

JRC Dataset

Net Ecosystem Productivity

Description:

Net Ecosystem Productivity (NEP) may act as a surrogate for many ecosystem services given the crucial role of photosynthesis for many, if not all, ecosystem services. This indicator is based on NDVI measurements by Spot Vegetation. NDVI data were taken for 2009, 2010 and 2011. The Phenelo algorithm was used to calculate productivity based on seasonal vs. non seasonal vegetation, which involves a calculation of growing season biomass for those vegetated surfaces which exhibited seasonal variations. For each map, the upper and lower 90 percentile were set as maximum and minimum to avoid outliers due to e.g. satellite sensor acquisition error and subsequently the data were scaled between 0 (lower 90 percentile) and 1 (upper 90 percentile) to give a more apprehensive measure of standing biomass. Next, for each set of three years an annual average was calculated to reduce the effect of annual variation on primary production.

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Keywords:

Net ecosystem productivity, Orthoimagery, ecosystem services, growing season

Related resources:

Data access

Download baseline 2010

The compressed zipfile NEP.zip contains the net ecosystem productivity data at 1km resolution assessed for the year 2010 (based on an average for the period 2009-2011). NEP is expressed as a dimensionless value between 0 and 1.

<http://cidportal.jrc.ec.europa.eu/ftp/jrc-opendata/MAES/baseline2010/raster/NetEcosystemProductivity/NEP.zip>

Publications

Mapping and Assessment of Ecosystems and their Services: Trends in ecosystems and ecosystem services in the European Union between 2000 and 2010

Maes J, Fabrega Domenech N, Zulian G, Lopes Barbosa A, Vizcaino Martinez M, Ivits E, Polce C, Vandecasteele I, Mari Rivero I, Bastos De Morais Guerra C, Perpiña Castillo C, Vallecillo Rodriguez S, Baranzelli C, Ribeiro Barranco R, Batista E Silva F, Jacobs C, Trombetti M, Lavalle C. Mapping and Assessment of Ecosystems and their Services: Trends in ecosystems and ecosystem services in the European Union between 2000 and 2010. EUR 27143. Luxembourg (Luxembourg): Publications Office of the European Union; 2015. JRC94889

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EuroVoc domain(s): 72 GEOGRAPHY

Identifier: <http://data.europa.eu/89h/aa11504f-23ce-4fec-a500-e70c36657552>

Geographic information:

Lineage: No additional information

Geographic bounding box: 81.4° N, 43.2° E, 35.3° S, -11.5° W

Coordinate Reference System: ETRS89 / LAEA Europe