



Collected Datasets for characterization of Marginal Lands



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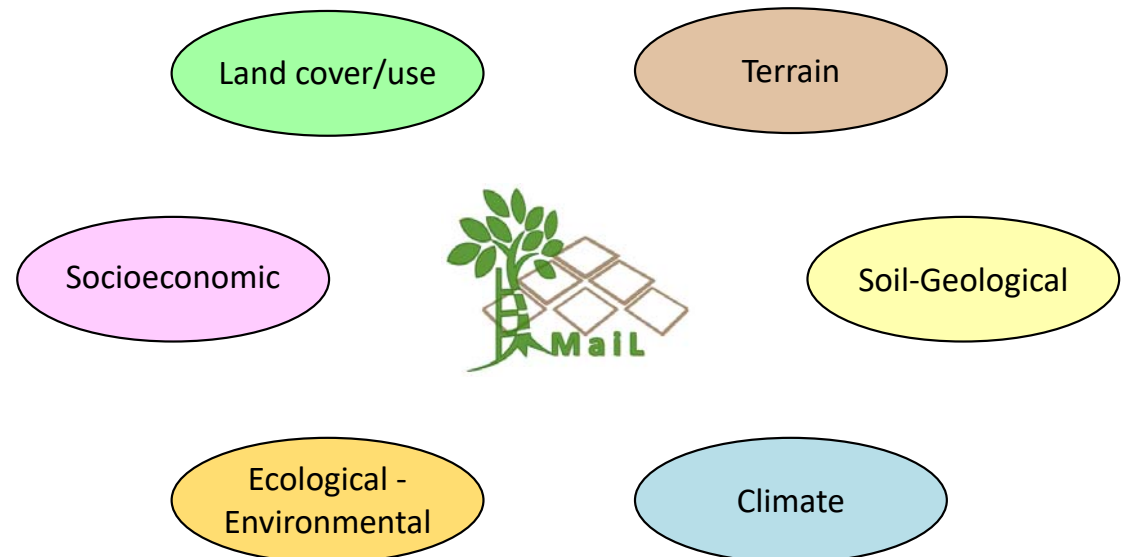


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An extended review was realized in order to detect and evaluate all the available European or Global scale datasets that will help to assess land cover and characteristics regarding marginality

The collected datasets were separated in 6 main categories





Land Cover/use Datasets



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MAIL No*	DATASET	SUBSET
lcu_1	Map of European ecosystem types	Map of European ecosystem types
lcu_2	Corine Land Cover (CLC) 2018, Version 20	Corine Land Cover (CLC) 2018, Version 20
lcu_3.1	High Resolution Layers (HRL)	Imperviousness Density (IMD)
lcu_3.2		Imperviousness Change (IMC)
lcu_3.3		Imperviousness Classified Change (IMCC)
lcu_3.4		Tree Cover Density (TCD)
lcu_3.5		Tree Cover Density Change (TCDC)
lcu_3.6		Dominant Leaf Type (DLT)
lcu_3.7		Forest Type (FTY)
lcu_3.8		Forest Additional Support Layer (FADSL)
lcu_3.9		Grassland (GRA)
lcu_3.10		Ploughing Indicator (PLOUGH)
lcu_3.11		Grassland Vegetation Probability Index (GRAVPI)
lcu_3.12		Water and Wetness (WAW)
lcu_3.13		Water & Wetness Probability Index (WWPI)
lcu_4	GlobCover Land Cover Maps	GlobCover Land Cover Maps

MAIL No	DATASET	SUBSET
lcu_5.1	Land Use and Land Cover	Rain-fed cultivated land
lcu_5.2		Irrigated cultivated land, according to GMIA 4.0
lcu_5.3		Total cultivated land
lcu_5.4		Forest land, calibrated to FRA2000 land statistics
lcu_5.5		Grass/scrub/woodland
lcu_5.6		Built-up land (residential and infrastructure)
lcu_5.7		Barren/very sparsely vegetated land
lcu_5.8		Mapped water bodies
lcu_6	TanDEM-X Global Forest map	TanDEM-X Global Forest map
lcu_7	GlobeLand30	GlobeLand30

MAIL NO is a code name that consists of;
dataset category, source, dataset name and reference period

Category	Datasets	Subsets
Land cover/use	7	26

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Terrain Datasets



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MAIL No	DATASET	SUBSET
t_1.1	Digital Elevation Model of Europe	Digital Elevation Model of Europe v1.1
t_1.2		Digital Elevation Model of Europe v1.0
t_1.3		Slope
t_1.4		Aspect
t_1.5		Hillshade
t_2.1	Terrain	Elevation
t_2.2		Slopes
t_2.3		Aspect

