material of the STU. *(CN: sg\_5.16)*

| **PAR-MAT-SEC. Code for secondary parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PAR-MAT-SEC. Code for secondary parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PAR-MAT-SEC1. Major group code for the secondary parent material of the STU. *(CN: sg\_5.17)*

| **PAR-MAT-SEC1. Major group code for the secondary parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PAR-MAT-SEC1. Major group code for the secondary parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PAR-MAT-SEC2. Second level code for the secondary parent material of the STU. *(CN: sg\_5.18)*

| **PAR-MAT-SEC2. Second level code for the secondary parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | R-MAT-SEC2. Second level code for the secondary parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PAR-MAT-SEC3. Third level code for the secondary parent material of the STU. *(CN: sg\_5.19)*

| **PAR-MAT-SEC3. Third level code for the secondary parent material of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PAR-MAT-SEC3. Third level code for the secondary parent material of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy |  |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Soil Classification FAO

### FAO85-FULL. Full soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend *(CN: sg\_5.20)*

| **FAO85-FULL. Full soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FAO85-FULL. Full soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### FAO85-LEV1. Soil major group code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. *(CN: sg\_5.21)*

| **FAO85-LEV1. Soil major group code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FAO85-LEV1. Soil major group code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### FAO85-LEV2. Second level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. *(CN: sg\_5.22)*

| **FAO85-LEV2. Second level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FAO85-LEV2. Second level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### FAO85-LEV3. Third level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. *(CN: sg\_5.23)*

| **FAO85-LEV3. Third level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FAO85-LEV3. Third level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### FAO90-FULL. Full soil code of the STU from the 1990 FAO-UNESCO Soil Legend. *(CN: sg\_5.24)*

| **FAO90-FULL. Full soil code of the STU from the 1990 FAO-UNESCO Soil Legend.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FAO90-FULL. Full soil code of the STU from the 1990 FAO-UNESCO Soil Legend. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### FAO90-LEV1. Soil major group code of the STU from the 1990 FAO-UNESCO Soil Legend. *(CN: sg\_5.25)*

| **FAO90-LEV1. Soil major group code of the STU from the 1990 FAO-UNESCO Soil Legend.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FAO90-LEV1. Soil major group code of the STU from the 1990 FAO-UNESCO Soil Legend. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### FAO90-LEV2. Second level soil code of the STU from the 1990 FAO-UNESCO soil legend *(CN: sg\_5.26)*

| **FAO90-LEV2. Second level soil code of the STU from the 1990 FAO-UNESCO soil legend** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FAO90-LEV2. Second level soil code of the STU from the 1990 FAO-UNESCO soil legend | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Land Use

### USE-DOM. Code for dominant land use of the STU. *(CN: sg\_5.37)*

| **USE-DOM. Code for dominant land use of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | USE-DOM. Code for dominant land use of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### USE-SEC. Code for secondary land use of the STU. *(CN: sg\_5.28)*

| **USE-SEC. Code for secondary land use of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | USE-SEC. Code for secondary land use of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Obstacle-Impermeable-Soil Water Regime

### IL. Code for the presence of an impermeable layer within the soil profile of the STU. *(CN: sg\_5.29)*

| **IL. Code for the presence of an impermeable layer within the soil profile of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | IL. Code for the presence of an impermeable layer within the soil profile of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### ROO. Depth class of an obstacle to roots within the STU. *(CN: sg\_5.30)*

| **ROO. Depth class of an obstacle to roots within the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | ROO. Depth class of an obstacle to roots within the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### WR. Dominant annual average soil water regime class of the soil profile of the STU. *(CN: sg\_5.31)*

| **WR. Dominant annual average soil water regime class of the soil profile of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WR. Dominant annual average soil water regime class of the soil profile of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Water Management System

### WM1. Code for normal presence and purpose of an existing water management system in agricultural land on more than 50% of the STU. *(CN: sg\_5.32)*

| **WM1. Code for normal presence and purpose of an existing water management system in agricultural land on more than 50% of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WM1. Code for normal presence and purpose of an existing water management system in agricultural land on more than 50% of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### WM2. Code for the type of an existing water management system. *(CN: sg\_5.33)*

| **WM2. Code for the type of an existing water management system.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WM2. Code for the type of an existing water management system. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Altitude - Slope

### SLOPE-DOM. Dominant slope class of the STU. *(CN: sg\_5.34)*

| **SLOPE-DOM. Dominant slope class of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | SLOPE-DOM. Dominant slope class of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | 2008 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### SLOPE-SEC. Secondary slope class of the STU. *(CN: sg\_5.35)*

| **SLOPE-SEC. Secondary slope class of the STU.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | SLOPE-SEC. Secondary slope class of the STU. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### ZMAX. Maximum elevation above sea level of the STU (in metres). *(CN: sg\_5.36)*

| **ZMAX. Maximum elevation above sea level of the STU (in metres).** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | ZMAX. Maximum elevation above sea level of the STU (in meters). | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### ZMIN. Minimum elevation above sea level of the STU (in metres). *(CN: sg\_5.37)*

| **ZMIN. Minimum elevation above sea level of the STU (in metres).** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | ZMIN. Minimum elevation above sea level of the STU (in metres). | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Primary Properties

### ALT. Elevation *(CN: sg\_5.38)*

| **ALT. Elevation** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | ALT. Elevation | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size |  |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### OC\_TOP. Topsoil organic carbon content. *(CN: sg\_5.39)*

| **OC\_TOP. Topsoil organic carbon content.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | OC\_TOP. Topsoil organic carbon content. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Peat (CN: sg\_5.40)

| **Peat** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Peat | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TEXT. Dominant surface textural class (completed from dominant STU). *(CN: sg\_5.41)*

| **TEXT. Dominant surface textural class (completed from dominant STU).** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT. Dominant surface textural class (completed from dominant STU). | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | https://esdac.jrc.ec.europa.eu/content/google-earth-files (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Chemical Properties

### BS\_SUB. Base saturation of the subsoil. *(CN: sg\_5.42)*

| **BS\_SUB. Base saturation of the subsoil.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | BS\_SUB. Base saturation of the subsoil. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### BS\_TOP. Base saturation of the topsoil. *(CN: sg\_5.43)*

| **BS\_TOP. Base saturation of the topsoil.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | BS\_TOP. Base saturation of the topsoil. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### CEC\_SUB. Subsoil cation exchange capacity. *(CN: sg\_5.44)*

| **CEC\_SUB. Subsoil cation exchange capacity.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | CEC\_SUB. Subsoil cation exchange capacity. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### CEC\_TOP. Topsoil cation exchange capacity. *(CN: sg\_5.45)*

| **CEC\_TOP. Topsoil cation exchange capacity.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | CEC\_TOP. Topsoil cation exchange capacity. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### DIFF. Soil profile differentiation. *(CN: sg\_5.46)*

| **DIFF. Soil profile differentiation.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | DIFF. Soil profile differentiation. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### MIN. Profile mineralogy. *(CN: sg\_5.47)*

| **MIN. Profile mineralogy.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | MIN. Profile mineralogy. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### MIN\_SUB. Subsoil mineralogy. *(CN: sg\_5.48)*

| **MIN\_SUB. Subsoil mineralogy.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | MIN\_SUB. Subsoil mineralogy. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### MIN\_TOP. Topsoil mineralogy. *(CN: sg\_5.49)*

| **MIN\_TOP. Topsoil mineralogy.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | MIN\_TOP. Topsoil mineralogy. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Mechanical Properties

