

ⁱChanges in version 8 of the Environmental Stratification of Europe:

1. The dataset was converted to the ETRS89_LAEA 52N 10E projection*, the standard projection used by the European Environment Agency (EEA) for all European spatial data. At the same time the data was resampled to the EEA 1km reference grid.
2. The spatial extent of the dataset was adjusted to fit better with CORINE land cover (CLC). For all available countries the dataset now uses the land mask used in EEA land cover accounts (LEAC)**. The coastline of EnSv7 was expanded (ArcGIS command 'expand') and the clipped using a 1km mask based on the LEAC grid.
3. Cyprus was added to the dataset. Discriminant functions*** were used to determine the EnS strata on Cyprus using the 0.5° CRU TS2.1 dataset: MDM10 and MDS6. Subsequently, the altitude boundary of 400m was determined for MDM10 based on expert judgement from an existing bioclimatic map for Cyprus. Using a 1km DEM it was then possible to map the strata at a 1km resolution for Cyprus.

***ETRS - Lambert Azimutal Equal Area**

Datum	D_ETRS_1989
defines the position of the ellipsoid (spheroid) relative to the center of the earth	
Ellipsoid	GRS_1980
When used to represent the earth, the three-dimensional shape obtained by rotating an ellipse about its minor axis.	
Semi-major axis	6378137
Radius of the equatorial axis of the ellipsoid	
Axis units	Degrees
Unit of the semi-major axis	
Flattening ratio	3.35281068118232E-03
Radius of the equatorial axis of the ellipsoid	
Projection	Lambert_Azimutal_Equal_Area
a projected coordinate system designed for two-dimensional surface mapping	
False easting	4321000 meters
A linear value added to the x-coordinate values, usually to ensure that all map coordinates are positive.	
False northing	3210000 meters
A linear value added to the y-coordinate values, usually to ensure that all map coordinates are positive.	
Central median	10 degrees
Line of longitude at the centre of a map projection generally used as the basis for constructing the projection	
Latitude of origin	52 degrees
Latitude chosen as the origin of rectangular coordinates for a map projection	

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This grid contains all the 1 km reference grid cells that intersect with CLC 2000 data including intertidal flats and estuaries, which can be clipped out using the clc2000_wetandwater.shp. This reference grid is based on ETRS89 Lambert Azimuthal Equal Area projection with parameters: latitude of origin 52° N, longitude of origin 10° E, false northing 3 210 000.0 m, false easting 4 321 000.0 m. Origin of grid is calculated from 0 m N 0 m E of projection.

The discriminant function have been used previously to assess how EnS strata would shift under alternative climate change scenarios, as described in: Metzger M.J., Bunce R.G.H., Leemans R. & Viner D. Projected environmental shifts under climate change: European trends and regional impacts. Environmental Conservation 35: 64-75