Category	Datasets	Subsets
Terrain	2	8

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Soil-Geological Datasets #1



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MAIL No	DATASET	SUBSET
sg_1.1	Derived data	Area of STU allocation
sg_1.2		Depth available to roots
sg_1.3		Clay content (topsoil & subsoil)
sg_1.4		Sand content (topsoil & subsoil)
sg_1.5		Silt content (topsoil & subsoil)
sg_1.6		Organic carbon content (topsoil & subsoil)
sg_1.7		Bulk density (topsoil & subsoil)
sg_1.8		Coarse Fragments (topsoil & subsoil)
sg_1.9		Total available water content from PTR (topsoil & subsoil)
sg_1.10		Total available water content from PTF (topsoil & subsoil)
sg_2.1	European Landslide Susceptibility Map version 2 (ELSUS v2)	European Landslide Susceptibility Map version 2 (ELSUS v2)
sg_2.2		Confidence Level Map of the European Landslide Susceptibility Map (ELSUS v2)
sg_2.3		Climate-Physiographic Regions
sg_2.4		Slope Angle
sg_2.5		Lithology
sg_2.6		Land Cover
sg_3		European map of soil suitability to provide a platform for most human activities (EU28)

MAIL No	DATASET	SUBSET
sg_4	Global Soil Organic Carbon Estimates	Global Soil Organic Carbon Estimates
sg_5.1	Google Earth files Limitation to Agricultural use	Most important limitation to agricultural use
sg_5.2		Secondary limitation to agricultural use
sg_5.3	Google Earth files Soil Classification WRB	WRB-FULL. Full soil code of the STU from the World Reference Base (WRB) for Soil Resources
sg_5.4		WRB-ADJ1. First soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources.
sg_5.5		WRB-ADJ2. Second soil adjective code of the STU from the World Reference Base (WRB) for Soil Resources.
sg_5.6		WRB-LEV1. Soil reference group code of the STU from the World Reference Base (WRB) for Soil Resources.
sg_5.7		TEXT-DEP-CHG. Depth class to a textural change of the dominant and/or secondary surface 3 of the STU.
sg_5.8	Google Earth files Texture	TEXT-SRF-DOM. Dominant surface textural class of the STU.
sg_5.9		TEXT-SRF-SEC. Secondary surface textural class of the STU.
sg_5.10		TEXT-SUB-DOM. Dominant sub-surface textural class of the STU.
sg_5.11		TEXT-SUB-SEC. Secondary sub-surface textural class of the STU.
sg_5.12	Google Earth files Parent Material	PAR-MAT-DOM. code for dominant parent material of the STU.
sg_5.13		PAR-MAT-DOM1. Major group code for the dominant parent material of the STU.
sg_5.14		PAR-MAT-DOM2. Second level code for the dominant parent material of the STU.

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Soil-Geological Datasets #2



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MAIL No	DATASET	SUBSET
sg_5.15	Google Earth files Soil Classification FAO	PAR-MAT-DOM3. Third level code for the dominant parent material of the STU.
sg_5.16		PAR-MAT-SEC. Code for secondary parent material of the STU.
sg_5.17		PAR-MAT-SEC1. Major group code for the secondary parent material of the STU.
sg_5.18		PAR-MAT-SEC2. Second level code for the secondary parent material of the STU.
sg_5.19		PAR-MAT-SEC3. Third level code for the secondary parent material of the STU.
sg_5.20		FAO85-FULL. Full soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend
sg_5.21		FAO85-LEV1. Soil major group code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend.
sg_5.22		FAO85-LEV2. Second level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend.
sg_5.23		FAO85-LEV3. Third level soil code of the STU from the 1974 (modified CEC 1985) FAO-UNESCO Soil Legend.
sg_5.24		FAO90-FULL. Full soil code of the STU from the 1990 FAO-UNESCO Soil Legend.
sg_5.25		FAO90-LEV1. Soil major group code of the STU from the 1990 FAO-UNESCO Soil Legend.
sg_5.26		FAO90-LEV2. Second level soil code of the STU from the 1990 FAO-UNESCO soil legend
sg_5.27		ZMIN. Minimum elevation above sea level of the STU (in metres).

