| Section | Description |
|---|---|
| **Resource Title** | $CO_2$ sequestration from forest and bogs – Flow/Supply |
| **Resource Abstract** | Atmospheric $CO_2$ is one of the most well known greenhouse gases and one of the most powerful drivers of climate change. The sequestration of $CO_2$ from the atmosphere is therefore an important regulating ecosystem service that is recognized by international environmental obligations and reporting programmes. The benefits of $CO_2$ sequestration are not limited to the Alpine population, but represent the contribution of the Alpine area to global climate protection. Within AlpES, the ecosystem service $CO_2$ sequestration is considered in relation to the ecosystems mountain forest and Alpine bogs. However, due to data availability and reliability, the indicator maps produced within AlpES only include the contribution to $CO_2$ sequestration given by forests. |
| **Resource Type** | Dataset |
| **Resource locator** | http://www.alpes-webgis.eu/?X=850359.92&Y=5947762.56&zoom=6&lang=en&focus=focus_alpes&bgLayer=alpes.osm.stamentoner.60002&layers=alpes.alpinespace.40001.wms,alpes.essi.10063&catalogNodes=101000000,101000006&layers_opacity=1,0.7 |
| **Unique Resource Identifier** | 4UZ9-AFM9-9LVA-TZ8C |
| **Resource Language** | eng |
| **Topic Category** | Environment<br>Climatology/Meteorology/Atmosphere |
| **Keyword value** | Atmospheric conditions (INSPIRE Spatial Data Theme)<br>Carbon sequestration (GEMET Concepts)<br>Forest (GEMET Concepts)<br>Biomass (GEMET Concepts) |
| **Originating controlled vocabulary** | - title: GEMET - INSPIRE themes, version 1.0<br>- date:<br>-dateType: publication<br>-date: 2008-06-01<br>- title: GEMET - Concepts, version 4.0.1<br>- date:<br>-dateType: publication<br>-date: 2017-06-28 |
| **Geographic bounding box** | West = 1.986194<br><br>East = 18.622061<br><br>North = 50.068114<br><br>South = 42.700501 |
| **Coordinate reference System** | EPSG: 3035 (ETRS89, LAEA) |

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| **Temporal extent** | 2012 |
| **Date of publication** | 2018-07-20 |
| **Lineage** | The indicator represents the annual rate of $CO_2$ sequestration by forests at the municipal level. This value is calculated on the base of the IPCC equations (2.9 and 2.10 of the IPCC guidelines, vol. 4, ch. 2) used to estimate the annual increase in biomass carbon stock due to biomass accumulation. This method allows for the assessment of above- and below-ground estimation of biomass increase in tonnes of carbon per year. The application of a standard constant converts the result into the amount of $CO_2$ being sequestrated.<br><br>Units of measurement: t $CO_2$ $ha^{-1}$ $y^{-1}$<br><br>IPCC, (2006) IPCC guidelines for national greenhouse gas inventories, prepared by the national greenhouse gas inventories program, Vol. 4, Ch. 2-4, Forest Land |
| **Spatial resolution** | 100000 |
| **Specification** | Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services, date of publication: 2010-12-08. |
| **Degree** | Null |
| **Conditions applying to access and use** | CC BY-NC 4.0 |
| **Limitations on public access** | No Limitation |
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| **Metadata date** | 2017-09-18 |
| **Metadata language** | eng |