

## Climate change: key processes and terminology

<b>Baseline emissions</b>	Baseline emissions are the starting point for measuring progress in reducing greenhouse gas emissions. They refer to the level of emissions produced by a specific entity or region in a given time period and are used as a reference point for evaluating the effectiveness of emission reduction programs or measures. Baseline Emissions can be used to identify opportunities for reducing emissions and develop strategies to achieve emission reduction targets.
<b>Biodiversity</b>	Biodiversity is the variety of life on Earth that includes all living organisms from different species, ecosystems, and genetic diversity. It provides essential ecosystem services such as clean air and water, soil fertility, pollination, and climate regulation, and plays a crucial role in sustaining life and supporting human well-being.
<b>Carbon budget</b>	Carbon budget refers to the maximum amount of carbon dioxide (CO <sub>2</sub> ) emissions that can be released into the atmosphere without causing global warming to exceed 1.5°C above pre-industrial levels. It is a tool used for managing the carbon emissions of a country, organization, or individual.
<b>Carbon footprint</b>	The total greenhouse gas (GHG) emissions generated by an individual, an organization, a product, event or process. The full carbon footprint of a bottle of water would include the GHG emissions associated with the manufacture of the bottle, the extraction and purification of the water, those emitted during transportation to the consumer, and resulting from its disposal.
<b>Carbon offsetting</b>	<p>A mechanism whereby CO or GHG emissions from an activity are compensated for by financing the equivalent reductions or removals through another activity. For example, an airline might choose to offset their emissions by investing in a tree-planting initiative as trees absorb CO<sub>2</sub> from the atmosphere.</p> <p>However, there are many problems associated with relying on offsetting as an approach to addressing climate change. First, balancing emissions is not enough - the world needs to reduce emissions towards zero as fast as possible. Offsetting allows the continuation of the polluting processes. Second, there have been numerous reports into the efficacy (or lack of) of different schemes. While climate offsetting can support the financing of sustainable development, it should not be seen as a replacement for direct action to reduce emissions. It is essential that offsetting programs are transparent and accountable, and that they support additional emissions reductions on top of what might be already in place.</p>
<b>Carbon sink</b>	A natural or artificial reservoir that absorbs greenhouse gases and reduces their concentration in the atmosphere. They have a vital role to play in addressing climate change. Forests and oceans are examples of natural carbon sinks.
<b>Circular economy model</b>	A more sustainable system of production and consumption than the standard linear model of make, use, dispose, promoting ways to extend the use of products such as through reuse, sharing, repairing, refurbishing and recycling materials for as long as possible to extend their lifecycle and to minimize waste. In this way, it reduces emissions from fossil fuels as less demand is created for new products to be made and less energy is required to dispose of products after minimal usage.
<b>Climate action</b>	Climate action refers to the deliberate and collective efforts taken by individuals, organizations, governments, and communities to address the challenges of climate change. It involves implementing measures and initiatives aimed at reducing