### DR. Depth to rock. *(CN: sg\_5.50)*

| **DR. Depth to rock.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | DR. Depth to rock. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PD\_SUB = Subsoil packing density *(CN: sg\_5.51)*

| **PD\_SUB = Subsoil packing density** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PD\_SUB = Subsoil packing density | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PD\_TOP = Topsoil packing density *(CN: sg\_5.52)*

| **PD\_TOP = Topsoil packing density** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PD\_TOP = Topsoil packing density | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### STR\_SUB = Subsoil structure *(CN: sg\_5.53)*

| **STR\_SUB = Subsoil structure** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | STR\_SUB = Subsoil structure. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### STR\_TOP = Topsoil structure. *(CN: sg\_5.54)*

| **STR\_TOP = Topsoil structure** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | STR\_TOP = Topsoil structure | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TD. Rule infered subsoil 3. *(CN: sg\_5.55)*

| **TD. Rule infered subsoil 3.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TD. Rule infered subsoil 3. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### VS. Volume of stones *(CN: sg\_5.56)*

| **VS. Volume of stones** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | VS. Volume of stones | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Hydrological Properties

### AWC\_SUB. Subsoil available water capacity. *(CN: sg\_5.57)*

| **AWC\_SUB. Subsoil available water capacity.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | AWC\_SUB. Subsoil available water capacity. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### AWC\_TOP. Topsoil available water capacity. *(CN: sg\_5.58)*

| **AWC\_TOP. Topsoil available water capacity.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | AWC\_TOP. Topsoil available water capacity. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### DGH. Depth to a gleyed horizon. *(CN: sg\_5.59)*

| **DGH. Depth to a gleyed horizon.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | DGH. Depth to a gleyed horizon. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### DIMP. Depth to an impermeable layer. *(CN: sg\_5.60)*

| **DIMP. Depth to an impermeable layer.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | DIMP. Depth to an impermeable layer. | Sensor |  |
| Coordinate System | WGS84 | Data type |  |
| Production Date | 2008 | Sensor resolution |  |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | 2008 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### EAWC\_SUB. Subsoil easily available water capacity. *(CN: sg\_5.61)*

| **EAWC\_SUB. Subsoil easily available water capacity.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | EAWC\_SUB. Subsoil easily available water capacity. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### EAWC\_TOP. Topsoil easily available water capacity. *(CN: sg\_5.62)*

| **EAWC\_TOP. Topsoil easily available water capacity.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | EAWC\_TOP. Topsoil easily available water capacity. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### HG. Hydrogeological class. *(CN: sg\_5.63)*

| **HG. Hydrogeological class.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | HG. Hydrogeological class. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PMH. Parent material hydrogeological type. *(CN: sg\_5.64)*

| **PMH. Parent material hydrogeological type.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PMH. Parent material hydrogeological type. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### Applications

### AGLIM1NNI. Dominant limitation to agricultural use (without no information). *(CN: sg\_5.65)*

| **AGLIM1NNI. Dominant limitation to agricultural use (without no information).** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | AGLIM1NNI. Dominant limitation to agricultural use (without no information). | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### AGLIM2NNI. Secondary limitation to agricultural use (without no information). *(CN: sg\_5.66)*

| **AGLIM2NNI. Secondary limitation to agricultural use (without no information).** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | AGLIM2NNI. Secondary limitation to agricultural use (without no information). | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### ATC. Accumulated temperature class. *(CN: sg\_5.67)*

| **ATC. Accumulated temperature class.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | ATC. Accumulated temperature class. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### CRUSTING. Soil crusting class. *(CN: sg\_5.68)*

| **CRUSTING. Soil crusting class.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | CRUSTING. Soil crusting class. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### ERODIBILITY. Soil erodibility class. *(CN: sg\_5.69)*

| **ERODIBILITY. Soil erodibility class.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | ERODIBILITY. Soil erodibility class. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### PHYS-CHIM. Physi-chemical factor of soil crusting & erodibility. (CN: sg\_5.70)

| **PHYS-CHIM. Physi-chemical factor of soil crusting & erodibility.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PHYS-CHIM. Physi-chemical factor of soil crusting & erodibility. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TEXT-CRUST. Textural factor of soil crusting. (CN: sg\_5.71)

| **TEXT-CRUST. Textural factor of soil crusting.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT-CRUST. Textural factor of soil crusting. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### TEXT-EROD. Textural factor of soil erodibility. (CN: sg\_5.72)

| **TEXT-EROD. Textural factor of soil erodibility.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TEXT-EROD. Textural factor of soil erodibility. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

### USE. Regrouped land use class. (CN: sg\_5.73)

| **USE. Regrouped land use class.** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | USE. Regrouped land use class. | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Google Earth Files (with ".kmz" extension) |  |  |
| File size | 20 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/google-earth-files> (European Soil Data Centre (ESDAC), Google Earth Files, 2008) | | |
| Comments | Derived from the European Soil Database v2 (ESDB v2) | | |
| Preview  Source: ESDAC / JRC |  | | |

## Heavy metals in topsoil (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc) *(CN: sg\_6)*

This dataset presents mapping concentrations of eight critical heavy metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc) using the 1588 georeferenced topsoil samples from the FOREGS Geochemical database. The concentrations were interpolated using the block regression-kriging method over the 26 European countries that contributed to the database. (European Soil Data Centre (ESDAC), Heavy Metals in topsoils, 2008)

| **Heavy metals in topsoil (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Heavy metals in topsoil (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU26 | Acquisition Date | - |
| Grid size | 5 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | KML (.kml) |  |  |
| File size | 40.0 KB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/heavy-metals-topsoils> (European Soil Data Centre (ESDAC), Heavy Metals in topsoils, 2008) | | |
| Comments | The data has been created based on 1588 georeferenced topsoil samples from the FOREGS Geochemical database. | | |
| Preview  Source: ESDAC / JRC |  | | |

## LS-factor (Slope Length and Steepness factor) for the EU

### European LS-factor map at 100m resolution *(CN: sg\_7.1)*

This dataset (GIS maps) (2015) represents the "Slope Length and Steepness factor" (LS-factor), which is one of the six input layers used to calculate the Universal Soil Loss Equation (USLE) model, which is the most frequently used model for soil erosion risk estimation; for EU28; maps at resolutions of 25m (per country) and 100m (Europe-wide). (European Soil Data Centre (ESDAC) ,LS-factor (Slope Length and Steepness factor) for the EU, 2015)

| **European LS-factor map at 100m resolution** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | European LS-factor map at 100m resolution | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | - |
| Grid size | 100 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 2.80 GB |  |  |
| Download site | <http://eusoils.jrc.ec.europa.eu/content/ls-factor-slope-length-and-steepness-factor-eu> (European Soil Data Centre (ESDAC) ,LS-factor (Slope Length and Steepness factor) for the EU, 2015) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### LS-factor map at 25m resolution per country *(CN: sg\_7.2)*

| **LS-factor map at 25m resolution per country** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | LS-factor map at 25m resolution per country | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | - |
| Grid size | 25 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 39.7 GB |  |  |
| Download site | <http://eusoils.jrc.ec.europa.eu/content/ls-factor-slope-length-and-steepness-factor-eu> (European Soil Data Centre (ESDAC) ,LS-factor (Slope Length and Steepness factor) for the EU, 2015) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

## Maps of indicators of soil hydraulic properties for Europe

The soil hydraulic properties maps (2016) for Europe have the following layers

Water retention of topsoil based on saturated water content (cm3/cm3), water content at field capacity (cm3/cm3), and water content at wilting point (cm3/cm3) Hydraulic conductivity of topsoil based on saturated hydraulic conductivity (cm/day). Besides the true values in the units mentioned values scaled between 1 and 10 without measurement units were also calculated. (European Soil Data Centre (ESDAC), Maps of indicators of soil hydraulic properties for Europe, 2016)

