

## Glossary of Concepts and Terms

**Final Draft dated 16 May 2002**

This Glossary sets out the meanings of a number of concepts described and terms used in this document. The words and phrases used are for the purposes of this document. Their use here is not intended to pre-empt further discussion on their meaning.

Aapa mire	Minerotrophic, sloping, and patterned mire
Abiotic	Non-biotic (see biotic).
Absorbed	Retained within the peat matrix (like a sponge).
Acrotelm	Upper peat-producing layer of a mire with a distinct hydraulic conductivity gradient in which water level fluctuations and horizontal water flow occur; the acrotelm stabilises hydraulic conditions.
Acrotelm mire	A mire in which an acrotelm enables peat accumulation.
Activated carbon	Powdered or granular carbon used for purifying by adsorption.
Aerobic	Having or containing oxygen.
Aerosols	Extremely small particles of liquid or dust in the atmosphere.
Aesthetic value	The value related to the appreciation of beauty.
Afforestation	Establishing new forests on un-forested land.
Agnostics	Persons uncertain of all claims to knowledge.
Air-water regime	The degree of saturation of, and the amount of oxygen in, the soil.
Albedo	The fraction of sunlight that is reflected by earth, ice, and clouds back into space.
Allogenic	Being genetically dissimilar or having another origin; allogenic material is material that stems from outside of a system.
Anaerobic	Not requiring air or oxygen for life; applied especially to microbes to which free oxygen is unnecessary.
Anoxic	Relating to or marked by a severe deficiency of oxygen.
Anthropocentrism	Moral position that ascribes intrinsic value only to human beings.
Anthropogenic	Resulting from human activity.
Anti-greenhouse gas	A gas which cools the atmosphere.
Archive function	Function as carrier of information about the past.
Arthropods	Invertebrates having jointed limbs and a segmented body with an exoskeleton made of chitin; e.g. insects, crabs.
Axiology	The theory of the nature and significance of values.
Azonal climatic conditions	Not fitting the general pattern of climate zones.
Balneology	The use of baths for medical purposes.
Bequest values	Values relating to what is left for future generations.
Biocentrism	Moral position that ascribes intrinsic value to all living beings.

Biochemical mechanisms	Involving chemical processes in living organisms.
Biodiversity	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 part; this includes diversity within species, between species and of ecosystems. (Convention on Biological Diversity)
Biogenic	Produced by living organisms or biological processes, organic.
Biogeochemical	Involving chemical processes both in the biosphere and in the geosphere, e.g. the circulation of elements within ecosystems (for example, the nitrogen cycle).
Biogeographic	Dealing with geographic distributional patterns of flora and fauna.
Biomass	a. The total mass of living matter in a given place. b. Vegetable material used as an energy source.
Biophysical equilibrium	A situation that is biologically and physically stable (steady state).
Biosphere	The totality of living organisms.
Biotic	Pertaining to life.
Bituminous coal	Coal rich in volatile hydrocarbons which flames in burning.
Blanket bog	Bog which forms a blanket-like layer over the underlying mineral soil.
Bog	Mire raised above the surrounding landscape and only fed by precipitation.
Boreal	Biogeographical zone between the temperate and the subarctic.
Calcareous mires	Mires rich in calcium carbonates.
Carbon cycle	The processes by which carbon is cycled through the environment. Carbon, in the form of carbon dioxide, is absorbed from the atmosphere and used by plants in the process of photosynthesis to store energy. Plants and animals then return carbon dioxide to the atmosphere through respiration when they consume this energy. On a much longer time-scale, carbon is also cycled into and out of other substances including peat, coal and lime.
Carbon dioxide	A gas made up of one atom of carbon and two atoms of oxygen which is produced whenever carbon-based fuels are burned (or oxidised more slowly in plants and animals). Abbreviated as CO <sub>2</sub> .
Carbonisation	The process of charring or coking so as to reduce organic material to carbon.
Catchment area	The geographical area draining into a river or reservoir.
Cation	Positively charged ion.
Cation exchange capacity	Capacity to remove cations from a solution and retain them.
Catotelm	Permanently water-saturated peat layer of relatively low hydraulic conductivity with a low rate of decay.
Chaos	A property of some non-linear dynamic systems which exhibit sensitive dependence on initial conditions. Extremely small differences in initial states lead to strongly different later

