

Sustainability Literature

LUXAVIATION GROUP SUSTAINABILITY

Guide

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Guide

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LUXAVIATION GROUP SUSTAINABILITY

A	
Afforestation	The action of planting trees to create a forest where there was none.
Agroforestry	This is the process of growing trees and shrubs alongside agricultural crops on the same land. This process serves to sustain the production of crops and trees, in addition to diversifying and improving environmental, human, and natural resources.
Atmosphere	A key component of Earth's interdependent physical systems is its atmosphere. Earth's atmosphere comprises 78% nitrogen and 21% Oxygen, gaseous layers surrounding our planet.
Anthropogenic emissions	Human-induced activities contribute to an enhanced greenhouse gas effect. Actions such as burning fossil fuels, deforestation, land use changes, and fertilisation result in a net increase in emissions.
Anthropogenic removals	Intentional human action to remove greenhouse gases from the atmosphere by enhancing carbon sinks and using chemical engineering to achieve long-term removal and storage.
B	
Biochar	A carbon-rich material is produced during the pyrolysis process.
Biodiversity	The total types of plants and animals that exist in a specific area or the world.
Biomass	An organic material that comes from living organisms such as plants and animals. Biomass can be burnt to create heat, converted into electricity (direct), or processed into biofuel (indirect).
C	
Carbon capture	As a form of emissions reduction, carbon capture captures emissions at the source, preventing the emissions from being released into the atmosphere in the first place.
Carbon dioxide (CO₂)	A chemical compound made up of molecules that each have one carbon atom bonded to two oxygen atoms. In an atmospheric context, this colourless gas is the primary carbon source of life on Earth, and global warming.
Carbon footprint	The total carbon emissions released into the atmosphere by a given activity.
Carbon neutral	The balancing of greenhouse gas emissions so that they are equal to or less than the emissions absorbed through Earth's natural absorption processes.
Carbon removal	The process of directly removing carbon dioxide pollution from the Earth's atmosphere.
Carbon sink	An area that can absorb large amounts of carbon dioxide from the Earth's atmosphere. The Earth's largest natural carbon sinks are forests, oceans, and soil.
Climate	Characterised by average weather conditions and patterns over a long period. Periods of >30 years can determine a climate.

Guide

Sustainability Literature

LUXAVIATION GROUP SUSTAINABILITY

C <i>cont.</i>	
Climate change	A shifting of the Earth's average mean temperature and weather patterns. Natural occurrences such as large volcanic eruptions and the sun's activity contribute, although, since the pre-industrial era, human-induced activities have been the main driver of climate change.
D	
Decarbonisation	The process of stopping or reducing carbon gasses, mainly carbon dioxide, from being released into the atmosphere. This process largely derives from the burning of fossil fuels.
Deforestation	An intentional action taken to remove trees from large areas of land.
Degradation	A process that destroys the beauty or quality of something.
E	
Ecosystem	Plant, animal, and microorganism communities and their non-living environment interact as functional units. Ecosystems are irrespective of any political boundaries.
Emissions	Heat, gas, and light are all forms of emissions that can harm the environment when released into the atmosphere.
Emissions trading	A system that permits countries and organisations to receive permits to produce a specified volume of carbon dioxide and other greenhouse gasses. Otherwise known as 'cap and trade', the concept was established to incentivise organisations to reduce their emissions.
Environmental footprint	A measurement that can be associated with water and land consumption utilised to produce food and other dependencies – the impact on the environment from people or an organisation.
G	
Global warming	The estimated rise of the Earth's global mean surface temperature (GMST) can be averaged over a 30-year period.
Green economy	An economy that is low in carbon, resource-efficient, and socially inclusive. In a green economy, economic growth is driven by public and private investment in activities and infrastructures that enable the reduction of carbon emissions and pollution.
Greenhouse gas (GHG) effect	When certain gasses are released into the Earth's atmosphere, the sun's light shines onto the planet's surface. During this process, heat becomes trapped and is reflected into the atmosphere. This process acts as an incubator for all life forms, and without the greenhouse gas effect, the global mean surface temperature (GMST) would be far cooler, making Earth uninhabitable for many life forms. In contrast, when the GHG effect is exacerbated, this too may pose a question of Earth's ability to support life.
Greenhouse gases (GHGs)	Gases that absorb infrared radiation from the Earth's surface and trap heat in the atmosphere. The main greenhouse gases found in the Earth's atmosphere consist of carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), ozone (O ₃) and water vapour (H ₂ O).

Guide

Sustainability Literature

LUXAVIATION GROUP SUSTAINABILITY

G <i>cont.</i>	
Green growth	Fostering economic growth and development, all the while ensuring natural assets continue to provide the resources and environmental services on which social and environmental well-being relies.
J	
Just transition	The transition to a low-carbon economy ensures climate neutrality is reached fairly and justly, leaving no one behind.
L	
Land degradation	The exploitation of land from human-induced activity causes a decline in biodiversity and soil fertility. Maintaining existing healthy land without detrimental intervention from human-induced activity can sustain land health.
Low-carbon	Associated with a building, activity, or business that emits a small volume of carbon dioxide into the Earth's atmosphere.
M	
Mitigation	In the context of climate change, human intervention can reduce emissions or enhance the sinks of greenhouse gases.
N	
Nature-based solutions	The action of protecting, restoring and sustainably managing natural and modified ecosystems, coincides with addressing societal challenges, benefiting both people and nature.
Net zero emissions	Reducing GHG emissions so the output is as close to zero as possible.
O	
Offsetting	In the context of the environment, offsetting is the process of investing in things that will reduce your carbon footprint to reduce the damage caused by carbon dioxide that humans or organisations produce.
Ocean acidification	A reduction in the pH of the ocean over an extended period. This outcome is primarily determined by carbon dioxide (CO ₂) uptake from the Earth's atmosphere.
P	
Peatland	A peatland is a terrestrial wetland ecosystem whereby organic matter exceeds its decomposition, resulting in peat accumulation. There are different classifications, yet the main types comprise bogs, fens, and swamps.
Pyrolysis	The chemical decomposition of organic (carbon-based) materials through the application of heat.

Guide

Sustainability Literature

LUXAVIATION GROUP SUSTAINABILITY

R	
Reforest	Intentionally planting trees on an area of land that has become deserted or spoiled.
Regenerative	The act of creating conditions that enable life to renew itself continuously. The term is often associated with leadership, business practices, conduct and ecosystems.
Renewable energy	Energy that is produced from sources such as the sun (solar), wind (wind power), water (hydro, wave, tidal power), geothermal and biomass, rather than conventional fossil-derived sources.
S	
Sustainable aviation fuel	A non-conventional alternative to traditional fossil-derived jet fuel. This liquid fuel can be produced from a variety of sources, such as biomass, used cooking oil and municipal solid waste (MSW).
Sustainable development	To meet the demands of current generations without compromising the needs of future generations for current needs.
T	
Tipping point	The point at which a change or effect can no longer be stopped.