

A Glossary of Key Sustainability Terms

Air pollution	The contamination of the atmosphere through unwanted particles, liquids and gases. The term refers to conditions when the general atmosphere contains substances in concentrations that are harmful, or potentially harmful, to people or the environment.
Alternative (fuels/energy)	Energy that is renewable and deemed to be ecologically safe. Sources include: wind, solar, hydroelectric, biomass, geothermal, tidal, and wave.
Bioplastic	Plastics that are manufactured from renewable resources such as natural sugars or starch that are extracted from potato, wheat, corn or tapioca. An added environmental benefit is that they are biodegradable under certain conditions.
Biodiversity	A term used to describe collectively the variety and variability of nature.
Biodegradable	Matter that can be readily decomposed by organic matter.
Carbon Cycle	The cycling of the element carbon from non-living surroundings through organisms and back again.
Carbon neutral	When something has zero carbon emissions. This can be achieved through a variety of ways including 'carbon offsetting' (planting trees to offset carbon emissions), using alternative power such as solar or wind, and 'carbon trading'.
Carbon offsetting	The act of mitigating carbon emissions.
Carcinogen	Chemicals that definitely, or potentially cause cancer in humans. They are classified by the World Health Organisation according to their perceived risk.
Cleaner Production	The process of reducing the environmentally damaging practices associated with production.
Climate Change	Sometimes referred to as 'global warming', climate change is used to describe the altering of global weather patterns as a result of human activity.
Closed Loop	When an item is recycled back into the same product, or reclaiming waste products and reusing them in a closed production cycle.
Cradle-to-Cradle	A design theory based on the principles and understanding that human design can learn from nature to be effective, safe, enriching, and delightful. Cradle to Cradle Design models human industry on nature's processes, in which materials are viewed as nutrients circulating in healthy, safe metabolisms.
Cradle-to-Grave	A term used to describe the life cycle of materials from conception (cradle) to the end of their life (grave).
Commercial Waste	Waste materials produced from the commercial sector such as manufacturing, hotels, shopping centres, etc
Corporate Social Responsibility	A decision and implementation framework that guides companies on their social and environmental responsibilities in all aspects of their operations.
Dematerialisation	The reduction in the amount of materials required to perform its intended function.
Design for Disassembly	Designed to be easy to disassemble (with minimal, basic tools) at end of life, for repair, remanufacture or recycling.
Design for Durability	Designed to last longer thus avoiding multiple products being used for a particular task over time, resulting in less overall environmental impact.
Design for Environment	A way of designing products with a view to eliminating or minimising environmental, social and human health impacts across the entire product life cycle from materials extraction and processing through to production, distribution, operation and end-of-life.
Design for Recycling	Designed to maximise recycling; easy to disassemble, materials are easily separated, labelled and commonly recycled.
Downcycling	The recycling of a one material to create a new material that has inferior properties to those of the original product.
Eco design	A design process that considers the environmental impacts associated with the entire life cycle of a product from conception through to end of life.
Eco efficiency	The more efficient use of resources resulting in a reduced environmental impact usually through a more efficient use of resources such as doing more with less.