	states. Such systems may still be completely deterministic in that any future state of the system depends only on the initial conditions and the equations describing the change of the system with time. It may, however, require arbitrarily high precision to actually calculate a future state to within some finite precision.
Clastic material	Material made up of fragments of pre-existing rock, like sand or clay.
Clearcut strips	Strips within a forest which have been cleared of all trees.
Climate	The average pattern of weather in a place.
Co-generation	Combined generation of heat and power. Also referred to as CHP.
Cognition value	Value related to the pursuit of knowledge.
Coir	The fibre of coconut husks.
Commonage	The right of taking profit in land in common with others, without owning the land. The most usual forms of commonage were the right to pasture cattle, the right to extract peat, the right to fish a water, and the right to take wood.
Compost	A mixture of decaying organic matter used to improve soil structure and provide nutrients.
Conductivity	Conduction between opposite faces of a cube of material.
Conservation	The keeping entire, the keeping unchanged, preservation. Used in the sense of a deliberate or political decision to preserve.
Conservation value	All aggregate values pursued by conservation.
Container crops	Crops grown in sealed containers.
Contingency	A possible event or occurrence or result.
Corporate governance	The system by which commercial companies and institutions are directed and controlled.
Cosmogenic isotopes	Isotopes produced by cosmic radiation.
Cosmos	The ordered universe.
Cost-benefit analysis	A comparison of the estimated costs of an action with the estimated benefits it is likely or intended to produce.
Cryo-therapeutic	Use of cold for therapeutic treatment of injuries (for example, ice packs).
Cut-away peatland	What is left of a peatland after all the peat which can be economically removed has been extracted.
Decomposition	A complex process consisting of loss of organic matter (= mineralisation), loss of physical structure and change in chemical state.
Deep ecology	A moral position ascribing intrinsic value to all entities.
Deforestation	Cutting most or all of the trees in a forested area. Deforestation contributes to warming by releasing carbon dioxide, changing the albedo (amount of sunlight reflected from the surface) and reducing the amount of carbon dioxide taken out of the atmosphere by trees.
Deglaciation	Melting of glaciers at the end of the Ice Age.
Degraded soils	Soils that have lost their original instrumental (mostly agricultural) value.

Denitrification	The process by which nitrates or nitrites are reduced to nitrogen-containing gases, as by bacterial action on soil.
Discount rate	A measure of how cost and benefits that will happen in the future compare to cost and benefits today. The opportunity cost of applying resources.
Discounting	A method of estimating the present value of future cash flows. By extension, a method for estimating the present value of future events.
Distributional concerns	Concerns regarding the distribution of benefits to different sections of the population.
Ecocentrism	Moral position that attaches intrinsic value to all entities, i.e. to everything that is.
Ecological compensation	The principle that harmful effects on ecosystems, e.g. mires and peatlands, should be balanced by compensatory conservation measures by the user.
Ecological egalitarianism	The moral position that every form of life has equal value.
Ecology	a. The science of the relationships between organisms and their environments. b. The relationship between organisms and their environment.
Economic value	Contribution made to economic well-being.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
Ecosystem Approach	A strategy for the integrated management of the land, water and living resources of an ecosystem which promotes conservation and sustainable use in an equitable way. It recognises that human beings are an integral component of many ecosystems.
Egalitarian principle	The principle that one should be concerned not only with the total good but also with its distribution: a smaller quantity of good that is equally distributed is preferred to a larger total of which some have a disproportionate share.
Endogenous	Derived or originating internally.
Entity	Anything which exists whether physically or conceptually.
Environmental Impact Statement	A public document assessing the probable or possible impact on the environment of a proposed project.
Ethical justification	Motivation based on ideas of right and wrong.
Eudaimonistic values	From εὐδαιμονία = Greek “good life”. Values relating to the enrichment of life.
Euphotic	Relating to the uppermost layer of water that receives sufficient light for photosynthesis and the growth of plants.
Eutrophic	Nutrient-rich.
Evapotranspiration	Total loss of water by physical evaporation and biological transpiration.
Existence value	Value related to why human beings exist; the notion of ecological and evolutionary connection, that we share this world with other entities to which we are related and for which we have a responsibility