	<p>greenhouse gas emissions, promoting sustainable practices, building resilience to the impacts of climate change and aims to ensure fairness, equity, and accountability in addressing climate change, recognizing that certain groups bear a disproportionate burden of its effects.</p> <p>Climate action encompasses a wide range of activities, including adopting renewable energy sources, increasing energy efficiency, promoting sustainable transportation, conserving natural resources, and raising awareness about climate-related issues to foster a more sustainable and climate-resilient future. It promotes inclusive decision-making processes, empowers affected communities, and advocates for transformative change.</p>
<b>Climate adaptation</b>	Adjusting or adapting existing practices, processes and behaviors to respond to current or anticipated changes to the climate e.g. building sea defenses for protection against rising sea levels.
<b>Climate mitigation</b>	Making changes to existing practices, processes or behaviours in order to reduce emissions of greenhouse gases or removing them from the atmosphere e.g. low emission traffic zones.
<b>Climate change</b>	Climate change refers to the long-term alteration of Earth's climate, primarily caused by human activities, leading to global shifts in temperature, weather patterns, and sea levels. It results from the accumulation of greenhouse gases in the atmosphere, primarily carbon dioxide, which trap heat and contribute to global warming, impacting ecosystems, weather events, and human societies worldwide.
<b>Climate equity</b>	Climate equity is the principle that the burden of addressing climate change should be fairly distributed among all individuals and nations, taking into account differences in historical responsibility, current capabilities, and future needs. Climate equity aims to address the disproportionate impact of climate change on marginalized and at-risk communities who contribute less to greenhouse gas emissions. Climate equity aims to avoid worsening existing social, economic, and environmental injustices.
<b>Climate friendly</b>	Actions, practices, or products that minimize or mitigate negative impacts on the climate and environment. Typically, they aim to reduce greenhouse gas emissions, conserve natural resources, and minimize waste and pollution.
<b>Climate justice</b>	Climate justice aims to ensure fairness, equity, and accountability in addressing climate change, recognizing that certain groups bear a disproportionate burden of its effects. It promotes inclusive decision-making processes, empowers affected communities, and advocates for transformative change. Climate justice calls for systemic changes that prioritize equity, sustainability, and the well-being of both people and the planet.
<b>Climate technology</b>	Climate technology encompasses a variety of innovations and practices aimed at reducing greenhouse gas emissions, increasing energy efficiency, and promoting renewable energy sources. It also includes technologies that help communities adapt to climate change impacts. Climate technology is crucial for addressing the global challenge of climate change and transitioning to a sustainable future.
<b>Community based tourism</b>	Community-based tourism is a type of tourism that emphasizes local involvement in the development and management of tourism activities. It aims to benefit the local community by providing economic opportunities and preserving cultural traditions, while also providing a unique and authentic experience for tourists.
<b>Coral bleaching</b>	The whitening of coral which happens when coral expels the algae living in its tissue. A major cause of this is an increase in sea temperatures, driven by climate change. Algae is the main food source for coral so bleaching threatens the coral's survival and makes it more susceptible to disease.



<b>Decarbonization</b>	Decarbonization is the process of reducing or eliminating Greenhouse Gas emissions from various sources, particularly from human activities such as burning fossil fuels, industrial processes, and deforestation. The goal of decarbonization is to eliminate the global economy's reliance on fossil fuels and to transition to a low-carbon or carbon-neutral economy, where the net emissions of greenhouse gases, especially CO <sub>2</sub> , are minimized or balanced by removing an equivalent amount from the atmosphere.
<b>Deforestation</b>	Deforestation refers to the permanent removal of forests and tree cover in a specific area, typically for commercial or agricultural purposes. This involves the cutting down, burning, or removal of trees, often resulting in the transformation of forested lands into non-forest land uses such as agriculture, urbanization, or industrial activities. Deforestation has significant environmental, social, and economic implications, including the loss of biodiversity, habitat destruction, soil degradation, and increased greenhouse gas emissions.
<b>Destination stewardship</b>	Destination stewardship can be defined as an approach to destination governance that seeks to balance and meet the economic, environmental, and social/cultural needs of a destination; while operating within a legitimate governance model with active participation from the public and private sectors, as well as the local community.
<b>Ecological footprint</b>	Ecological footprint refers to the measure of human impact on the Earth's ecosystems and natural resources. It quantifies the amount of biologically productive land and water area required to sustainably support a population or an individual's consumption patterns and waste generation. By comparing the ecological footprint with the available biocapacity, one can assess whether human activities are operating within the planet's sustainable limits.
<b>Ecosystem</b>	An ecosystem is a community of living organisms in conjunction with the non-living components of their environment, interacting as a system.
<b>Emissions inventory</b>	An assessment of the sources and quantities of greenhouse gas (GHG) emissions in your destination.
<b>Extinction</b>	Extinction is the complete disappearance of a species or group of organisms from the Earth. This can occur naturally or as a result of human activity, such as habitat destruction, pollution, or overhunting.
<b>Food miles</b>	The amount of miles that food items have travelled to reach the consumer. Lower food miles means that there has been less energy required for the storage and transportation of the food and any additional inputs (such as pesticides). This can result in lower GHG emissions, although in certain cases the type of product and methods of production account for a greater proportion of a food product's climate footprint.
<b>Food sovereignty</b>	Food sovereignty is the right of people to determine their own food and agriculture policies, to protect and regulate domestic agricultural production and trade, and to reject the dumping of subsidized commodities on their markets. It emphasizes the importance of local, sustainable, and culturally appropriate food systems that are managed by the people who rely on them. Food sovereignty is often seen as an alternative to the industrial food system, which is criticized for prioritizing profits over the health and well-being of people and the planet.
<b>Free, prior, and informed consent</b>	Free, prior, and informed consent (FPIC) is a set of principles that seeks to ensure that individuals or communities have the right to give or withhold their consent to proposed actions or projects that may affect them. It is a cornerstone of international human rights law and is particularly important in the context of activities or projects that may impact indigenous peoples and local communities. The three key elements of FPIC are that the consent must be given freely, without coercion or manipulation, prior to any decision-making, and based on full disclosure of all relevant information.



