

Ökoszisztéma típus	Misc	Folyamat / driver	Indikátor	Térbeli lépték			Adatbázisok
				Europe	River basin	Water body	
Rivers and lakes	Water quality	Pollution	Nitrogen concentrations	o	o		JRC water pressures indicators (under develop.)
			Phosphorus concentration	o	o		JRC water pressures indicators (under develop.)
			Discharges from urban waste	o	o		EEA
	Water quantity	Hydrological alteration	Water demand	o	o		JRC water pressures indicators (under develop.)
			Low flow alteration (Q10 and Q25)	o	o		JRC water pressures indicators (under develop.)
			Water Exploitation Index	o	o		JRC water pressures indicators (under develop.) + EEA
	Habitat	Hydromorphological alterations	1) natural areas in floodplains	o	o		JRC water pressures indicators (under develop.)
			2) density of infrastructures in floodplains;	o	o		JRC water pressures indicators (under develop.)
			3) artificial land cover in floodplains;	o	o		JRC water pressures indicators (under develop.)
			4) agricultural land cover in floodplains;	o	o		JRC water pressures indicators (under develop.)
			5) share of stream network length accessible considering	o	o		JRC water pressures indicators (under develop.)
	Biota		1) fish catches	o			EUROSTAT
			2) introduction of alien	o			EASIN
	Integrated		1) artificial land cover in catchment area	o	o		
			o	o			
	<b>Forest Attributes: structural (ST), functional (FUN),</b>	<b>Class</b>	<b>Indicator</b>	<b>Scale</b>			
				<b>Ecological Zone</b>	<b>Landscape</b>	<b>Stand</b>	
	ST, FUN, CO	Storms and other extreme weather events	Forest damage	X	X	X	1) Extreme Wind Storms Catalogue ( <a href="http://www.europeanwindstorms.org">www.europeanwindstorms.org</a> ) 2) European Storms Catalogue ( <a href="http://www.efiatlantic.efi.int/portal/databases/foreststorms">www.efiatlantic.efi.int/portal/databases/foreststorms</a> ) 3) R/S multi-temporal (before/after) assessment

Ökoszisztéma típus	Misc	Folyamat / driver	Indikátor	Térbeli lépték			Adatbázisok
		Changes in climatic parameters (including drought)	Climate Data	X	X	X	1) Climate datasets e.g. WorldClim ( <a href="http://www.worldclim.org">www.worldclim.org</a> ), Chelsa ( <a href="http://chelsa-climate.org">chelsa-climate.org</a> ), E-Obs ( <a href="http://www.ecad.eu/download/ensembles/download.php">www.ecad.eu/download/ensembles/download.php</a> ), etc. 2) Drought indicators (European Drought Observatory – EDO, JRC) <a href="http://edo.jrc.ec.europa.eu/edov2">http://edo.jrc.ec.europa.eu/edov2</a>
		Fires	Number of fires	X	X	X	1) Number of fires (EFFIS)( <a href="http://effis.jrc.ec.europa.eu">effis.jrc.ec.europa.eu</a> )
		Fires	Burnt area	X	X	X	1) Burnt area
		Unsustainable resource use	Forest management intensity	X	X	X	1) Forest statistics: NAI, harvesting (NFI), e.g. forest harvesting intensity ( <a href="http://www.unece.org/forests/fpm/onlinedata.html">www.unece.org/forests/fpm/onlinedata.html</a> )
		Fragmentation	Roads and other linear landscape features	X	X	X	1) Indicator on imperviousness and road construction (EEA) 2) Roads and linear features datasets
		Fragmentation	Forest cover loss	X	X	X	See below in forest cover changes
		LU/LC change	Forest cover changes	X	X	X	1) Corine Land Cover (Copernicus)( <a href="http://land.copernicus.eu/pan-european/corine-land-cover">land.copernicus.eu/pan-european/corine-land-cover</a> ) 2) Copernicus High Resolution Layers (HRLs) for forests ( <a href="http://land.copernicus.eu/pan-european/high-resolution-layers">land.copernicus.eu/pan-european/high-resolution-layers</a> ) 3) Global forest change dataset (Hansen, et al., 2013) ( <a href="http://earthenginepartners.appspot.com/scie">earthenginepartners.appspot.com/scie</a> )