### Saturated water content *(CN: sg\_8.1)*

| **Saturated water content** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Saturated water content | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU + Balkan + Norway | Acquisition Date | 2014 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Raster (tif extension) |  |  |
| File size | 25.8 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/maps-indicators-soil-hydraulic-properties-europe#tabs-0-description=0> (European Soil Data Centre (ESDAC), Maps of indicators of soil hydraulic properties for Europe, 2016) | | |
| Comments | These data/maps are based on results published in peer-review articles and datasets available in ESDAC | | |
| Preview  Source: ESDAC / JRC |  | | |

### Water content at field capacity *(CN: sg\_8.2)*

| **water content at field capacity** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | water content at field capacity | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU + Balkan + Norway | Acquisition Date | 2014 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 20.2 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/maps-indicators-soil-hydraulic-properties-europe#tabs-0-description=0> (European Soil Data Centre (ESDAC), Maps of indicators of soil hydraulic properties for Europe, 2016) | | |
| Comments | These data/maps are based on results published in peer-review articles and datasets available in ESDAC | | |
| Preview  Source: ESDAC / JRC |  | | |

### Water content at wilting point *(CN: sg\_8.3)*

| **water content at wilting point** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | water content at wilting point | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU + Balkan + Norway | Acquisition Date | 2014 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 19.9 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/maps-indicators-soil-hydraulic-properties-europe#tabs-0-description=0> (European Soil Data Centre (ESDAC), Maps of indicators of soil hydraulic properties for Europe, 2016) | | |
| Comments | These data/maps are based on results published in peer-review articles and datasets available in ESDAC | | |
| Preview  Source: ESDAC / JRC |  | | |

### Saturated hydraulic conductivity *(CN: sg\_8.4)*

| **Saturated hydraulic conductivity** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Saturated hydraulic conductivity | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU + Balkan + Norway | Acquisition Date | 2014 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 22.7 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/maps-indicators-soil-hydraulic-properties-europe#tabs-0-description=0> (European Soil Data Centre (ESDAC), Maps of indicators of soil hydraulic properties for Europe, 2016) | | |
| Comments | These data/maps are based on results published in peer-review articles and datasets available in ESDAC | | |
| Preview  Source: ESDAC / JRC |  | | |

## Potential threats to soil biodiversity in Europe

This dataset contains 3 GIS maps showing the Potential threats to soil biodiversity in Europe (for soil microorganisms, for fauna, for biological functions), along with 13 input layers (habitat fragmentation, climate change, soil erosion, etc.)with a spatial resolution of 500m. (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016)

### Soil biological functions threat *(CN: sg\_9.1)*

| **Soil biological functions threat** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil biological functions threat | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr) TIFF image (.tif) |  |  |
| File size | 507 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Soil fauna threat *(CN: sg\_9.2)*

| **Soil fauna threat** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil fauna threat | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr) TIFF image (.tif) |  |  |
| File size | 605 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Soil microorganisms threat *(CN: sg\_9.3)*

| **Soil microorganisms threat** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil microorganisms threat | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr) TIFF image (.tif) |  |  |
| File size | 507 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Climate change *(CN: sg\_9.4)*

| **Climate change** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Climate change | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | - |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 136 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Compaction (CN: sg\_9.5)

| **Compaction** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Compaction | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 242 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Erosion (CN: sg\_9.6)

| **Erosion** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Erosion | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 1.01 GB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### GMO use (CN: sg\_9.7)

| **GMO use** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | GMO use | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 1.55 GB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Habitat fragmentation *(CN: sg\_9.8)*

| **Habitat fragmentation** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Habitat fragmentation | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 506 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Industrial pollution *(CN: sg\_9.9)*

| **Industrial pollution** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Industrial pollution | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 1.01 GB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Intensive human exploitation *(CN: sg\_9.10)*

| **Intensive human exploitation** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Intensive human exploitation | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 36.8 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Invasive species *(CN: sg\_9.11)*

| **Invasive species** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Invasive species | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 51.0 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Land use change *(CN: sg\_9.12)*

| **Land use change** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Land use change | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 10.1 GB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Organic matter decline *(CN: sg\_9.13)*

| **Organic matter decline** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Organic matter decline | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 189 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Radioactivity *(CN: sg\_9.14)*

| **Radioactivity** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Radioactivity | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 1.01 GB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Salinity (CN: sg\_9.15)

| **Salinity** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Salinity | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 492 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Sealing (CN: sg\_9.16)

| **Sealing** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Sealing | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 (Croatia was not included) | Acquisition Date | 2015 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 10.1 GB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/potential-threats-soil-biodiversity-europe> (European Soil Data Centre (ESDAC), Potential threats to soil biodiversity in Europe, 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

## Saline and Sodic Soils in the EU (CN: sg\_10)

The Saline and Sodic Soils Map for EU-27 (2008) is showing the area distribution of saline, sodic and potentially salt affected areas within the European Union. The accuracy of input data only allows the designation of salt affected areas with a limited level of reliability (e.g. < 50 or > 50% of the area), therefore the results represented in the map should only be used for orientating purposes. (European Soil Data Centre (ESDAC), Saline and Sodic Soils in the EU, 2008)

| **Saline and Sodic Soils in the EU** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Saline and Sodic Soils in the EU | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2008 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | 1974,2001 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | shapefile |  |  |
| File size | 1.50 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/saline-and-sodic-soils-european-union> (European Soil Data Centre (ESDAC), Saline and Sodic Soils in the EU, 2008) | | |
| Comments | Input data source: Soil data - European Soil Database v2 , 1:1.000.000 scale Map of Salt Affected Soils in Europe (Szabolcs 1974) | | |
| Preview  Source: ESDAC / JRC |  | | |

## Soil Biomass Productivity maps of grasslands and pasture, of croplands and of forest areas in the European Union (EU27)

This dataset consists of 3 GIS maps that indicate the soil biomass productivity of grasslands and pasture, of croplands and of forest areas in the European Union (EU27). The GIS maps cover the EU27. The maps are Geotiff raster files with a resolution of 1km. The coordinate system (ETRS\_LAEA\_10\_52) and alignment of pixels are according to INSPIRE recommendations. (European Soil Data Centre (ESDAC), Soil Biomass Productivity maps of grasslands and pasture, of croplands and of forest areas in the European Union (EU27), 2016)

### Soil biomass productivity of grasslands and pastures *(CN: sg\_11.1)*

| **Soil biomass productivity of grasslands and pastures** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil biomass productivity of grasslands and pastures | Sensor | -- |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 62.5 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-biomass-productivity-maps-grasslands-and-pasture-coplands-and-forest-areas-european> (European Soil Data Centre (ESDAC), Soil Biomass Productivity maps of grasslands and pasture, of croplands and of forest areas in the European Union (EU27), 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Soil biomass productivity of croplands *(CN: sg\_11.2)*

| **Soil biomass productivity of croplands** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil biomass productivity of croplands | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 62.5 MB |  |  |
| Download site | http://esdac.jrc.ec.europa.eu/content/soil-biomass-productivity-maps-grasslands-and-pasture-coplands-and-forest-areas-european (European Soil Data Centre (ESDAC), Soil Biomass Productivity maps of grasslands and pasture, of croplands and of forest areas in the European Union (EU27), 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

### Soil biomass productivity of forest areas *(CN: sg\_11.3)*

| **Soil biomass productivity of forest areas** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil biomass productivity of forest areas | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU27 | Acquisition Date | - |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 62.5 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-biomass-productivity-maps-grasslands-and-pasture-coplands-and-forest-areas-european> (European Soil Data Centre (ESDAC), Soil Biomass Productivity maps of grasslands and pasture, of croplands and of forest areas in the European Union (EU27), 2016) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

