

COST-341 Glossary

COST-341 GLOSSARY	
A	
<i>Agricultural underpass</i>	Underground passageway or tunnel for agricultural use, often also permitting the passage of wildlife.
<i>Amphibian fencing</i>	A continuous structure that is erected alongside linear infrastructure designed to prevent amphibians from crossing, or directing them to a specific crossing point.
<i>Amphibian tunnel</i>	An often enclosed passage or channel constructed for the sole purpose of conveying amphibians from one side of a linear infrastructure barrier to the other.
<i>Anthropogenic</i>	Generated and maintained, or at least strongly influenced by human activities.
<i>Avoidance measures</i>	Measures such as project abandonment or infrastructure re-routing employed in order to avoid unacceptable environmental impacts. <i>Compare</i> Mitigation.
B	
<i>Balancing pond</i>	Artificial waterbody fed by storm drains and surface runoff, where pollutants from the road can settle out or filter through reeds before joining the wider ecosystem.
<i>Barrier effect</i>	The combined effect of traffic mortality, physical hindrances and avoidance, which together reduce the likelihood and success of species crossing infrastructure.
<i>Berm</i>	Horizontal ledge in an earth bank or cutting to ensure the stability of a steep slope.
<i>Biodiversity</i>	See Biological diversity.
<i>Biological diversity</i>	The variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part. This includes diversity within species, between species and of ecosystems as well as of the processes linking ecosystems and species.
<i>Biota</i>	All organisms in a community or area.
<i>Biotope</i>	The area inhabited by a distinct community of plants and animals. Biotope is commonly used among central European ecologists as the denominator of distinct land units and vegetation patches identified from an anthropocentric perspective. Elsewhere, biotope is often confused with and exchanged by 'Habitat'.
<i>Bottleneck</i>	Defined area (e.g. habitat corridor or patch) which, due to the presence of transport infrastructure or other land use, has become of crucial importance to animal migration or dispersal.
<i>Brash</i>	Woody vegetative cuttings (often left in a mass or pile, or randomly scattered across infrastructure verges).

COST-341 Glossary

<i>Buffer zone</i>	Vegetated strips of land that are intended to screen ecosystems from impacts such as pollution or disturbance, and/or to reduce the area restrictions of protected sites; can be located (a) adjacent to developments or components of these, usually with the aim of filtering out pollutants, (b) around protected sites, with aims such as providing additional habitat for some animals, protecting the site from pollutants and disturbance, and perhaps encouraging expansion through species dispersal, or (c) within sites, usually with the aim of permitting their use for both amenity purposes and conservation.
<i>By-pass</i>	Highway section following a route that passes around a congested or vulnerable area.
C	
<i>Catchment area</i>	Geographical area from which all precipitation flows to a single stream or set of streams (may also be termed a drainage basin, or watershed).
<i>Cattle creep</i>	See Agricultural underpass.
<i>Central reservation</i>	The median strip running down the centre of a dual carriageway or motorway (sometimes vegetated), which separates traffic flowing in opposite directions.
<i>Clippings</i>	Cuttings from herbaceous vegetation.
<i>Community (biotic)</i>	Assemblage of interacting species living in a given location at a given time.
<i>Compensatory measures</i>	Measure or action taken to address a residual adverse effect which cannot be satisfactorily mitigated. See also Mitigation.
<i>Connectivity</i>	The state of structural landscape features being connected, enabling access between places via a continuous route of passage.
<i>Consequence</i>	See Impact.
<i>Corridor</i>	Tract of land or water connecting two or more areas. See also Wildlife corridor.
<i>Crossing</i>	Designated or recognised place for people or fauna to go across from one side of something to the other e.g. pedestrian, cattle or deer crossings over infrastructure.
<i>Crossroads</i>	The place of intersection of two or more roads
<i>Culvert</i>	Buried pipe, or lined channel structure, that allows for a watercourse and/or road drainage to pass under infrastructure.
<i>Curb</i>	See Kerb
<i>Cutting</i>	V-shaped cut out of the land enabling transportation infrastructure to pass at a level below the surrounding land surface.
D	
<i>Deer fencing</i>	Continuous structure that is erected alongside linear infrastructure designed to prevent deer from crossing, or directing them to a specific crossing point.
<i>Dike</i>	A wall built to prevent the sea or a river from flooding an area, or a channel dug to take water away from an area.
<i>Dispersal</i>	The process or result of the spreading of organisms from one place to another.
<i>Drainage</i>	The system of drains, pipes and channels devised to remove excess water (surface or subsurface) from an infrastructure surface.