Ökoszisztéma típus	Misc	Folyamat / driver	Indikátor	Térbeli lépték			Adatbázisok
Forests		LU/LC change	Deforestation	X	X	X	1) Corine Land Cover (Copernicus)( <a href="http://land.copernicus.eu/pan-european/corine-land-cover">land.copernicus.eu/pan-european/corine-land-cover</a> ) 2) Copernicus High Resolution Layers (HRLs) for forests ( <a href="http://land.copernicus.eu/pan-european/high-resolution-layers">land.copernicus.eu/pan-european/high-resolution-layers</a> ) 3) Global forest change dataset (Hansen, et al., 2013) ( <a href="http://earthenginepartners.appspot.com/scie">earthenginepartners.appspot.com/scie</a> )
		Excessive Nutrient loading	Total nitrogen in soil		X	X	1) European Monitoring and Evaluation Programme (EMEP)( <a href="http://emep.int">emep.int</a> )
		Excessive Nutrient	C/N ratio in soil		X	X	1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> )
		Excessive Nutrient loading	Nitrogen in deposition		X	X	1) European Monitoring and Evaluation Programme (EMEP)( <a href="http://emep.int">emep.int</a> ) 2) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> )
		Tropospheric ozone	Tropospheric ozone	X	X	X	1) ICP Forest (plot level) ( <a href="http://icp-forests.net">icp-forests.net</a> )
		Deposition of pollutants	Nitrogen	X	X	X	1) Deposition of air pollutants for nitrogen redundant from excessive nutrient loads. European Monitoring and Evaluation Programme (EMEP)( <a href="http://emep.int">emep.int</a> ) 2) Critical load exceedance for nitrogen (EEA) from CCE, ICP, LRTAP ( <a href="http://www.eea.europa.eu/data-and-maps/indicators/critical-load-exceedance-for-nitrogen">www.eea.europa.eu/data-and-maps/indicators/critical-load-exceedance-for-nitrogen</a> )
			Sulphate	X	X	X	1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> )
			Sulphur	X	X	X	1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> )
			Calcium	X	X	X	1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> )
			Magnesium	X	X	X	1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> )
	Invasive alien species	Number (and richness) of invasive	X	X	X	1) EASIN (JRC)( <a href="http://easin.jrc.ec.europa.eu">easin.jrc.ec.europa.eu</a> )	

Ökoszisztéma típus	Misc	Folyamat / driver	Indikátor	Térbeli lépték			Adatbázisok
		Diseases & pests	Forest insect outbreaks and pest damage (e.g. bark beetles)	X	X	X	1) ICP Forest (plot level)(icp-forests.net)
		Diseases & pests	Parasites			X	
		Wildlife & grazing	Damage by wildlife	X	X	X	1) ICP Forest (plot level)(icp-forests.net)
		Wildlife & grazing	Herbivores	X	X	X	1) ICP Forest (plot level)(icp-forests.net)
Agroecosystems (cropland and grassland)		Climate change	Effect of climate change on arable land (non-permanent)	•			(ETC/SIA, 2014)
		Land use change	Landscape fragmentation	•			(EEA ETC/SIA, 2014)
			Land take	•			
			Intensification /	•			AEI 12
			Risk of land abandonment	•			AEI 14
			Grassland abandonment	•			(ETC/SIA, 2014)
			Conversion of grassland to	•			
		Pollution and nutrient enrichment	Land management intensity of croplands derived from crop statistics & related	•			(EATC/SIA, 2014)
			N deposition	•			
			Gross nutrient balance	•			
			Total nitrogen input to	•			(ETC/SIA, 2014)
			Total nitrogen input to	•			(EEA, 2015)
		Overexploitation	Livestock density / ha	•			
			Water abstraction				
		Invasive alien species					
		<b>Class</b>	<b>Indicator</b>	<b>Scale</b>			
				R	M	U	
		Urban Sprawl	Percent of built-up area (%)	•	•		JRC Global human settlements layers: <a href="http://ghsl.jrc.ec.europa.eu/">http://ghsl.jrc.ec.europa.eu/</a> Urban atlas:

Ökoszisztéma típus	Misc	Folyamat / driver	Indikátor	Térbeli lépték			Adatbázisok
Urban			e.g., Weighted Urban Proliferation (Urban Permeation Units m-2)	•	•		Several datasets indicators to measure urban sprawl are available e.g. City Typology Database of ETC-ULS (385 cities in Europe) (data set to be made
		Temperature	Urban temperature (°C)		•	•	
			Thermal discomfort: Annual number of combined tropical nights (above 20 °C) and hot	•	•	•	
		Noise pollution	Noise levels (dB(A))		•	•	
			Number of annual occurrences of traffic noise at levels exceeding 55 db(A) during the day and 50 db(A)	•	•	•	
			Percentage of population exposed to road noise within urban areas above 55 dB	•	•	•	
			Percentage of population exposed to road noise within urban areas above 50 dB	•	•	•	
		Water pollution	Concentration of nutrients and biological oxygen demand	•	•	•	
			Bathing water quality	•	•		
			Percent of urban population connected to urban waste water collection and	•	•	•	
		Air pollution	Emissions (kg year-1) or concentration of NO2, PM10,	•	•	•	Different datasets of the EEA
			Number of annual occurrences of maximum	•	•	•	<a href="https://www.eea.europa.eu/data-and-maps/data/aqereporting-1">https://www.eea.europa.eu/data-and-maps/data/aqereporting-1</a>
			Number of annual occurrences of 24 hour mean of PM10 > 50 µg m-3	•	•	•	<a href="https://www.eea.europa.eu/data-and-maps/data/air-pollutant-concentrations-at-station">https://www.eea.europa.eu/data-and-maps/data/air-pollutant-concentrations-at-station</a>
			Number of annual occurrences of hourly mean	•	•	•	

	Osztály	Indikátor	Térbeli lépték			Adatbázisok
			Europe	River basin	Water body	
Rivers and lakes		Ecological and chemical status	o	o	o	EEA
	Class	Indicator	Scale			
			Ecological I Zone	Landscape	Stand	
	Stress	Conservation status	X			1) Habitat Directive, Species and Habitat conservation status (Art.17 database) (EEA)( <a href="http://www.eea.europa.eu/data-and-maps/data/article-17-database-habitats-directive-92-43-ec-1">www.eea.europa.eu/data-and-maps/data/article-17-database-habitats-directive-92-43-ec-1</a> )
		Soil moisture (water stress)	X	X	X	1) From soil water balance e.g. Kurnik, et al. (2014)( <a href="http://www.eea.europa.eu/data-and-maps/indicators/water-retention-4/assessment">www.eea.europa.eu/data-and-maps/indicators/water-retention-4/assessment</a> ) 2) Copernicus Global Land Service (Soil Water Index) <a href="http://land.copernicus.eu/global/products/swi">http://land.copernicus.eu/global/products/swi</a> 3) Soil moisture anomaly (European Drought Observatory – EDO, JRC) <a href="http://edo.jrc.ec.europa.eu/edov2">http://edo.jrc.ec.europa.eu/edov2</a>
		Resource limitations			X	1) Soil Organic Carbon (SOC), European Soil Database (ESDB) (JRC) ( <a href="http://esdac.jrc.ec.europa.eu/search/node/soil%20organic%20carbon">esdac.jrc.ec.europa.eu/search/node/soil%20organic%20carbon</a> )
		Defoliation		X	X	1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> ) 2) Remote sensing indices
		Discolouration		X	X	1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> ) 2) Remote sensing indices
		Drought and heat induced tree mortality, drought-stress	X	X	X	
	Biogeochemical & Biogeophysical	Pigment content (chlorophyll, carotene xanthophyll)	X	X	X	