## Soil Erodibility (K- Factor) High Resolution dataset for Europe

Map at 500m resolution (2014) providing a complete picture of the soil erodibility in the European Union member states. It is derived on the basis of the LUCAS 2009 soil survey exercise and the European Soil Database. It covers all Member States of the European Union where data was available. Extrapolated datasets for Norway, Switzerland, Balkan states, Moldova and Ukraine. (European Soil Data Centre (ESDAC), Soil Erodibility (K- Factor) High Resolution dataset for Europe, 2014)

### K-factor extrapolated dataset *(CN: sg\_12.1)*

| **K-factor extrapolated dataset** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | K-factor extrapolated dataset | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2014 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28+Norway, Switzerland, Balkan states, Moldova and Ukraine | Acquisition Date | 2009,2011 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 538 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-erodibility-k-factor-high-resolution-dataset-europe#tabs-0-description=0> (European Soil Data Centre (ESDAC), Soil Erodibility (K- Factor) High Resolution dataset for Europe, 2014) | | |
| Comments | Derived on the basis of the LUCAS 2009 soil survey exercise and the European Soil Database. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Kst-factor extrapolated (incorporating Stoniness) dataset *(CN: sg\_12.2)*

| **Kst-factor extrapolated (incorporating Stoniness) dataset** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Kst-factor extrapolated (incorporating Stoniness) dataset | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2014 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28+Norway, Switzerland, Balkan states, Moldova and Ukraine | Acquisition Date | 2009,2011 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 511 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-erodibility-k-factor-high-resolution-dataset-europe#tabs-0-description=0> (European Soil Data Centre (ESDAC), Soil Erodibility (K- Factor) High Resolution dataset for Europe, 2014) | | |
| Comments | Derived on the basis of the LUCAS 2009 soil survey exercise and the European Soil Database | | |
| Preview  Source: ESDAC / JRC |  | | |

### Effect of Stoniness in K-factor (% reduction) *(CN: sg\_12.3)*

| **Effect of Stoniness in K-factor (% reduction)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Effect of Stoniness in K-factor (% reduction) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2014 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28+Norway, Switzerland, Balkan states, Moldova and Ukraine | Acquisition Date | 2009,2011 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr) |  |  |
| File size | 20.0 KB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-erodibility-k-factor-high-resolution-dataset-europe#tabs-0-description=0> (European Soil Data Centre (ESDAC), Soil Erodibility (K- Factor) High Resolution dataset for Europe, 2014) | | |
| Comments | Derived on the basis of the LUCAS 2009 soil survey exercise and the European Soil Database | | |
| Preview  Source: ESDAC / JRC |  | | |

## Soil erosion by water (RUSLE2015) *(CN: sg\_13)*

Dataset (GIS map) (2015) that shows the Soil Loss by Water Erosion in Europe and is the result of applying a modified version of the Revised Universal Soil Loss Equation (RUSLE) model, RUSLE 2015 with a spatial resolution of 100m and EU28 coverage. (European Soil Data Centre (ESDAC), Soil erosion by water (RUSLE2015), 2015)

| **Soil erosion by water (RUSLE2015)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil erosion by water (RUSLE2015) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 1/9/2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | 2010 |
| Grid size | 100 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 10.7 GB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/soil-erosion-water-rusle2015> (European Soil Data Centre (ESDAC), Soil erosion by water (RUSLE2015), 2015) | | |
| Comments | Dataset is the result of applying a modified version of the Revised Universal Soil Loss Equation (RUSLE) model, RUSLE 2015 | | |
| Preview  Source: ESDAC / JRC |  | | |

## Soil erosion in forestland in Europe

Dataset (2 GIS-maps) (2016) related to soil erosion in Forestland in Europe. One map is the soil loss potential for EU28; the other map is the European Forest Cover Change for 36 European countries. (European Soil Data Centre (ESDAC), Soil erosion in forestland in Europe (using RUSLE2015), 2015)

### Forest Cover Change class *(CN: sg\_14.1)*

| **Forest Cover Change class** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Forest Cover Change class | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | 2000-2012 |
| Grid size | 100 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif)  ArcGIS Layer (.lyr) |  |  |
| File size | 208 KB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-erosion-forestland-europe-using-rusle2015> (European Soil Data Centre (ESDAC), Soil erosion in forestland in Europe (using RUSLE2015), 2015) | | |
| Comments | Based on reprocessed and validated High-resolution Global Forest Cover Loss map (2000–2012).The accuracy assessment performed by using a confusion matrix based on 2300 reference forest disturbances distributed across Europe shows values of 55.1% (producer accuracy) for the algorithm-derived forest cover change areas with a Kappa Index of Agreement (KIA) of 0.672. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Forest Fires class *(CN: sg\_14.2)*

| **Forest Fires class** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Forest Fires class | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | 2000-2012 |
| Grid size | 100 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif)  ArcGIS Layer (.lyr) |  |  |
| File size | 224 KB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-erosion-forestland-europe-using-rusle2015> (European Soil Data Centre (ESDAC), Soil erosion in forestland in Europe (using RUSLE2015), 2015) | | |
| Comments | Based on reprocessed and validated High-resolution Global Forest Cover Loss map (2000–2012). The accuracy assessment performed by using a confusion matrix based on 2300 reference forest disturbances distributed across Europe shows values of 55.1% (producer accuracy) for the algorithm-derived forest cover change areas with a Kappa Index of Agreement (KIA) of 0.672. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Soil Loss Potential *(CN: sg\_14.3)*

| **Soil Loss Potential** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil Loss Potential | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | 2000-2012 |
| Grid size | 100 m | Grid size |  |
| Positional Accuracy | - | Positional Accuracy |  |
| Vertical Accuracy | - | Vertical Accuracy |  |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif)  ArcGIS Layer (.lyr) |  |  |
| File size | 858 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-erosion-forestland-europe-using-rusle2015> (European Soil Data Centre (ESDAC), Soil erosion in forestland in Europe (using RUSLE2015), 2015) | | |
| Comments | Based on reprocessed and validated High-resolution Global Forest Cover Loss map (2000–2012).The accuracy assessment performed by using a confusion matrix based on 2300 reference forest disturbances distributed across Europe shows values of 55.1% (producer accuracy) for the algorithm-derived forest cover change areas with a Kappa Index of Agreement (KIA) of 0.672. | | |
| Preview  Source: ESDAC / JRC |  | | |

## Soil Organic Carbon - Saturation Capacity in Europe *(CN: sg\_15)*

This dataset (map) (2016) shows the Soil Organic Carbon (SOC) saturation capacity, expressed as the ratio between the actual and the potential SOC stock in each pixel. Values close to 0 indicate a great potential of soil to store more carbon. (European Soil Data Centre (ESDAC), Soil Organic Carbon - Saturation Capacity in Europe, 2016)

| **Soil Organic Carbon - Saturation Capacity in Europe** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil Organic Carbon - Saturation Capacity in Europe | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2016 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 + Balkan + Norway | Acquisition Date | - |
| Grid size | 250 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif)  ArcGIS Layer (.lyr),  ESRI Grid |  |  |
| File size | 977 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/soil-organic-carbon-saturation-capacity> (European Soil Data Centre (ESDAC), Soil Organic Carbon - Saturation Capacity in Europe, 2016) | | |
| Comments | Derived from the Pan-European simulation using the biogeochemical CENTURY model | | |
| Preview  Source: ESDAC / JRC |  | | |