Exogenous	Derived or originating externally.
Exploitation	The use for any economic purpose. The term is used without any pejorative meaning.
Feature	(Synonymous with <i>characteristic</i> ): a property that distinguish an entity from other entities within a specific collection of entities. A feature is always a property of an entity; a property, however, is not always a feature.
Feedback	The mechanism by which the result of an action influences the action. Positive feedbacks work by stimulating the causing action, leading to continuously increasing results. Negative feedbacks hinder the action. In climate change, negative feedbacks work to slow down or offset warming while positive feedbacks work to speed up or amplify warming.
Fen	Peatland which in addition to precipitation water also receives water that has been in contact with mineral soil or bedrock.
Fennoscandia	Norway, Sweden, Denmark and Finland.
Financial discounting	A method of estimating the present value of future cash flows. A method of estimating future well-being in which not the well-being itself, but the monetary costs and benefits which determine future well-being, are discounted.
Flark	Usually elongated, wet and muddy depressions in string mires, may be several metres in length. The term is applied to any water filled or sedgy area between strings. On slopes flarks are narrow, only a few metres wide.
Flood mires	Mires in which periodical flooding by an adjacent open water body (sea, lake, river) enables peat accumulation.
Fluidised-bed	A two-phase system consisting of a mass of small particles suspended in a fluid, which maintains the stability of the system. The bed acts like a fluid.
Fluvial mires	Mires associated with rivers.
Fossil fuels	Fuels derived from the ancient remains of plants and animals, preserved in rocks in the earth's crust with high carbon and hydrogen content.
Function	A directional action of an entity that positively affects the object of the action (i.e. is useful). Function is the complement of <i>use</i> , i.e. one entity uses the function provided by another entity.
Geochemistry	The chemistry of the crust of the earth.
Geogenous	Originating from bedrock (e.g. water feeding a mire).
Geological	Relating to the study of the earth's crust from earliest time to the commencement of the historical period.
Geomorphology	The science of form of the earth's surface, including structure and development.
Geosphere	The solid part of the earth, as distinct from the atmosphere, the hydrosphere, the pedosphere, the biosphere and the noosphere.
Greenhouse effect	Warming that results when solar radiation is trapped by the atmosphere; caused by atmospheric gases that allow sunshine to pass through but absorb heat that is radiated back from the warmed surface of the earth.

Greenhouse gases	Any gas in the atmosphere that contributes to the greenhouse effect. These include carbon dioxide, methane, ozone, nitrous oxide, CFCs, and water vapour. Most occur naturally as well as being created by human activity.
Grossform	German term referring to the landform or overall shape of a mire or peatland.
Growing media	The media in which plants are grown, including soil, various forms of compost, rockwool, peat.
Heat capacity	The amount of heat required to raise the temperature of an object by one degree Celsius.
Historical value	Value related to cultural continuity.
Holism	1. A moral position that attaches intrinsic value to groupings or systems. 2. The scientific perspective that wholes are more than the simple sum of their parts.
Holistic	Pertaining to holism.
Holistic rationalism	The idea that this world is the "best" of all possible worlds, with a maximum economy of premises and fundamental laws, a maximum diversity of resulting phenomena, and its consistency, order, or harmony.
Holocene	The period since approximately 10,000 years ago (i.e. since the last glaciation).
Horizontal mire	Mire without a pronounced slope.
Humic	Relating to decomposed organic matter in the soil.
Humic ameliorant	Soil improver based on humus.
Humification	The process by which organic matter decomposes to form humus or peat.
Humus	Partially decomposed organic matter; the organic component of soil.
Hydraulic characteristics	Factors affecting water movement and storage.
Hydraulic conductivity	Coefficient of proportionality describing the rate at which water can move through an aquifer or other permeable medium.
Hydrochemistry	The study of the chemistry of water.
Hydrogenetic mire types	Types of mires which are defined by their peat formation strategy as dependent on water dynamics.
Hydrology	The study of water movement.
Hydrolysates	Products of hydrolysis.
Hydrolysis	Decomposition of a chemical compound by reaction with water, such as the dissociation of a dissolved salt or the catalytic conversion of starch to glucose.
Hydroscopic	Having the ability to absorb water readily from the atmosphere.
Hysteresis effect	a. Being dependent on the history or on direction, e.g. that the way back is different from the way to, or that the answer depends on whether a question – with the same factual content – is formulated negatively or positively.
Identity values	The values related to the ability to identify one's position in