COST-341 Glossary

<i>Drover's track</i>	Track used for the driving of herds.
<i>Dual carriageway</i>	Road with two lanes of traffic which are moving in opposite directions o, either side f a central reservation.
<i>Dyke</i>	See Dike
E	
<i>Ecoduct</i>	See Wildlife overpass or Landscape bidge .
<i>Ecological corridor</i>	Landscape structures of various size, shape and vegetative cover that maintain, establish or re-establish natural landscape connectivity.Hedgerows or verges are examples of ecological corridors (natural and artificial) taht can act as interconnecting routes for the movement of species across a landscape hence increasing the overall extent of habitat available to individuals.
<i>Ecological infrastructure</i>	The interconnected pattern of ecological corridors serving as a conduit for species moving across the landscape.
<i>Ecological network</i>	System of ecological corridors, habitat core areas and their buffer zones which provide a (minimal) network of habitat needed for the successful protection of biological diversity at the landscape level.
<i>Ecosystem</i>	Dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
<i>Ecotone</i>	Transitional zone between two habitats.
<i>Ecotope</i>	Distinct area with a recognisable set of characteristics relating to the soil, vegetation, or water conditions. The ecotope represents the smallest mappable land unit that makes up the landscape mosaic.
<i>Edge (effect)</i>	The portion of an ecosystem near its perimeter, where influences of the surroundings prevent the development of interior environmental conditions
<i>Effect</i>	See Impact
<i>Embankment</i>	Artificial bank (made of packed earth or gravel) such as a mound or dike, constructed above the natural ground surface in a linear form and designed to carry a roadway or railway across a lower lying area.
<i>Endemic species</i>	A species confined to a particular region and thought to have originated there.
<i>Environmental Impact Assessment (EIA); Environmental Assessment (EA)</i>	A method and a process by which information about environmental effects is collected, assessed and used to inform decision-making. See also Strategic Environmental Assessment.
F	
<i>Fauna</i>	Animal species.
<i>Fauna-exit</i>	Measure installed to prevent animals from becoming trapped by fences along infrastructure e.g. badger gate, or built in the sheet piling of a canal to enable animals to exit e.g. Amphibian ramp.
<i>Fauna passage</i>	Measure installed to enable animals to cross over or undera road, railway or canal without coming into contact with the traffic.

COST-341 Glossary

<i>Filter effect</i>	Infrastructure acts as a filter by inhibiting the movement of certain species or individuals. The scale of the effect varies between species and may even vary between sexes or age categories.
<i>Flora</i>	Plant or bacterial life.
<i>Forestry road</i>	(Narrow) road built mainly for forestry purposes which may or may not have public access.
<i>Fragmentation</i>	The breaking up of a habitat, ecosystem or land-use type into smaller parcels.
G	
<i>Game</i>	Animals hunted for sport and food.
<i>Game fencing</i>	<i>Compare</i> Deer fencing
<i>Gradient</i>	The (rate of) change of a parameter between one area or region to another.
<i>Guide fencing</i>	Fencing built to lead wild animals to a dedicated crossing point.
<i>Guard-rail</i>	See Safety fence
<i>Gutter</i>	Paved channel designed to carry runoff from the edge of infrastructure into the drainage system.
H	
<i>Habitat</i>	The place or type of site where an organism or population naturally occurs - including a mosaic of components required for the survival of the species.
<i>Habitat attrition</i>	Habitat destruction due to progressive urbanisation.
<i>Habitat fragmentation</i>	Dissection and reduction of the habitat area available to a given species - caused directly by habitat loss (e.g. due to land-take) or indirectly by habitat isolation (e.g. due to barriers increasing distances between neighbouring habitat patches).
<i>Halophyte</i>	
<i>Hard shoulder</i>	See Shoulder
<i>Hedgerow</i>	A close row of woody species (bushes or trees) serving as a boundary feature between open areas (often used in combination with, or as an alternative to, a fence).
<i>Herbicide</i>	A chemical application which kills weeds.
<i>Highway</i>	See Road.
I	
<i>Impact</i>	The immediate response of, e.g., an organism, species or property to an external factor. This response may have an effect on the species or condition that may result in wider consequences to the population or species community on a longer time scale.
<i>Indicator</i>	Quantitative variable, usually with a target value representing an objective, which symbolises environmental or other impacts of transportation infrastructure.
<i>Indicator species</i>	Species indicative of (a) some environmental or historical influence (e.g. lichens can be atmospheric pollution indicators, and woodland ground-flora can be indicative of ancient woodland), or (b) a community or habitat type (e.g. some species can be used to classify invertebrate communities, or are indicative of particular habitats).
<i>Infrastructure</i>	The system of communications and services within an area.
<i>Invertebrate</i>	Animals lacking a vertebral column, or backbone.