## Soil pH in Europe *(CN: sg\_16)*

A quantitative map of estimated soil pH values across Europe from a compilation of 12,333 soil pH measurements from 11 different sources, and using a geo-statistical framework based on Regression-Kriging. Fifty-four (54) auxiliary variables in the form of raster maps at 5km resolution were used to explain the differences in the distribution of soil pH (CaCl2) and the kriged map of the residuals from the regression model was added. (European Soil Data Centre (ESDAC) ,Soil pH in Europe, 2010)

| **Soil pH in Europe** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Soil pH in Europe | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 30 March 2010 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU25 (Romania & Bulgaria are not included,)+Norway, Switzerland, Croatia, Albania | Acquisition Date | 2009 |
| Grid size | 5 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | shapefile |  |  |
| File size | 13.0 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/soil-ph-europe> (European Soil Data Centre (ESDAC) ,Soil pH in Europe, 2010) | | |
| Comments | Based on a compilation of 12,333 soil pH measurements from 11 different sources (databases from ESDAC), and using a geo-statistical framework based on Regression-Kriging. Accuracy: R2adj = 0.56. | | |
| Preview  Source: ESDAC / JRC |  | | |

## Topsoil Organic Carbon Content for Europe (OCTOP) 0 - 30 cm *(CN: sg\_17)*

A 2004 GIS map of Soil Organic Carbon (SOC) content (%) in the surface horizon of soils in Europe, associated to a JRC internal report.

| **Topsoil Organic Carbon Content for Europe (OCTOP) 0 - 30 cm** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Topsoil Organic Carbon Content for Europe (OCTOP) 0 - 30 cm | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2004 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU28 | Acquisition Date | 2003 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII raster, ESRI GRID |  |  |
| File size | 52.6 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/octop-topsoil-organic-carbon-content-europe> (European Soil Data Centre (ESDAC), OCTOP: Topsoil Organic Carbon Content for Europe, 2004) | | |
| Comments | - | | |
| Preview  Source: ESDAC / JRC |  | | |

## Topsoil physical properties for Europe (based on LUCAS topsoil data)

This dataset (GIS maps) (2016) contains 7 soil property maps that have been derived using soil point data from the LUCAS 2009 soil survey (around 20,000 points) for EU-25, using hybrid approaches like regression kriging. Properties: clay, silt and salt content; coarse fragments; bulk density; USDA soil textural class; available water capacity. Resolution 500m.

### Clay content in topsoil (0-20cm) *(CN: sg\_18.1)*

| **Clay content in topsoil (0-20cm)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Clay content in topsoil (0-20cm) | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | 2 geographic datasets: European Union Member States (excluding BG, RO, HR, CY, HR) and EU28 + Balkan + Switzerland + Norway | Acquisition Date | 2009 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 742 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/topsoil-physical-properties-europe-based-lucas-topsoil-data> (European Soil Data Centre (ESDAC), Topsoil physical properties for Europe (based on LUCAS topsoil data), 2015) | | |
| Comments | Derived using soil point data from the LUCAS 2009 soil survey. Accuracy: R2 between 0.47 and 0.50. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Silt content in topsoil *(CN: sg\_18.2)*

| **Silt content in topsoil** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Silt content in topsoil | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | 2 geographic datasets: European Union Member States (excluding BG, RO, HR, CY, HR) and EU28 + Balkan + Switzerland + Norway | Acquisition Date | 2009 |
| Grid size | 500 m | Grid size |  |
| Positional Accuracy | - | Positional Accuracy |  |
| Vertical Accuracy | - | Vertical Accuracy |  |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 742 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/topsoil-physical-properties-europe-based-lucas-topsoil-data> (European Soil Data Centre (ESDAC), Topsoil physical properties for Europe (based on LUCAS topsoil data), 2015) | | |
| Comments | Derived using soil point data from the LUCAS 2009 soil survey. Accuracy: R2 between 0.47 and 0.50. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Sand content in topsoil *(CN: sg\_18.3)*

| **Sand content in topsoil** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Sand content in topsoil | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | 2 geographic datasets: European Union Member States (excluding BG, RO, HR, CY, HR) and EU28 + Balkan + Switzerland + Norway | Acquisition Date | 2009 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 742 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/topsoil-physical-properties-europe-based-lucas-topsoil-data> (European Soil Data Centre (ESDAC), Topsoil physical properties for Europe (based on LUCAS topsoil data), 2015) | | |
| Comments | Derived using soil point data from the LUCAS 2009 soil survey. Accuracy: R2 between 0.47 and 0.50. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Coarse fragments content in topsoil *(CN: sg\_18.4)*

| **Coarse fragments content in topsoil** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Coarse fragments content in topsoil | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | 2 geographic datasets: European Union Member States (excluding BG, RO, HR, CY, HR) and EU28 + Balkan + Switzerland + Norway | Acquisition Date | 2009 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 539 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/topsoil-physical-properties-europe-based-lucas-topsoil-data> (European Soil Data Centre (ESDAC), Topsoil physical properties for Europe (based on LUCAS topsoil data), 2015) | | |
| Comments | Derived using soil point data from the LUCAS 2009 soil survey. Accuracy: R2 between 0.47 and 0.50. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Bulk density derived from soil texture datasets *(CN: sg\_18.5)*

| **Bulk density derived from soil texture datasets** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Bulk density derived from soil texture datasets | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | 2 geographic datasets: European Union Member States (excluding BG, RO, HR, CY, HR) and EU28 + Balkan + Switzerland + Norway | Acquisition Date | 2009 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 489 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/topsoil-physical-properties-europe-based-lucas-topsoil-data> (European Soil Data Centre (ESDAC), Topsoil physical properties for Europe (based on LUCAS topsoil data), 2015) | | |
| Comments | Derived using soil point data from the LUCAS 2009 soil survey. Accuracy: R2 between 0.47 and 0.50. | | |
| Preview  Source: ESDAC / JRC |  | | |

### USDA soil textural classes derived from clay *(CN: sg\_18.6)*

| **USDA soil textural classes derived from clay** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | USDA soil textural classes derived from clay | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution |  |
| Coverage (top L, BR coordinates) | 2 geographic datasets: European Union Member States (excluding BG, RO, HR, CY, HR) and EU28 + Balkan + Switzerland + Norway | Acquisition Date | 2009 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 11.1 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/topsoil-physical-properties-europe-based-lucas-topsoil-data> (European Soil Data Centre (ESDAC), Topsoil physical properties for Europe (based on LUCAS topsoil data), 2015) | | |
| Comments | Derived using soil point data from the LUCAS 2009 soil survey. Accuracy: R2 between 0.47 and 0.50. | | |
| Preview  Source: ESDAC / JRC |  | | |

### Available Water Capacity (AWC) for the topsoil fine *(sg\_18.7)*

| **Available Water Capacity (AWC) for the topsoil fine** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Available Water Capacity (AWC) for the topsoil fine | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | 2 geographic datasets: European Union Member States (excluding BG, RO, HR, CY, HR) and EU28 + Balkan + Switzerland + Norway | Acquisition Date | 2009 |
| Grid size | 500 m | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif) |  |  |
| File size | 734 MB |  |  |
| Download site | <https://esdac.jrc.ec.europa.eu/content/topsoil-physical-properties-europe-based-lucas-topsoil-data> (European Soil Data Centre (ESDAC), Topsoil physical properties for Europe (based on LUCAS topsoil data), 2015) | | |
| Comments | Derived using soil point data from the LUCAS 2009 soil survey. Accuracy: R2 between 0.47 and 0.50. | | |
| Preview  Source: ESDAC / JRC |  | | |

## Topsoil Soil Organic Carbon (LUCAS) for EU25

This dataset (2015) provides maps for Topsoil Soil Organic Carbon in EU-25 that are based on LUCAS 2009 soil point data through a generalized additive model The map of predicted topsoil organic carbon content (g C kg-1) was produced by fitting a generalised additive model between organic carbon measurements from the LUCAS survey (dependent variable) and a set of selected environmental covariates; namely slope, land cover, annual accumulated temperature, net primary productivity, latitude and longitude. It also includes a Map of standard error of the OC model predictions (g C kg-1). (European Soil Data Centre (ESDAC), Topsoil Soil Organic Carbon (LUCAS) for EU25, 2015)