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Eco labelling	A voluntary method of environmental performance certification and labelling that is practised around the world. An ecolabel is a label which identifies overall environmental performance of a product or service, within a specific product/service category based on life cycle considerations.
Embodied Energy	An indication of the amount of energy stored in a product or material. I Includes the energy in the raw materials, and that consumed in transport and manufacture.
Emissions Trading	A market driven system that allows greenhouse gas emissions to be traded between emitters. Aimed at managing harmful emissions it employs a regulatory agency that specifies an overall level of pollution that will be tolerated (a cap). Emitters trade when they need to exceed the cap by purchasing from those that emit below the cap.
Environmental Management System (EMS)	An EMS is aimed at improving the environmental performance of an organisation in an integrated and systematic way through legislation and regulatory compliance. The International Standards Organisation (ISO) set the international benchmark with ISO 14001.
End of life	The end stage of a products operational life cycle.
Extended Producer Responsibility	Requires producers to take more responsibility for managing the environmental impact of their products throughout their life. Designed to reduce the amount of waste from consumer goods and its impact on the environment. Also know as 'product stewardship'.
Greenhouse Gasses	Manmade gaseous emissions that contributes to a rise in the average temperature of the earth commonly known as 'Global Warming'. The key gases include: carbon dioxide from burning fossil fuels; methane from landfill, agriculture and coal production; chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs) used in refrigerators; nitrogen oxide from nylon and nitric acid production, burning fossil fuels and agriculture; sulphur hexafluoride from the chemical industry.
Landfill	Land disposal sites for non-hazardous solid waste, compacted and spread in layers.
Life Cycle Assessment	A process to evaluate the environmental impacts associated with a product, system or service by identifying and evaluating the energy and material imputes used and wastes released to the environment. The end result is an assessment which demonstrates the key areas of environmental impacts, allowing for improvements. Also used as a tool for comparing products/systems.
Life Cycle Cost	All the costs, both internal and external to the associated with the production of a product, process or system throughout its entire life cycle. This includes capital costs, operational, instillation, maintenance and disposal costs. Traditionally it excludes the environmental costs.
Life Cycle Thinking	The application of a whole of life cycle approach promoting an understanding of all the impacts associated with production and consumption.
Light weighting	Reducing the weight of a product so as to have less environmental impact in production and distribution. Less material used and less weight to be transported.
Materials Labelling	The labelling of the materials in a product to help in sorting for recycling.
Organic	Composing of living or once-living matter. Containing carbon.
Off-gassing	When volatile compounds are emitted from a product into the air during its life. Emissions usually come from fillers, additives, elastomers, fillers and residual chemicals from manufacturing.
Obsolescence	(planned or 'builtin') When a product is planned or designed to have a specific life. This usually refers to products that have a very short life, thus requiring more products to be produced and purchased.
Post Consumer Waste	Goods or materials discarded after use by consumer. When collected for recycling it needs to be identified and separated to avoid contamination during recycling.
Producer Responsibility	Prescribes the legal responsibilities of producers/manufacturers for their products from the conception to the end-of-life.
Product Stewardship	Producers and brand owners proactively managing the environmental impacts throughout the product life-cycle in partnership with other stakeholders eg. Suppliers, consumers and governments. Playing a greater role in keeping their products out of the waste stream.
Recovered Materials	Waste products or materials that have been re-directed from landfill to be re-used.



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Recycled Content	A product that contains a percentage of its materials that was previously contained in another form. Proportion of recycled material in a blend, component or product; typically sourced from materials recovered from end-of-life products and components as opposed to the use of 100 per cent virgin materials.
Recyclables	Materials that have useful physical and chemical properties even after serving their original purpose. They can be re-used or re-manufactured into the same or new products.
Remanufacture Retrofit	To renew or manufacture a product or material to extend its use beyond its intended life. The modification of an existing structure, product or service to achieve a better environmental performance.
Renewable	(energy and resources) A resource that is capable of naturally restoring or replenishing at a rate greater than, or equal to its rate of depletion. Renewable energy sources include; solar, wind, tidal, and geothermal.
Reusability	When a product or package has the ability to be used more than once in its same form.
Salvage	To recover discarded, damaged or abandoned materials and products from the waste stream and reuse them.
Shared Product Responsibility	Seeks to expand the assignment of responsibility for waste management of packaging and spent consumer goods beyond the producer and consumer to include all participants along the life cycle of a product including designers and manufacturers, as well as consumers and governments.
Stewardship	The concept of responsible caretaking and management of something entrusted to one's care, such as the environment. Based on the idea that humans do not own resources, but that we have a duty to care for and protect them for future generations.
Sustainability	A dynamic process which encourages all people to realise their impact and potential to improve the quality of their life and natural environment through actions that protect, conserve and restore as opposed to degenerate, consume and destroy.
Sustainable Consumption	To consume resources in a socially and environmentally responsible manner.
Sustainable Production	The creation of goods in a way that protects and promotes the resources used in its construction.
Sustainable Product Design	A design philosophy and practice in which products contribute to social and economic well being, have negligible impacts on the environment and can be produced from a sustainable resource
Volatile Organic Compounds	Or VOC's - An organic compound that easily evaporates in normal circumstances and can be toxic to living organisms.
Waste	Anything that is thrown away, discarded, useless or no longer wanted.
Waste Mining	The processes of extracting resources from landfill sites for reuse.
Zero Waste	The concept of a society can be organised in such a way that it produces no waste. This is usually achieved through 'closed-loop-systems'.



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