	Osztály	Indikátor	Térbeli lépték			Adatbázisok
Forests		Nitrogen	X	X	X	1) Soil condition (LUCAS)( <a href="http://esdac.jrc.ec.europa.eu/projects/lucas">http://esdac.jrc.ec.europa.eu/projects/lucas</a> ) 2) Forest Focus-BioSoil ( <a href="http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/15905/1/lbna24729enc.pdf">publications.jrc.ec.europa.eu/repository/bitstream/111111111/15905/1/lbna24729enc.pdf</a> )
		Phosphorus content	X	X		1) Soil condition (LUCAS)( <a href="http://esdac.jrc.ec.europa.eu/projects/lucas">http://esdac.jrc.ec.europa.eu/projects/lucas</a> ) 2) Forest Focus-BioSoil ( <a href="http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/15905/1/lbna24729enc.pdf">publications.jrc.ec.europa.eu/repository/bitstream/111111111/15905/1/lbna24729enc.pdf</a> )
		Lignin	X	X		
		Cellulose	X	X		
		Phenole	X	X		
		Plant water content	X	X		
		Wax Starch Sugar	X			
		Carbon content	X	X		
		Plant productivity	X	X	X	1) Copernicus Global Land Service (Dry Matter Productivity) ( <a href="http://land.copernicus.eu/global/products/dmp">land.copernicus.eu/global/products/dmp</a> ) 2) Remote sensing e.g. GPP, NPP, MODIS ( <a href="http://modis.gsfc.nasa.gov/data/dataproduct/mod17.php">modis.gsfc.nasa.gov/data/dataproduct/mod17.php</a> )
		Variation in carbon dioxide exchange and carbon balance	X	X	X	

	Osztály	Indikátor	Térbeli lépték			Adatbázisok
		Greening response	X	X	X	1) Copernicus Global Land Service (Normalized Difference Vegetation Index) ( <a href="http://land.copernicus.eu/global/products/ndvi">land.copernicus.eu/global/products/ndvi</a> ) 2) Vegetation Condition Index (VCI), Copernicus Global Land Service (NDVI) ( <a href="http://land.copernicus.eu/global/products/vci">land.copernicus.eu/global/products/vci</a> ) 3) Fraction of green Vegetation Cover (FCover), Copernicus Global Land Service ( <a href="http://land.copernicus.eu/global/products/fcover">http://land.copernicus.eu/global/products/fcover</a> ) 4) Leaf area index – LAI, ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> ) 5) Leaf area index – LAI, Copernicus Global Land Service ( <a href="http://land.copernicus.eu/global/products/lai">land.copernicus.eu/global/products/lai</a> ) 6) Leaf Area Index – LAI, MODIS ( <a href="http://modis.gsfc.nasa.gov/data/dataproduct/mod15.php">modis.gsfc.nasa.gov/data/dataproduct/mod15.php</a> )
		Soil fertility	X	X	X	1) Soil Organic Carbon (SOC), European Soil Database (ESDB) JRC ( <a href="http://esdac.jrc.ec.europa.eu/search/node/soil%20organic%20carbon">esdac.jrc.ec.europa.eu/search/node/soil%20organic%20carbon</a> )
	<b>Structural &amp; Phenotypical</b>	Tree height	X			1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> ) 2) Global forest canopy height (Simard, et al., 2011) ( <a href="http://webmap.ornl.gov/ogc/dataset.jsp?ds_id=10023">webmap.ornl.gov/ogc/dataset.jsp?ds_id=10023</a> )
		Tree cover density	X	X	X	1) Copernicus Land Monitoring Systems (Tree cover density) ( <a href="http://land.copernicus.eu/pan-european/high-resolution-layers/forests">http://land.copernicus.eu/pan-european/high-resolution-layers/forests</a> ) 2) Global Land Cover Facility (Tree Cover Continuous Fields) ( <a href="http://glcf.umd.edu/data/landsatTreecover/">http://glcf.umd.edu/data/landsatTreecover/</a> )
		Tree crown size	X			1) ICP Forest (plot level): crown condition ( <a href="http://icp-forests.net">icp-forests.net</a> )
		Connectivity, patchiness	X	X	X	1) SEBIO13: fragmentation and connectivity (forest, natural/semi-natural areas) (FISE)( <a href="http://biodiversity.europa.eu/topics/sebi-indicators">biodiversity.europa.eu/topics/sebi-indicators</a> ) 2) Forest connectivity/fragmentation indicators/maps (multi-scale) (JRC.D1)
		Biomass and carbon	X	X	X	1) Remote sensing e.g. Thurner, et al. (2014)( <a href="http://biomasar.org">biomasar.org</a> ) 2) Copernicus Global Land Service (Dry Matter Productivity) ( <a href="http://land.copernicus.eu/global/products/dmp">land.copernicus.eu/global/products/dmp</a> )
		Heterogeneity	X	X		