MAIL No	DATASET	SUBSET
sg_5.38	Google Earth files	ALT. Elevation
sg_5.39	Primary Properties	OC_TOP. Topsoil organic carbon content.
sg_5.40		Peat
sg_5.41		TEXT. Dominant surface textural class (completed from dominant STU).
sg_5.42	Google Earth files Chemical Properties	BS_SUB. Base saturation of the subsoil.
sg_5.43		BS_TOP. Base saturation of the topsoil.
sg_5.44		CEC_SUB. Subsoil cation exchange capacity.
sg_5.45		CEC_TOP. Topsoil cation exchange capacity.
sg_5.46		DIFF. Soil profile differentiation.
sg_5.47		MIN. Profile mineralogy.
sg_5.48		MIN_SUB. Subsoil mineralogy.
sg_5.49		MIN_TOP. Topsoil mineralogy.
sg_5.50	Google Earth files Mechanical Properties	DR. Depth to rock.
sg_5.51		PD_SUB = Subsoil packing density
sg_5.52		PD_TOP = Topsoil packing density
sg_5.53		STR_SUB = Subsoil structure
sg_5.54		STR_TOP = Topsoil structure
sg_5.55		TD. Rule inferred subsoil 3.
sg_5.56		VS. Volume of stones
sg_5.57	Google Earth files Hydrological Properties	AWC_SUB. Subsoil available water capacity.
sg_5.58		AWC_TOP. Topsoil available water capacity.
sg_5.59		DGH. Depth to a gleyed horizon.
sg_5.60		DIMP. Depth to an impermeable layer.

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Soil-Geological Datasets #3



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MAIL No	DATASET	SUBSET
sg_5.61	Google Earth files	EAWC_SUB. Subsoil easily available water capacity.
sg_5.62		EAWC_TOP. Topsoil easily available water capacity.
sg_5.63		HG. Hydrogeological class.
sg_5.64		PMH. Parent material hydrogeological type.
sg_5.65		AGLIM1NNI. Dominant limitation to agricultural use (without no information).
sg_5.66	Applications	AGLIM2NNI. Secondary limitation to agricultural use (without no information).
sg_5.67		ATC. Accumulated temperature class.
sg_5.68		CRUSTING. Soil crusting class.
sg_5.69		ERODIBILITY. Soil erodibility class.
sg_5.70		PHYS-CHIM. Physi-chemical factor of soil crusting & erodibility.
sg_5.71		TEXT-CRUST. Textural factor of soil crusting.
sg_5.72		TEXT-EROD. Textural factor of soil erodibility.
sg_5.73		USE. Regrouped land use class.
sg_6	Heavy metals in topsoil (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)	Heavy metals in topsoil (arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc)
sg_7.1	LS-factor (Slope Length and Steepness factor) for the EU	European LS-factor map at 100m resolution
sg_7.2		LS-factor map at 25m resolution per country

MAIL No	DATASET	SUBSET
sg_8.1	Maps of indicators of soil hydraulic properties for Europe	saturated water content
sg_8.2		water content at field capacity
sg_8.3		water content at wilting point
sg_8.4		saturated hydraulic conductivity
sg_9.1	Potential threats to soil biodiversity in Europe	soil biological functions threat
sg_9.2		soil fauna threat
sg_9.3		soil microorganisms threat
sg_9.4		climate change
sg_9.5		compaction
sg_9.6		erosion
sg_9.7		GMO use
sg_9.8		habitat fragmentation
sg_9.9		industrial pollution
sg_9.10		intensive human exploitation
sg_9.11		invasive species
sg_9.12		land use change
sg_9.13		organic matter decline
sg_9.14		radioactivity
sg_9.15		salinity
sg_9.16		sealing

Category	Datasets	Subsets
Soil - Geological	21	147

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Climate Datasets



MAIL No	DATASET	SUBSET
c_1.1	High-resolution gridded datasets (and derived products) climatological data	TMP: near-surface mean temperature
c_1.2		TMN: near-surface minimum temperature
c_1.3		TMX: near-surface temperature maximum
c_1.4		DTR: near-surface diurnal temperature range
c_1.5		PRE: precipitation
c_1.6		WET: wet day frequency
c_1.7		FRS: frost day frequency
c_1.8		VAP: vapour pressure
c_1.9		PET: potential evapotranspiration
c_1.10		CLD: cloud cover
c_2.1	WorldClim - Global Climate Data - Free climate data for ecological modeling and GIS	Precipitation
c_2.2		bioclimatic variables
c_2.3		tmax
c_2.4		tmean
c_2.5		tmin