	the world. They are limited to self-conscious beings who are able to think abstractly.
Immersion mire	Hydrogenetic mire type in which peat is produced by plants immersed in open water (e.g. many <i>Phragmites</i> stands). Many immersion mires can be referred to in more familiar terms as “emergent marsh” or “reed swamp”. <sup>1</sup>
Industrial cutaway peatlands	Cut away peatlands after the extraction of peat on an industrial scale.
Instrumental values	Values which represent clear means to an end. Such values are equal to functions.
Integrated catchment management	The management of rivers or basins and the surrounding catchment as a whole.
Intergenerational justice	Balance between the wellbeing of both present-day and future generations.
Intermediate cuttings	Silvicultural cuttings (thinning cuttings) in the stage of tree stand development between young stand treatment/cleaning and regeneration cutting (regeneration felling). A simple synonym for intermediate cutting is thinning cutting.
Intrinsic moral value	The value that an entity has as such, independent of everything else, i.e. independent of external valuers.
Inundation mires	Flood mires.
Irreversible	That cannot be changed back.
Isotope	Atoms of the same element (having the same atomic number) which have a different nuclear mass and atomic weight from other atoms of the same element are called isotopes of that element.
Kettle hole mire	A mire in a kettle-shaped basin. Sometimes erroneously used for self-sealing mire.
Kinesitherapy	The treatment of disorders by the application of muscular movements.
Lacustrine muds	Muds formed in lakes.
Land-use planning	A process or procedure to provide for the planning of the use of land for the common good and in the interests of sustainable development.
Layering	The process of rooting branches, twigs, or stems that are still attached to a parent plant, as by placing a specially treated part in moist soil.
Licensing system	A system of control to regulate the effects of an activity, for example its environmental effects, by means of conditions attached to permits or licences.
Lignite	Brown coal.
Lithogenous	Stemming from the lithosphere, as in lithogenous water (deep groundwater.)
Litter	a. An absorbent material, such as granulated clay or straw, for covering the floor of an animal's cage or excretory box. b. The uppermost layer of the soil consisting chiefly of fallen leaves and other decaying organic matter.

<sup>1</sup>Words such as “swamp” and “marsh” are avoided in this document (see footnote 3 of Chapter 2)