COST-341 Glossary

J	
<i>Junction</i>	See Crossroads
K	
<i>Kerb</i>	Edging (usually concrete) built along infrastructure to form part of the gutter
<i>Keystone species</i>	A species that plays a pivotal role in an ecosystem and upon which a large part of the community depends for survival.
L	
<i>Land cover</i>	Combination of land use and vegetation cover.
<i>Landform</i>	Natural feature of the surface of the earth.
<i>Landscape</i>	The total spatial and visual entity of human living space integrating the geological, biological and human-made environment. A “heterogeneous land area composed of a cluster of interacting ecosystems that is repeated in similar form throughout” and create a specific, recognisable pattern. In general, three basic criteria appear in most definitions of landscapes: (a) the integration of man with nature, (b) the mosaic structure, and (c) the functional linkage between the entities in the mosaic.
<i>Landscape bridge</i>	Large wildlife overpass or ecoduct used to connect habitats over an infrastructure barrier.
<i>Landscape diversity</i>	The numerous relations existing in a given period between individuals or a society and a topographically defined territory, the appearance of which is the result of the action, over time, of both natural and human factors.
<i>Landscape element</i>	Each of the relatively homogeneous units, or spatial elements, recognised at the scale of a landscape mosaic.
<i>Landscaping</i>	To modify the original landscape by altering the plant cover - this may include building earthworks to form new landscape structures.
<i>Land-take</i>	Land used for highway schemes (<i>in the context of this report</i>).
<i>Land unit</i>	The smallest functional element of the landscape. <i>See also</i> Ecotope , Habitat and Biotope
<i>Land-use planning</i>	Activity aimed at predetermining the future temporal and spatial usage of land and water by society.
<i>Linear transportation infrastructure</i>	Road, railway or navigable waterway.
M	
<i>Major road</i>	Road to which is assigned permanent traffic priority over the roads.
<i>Matrix</i>	In landscape ecology theory, the background ecosystem or land use type in a mosaic, characterised by extensive cover, high connectivity and/or major control over dynamics.
<i>Metapopulation</i>	A set of local populations within an area, where typically migration from one local population to at least some other patches is possible to sustain local population numbers. The metapopulation may have a higher persistence than the single local populations.
<i>Migration</i>	The regular, usually seasonal, movement of all or part of an animal population to and from a given area.
<i>Mitigation</i>	Action to reduce the severity of, or eliminate an adverse impact.

COST-341 Glossary

<i>Mode</i>	Form of transport (such as road, rail, air, shipping, pipeline, bicycle etc.).
<i>Monitoring</i>	Combination of observation and measurement employed to quantify the performance of a plan, measure or action against a set of predetermined indicators, criteria or policy objectives.
<i>Mosaic</i>	The pattern of patches, corridors and matrices, (<i>in this case, within a landscape</i>) each composed of small, similar aggregated objects.
<i>Motorway</i>	Major arterial highway that features: two or more traffic lanes of traffic moving in each direction, separated by a 'central reservation'; controlled entries and exits; and alignment eliminating steep grades, sharp curves, and other hazards (e.g. grade crossings) and inconveniences to driving.
<i>Multimodal</i>	Pertaining to more than one mode of transport.
N	
<i>Network</i>	Interconnected system of movement corridors (<i>in this context</i>).
<i>Noise barrier</i>	Measure installed to reduce the dispersal of traffic noise in ascertain sensitive area (e.g. wall, fence, screen).
O	
<i>Overpass</i>	Structure (including its approaches) which allows one infrastructure element to pass above another (or other type of obstacle).
P	
<i>Pedestrian underpass</i>	Tunnel under an infrastructure link designed for use by pedestrians.
<i>Pesticide</i>	Any chemical application to kill insects, rodents, weeds, fungi or other living things which are harmful to plants, animals or foodstuffs.
<i>Population</i>	Functional group of individuals that interbreed within a given, often arbitrarily chosen, area.
<i>Pipe</i>	Cylindrical water tight structure sunk into the ground to provide a passage (from one side of the infrastructure to another)
R	
<i>Re-afforestation</i>	Re-establishment of forest by the planting of trees (may have commercial or ecological functions).
<i>Region</i>	A geographical area (usually larger than 100 km ²) embracing several landscapes or ecosystems that share some qualitative criteria in, e.g., topography, fauna, vegetation, climate or urbanisation. Examples include bio-geographic and socio-economic regions.
<i>Regrading</i>	The process of converting an existing surface into a designed form by undertaking earthworks e.g. cutting, filling or smoothing operations.
<i>Restoration</i>	The process of returning something to an earlier condition or position. Ecological restoration involves a series of measures and activities undertaken to return a degraded ecosystem to its former state.
<i>Riparian forest</i>	Forest situated by a riverbank or other body of water
<i>Road</i>	Concrete or tarmac public way for vehicles, humans and animals.