<b>Global inequality</b>	Global inequality is the uneven distribution of wealth and resources across countries and regions, resulting from historical and ongoing economic, political, and social processes. It has significant impacts on individuals and societies, including limited access to education, healthcare, and economic opportunities. Addressing global inequality requires coordinated efforts from governments, international organizations, and individuals.
<b>Global warming</b>	Global warming is a long-term rise in the Earth's temperature due to increased greenhouse gas concentrations, causing environmental impacts such as melting glaciers, rising sea levels, and extreme weather events. The primary cause is human activities, particularly the burning of fossil fuels.
<b>Greenhouse gas (GHG) emissions</b>	GHG emissions, or greenhouse gas emissions, are the release of gases, primarily carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), and fluorinated gases, into the atmosphere. These gases trap heat from the sun and contribute to the greenhouse effect, leading to global warming and climate change. Human activities, such as burning fossil fuels, deforestation, and industrial processes, are major sources of GHG emissions.
<b>Greenhouse effect</b>	The greenhouse effect is the process by which greenhouse gases trap heat energy from the sun, keeping the Earth warm enough to support life. However, human activities like burning fossil fuels have caused an enhanced greenhouse effect, leading to a rise in global temperatures and significant environmental and societal impacts.
<b>Greenwashing</b>	Greenwashing is a deceptive marketing tactic used by companies to create the impression that their products or operations are environmentally friendly, even when they are not. This can undermine legitimate efforts to protect the environment by misleading consumers and eroding trust in environmental claims.
<b>Indigenous knowledge</b>	Indigenous knowledge is the knowledge, practices, and beliefs developed by indigenous communities through direct contact with their environment and natural resources. It encompasses fields such as agriculture, medicine, spirituality, and ecology, and is deeply rooted in local cultures. It is a valuable source of information for sustainable management of natural resources and innovative solutions to global challenges like climate change and biodiversity loss.
<b>Invasive species</b>	An invasive species is a non-native organism that can cause damage to the environment, economy, or human health by out-competing native species for resources. They are introduced to new environments intentionally or unintentionally and can lead to the decline or extinction of native species, which can have serious consequences for the ecosystem as a whole.
<b>Loss and Damage</b>	Loss and Damage refers to the adverse effects of climate change that cannot be avoided through mitigation and adaptation efforts. It includes loss of lives, homes, and infrastructure due to extreme weather events and other climate-related disasters, as well as economic and non-economic losses such as loss of livelihoods and cultural heritage. In short, it encompasses the irreversible and/or permanent impacts of climate change that cannot be addressed by reducing greenhouse gas emissions or adapting to changing conditions.
<b>Nature-based Solutions</b>	Nature-based solutions (NBS) refer to approaches that utilize nature and natural processes to address environmental challenges and promote sustainable development. These solutions harness the power of ecosystems to provide benefits such as climate change mitigation, biodiversity conservation, water resource management, and enhancing the resilience of communities to environmental changes. Examples include reforestation, wetland restoration, green infrastructure, and sustainable agriculture practices. NBS are increasingly recognized as effective tools in combating climate change and supporting ecological well-being.
<b>Net Zero</b>	Net zero refers to achieving a balance between greenhouse gas emissions produced and removed from the atmosphere, which is crucial in mitigating climate change.