Living beings	A term inclusive of all forms of life.
LORCA	Long-term apparent rate of carbon accumulation.
Lysimeter	An instrument for measuring evapotranspiration or water percolation. It consists of a large cylinder filled with soil or peat that is put into a vertical position and buried in soil so that the upper surface of the lysimeter is at the same level as the soil surface.
Macerated	Made soft or separated into constituents by soaking.
Macroclimate	The climate in a region as a whole.
Material life support values	Values which contribute to the maintenance of physical health.
Meadow	Grassland to be grazed by farm animals. Grazing land.
Mean-end relationships	How means relate to ends.
Meta-ethical	Relating to the study of the meaning and nature of ethical terms.
Meteoric	Atmospheric.
Methane	A greenhouse gas consisting of one molecule of carbon and four molecules of hydrogen. Methane is produced naturally from rotting organic matter. Human sources of methane include agricultural activities such as growing rice and raising livestock, land-fills, coal mines, and natural gas systems. Abbreviated as CH <sub>4</sub> .
Microclimate	The specific climate of a small area.
Milled peat	Peat milled on the surface of a peatland to form crumb.
Mimetical desire	The instinct of human beings to imitate what those around them do: social behaviour which mimics that of others.
Minerotrophic	Also supplied with nutrients by the geosphere.
Mire	A peatland where peat is currently being formed and accumulating.
Modifiers	Factors which modify principles.
Monetarisisation	The attribution of monetary value to entities or services which are not normally seen to have a financial or commercial value.
Moral perspective	Way of looking at life, an approach which aims to answer the question of right or wrong.
Moral pluralism	An approach that acknowledges that various moral perspectives are equally justifiable.
Moral standing	The right to be morally considered.
Morphology	The study of the form, structure and origin of organisms or of the Earth's physical features.
Multiplier effect	The relationship between direct and direct/indirect employment. The factor by which one multiplies direct employment to calculate total employment.
Myopic behaviour	Attaching less value to future than to present events and things solely because they lie in the future.
Naturalistic approach	Approach that regards values as objective properties of an entity, independent of the person making the valuation.
Naturalness	The quality of not having been deliberately influenced by human beings.

Nature mysticism	The intuitive feeling of humanity's unity with all nature.
Needs	Things or qualities which are necessary for survival.
Neoteny	The phenomenon that infantile characteristics are prolonged into maturity.
Net present value	A method of expressing future amounts in current terms.
Nihilism	A doctrine holding that all values are baseless and that nothing can be known.
Nitrous oxide	A greenhouse gas consisting of two molecules of nitrogen and one molecule of oxygen. Nitrous oxide is created when fuels are burned and may also be released during denitrification. Abbreviated as N <sub>2</sub> O.
Non-anthropocentric approaches	Moral positions that do not consider human beings as being the only entities that possess intrinsic moral value.
Non-material life support values	A range of values relating to the mind, sensation, and the spirit.
Noocentrism	Moral position that ascribes intrinsic value only to rational beings.
N <sub>org</sub>	Nitrogen in organic form.
Normal problems	Problems that can be solved by progress and/or through investment.
Normative principles	Principles of behaviour which make it possible to resolve value conflicts in a rational way.
Norms	Generalised expectations of behaviour, as in guidelines, conventions and laws.
Oligotrophic	Poor to extremely poor in nutrients.
Ombrogenous	Only receiving precipitation water.
Ombrotrophic	Only supplied with nutrients by the atmosphere.
Option values	The same as bequest values - those relating to what is left for future generations. Relate to the importance people place on a safe future.
Organic	Material which results from carbon chemical biosynthesis.
Organismic	Relating to an organism as a whole.
Organo-mineral fertilisers	Combined organic and mineral fertilisers.
Oscillation	Fluctuation; variation; change back and forth.
Osmosis	The passage of water through a semi-permeable membrane into a more concentrated solution, ending by equalising the concentrations on both sides of the membrane.
Oxic	Containing oxygen, aerobic. Usually used in reference to a microbial habitat.
Oxidation	A reaction in which the atoms in an element lose electrons (often – but not limited to - to Oxygen) See under 'oxidative peat losses'.
Oxidative peat losses	Losses of peat resulting from the reaction of peat with oxygen (after drainage).
Ozone	An unstable gas in which three atoms of oxygen occur together. Ozone is a greenhouse gas. In the atmosphere ozone occurs at two different altitudes. Low altitude <i>tropospheric ozone</i> is a form of air pollution (part of smog) produced by the