Osztály	Indikátor	Térbeli lépték			Adatbázisok
	Homogeneity	X	X		
	Forest area		X	X	1) Corine Land Cover (Copernicus)( <a href="http://land.copernicus.eu/pan-european/corine-land-cover">land.copernicus.eu/pan-european/corine-land-cover</a> ), 2) Copernicus High Resolution Layers (HRLs) for forests ( <a href="http://land.copernicus.eu/pan-european/high-resolution-layers">land.copernicus.eu/pan-european/high-resolution-layers</a> )
	Community structure	X	X		
	Canopy volume	X			1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> ) 2) Top of Canopy Reflectance (Copernicus Global Land Service), ( <a href="http://land.copernicus.eu/global/products/toc-r">land.copernicus.eu/global/products/toc-r</a> )
	Naturalness	X	X		
Physiognomic & Morphological	Leaf size, form, type, leaf anatomy, leaf optical properties, leaf wettability traits	X			
	Leaf dry matter content	X			
	Specific leaf area	X	X		
	Leaf mass per area	X	X		
	Leaf carbon content	X	X		
	Leaf nitrogen content	X			
	Leaf phosphorus content	X			
	Leaf pigment content	X			
	Leaf water content	X			
	Wood stem density, timber volume	X	X		1) ICP Forest (plot level)( <a href="http://icp-forests.net">icp-forests.net</a> )
	Photosynthesis	X	X		1) Copernicus Global Land Service (Normalized Difference Vegetation Index) ( <a href="http://land.copernicus.eu/global/products/ndvi">land.copernicus.eu/global/products/ndvi</a> ) 2) Vegetation Condition Index (VCI), Copernicus Global Land Service (NDVI) ( <a href="http://land.copernicus.eu/global/products/vci">land.copernicus.eu/global/products/vci</a> ) 3) fPAR, Copernicus Global Land Service ( <a href="http://land.copernicus.eu/global/index.html">land.copernicus.eu/global/index.html</a> ) 4) fPAR, Remote sensing e.g. MODIS ( <a href="http://modis.gsfc.nasa.gov/data/dataproduct/mod15.php">modis.gsfc.nasa.gov/data/dataproduct/mod15.php</a> )