### Map of predicted topsoil organic carbon content *(CN: sg\_19.1)*

| **Map of predicted topsoil organic carbon content** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Map of predicted topsoil organic carbon content | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU25 (excluded Romania, Bulgaria, Croatia) | Acquisition Date | 2009 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif), GeoTIFF |  |  |
| File size | 396 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/topsoil-soil-organic-carbon-lucas-eu25> (European Soil Data Centre (ESDAC), Topsoil Soil Organic Carbon (LUCAS) for EU25, 2015) | | |
| Comments | Based on LUCAS 2009 soil point data through a generalized additive model. R2 = 0.29 | | |
| Preview  Source: ESDAC / JRC |  | | |

### Map of standard error of the OC model predictions *(CN: sg\_19.2)*

| **Map of standard error of the OC model predictions** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Map of standard error of the OC model predictions | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 2015 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU25 (excluded Romania, Bulgaria, Croatia) | Acquisition Date | 2009 |
| Grid size | 1 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif), GeoTIFF |  |  |
| File size | 497 MB |  |  |
| Download site | <http://esdac.jrc.ec.europa.eu/content/topsoil-soil-organic-carbon-lucas-eu25> (European Soil Data Centre (ESDAC), Topsoil Soil Organic Carbon (LUCAS) for EU25, 2015) | | |
| Comments | Based on LUCAS 2009 soil point data through a generalized additive model. R2 = 0.29 | | |
| Preview  Source: ESDAC / JRC |  | | |

## Soil Qualities for Crop Production

These data were derived from FAO’s Harmonized World Soil Database v 1.2 and have to do with Soil Qualities for Crop Production such as: Nutrient availability, Nutrient retention capacity, Rooting conditions, Oxygen availability to roots, Excess salts, Toxicity and Workability (constraining field management). The dataset provides Global Coverage with a resolution of 30 arc seconds. (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009)

### Nutrient availability *(CN: sg\_20.1)*

| **Nutrient availability** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Nutrient availability | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | March 2009 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.08 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Based on Harmonized World Soil Database v 1.2 | | |
| Preview  Source: FAO |  | | |

### Nutrient retention capacity *(CN: sg\_20.2)*

| **Nutrient retention capacity** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Nutrient retention capacity | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | March 2009 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.08 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Based on Harmonized World Soil Database v 1.2 | | |
| Preview  Source: FAO |  | | |

### Rooting conditions *(CN: sg\_20.3)*

| **Rooting conditions** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Rooting conditions | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | March 2009 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.08 GB |  |  |
| Download site | http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/ | | |
| Comments | Based on Harmonized World Soil Database v 1.2 | | |
| Preview  Source: FAO |  | | |

### Oxygen availability to roots *(CN: sg\_20.4)*

| **Oxygen availability to roots** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Oxygen availability to roots | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | March 2009 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.08 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Based on Harmonized World Soil Database v 1.2 | | |
| Preview  Source: FAO |  | | |

### Excess salts *(CN: sg\_20.5)*

| **Excess salts** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Excess salts | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | March 2009 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.08 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Based on Harmonized World Soil Database v 1.2 | | |
| Preview  Source: FAO |  | | |

### Toxicity (CN: sg\_20.6)

| **Toxicity** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Toxicity | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | March 2009 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.08 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | Based on Harmonized World Soil Database v 1.2 | | |
| Preview  Source: FAO |  | | |

### Workability (constraining field management) *(CN: sg\_20.7)*

| **Workability (constraining field management)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Workability (constraining field management) | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | March 2009 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | - |
| Grid size | 30 arc seconds ≈ 10 km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS Layer (.lyr)  TIFF image (.tif) |  |  |
| File size | 2.08 GB |  |  |
| Download site | <http://www.fao.org/soils-portal/soil-survey/soil-maps-and-databases/harmonized-world-soil-database-v12/en/> (Food And Agriculture Organization (FAO), Harmonized World Soil Database v 1.2, 2009) | | |
| Comments | - | | |

## Soil quality rating for cropland in Germany 1: 1.000.000 *(CN: sg\_21)*

The only dataset with national cover. (Germany). It is stored due to the importance of the developed methodology.

| **Soil quality rating for cropland in Germany 1: 1.000.000** | | | | |
| --- | --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | | |
| File Name | Soil quality rating for cropland in Germany 1: 1.000.000 | | Sensor | - |
| Coordinate System | ETRS89 LAEA | | Data type | - |
| Production Date | 24/10/2013 | | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Germany | | Acquisition Date | 2013 |
| Grid size | 250 m | | Grid size | - |
| Positional Accuracy | - | | Positional Accuracy | - |
| Vertical Accuracy | - | | Vertical Accuracy | - |
| Completeness | complete | |  |  |
| File type, Format | TIFF image (.tif) | |  |  |
| File size | 3.11 MB | |  |  |
| Download site | <https://produktcenter.bgr.de/terraCatalog/DetailResult.do?fileIdentifier=3DBC11EE-81E9-41A2-916E-1281DDD6C7A8> (Federal Institute for Geosciences and Natural Resources (BGR), Soil quality rating for cropland in Germany 1: 1.000.000, 2013) | | | |
| Comments | Based on the land use stratified soil map of Germany at scale 1:1,000,000. Climate (DWD), Relief (BKG) and land use data (CLC2006) are used as input data in addition to the soil map | | | |
| Preview  SOURCE: BDR |  | | | |

## Global Assessment of Human-induced Soil Degradation (GLASOD) *(CN: sg\_22)*

In 1990, the UNEP-funded GLASOD project, which was coordinated by ISRIC, produced a first world map of human-induced soil degradation, using an expert-based approach. The map was intended to raise awareness on soil degradation problems on the occasion of the 1992 UNCED conference in Rio de Janeiro.

Data were compiled in cooperation with a large number of soil scientists throughout the world, using uniform guidelines and international correlation. The status of soil degradation was mapped within loosely defined physiographic units (polygons), based on expert judgement. (International Soil Reference and Information Centre (ISRIC), Global Assessment of Human-induced Soil Degradation (GLASOD), 2019)

| **Global Assessment of Human-induced Soil Degradation (GLASOD)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Global Assessment of Human-induced Soil Degradation (GLASOD) | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 1990-10-01 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1987-1990 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS ArcMap Document (.mxd),  Shapefile,  ArcGIS Layer (.lyr) |  |  |
| File size | 8.76 MB |  |  |
| Download site | <http://www.isric.org/projects/global-assessment-human-induced-soil-degradation-glasod> (International Soil Reference and Information Centre (ISRIC), Global Assessment of Human-induced Soil Degradation (GLASOD), 2019) | | |
| Comments | - | | |
| Preview  Source: ISRIC |  | | |

## WISE derived soil property estimates on a 30 by 30 arcsec global grid *(CN: sg\_23)*

This harmonized dataset of derived soil properties for the world (WISE30sec) is comprised of a soil-geographical and a soil attribute component. The GIS dataset was created using the soil map unit delineations of the broad scale Harmonised World Soil Database, version 1.21, with minor corrections, overlaid by a climate zones map (Köppen-Geiger) as co-variate, and soil property estimates derived from analyses of the ISRIC-WISE soil profile database for the respective mapped ‘soil/climate’ combinations.