	emissions from cars and trucks. High in the atmosphere a thin layer of <i>stratospheric ozone</i> is naturally created by sunlight. This ozone layer shields the earth from dangerous (cancer-causing) ultraviolet radiation from the sun. Several gases (notably chlorofluorocarbons, CFCs) speed the breakdown of ozone in the ozone layer. While serious in its own right, this is largely a different problem from the problem of global warming. Abbreviated as O <sub>3</sub> .
Palaeo-ecological values	Values relating to the reconstruction of human and environmental past.
Palaeophysiology	Science of the process of life in animals and plants in the past.
Palsa	Term of Finnish origin for a peat-covered mound with a permafrost core; usually ombrotrophic, generally much less than 50 metres across and from one to several metres high.
Palsa mire	Peatland complex of the discontinuous permafrost region, with palsas,( peat plateaus) rising above the adjacent unfrozen peatland (usually fen).
Paludification	The formation of waterlogged conditions: also refers to peat accumulation which starts directly over a formerly dry mineral soil.
Palynology	Analysis of microscopic remains of organisms.
Palynomorph-morphology	Study of the form of microscopic remains of organisms.
Paradigm examples	Example that serve as pattern or model.
Pasture	Grassland used for the growing of grass to be grazed by farm animals. Grazing land.
Pathocentrism	The moral position that all beings which can feel have value.
Peat	Sedentarily accumulated material consisting of at least 30% (dry weight) of dead organic material.
Peat extraction	The excavation and drying of wet peat and the collection, transport and storage of the dried product.
Peat oxidates	<a href="#">Deposits that develop in mires or swamps by the chemical or biochemical oxidation of minerals.</a>
Peatland	An area with or without vegetation with a naturally accumulated peat layer at the surface.
Pedogenic alteration	Alteration arising from processes occurring within the soil.
Pedological	Relating to the study of soil.
Percolation mires	Sloping mires in which hardly any water level fluctuations occur, with scarcely decomposed peat with high hydraulic conductivity. As a substantial water flux occurs through the peat, percolation mires are only found in landscapes where water supply is large and evenly distributed over the year.
Perlite	A natural volcanic glass similar to obsidian but having distinctive concentric cracks and a relatively high water content. In a fluffy heat-expanded form perlite is used as a lightweight aggregate, in fire-resistant insulation, and in soil for potted plants.
Permafrost	Ground that is permanently frozen.
Physico-chemical	Total of physical and chemical properties.

properties	
Photosynthesis	The process in certain plants and organisms by which, using light as an energy source, carbohydrates are synthesised from carbon dioxide and water.
Pingo	An Eskimo term for arctic mound or conical hill consisting of an outer layer of soil (including peat) and vegetation, covering a core of solid ice and which exists for at least 2 winters.
Pisciculture	The rearing of fishes in ponds, lakes or fish farms.
Polder	An area where the water level can be artificially regulated largely independently of the surrounding area.
Polluter pays principle	The principle that the cost of measures to prevent, control and reduce damage should be borne by the responsible party.
Polygon	A feature of patterned ground caused by permafrost, consisting of a closed, roughly equidimensional figure bounded by several sides, in peat mainly with high or low centres and ridges along the margins.
Praxis	A model, example, or collection of examples: a practice.
Precautionary principle	The principle that where there are threats of serious damage, measures to prevent this damage should not be avoided because of lack of full scientific certainty.
Precipitation	Rainfall, snow, hailstones, dew and frost.
Preference approach	Approach that regards values as only resulting from the preferences of the person making the valuation.
Prescription duties	Duties to take certain actions arising from the rights of others.
Pristine	Which has not been disturbed by human activity.
Production functions	Values related to the capacity to provide resources (food, raw materials, etc.)
Property	Any inherent quality of an entity.
Proxy values	Values acting as substitutes for other values. Include sensations that are experienced as pleasant, agreeable or beneficial.
Proportionality	The state of being properly related in size, degree, importance, or other measurable characteristic.
Prudential	Exercising prudence, good judgment, or common sense. Used in “prudential argument”: acting as though animals and other non-human beings have intrinsic value, so as to avoid the possibility that some people will treat human beings in the same way as non-humans are sometimes treated.
Public participation	A consultation process in which all stakeholders can actively participate.
Pulverised fuel	Fuel which has been ground to a fine dust.
Pyrolysis	Decomposition of a substance by heat.
Radiative forcing	The greenhouse warming impact of an atmospheric gas.
Raised bog	Usually dome-shaped peatland that has its water level above that of the surrounding mineral soil due to its moisture being fed only by the atmosphere.
Rational beings	Beings who exercise reason or self-consciousness.
Recreation value	Value in providing opportunities for recreation.
Redox process	A reversible chemical reaction in which one reaction is an