Osztály	Indikátor	Térbeli lépték			Adatbázisok
	Carbon sequestration	X	X	X	1) Copernicus Global Land Service (Dry Matter Productivity) (land.copernicus.eu/global/products/dmp) 1) Remote sensing e.g. GPP, NPP, MODIS (modis.gsfc.nasa.gov/data/dataproduct/mod17.php)
	Evapotranspiration	X			1) From soil water balance e.g. Kurnik, et al. (2014)(www.eea.europa.eu/data-and-maps/indicators/water-retention-4/assessment) 2) Potential evapotranspiration (MAPPE model) JRC (data.europa.eu/euodp/en/data/dataset/jrc-mappe-europe-setup-d-14-potential-evapotranspiration)
	Respiration	X	X		
	Phenology & senescence				
	Leaf phenology type, leaf age, leaf development	X			1) ICP Forest (plot level)(icp-forests.net)
	Plant and canopy phenology	X	X	X	1) ICP Forest (plot level)(icp-forests.net) 2) Copernicus Global Land Service (Normalized Difference Vegetation Index) (land.copernicus.eu/global/products/ndvi) 3) Vegetation Condition Index (VCI), Copernicus Global Land Service (NDVI) (land.copernicus.eu/global/products/vci) 4) fPAR, Copernicus Global Land Service (land.copernicus.eu/global/index.html) 5) fPAR, Remote sensing e.g. MODIS (modis.gsfc.nasa.gov/data/dataproduct/mod15.php) 6) Leaf area index – LAI, ICP Forest (plot level)(icp-forests.net) 7) Leaf area index – LAI, Copernicus Global Land Service (land.copernicus.eu/global/products/lai) 8) Leaf Area Index – LAI, MODIS (modis.gsfc.nasa.gov/data/dataproduct/mod15.php)
<i>Class</i>	<i>Indicator</i>	<i>Scale</i>			
		E	N	R	
Agro-ecological factors	Nr. of crops	•	•		
	Share of utilised agriculture land for extensive arable crop	•	•		(EEA, 2016)
	Density of seminatural elements	•			

	Osztály	Indikátor	Térbeli lépték			Adatbázisok
Cropland		Connectivity of semi-natural elements				
		Share of fallow land	•			
		Share of HNV farmland	•			
		Share of organic farming	•			
		Gross Primary Production	•			
		Frequency of pest and disease outbreaks				
	Physical & chemical factors	Soil nutrients availability	•			
		Soil carbon stock %	•			(JRC)
		Soil Productivity				(JRC)
		Accumulation of heavy metals in agricultural soils (like copper (Cu), cadmium (Cd), lead (Pb) and zinc (Zn)),	•			ETCSIA 2014
		Soil erosion	•			
		Water availability				
		Nutrient leaching				
		Air quality				
	Productivity parameters	Nutrient availability in soils				
		Gross primary production	•			
		Changes in HANPP	•			
	Agro-ecological factors	Grassland habitat fragmentation	•			(ETC/SIA, 2014)
Conservation status of habitats of European interest associated to grassland		•			(Art.17 db)	
Share of utilised agriculture land for extensive grazing		•	•		(EEA, 2016)	
Density of seminatural elements		•				
Connectivity of semi-natural elements						
Share of HNV grassland		•				
Share of organic farming		•				

	Osztály	Indikátor	Térbeli lépték			Adatbázisok
Grassland		Gross Primary Production	•			
	Physical & chemical factors	Soil nutrients availability	•			
		Soil carbon stock %	•			(JRC)
		Soil Productivity				(JRC)
		Accumulation of heavy metals in agricultural soils (like copper (Cu), cadmium (Cd), lead (Pb) and zinc (Zn))	•			ETCSIA 2014
		Soil erosion	•			
		Water availability				
		Nutrient leaching				
		Air quality				
		Productivity parameters	Nutrient availability in soils			
	Gross primary production		•			
	Changes in HANPP		•			
		<i>Class</i>	<i>Indicator</i>	<i>Scale</i>		
			R	M	U	
Urban - Built infrastructure	Population density	Number of inhabitants per area (number ha-1)	•	•	•	EEA: <a href="https://www.eea.europa.eu/data-and-maps/data/population-density-disaggregated-with-corine-land-cover-2000-2">https://www.eea.europa.eu/data-and-maps/data/population-density-disaggregated-with-corine-land-cover-2000-2</a> EUROSTAT: <a href="http://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/population-distribution-demography">http://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/population-distribution-demography</a>
	Land use and land use intensity	Artificial area per inhabitant (m2 person-1)	•	•	•	JRC urban data platform: <a href="http://urban.jrc.ec.europa.eu">http://urban.jrc.ec.europa.eu</a>
		Land annually taken for built-up areas per person (m2 person-1)	•	•	•	JRC urban data platform: <a href="http://urban.jrc.ec.europa.eu">http://urban.jrc.ec.europa.eu</a>
	Road density	Length of the road network per area (km ha-1)		•	•	