The dataset considers 20 soil properties that are commonly required for global agro-ecological zoning, land evaluation, crop growth simulation, modelling of soil gaseous emissions, and analyses of global environmental change. It presents ‘best’ estimates for: organic carbon content, total nitrogen, C/N ratio, pH(H2O), CECsoil, CECclay, effective CEC, total exchangeable bases (TEB), base saturation, aluminium saturation, calcium carbonate content, gypsum content, exchangeable sodium percentage (ESP), electrical conductivity, particle size distribution (content of sand, silt and clay), proportion of coarse fragments (less than 2 mm), bulk density, and available water capacity (-33 to -1500 kPa); also the dominant soil drainage class. (International Soil Reference and Information Centre (ISRIC), WISE derived soil property estimates on a 30 by 30 arcsec global grid, 2016)

|  |  |  |  |
| --- | --- | --- | --- |
| **WISE derived soil property estimates on a 30 by 30 arcsec global grid** | | | |
| **Specifications** | | **Source data Specifications** | |
| File Name | WISE derived soil property estimates on a 30 by 30 arcsec global grid | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2016-05-01 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 2015 |
| Grid size | 30 arc - seconds | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | TIFF image (.tif)  Microsoft Access Database (.mdb) |  |  |
| File size | 3.00 GB |  |  |
| Download site | [https://data.isric.org/geonetwork/srv/eng/catalog.search#/metadata/ dc7b283a-8f19-45e1-aaed-e9bd515119bc](https://data.isric.org/geonetwork/srv/eng/catalog.search#/metadata/  dc7b283a-8f19-45e1-aaed-e9bd515119bc) (International Soil Reference and Information Centre (ISRIC), WISE derived soil property estimates on a 30 by 30 arcsec global grid, 2016) | | |
| Comments | Data sources:   * Soil profile data: The ISRIC-WISE   soil profile database (Batjes 2009, 2011) was complemented with some 8,000 ‘new’ profiles, originating mainly from North America (ISCN 2014) and ‘High Latitude’ regions.   * Soil geographical data: European Soil Database, Soil Map of China, SOTER and WISE derived databases | | |
| Preview  Source: ISRIC |  | | |

# Climate datasets

In this category data that referred to climate are presented. These datasets have global coverage.

## High-resolution gridded datasets (and derived products) climatological data

High-resolution gridded datasets produced by the Climatic Research Unit (CRU). CRU is part of the School of Environmental Sciences of University of East Anglia, UK. CRU is widely recognized as one of the world's leading institutions concerned with the study of natural and anthropogenic climate change. In particular the following datasets were stored: TMP: near-surface mean temperature, TMN: near-surface minimum temperature, TMX: near-surface temperature maximum, DTR: near-surface diurnal temperature range, PRE: precipitation, WET: wet day frequency, FRS: frost day frequency, VAP: vapour pressure, PET: potential evapotranspiration and CLD: cloud cover. (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019)

### TMP: near-surface mean temperature *(CN: c\_1.1)*

| **TMP: near-surface mean temperature** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TMP: near-surface mean temperature | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global (excluding Antarctica) | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII |  |  |
| File size | 661 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### TMN: near-surface minimum temperature *(CN: c\_1.2)*

| **TMN: near-surface minimum temperature** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TMN: near-surface minimum temperature | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size |  |
| Positional Accuracy | - | Positional Accuracy |  |
| Vertical Accuracy | - | Vertical Accuracy |  |
| Completeness | complete |  |  |
| File type, Format | ASCII |  |  |
| File size | 694 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### TMX: near-surface temperature maximum *(CN: c\_1.3)*

| **TMX: near-surface temperature maximum** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | TMX: near-surface temperature maximum | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII |  |  |
| File size | 683 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### DTR: near-surface diurnal temperature range *(CN: c\_1.4)*

| **DTR: near-surface diurnal temperature range** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | DTR: near-surface diurnal temperature range | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size |  |
| Positional Accuracy | - | Positional Accuracy |  |
| Vertical Accuracy | - | Vertical Accuracy |  |
| Completeness | complete |  |  |
| File type, Format | ASCII with stn. Extension |  |  |
| File size | 592 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### PRE: precipitation *(CN: c\_1.5)*

|  |  |  |  |
| --- | --- | --- | --- |
| **PRE: precipitation** | | | |
| **Specifications** | | **Source data Specifications** | |
| File Name | PRE: precipitation | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII |  |  |
| File size | 871 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### WET: wet day frequency *(CN: c\_1.6)*

| **WET: wet day frequency** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | WET: wet day frequency | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII |  |  |
| File size | 947 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### FRS: frost day frequency *(c\_1.7)*

| **FRS: frost day frequency** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | FRS: frost day frequency | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII |  |  |
| File size | 407 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### VAP: vapour pressure *(CN: c\_1.8)*

| **VAP: vapour pressure** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | VAP: vapour pressure | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII |  |  |
| File size | 609 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### PET: potential evapotranspiration *(CN: c\_1.9)*

| **PET: potential evapotranspiration** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | PET: potential evapotranspiration | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII with stn. extension |  |  |
| File size | 286 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

### CLD: cloud cover *(CN: c1.10)*

|  |  |  |  |
| --- | --- | --- | --- |
| **CLD: cloud cover** | | | |
| **Specifications** | | **Source data Specifications** | |
| File Name | CLD: cloud cover | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 15 May 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1901-2018 |
| Grid size | 0.5o | Grid size |  |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ASCII with stn. extension |  |  |
| File size | 720 MB |  |  |
| Download site | <https://crudata.uea.ac.uk/cru/data/hrg/> (Climatic Research Unit (University of East Anglia), High-resolution gridded datasets (and derived products) climatological data, 2019) | | |
| Comments | - | | |

## WorldClim - Global Climate Data - Free climate data for ecological modeling and GIS

WorldClim is a set of global climate layers (gridded climate data) with a spatial resolution of about 1 km2. These data can be used for mapping and spatial modeling. In particular the following datasets were stored: Precipitation, bioclimatic variables, tmax, tmin and tmean. (WorldClim - Global Climate Data, Free climate data for ecological modeling and GIS)

### Precipitation *(CN: c\_2.1)*

| **Precipitation** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Precipitation | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | - | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1960-1990 |
| Grid size | 1km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ESRI grid  GeoTIFF  Generic grid |  |  |
| File size | 661 MB |  |  |
| Download site | <http://www.worldclim.org/> (WorldClim - Global Climate Data, Free climate data for ecological modeling and GIS) | | |
| Comments | The data are available at 4 different spatial resolutions, from 30 seconds (0.93 x 0.93 = 0.86 km2 at the equator) to 2.5, 5 and 10 minutes (18.6 x 18.6 = 344 km2 at the equator). | | |

### bioclimatic variables *(CN: c\_2.2)*

| **bioclimatic variables** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | bioclimatic variables | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | - | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1960-1990 |
| Grid size | 1km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ESRI grid  GeoTIFF  Generic grid |  |  |
| File size | 1.87 GB |  |  |
| Download site | <http://www.worldclim.org/> (WorldClim - Global Climate Data, Free climate data for ecological modeling and GIS) | | |
| Comments | The data are available at 4 different spatial resolutions, from 30 seconds (0.93 x 0.93 = 0.86 km2 at the equator) to 2.5, 5 and 10 minutes (18.6 x 18.6 = 344 km2 at the equator). | | |

### tmax (*CN:* c\_2.3)

|  |  |  |  |
| --- | --- | --- | --- |
| **tmax** | | | |
| **Specifications** | | **Source data Specifications** | |
| File Name | tmax | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | - | Sensor resolution |  |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1960-1990 |
| Grid size | 1km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ESRI grid  GeoTIFF  Generic grid |  |  |
| File size | 1.23 GB |  |  |
| Download site | <http://www.worldclim.org/> (WorldClim - Global Climate Data, Free climate data for ecological modeling and GIS) | | |
| Comments | The data are available at 4 different spatial resolutions, from 30 seconds (0.93 x 0.93 = 0.86 km2 at the equator) to 2.5, 5 and 10 minutes (18.6 x 18.6 = 344 km2 at the equator). | | |