COST-341 Glossary

<i>Road corridor</i>	Linear surface used by vehicles plus any associated (usually vegetated) verges. Includes the area of land immediately influenced by the road in terms of noise, visual, hydrological and atmospheric impact (normally within 50 to 100 m of edge of the infrastructure).
<i>Road network</i>	The interconnected system of roads serving an area.
<i>Roundabout</i>	Junction where three or more roads join and traffic must flow in one direction around a central island of land which is often vegetated.
S	
<i>Safety barrier</i>	A vehicle-resistant barrier installed alongside, or on the central reserve of, infrastructure intended to prevent errant vehicles from leaving the designated corridor and thus limit consequential damage. 'Safety fence' (see below) is one example of a safety barrier.
<i>Safety fence</i>	Continuous structure (of varied material) erected alongside infrastructure designed to prevent errant vehicles from leaving the the designated corridor and limit consequential damage. May also be termed Guard-rail.
<i>Scale</i>	In landscape ecology, the spatial and temporal dimensions of objects, pattern and processes.
<i>Service road</i>	Subsidiary road connecting a more major road with adjacent buildings or facing properties. Normally not a thoroughfare.
<i>Sheet piling</i>	Waterway bank erosion protection (wooden, iron or concrete planks sunk vertically between the edge of the water and embankment).
<i>Shoulder</i>	The linear paved strip at the side of a 'motorway' which vehicles are allowed to use during emergencies, and which is used by maintenance vehicles to access works.
<i>Single carriageway</i>	Road in which a single lane of traffic is flowing in each direction, with no barrier or median strip dividing them.
<i>Single track</i>	Road that is only as wide as a single vehicle, and does not permit the flow of two-way traffic.
<i>Sink</i>	<i>Compare Source</i>
<i>Site</i>	A defined place, point or locality in the landscape.
<i>Slope protection</i>	Activity or measure aimed at preventing soil erosion on slopes (e.g. by covering the ground with vegetation, stones, concrete or asphalt).
<i>Source – sink habitats and populations</i>	Source habitats are areas where populations of a given species can reach a positive balance between births and deaths and thus act as a source of emigrating individuals. Sink habitats, on the other hand, have a non-sustaining birth-death ratio and are dependent on the immigration from source populations
<i>Spatial planning</i>	See Land-use planning
<i>Stepping stone</i>	Ecologically suitable patch where an organism such as an animal temporarily stops while moving along a heterogeneous route.
<i>Strategic Environmental Assessment (SEA)</i>	The application of the principles of Environmental Impact Assessment to policies, plans and programmes at a regional, national and international level.
<i>Surface-water drainage</i>	System devised to remove water from the surface of the ground (or infrastructure). See also drainage

COST-341 Glossary

T	
<i>Target species</i>	A species that is the subject of a conservation action or the focus of a study.
<i>Taxon (pl. taxa)</i>	Taxon in the Linnean classification of living organisms.
<i>Terrestrial</i>	Pertaining to land or earth.
<i>Top soil</i>	The top layer of soil that supports vegetation.
U	
<i>Underpass</i>	Structure, including its approaches, which allows one route to pass under another route or obstacle.
V	
<i>Verge</i>	The strip of land (often vegetated) beyond the infrastructure surface itself, but within the road boundary.
<i>Vertebrate</i>	Any animal characterised by a vertebral column, or backbone.
<i>Viaduct</i>	Long elevated bridge, supported on pillars, which carries infrastructure over a valley or other similar area at a lower level.
W	
<i>Waterway</i>	A navigable body of water.
<i>Weir</i>	Construction in a river or canal to hold the water upstream at a certain level.
<i>Wetland</i>	Land or area containing high levels of soil moisture or completely submerged in water for either part or the whole of the year.
<i>Wildlife</i>	Wild animals, plants and bacteria collectively.
<i>Wildlife corridor</i>	Linear-shaped area or feature of value to wildlife - particularly for facilitating movement across a landscape.
<i>Wildlife crossing point</i>	Designated place for wildlife to cross infrastructure safely, e.g. using a specially-designed overpass, underpass, etc.
<i>Wildlife fence</i>	Fence designed and erected specifically to prevent animals from gaining access onto infrastructure.
<i>Wildlife overpass</i>	Construction built over infrastructure in order to connect the habitats on either site. The surface is, at least partly, covered with soil or other natural material that allows the establishment of vegetation.
<i>Willingness To Pay (WTP)</i>	A term used in economics to quantify the maximum amount of consumption possibilities that an individual is prepared to sacrifice in order to consume a particular good. In many research projects, such as valuation of various environmental assets, the purpose is to estimate WTP in terms of money.
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