	Osztály	Indikátor	Térbeli lépték			Adatbázisok
Urban - Green infrastructure		Canopy coverage (ha)		•	•	<a href="http://forest.jrc.ec.europa.eu/download/data/forest-data-download/">http://forest.jrc.ec.europa.eu/download/data/forest-data-download/</a> <a href="http://land.copernicus.eu/pan-european/high-resolution-layers/forests">http://land.copernicus.eu/pan-european/high-resolution-layers/forests</a> <a href="http://land.copernicus.eu/local/urban-atlas/street-tree-layer-stl/view">http://land.copernicus.eu/local/urban-atlas/street-tree-layer-stl/view</a>
	Urban forest pattern	e.g., different indicators based on forest pattern and fragmentation including SEBI 13		•	•	
	Tree health and damage	e.g. foliage damage crown dieback; measurements based on visual inspection of trees		•	•	
	Spatial configuration	Connectivity of GI (%)		•	•	
		Fragmentation of GI (Mesh density per pixel)		•	•	
		Fragmentation by artificial areas (Mesh density per pixel)		•	•	
Urban - ratio between green and built infrastructure		Proportion of urban green space (%)	•	•	•	<a href="http://land.copernicus.eu/pan-european/corine-land-cover/view">http://land.copernicus.eu/pan-european/corine-land-cover/view</a> Urban atlas: <a href="http://land.copernicus.eu/local/urban-atlas">http://land.copernicus.eu/local/urban-atlas</a>
		Proportion of impervious surface (%)	•	•	•	<a href="http://land.copernicus.eu/pan-european/high-resolution-layers/imperviousness">http://land.copernicus.eu/pan-european/high-resolution-layers/imperviousness</a>
		Proportion of natural area (%)	•	•	•	CORINE
		Proportion of protected area (%)	•	•	•	<a href="https://www.eea.europa.eu/data-and-maps/data/nationally-designated-areas-national-cdda-11#tab-european-data">https://www.eea.europa.eu/data-and-maps/data/nationally-designated-areas-national-cdda-11#tab-european-data</a> <a href="https://www.eea.europa.eu/data-and-maps/data/natura-8#tab-gis-data">https://www.eea.europa.eu/data-and-maps/data/natura-8#tab-gis-data</a>
		Proportion of agricultural area (%)	•	•	•	
		Proportion of abandoned area (%)	•	•	•	

		Típus	Indikátor	Térbeli lépték			Adatbázisok
				Europe	River basin	Water body	
Rivers and lakes	Rivers	Biological quality elements (BQEs) collected to assess ecological status	1) composition and abundance of aquatic flora,	o	o	o	EEA
			2) composition and abundance of benthic invertebrate fauna,	o	o	o	EEA
			3) composition, abundance and age structure of fish fauna	o	o	o	EEA
	Lakes	Biological quality elements (BQEs) collected to assess ecological status:	1) Composition, abundance and biomass of phytoplankton,	o	o	o	EEA
			2) composition and abundance of other aquatic flora	o	o	o	EEA
			3) composition and abundance of benthic invertebrate fauna	o	o	o	EEA
			4) composition, abundance and age structure of fish fauna	o	o	o	EEA
	Rivers and lakes	Presence of aliens species reported under the EU Regulation (1143/2014)		o	o		EEA
	Forest Attributes: structural (ST), functional (FUN), composition (CO)	<i>Class</i>	<i>Indicator</i>	<i>Scale</i>			
				Ecological Zone	Landsc ape	Stand	
	CO		Plant functional types		X	X	