	oxidation and the reverse is a reduction: oxidation-reduction.
Reductivism	An approach that tries to reduce complexities (about value) to simple principles and single measures.
Regeneration	Re-growth of a destroyed mire.
Regulation functions	Values relating to the capacity to regulate essential ecological and environmental processes and life-support systems, including the maintenance of adequate climatic, atmospheric, hydrologic, pedologic, ecologic and genetic conditions.
Regulatory functions	The regulation functions of government or public administration ensuring that laws and regulations are observed.
Resource	An available supply that can be drawn on when needed.
Restitution	The act of making good or compensating for loss, damage, or injury.
Schwingmoor mires	Mires with floating mats, e.g. papyrus swamp islands.
Sea level rise	An increase in the average level of the ocean caused by expansion when water is warmed and by addition of more water when ice caps melt.
Sedentarily accumulating ecosystems	Ecosystems that accumulate organic material which is produced on the spot and not transported after its production and death.
Sedentary	Produced on the spot and not transported after its production and death.
Sedimentation	Deposition of matter after transport by water or ice or wind.
Seed-tree groups	A method of regenerating a forest stand in which all trees are removed from the area except for a small number of seed-bearing trees that are left in small groups. The objective is to create an even-aged stand.
Self-sealing mires	A mire which grows by forming an impervious layer in the previously permeable mineral subsoil, impeding water outflow.
Sentient beings	Beings with the capacity to experience pleasure and pain.
Sentimental argument	The argument that non-human beings should not be violated to prevent suffering of human beings who suffer when non-human beings are violated.
Sequester	To remove or segregate, for example from the atmosphere.
Signalization value	Value related to the provision of signals and indications.
Sink	A place where material is removed or stored. For example, the oceans absorb about 50% of the carbon dioxide released into the atmosphere. Scientists refer to oceans and mires as a carbon dioxide <i>sinks</i> .
Sloping mire	Mire with a sloping surface.
Social amenity value	Value related to social contacts that improve the quality of life.
Social role	A person's role in society.
Socio-economic benefits	Improvements to social and economic conditions, such as increases in income in an area or the creation of employment.
Solar forcing	Changes in the warming impact of the sun's radiation on the earth's surface.
Soligenous	Originating from soil and surface.
Speciesism	The belief that a particular species (e.g. Homo sapiens) is

	superior to others (cf. racism, sexism).
Spirituality values	Values related to the provision of reflection and spiritual enrichment.
Sporopollenine	A polymer that constitutes the outer wall of spores and pollen grains.
Spring mire	Mire that is mainly fed by spring water.
Stakeholders	All persons and organisations having a direct interest.
Storage coefficient	The volume of water that can be stored as a proportion of the volume of soil/peat in which it is stored.
Stratigraphy	The geological study of strata, or beds, of sedimentary rock.
Stratosphere	The upper part of the earth's atmosphere, above about eleven kilometres.
Strong sustainability	A view which does not accept substitutability and argues for keeping the stock of different types of resources intact separately.
Subsidence	The lowering of the level of a mire due to drainage.
Substitutability	The degree to which another product can be substituted for the product in question.
Substitutable	Capable of being replaced by an alternative that will achieve the same or similar ends.
Substrate	An underlying layer, e.g. the substance on which a crop grows.
Suo	An area with or without a peat layer dominated by a normally peat-producing vegetation.
Surface flow mire	Mire in which, because of strongly decomposed peat, most water overflows the peat.
Surfactant	A substance capable of reducing the surface tension of a liquid in which it is dissolved.
Surficial	Occurring on or near the surface of the earth..
Sustainable development	Economic development which can meet the needs of the present without compromising the ability of future generations to meet their own needs.
Symbolisation values	Values that provide embodiments of other values (like mascots, symbols, money).
Taxonomic	Of or pertaining to the classification of organisms in an ordered system that indicates natural relationships (systematics).
Technological optimists	Persons who expect that the science of ecology will eventually provide sufficient understanding of ecological processes and relationships to enable an effective control of ecosystems and natural resources.
Terrestrial	Living or growing on land.
Terrestrialisation	The accumulation of sediments and peats in open water.
Terrestrialisation mire	Mire formed by peat formation in open water.
Tertiary	The era from 65-3 million years ago.
Thallogenous	Stemming from the sea.
Theism	The argument that all beings are God, the image of God, or created to glorify God.
Thinnings	Trees cut at various stages in the growth of a forest to allow