### tmean (*CN:* c\_2.4)

| **tmean** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | tmean | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | - | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1960-1990 |
| Grid size | 1km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ESRI grid  GeoTIFF  Generic grid |  |  |
| File size | 1.26 GB |  |  |
| Download site | <http://www.worldclim.org/> (WorldClim - Global Climate Data, Free climate data for ecological modeling and GIS) | | |
| Comments | The data are available at 4 different spatial resolutions, from 30 seconds (0.93 x 0.93 = 0.86 km2 at the equator) to 2.5, 5 and 10 minutes (18.6 x 18.6 = 344 km2 at the equator). | | |

### tmin (*CN:* c\_2.5)

|  |  |  |  |
| --- | --- | --- | --- |
| **tmin** | | | |
| **Specifications** | | **Source data Specifications** | |
| File Name | tmin | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | - | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Global | Acquisition Date | 1960-1990 |
| Grid size | 1km | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ESRI grid  GeoTIFF  Generic grid |  |  |
| File size | 1.21 GB |  |  |
| Download site | <http://www.worldclim.org/> (WorldClim - Global Climate Data, Free climate data for ecological modeling and GIS) | | |
| Comments | The data are available at 4 different spatial resolutions, from 30 seconds (0.93 x 0.93 = 0.86 km2 at the equator) to 2.5, 5 and 10 minutes (18.6 x 18.6 = 344 km2 at the equator). | | |

# Ecological – Environmental datasets

In this category data that referred to Ecological or environmental restrictions are presented. These datasets have European coverage.

## Nationally designated areas (CDDA) *(CN: ee\_1)*

The European inventory of nationally designated protected areas holds information about designated areas and their designation types, which directly or indirectly create protected areas. This is version 17 and covers data reported up to March 2019. The dataset contains data on individual nationally Designated Areas and corresponding Protected Site spatial features in EEA member and collaborating countries. (European Environment Agency, Nationally designated areas (CDDA), 2019)

| **Nationally designated areas (CDDA)** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Nationally designated areas (CDDA) | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 13 Jun 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2018 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | ArcGIS files |  |  |
| File size | 485 MB |  |  |
| Download site | <http://www.eea.europa.eu/data-and-maps/data/nationally-designated-areas-national-cdda-11#tab-gis-data> (European Environment Agency, Nationally designated areas (CDDA), 2019) | | |
| Comments | - | | |
| Preview  Source: EEA |  | | |

## Natura 2000 data - the European network of protected sites *(CN: ee\_2)*

Natura 2000 is the key instrument to protect biodiversity in the European Union. It is an ecological network of protected areas, set up to ensure the survival of Europe's most valuable species and habitats. Natura 2000 is based on the 1979 Birds Directive and the 1992 Habitats Directive. This version covers the reporting in 2018.

The European database on Natura 2000 sites consists of a compilation of the data submitted by Member States to the European Commission. This European database is generally updated once per year. (European Environment Agency, Natura 2000 data - the European network of protected sites, 2019)

| **Natura 2000 data - the European network of protected sites** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | Natura 2000 data - the European network of protected sites | Sensor | - |
| Coordinate System | ETRS89 LAEA | Data type | - |
| Production Date | 12 Apr 2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2018 |
| Grid size | 1: 100000 | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | shapefile |  |  |
| File size | 1.13 GB |  |  |
| Download site | <https://www.eea.europa.eu/data-and-maps/data/natura-10#tab-gis-data> (European Environment Agency, Natura 2000 data - the European network of protected sites, 2019) | | |
| Comments | - | | |
| Preview  Source: EEA |  | | |

# Socio-economic datasets

In this category Statistic datasets were collected in table or map format.

## Gross domestic product (GDP) at current market prices by NUTS 3 regions *(CN: se\_1)*

Table that represents the Gross domestic product (GDP) at current market prices by NUTS 3 regions for the decade 2008 – 2017.

|  |  |  |  |
| --- | --- | --- | --- |
| **Gross domestic product (GDP) at current market prices by NUTS 3 regions** | | | |
| **Specifications** | | **Source data Specifications** | |
| File Name | Gross domestic product (GDP) at current market prices by NUTS 3 regions | Sensor | - |
| Coordinate System | - | Data type | - |
| Production Date | 1/8/2019 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | Europe | Acquisition Date | 2008-2017 |
| Grid size | - | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | Microsoft Excel 97-2003 Worksheet (.xls) |  |  |
| File size | 836 KB |  |  |
| Download site | <https://appsso.eurostat.ec.europa.eu/nui/show.do> (Eurostat, Gross domestic product (GDP) at current market prices by NUTS 3 regions, 2019) | | |
| Comments | - | | |

## NUTS 2016 (CN: se\_2)

Nomenclature of Territorial Units for Statistics or NUTS (French: Nomenclature des unites territoriales statistiques) is a geocode standard for referencing the subdivisions of countries for statistical purposes. The standard, adopted in 2003, is developed and regulated by the European Union, and thus only covers the member states of the EU in detail.

For each EU member country, a hierarchy of three NUTS levels is established by Eurostat in agreement with each member state; the subdivisions in some levels do not necessarily correspond to administrative divisions within the country. A NUTS code begins with a two-letter code referencing the country. The subdivision of the country is then referred to with one number. A second or third subdivision level is referred to with another number each. Each numbering starts with 1, as 0 is used for the upper level. Where the subdivision has more than nine entities, capital letters are used to continue the numbering. (Eurostat, NUTS 2016, 2019)

| **NUTS 2016** | | | |
| --- | --- | --- | --- |
| **Specifications** | | **Source data Specifications** | |
| File Name | NUTS 2016 | Sensor | - |
| Coordinate System | WGS84 | Data type | - |
| Production Date | 2018-03-20 | Sensor resolution | - |
| Coverage (top L, BR coordinates) | EU | Acquisition Date | 2013 |
| Grid size | 1: 1 milion | Grid size | - |
| Positional Accuracy | - | Positional Accuracy | - |
| Vertical Accuracy | - | Vertical Accuracy | - |
| Completeness | complete |  |  |
| File type, Format | file geodatabase (ESRI), zipped shapefile (ESRI) |  |  |
| File size | 218 MB |  |  |
| Download site | <https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/nuts#nuts16> (Eurostat, NUTS 2016, 2019) | | |
| Comments | This dataset has been created mainly from the EuroBoundary Map v 12 (Eurogeographics) and geographic information from TurkStat for Turkey. | | |
| Preview  Source: Eurostat |  | | |

# Conclusions

In total 200 subsets were collected, classified and stored in HOMEOTECH’s repository in 6 main categories:

1. Land cover/use
2. Terrain
3. Soil - Geological
4. Climate
5. Ecological - Environmental
6. Socio-economic

The following figure represents that distribution

Figure 1: **MAIL** Datasets

As it easily understandable the whole process is dynamic. Therefore, the repository will be checked regularly for new availability of datasets or for updates of the current ones. For project’s lifetime the repository will be available for download by MAIL consortium.

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# Annex I: Table of figures

This is for the table of figures

[Figure 1: *MAIL* Datasets 273](#_Toc20234862)

1. **R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other [↑](#footnote-ref-1)
2. **PU** = Public, **PP** = Restricted to other programme participants (including the Commission Services), **RE** = Restricted to a group specified by the consortium (including the Commission Services), **CO** = Confidential, only for members of the consortium (including the Commission Services). [↑](#footnote-ref-2)