Category	Datasets	Subsets
Climate	2	15



Ecological-Environmental Datasets



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MAIL No	DATASET	SUBSET
ee_1	Nationally designated areas (CDDA)	Nationally designated areas (CDDA)
ee_2	Natura 2000 data – the European network of protected sites	Natura 2000 data - the European network of protected sites

Category	Datasets	Subsets
Ecological - Environmental	2	2

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Socio-economic Datasets



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MAIL No	DATASET	SUBSET
se_1	Gross domestic product (GDP) at current market prices by NUTS 3 regions	Gross domestic product (GDP) at current market prices by NUTS 3 regions
se_2	NUTS 2016	NUTS 2016

Category	Datasets	Subsets
Socio-economic	2	2

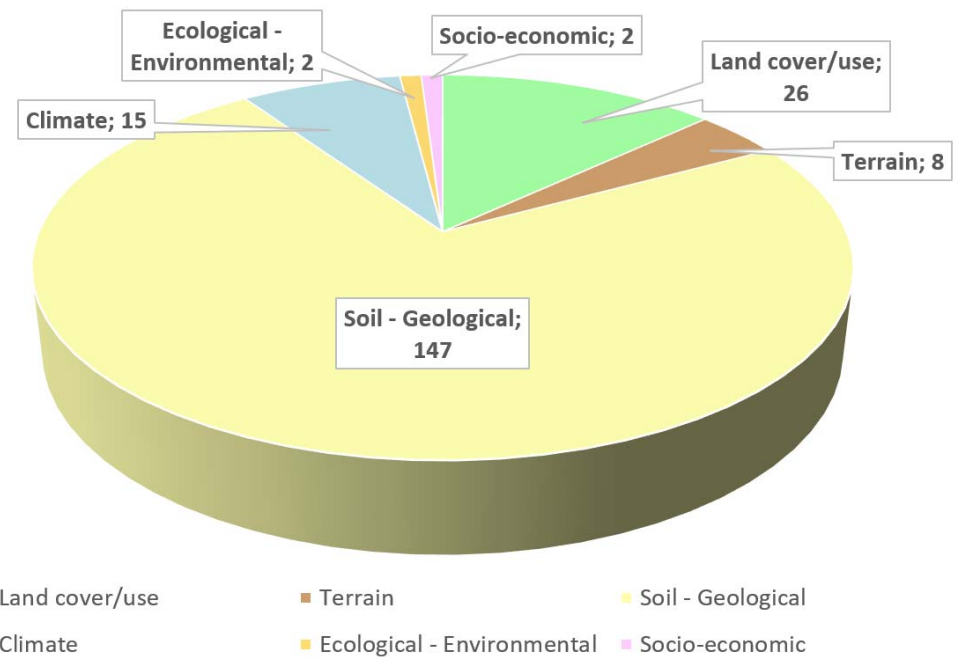
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Sum up

Summary of the available European or Global scale to assess marginality characteristics

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



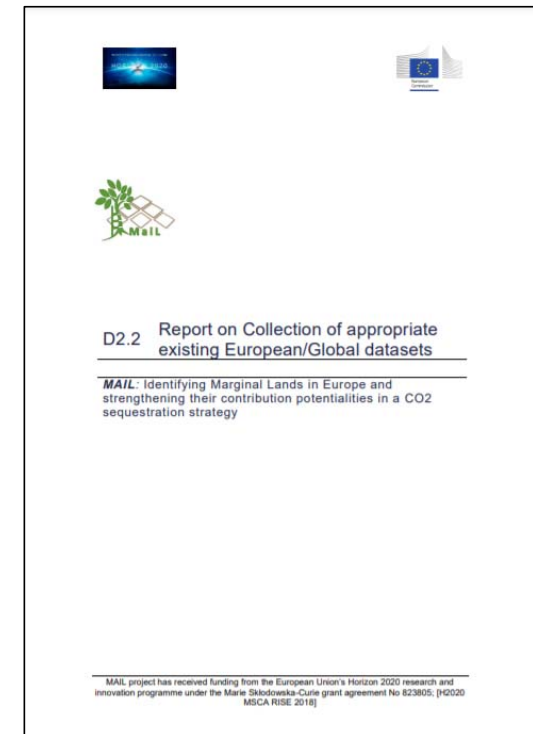


D2.2 Report



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A detailed review regarding proper datasets for marginality assessment can be found at MAIL's website www.marginallands.eu and at [MAIL D2.2](#)



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Thank you for your attention!



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