	<p>The term represents the goal of the total level of greenhouse gases entering the atmosphere being reduced to zero achieved through a combination of reduction and removal. There is consensus that in order to avoid the irreversible effects of climate change, emissions of carbon dioxide (CO<sub>2</sub>) need to fall by approximately 50 percent from 2010 levels by 2030 and need to reach net zero by 2050. This requires large-scale decarbonization across all levels of society, increased capture in soils, plants and trees, and increased removal via technologies that remove carbon from the air.</p>
<b>Over-tourism</b>	<p>Over-tourism refers to a situation whereby the number of tourists visiting a particular destination exceeds its carrying capacity, leading to negative impacts on the environment, local culture, and economy. This situation arises when the number of tourists visiting a destination is more than what the infrastructure and resources can handle. Over-tourism can lead to overcrowding, environmental degradation, and cultural erosion. It can also cause conflicts between tourists and locals, and affect the quality of life of residents in the destination.</p>
<b>Paris Agreement</b>	<p>The Paris Agreement is an international treaty that was adopted at the United Nations Framework Convention on Climate Change (UNFCCC) in 2015. It aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The agreement requires countries to submit nationally determined contributions (NDCs) outlining their efforts to reduce greenhouse gas emissions and adapt to the impacts of climate change. The Paris Agreement entered into force on November 4, 2016, and has been ratified by 189 countries.</p>
<b>Regenerative agriculture</b>	<p>Regenerative Agriculture is a farming practice that improves soil health and biodiversity through natural processes like crop rotation and composting. It aims to create a sustainable ecosystem that supports plant growth and provides long-term environmental benefits, while also improving food quality.</p>
<b>Regenerative tourism</b>	<p>Regenerative tourism aims to restore and improve the environment, culture, and economy of a destination, going beyond sustainable tourism. It seeks to create a positive impact on local communities and leave the destination in a better state than it was found, while providing an authentic travel experience for visitors.</p>
<b>Re-wilding</b>	<p>Re-wilding is the process of restoring an area of land to its natural state by reintroducing native plant and animal species and allowing natural ecological processes to take place without human intervention. This process aims to increase biodiversity, improve ecosystem health, and promote a more sustainable relationship between humans and the natural world.</p>
<b>Science Based Targets</b>	<p>Science Based Targets (SBTs) are greenhouse gas emissions reduction targets set by companies in partnership with the Science Based Targets initiative (SBTi) to align with the Paris Agreement and keep global temperature increase below 1.5°C.</p>
<b>Scope 1 emissions</b>	<p>Scope 1 emissions refer to greenhouse gas (GHG) emissions that directly result from sources owned or controlled by an organization. These emissions are produced from activities such as onsite fuel combustion and vehicle fleets that are owned or operated by the entity itself.</p>
<b>Scope 2 emissions</b>	<p>Scope 2 emissions refer to greenhouse gas (GHG) emissions that result from the consumption of purchased electricity, heating, cooling, or steam by an organization. These emissions are indirect and occur outside the organization's boundaries but are associated with the electricity and energy it uses. These are the easiest to measure if you are on the grid as you can track consumption through utility bills.</p>
<b>Scope 3 emissions</b>	<p>Scope 3 emissions refer to all indirect greenhouse gas (GHG) emissions that result from an organization's activities but occur outside its direct operational boundaries. These emissions are a consequence of the organization's supply chain, business travel, employee commuting, and other external activities related to its operations. Scope 3 emissions are considered the most extensive and challenging category to</p>



	<p>assess, as they often involve a wide range of stakeholders and multiple levels of influence. However, they are crucial to comprehensively understand and address an organization's full environmental impact, including the emissions associated with its entire value chain.</p>
<p><b>Sustainable tourism</b></p>	<p>Sustainable tourism focuses on reducing the negative impact of tourism on the environment, economy, and society while ensuring that tourism activities are maintained over the long term. It aims to maintain the status quo and minimize additional damage.</p>
<p><b>Tourism value chain</b></p>	<p>The tourism value chain refers to the interconnected activities and processes involved in delivering a tourism product or service, from its conceptualization to consumption. It encompasses all stages, including planning, transportation, accommodation, attractions, activities, and support services, as well as marketing and distribution channels. The value chain concept highlights the sequential and interdependent nature of these activities, emphasizing their collective contribution to the overall tourism experience and economic impact.</p>
<p><b>Urban Heat Island</b></p>	<p>Urban Heat Island (UHI) is a phenomenon where urban areas experience higher temperatures due to human activities and structures that absorb and retain more heat. Lack of vegetation, low albedo surfaces, and waste heat from industrial processes can exacerbate the UHI effect, which can have negative impacts on the environment, human health, and energy consumption.</p>