Típus		Indikátor	Térbeli lépték			Adatbázisok
sts		Protected forest area		X	X	1) Relative area of protected forest, Natura 2000 (www.eea.europa.eu/data-and-maps/data/natura-8), CDDA (www.eea.europa.eu/data-and-maps/data/nationally-designated-areas-national-cdda-
		Species diversity	X	X	X	1) ICP Forest (plot level) vascular plants (icp-forests.net)
		Species abundance	X	X	X	1) SEBI 01 Abundance and distribution of selected species (woodland bird) (EEA) (biodiversity.europa.eu/topics/s
		Phylogenetic	X	X	X	
		Forest tree species	X	X	X	1) Species richness (of different taxa) (country specific) 2) Tree species richness (FISE) (forest.jrc.ec.europa.eu/european-atlas-of-forest-tree-species/) 3) EU-Forest (Mauri, et al., 2017)(plot level)(
		Forest types		X	X	1) Potential data source: Distribution and suitability maps of revised EUNIS forest habitat types (EEA) (forum.eionet.europa.eu) 2) ICP Forest (plot level)(icp-forests.net) 3) Forest ecological zones (FISE)
		Forest age structure	X	X		1) ICP Forest (plot level)(icp-
		Seral diversity	X	X	X	

		Típus	Indikátor	Térbeli lépték			Adatbázisok
Fore			Genetic variability	X	X		1) European information system for forest genetic resources (EUFGIS)(portal.eufgis.org) 2) European Forest Genetic Resources Programme (EUFORGEN)(www.euforgen.org)
			Threatened species	X	X		1) IUCN Red Lists (ec.europa.eu/environment/nature/conservation/species/redlist)
			Deadwood	X	X	X	1) SEBI 18 Deadwood (EEA) available at national level (Forest Europe) or European scale (SEBI018)(biodiversity.europa.eu/topics/sebi-indicators) 2) NFI data (Plot level data) 3) ICP Forest (plot level)(icp-forests.net)
			Understory vegetation	X	X		1) ICP Forest (plot level)(icp-
			Common forest bird species			X	1) SEBI 01 Abundance and distribution of selected species (woodland bird) (EEA) (index available at MS level and EU level)(biodiversity.europa.eu/to
			Rove beetles	X	X		
			Ground beetles	X	X		
			Overall vascular plant	X	X	X	1) ICP Forest (plot level)(icp-
			Overall bryophite	X	X	X	
			Moss	X	X	X	1) ICP Forest (plot level)(icp-
			Liverwort	X	X	X	
			Overall lichen	X	X	X	1) ICP Forest (plot level)(icp-
			Overall fungal	X	X	X	
		<i>Class</i>	<i>Indicator</i>	<i>Scale</i>			
				E	N	R	



	Típus	Indikátor	Térbeli lépték			Adatbázisok
Cropland	Bird trends	Farmland Birds	•			SEBIO1
	Mammals, amphibians, reptiles impacted by changes in agriculture	Conservation status of Art.17 species	•			
		Red list index	•			
		Wildlife population				
	Wild pollinators					
	Soil biodiversity	Soil biodiversity potential				
		Microbial biodiversity				
Grassland	Bird trends	Conservation status of species of European interest associated to grassland	•	•		(Art.17 db)
	Bird trends	Population status and trends of bird species of European interest associated to grasslands	•	•		(Art 12 db)
	Butterflies trends	SEBIO1 Grassland Butterfly	•			
	Mammals, amphibians, reptiles impacted by changes in agriculture	Conservation status of Art.17 species	•			
		Red list index	•			
		Wildlife population				
	Wild pollinators					
	Soil biodiversity	Soil biodiversity potentials				
Microbial biodiversity						
Urban	<i>Class</i>	<i>Indicator</i>	<i>Scale</i>			<i>Indicators</i>
			<i>R</i>	<i>M</i>	<i>U</i>	
	Species diversity	Number and abundance (number ha-1) of bird species				<a href="https://easins.maps.data.article-12-database-birds-directive-2009-147-ec">a-and-maps/data/article-12-database-birds-directive-2009-147-ec</a>
		e.g., number of lichen species				
	Conservation	Number and abundance (number ha-1) of species of conservation interest				<a href="https://easins.maps.data.article-17-database-habitats-directive-92-43-ec-1">a-and-maps/data/article-17-database-habitats-directive-92-43-ec-1</a>
Introductions	Number of alien species				<a href="https://easin.jrc.ec.europa.eu/">https://easin.jrc.ec.europa.eu/</a>	