	space for adjacent trees to grow.
Topogenous	Originated as a result of the features of an area.
Topography	Physical features of an area.
Trace element	A chemical element required in minute quantities by an organism to maintain proper physical functioning.
Transformation values	Values related to the provision of the possibility to modifying and changing preferences, e.g. the development of other tastes, the improvement of social skills, and the growing awareness of existence values.
Transgression	The spread of an open water body over adjacent land.
Translocation	Removal of things or activities from one place to another;
Transpiration	The emission of water vapour by plants (or animals).
Trophic conditions	Nutrient availability.
Troposphere	The lower portion of the earth's atmosphere in which human beings live.
Typology	Listing and explanation of types.
Upper Carboniferous	Era from 320-290 million years ago.
Use	The application or employment of an entity for a purpose. That entity is therefore useful. Use is the complement of function, i.e. the same action (relation, factor) can be seen as a <u>function</u> (from the perspective of the provider) or as a <u>use</u> (from the perspective of the recipient). The words 'use' and 'utilisation' are used interchangeably in this document.
Utilisation	Use in any way, including conservation.
Utility discounting	A method of estimating the present value of future benefits or benefits to future generations. It assumes that future well-being is given less weight than present well-being.
Value	The worth attached to entities.
Vascular plants	The higher plants, characterised by the possession of true roots, stems and leaves and through whose tissues liquids are conducted.
Veto duties	Duties to avoid certain actions arising from the rights of others.
Vital issues	Issues about which it cannot be prudently assumed that progress will solve the problems associated with them.
Volatiles	Substances that change readily to a vapour.
Von Post scale	A ten-point scale devised by the Swedish scientist Lennart Von Post measuring the degree of decomposition (or humification) of peat.
Wants	Amenities/commodities/peripheral interests.
Water rise mires	Mires in depressions which result from an externally induced rising water table that does not lead to the origin of pools or lakes
Weak sustainability	A view which permits the depletion of natural resources if artificial substitutes can be found and if the profits are invested rationally.
Weather	The condition of the atmosphere at a particular place and time measured in terms in wind, temperature, humidity,

	atmospheric pressure, and precipitation.
Wetland	An area that is inundated or saturated by water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.
Wise Use	Use for which reasonable people, now and in the future, will not attribute blame.
World-view	A person's set of values which is based both on "objective" observations, and on subjective interpretations and projections.
Xeromorphy	The total of morphological features that show adaptation to dry habitats.

Acknowledgements: Geddie, W, 1959, Chambers's Twentieth Century Dictionary, London; Water Words Dictionary, Nevada Division of Water Planning, Department of Conservation and Natural Resources. <http://www.state.nv.us/cnr/ndwp/dict-1/waterwds.htm>; Dictionary.com. <http://www.dictionary.com/>. CancerWEB's On-line Medical Dictionary.

The drafters would like to thank John Couwenberg and Tony McKenna for assistance in compiling the Glossary.