

ENVIRONMENTAL OVERVIEW GLOSSARY

ACRONYMS AND FRAMEWORKS

- **CCS (Carbon Capture and Storage):** A technology to capture and store CO₂ emissions before they enter the atmosphere. The UK plans to invest £22B in CCS over 25 years.
- **COP (Conference of the Parties):** A global meeting where world leaders negotiate climate actions under the UN Framework Convention on Climate Change (UNFCCC). Key moments include COP21 (Paris Agreement), which set goals to limit warming to 1.5–2°C and achieve Net Zero emissions by 2050.
- **CSR (Corporate Social Responsibility):** How businesses take responsibility for their impact on society and the environment.
- **CSRD (Corporate Sustainability Reporting Directive):** A regulation requiring large EU companies to report on environmental, social, and governance impacts. It aims to enhance accountability and transparency in sustainability practices.
- **ESG (Environmental, Social, Governance):** Standards for assessing a company's sustainability and societal impact.
- **Green Claims Code:** A set of rules ensuring businesses make truthful, transparent, and substantiated claims about their sustainability efforts. Violating these rules can result in legal consequences.
- **GRI (Global Reporting Initiative):** A framework for companies to disclose their environmental and social impacts.
- **IPCC (Intergovernmental Panel on Climate Change):** A UN body that reviews global climate science, summarizing studies on causes, impacts, and solutions to climate change. It confirms human activities like burning fossil fuels as the main cause of global warming. The IPCC publishes major reports every 6–7 years.
- **NDCs (Nationally Determined Contributions):** Climate action plans submitted by countries under the Paris Agreement, detailing efforts to reduce emissions and adapt to climate impacts.
- **PPN 06/21:** A UK policy mandating sustainability in public contracts over £5M. Companies bidding for such contracts must submit a Carbon Reduction Plan that aligns with Net Zero by 2050.

- **SASB (Sustainability Accounting Standards Board):** Sets standards for measuring companies' sustainability efforts.
- **SBTi (Science-Based Targets Initiative):** A framework helping businesses set measurable goals to reduce emissions, aligned with the Paris Agreement. It ensures credibility and transparency for climate action.
- **UN SDGs (United Nations Sustainable Development Goals):** 17 global goals to improve lives and protect the planet by 2030.

CARBON AND EMISSIONS

- **Carbon Footprint:** The total GHG emissions caused by an individual, product, or organisation, often expressed in CO₂e (Carbon Dioxide Equivalent). Examples: transportation, energy use, and food production.
- **Carbon Neutral:** Reducing emissions as much as possible and offsetting the remainder.
- **Carbon Offsetting:** Purchasing credits to fund projects that reduce or capture carbon emissions, such as reforestation. While helpful, offsets should not replace efforts to reduce emissions directly.
- **CO₂ Emissions:** Release of carbon dioxide, primarily from burning fossil fuels.
- **GHGs (Greenhouse Gases):** Gases that trap heat in the atmosphere, causing global warming:
 - **CO₂:** Produced from burning fossil fuels, deforestation, and industrial processes.
 - **CH₄:** A potent gas from livestock, landfills, and agriculture.
 - **N₂O:** A gas from fertilisers and industrial processes, 300 times more effective than CO₂ at trapping heat.
 - **Fluorinated gases:** From refrigerants and industrial uses.
 - **Water vapor:** Amplifies warming as temperatures rise.
- **Global Warming Thresholds:**
 - 1.5°C: Warming beyond this annual threshold could cause irreversible damage.
 - 3°C: Current UK policies project a 3°C rise, exceeding safe limits.
- **Net Zero:** A state where greenhouse gas emissions are reduced by 90% from a baseline, with the remaining 10% offset through sustainable projects. Achieving Net Zero aligns with the Paris Agreement's targets to mitigate catastrophic climate change.
- **Per Capita Emissions:** The average emissions per person in a country. This metric highlights disparities between high-emission nations (e.g., the US, with 15 tons per person) and low-emission countries (e.g., India, with 2 tons per person).
- **Scopes 1, 2, and 3 Emissions:**
 - Scope 1: Direct emissions from owned/controlled sources (e.g., fuel combustion in company vehicles).
 - Scope 2: Indirect emissions from purchased electricity.
 - Scope 3: Other indirect emissions across the value chain (e.g., supplier activities, employee travel). Often the largest source of emissions for companies.

CLIMATE AND ENVIRONMENTAL ISSUES

- **Circular Economy:** Designing products and systems to reduce waste and reuse resources.
- **Climate Change:** Altered weather patterns due to global warming.
- **Coastal Erosion:** Land loss along coastlines from rising sea levels and stronger storms.
- **Food Price Shocks:** Sudden cost increases due to extreme weather and crop losses.
- **Global Warming:** The long-term increase in Earth's average temperature caused by human activities.
- **Greenhouse Gas Effect:** The warming of the Earth caused by gases like CO2 trapping heat in the atmosphere.
- **Greenland Ice Melt:** The loss of 30 million tons of ice per hour from Greenland, adding freshwater to oceans and disrupting currents.
- **Greta Thunberg:** A Swedish environmental activist who gained international recognition for her climate advocacy. She began her activism in 2018, protesting outside the Swedish Parliament and inspiring the global "Fridays for Future" movement.
- **Mass Migration:** The movement of people forced to leave their homes due to climate impacts like droughts and floods.
- **Water Shortages:** Insufficient water in dry seasons caused by climate change.
- **Concepts and Goals**
- **Nature-Based Solutions:** Projects like reforestation to reduce emissions and enhance biodiversity. These should complement reductions, not substitute for them.
- **Overconsumption:** Using more resources than the planet can sustainably provide.
- **Sustainability:** Living and working in ways that protect the planet and preserve resources.
- **Water Shortages:** Lack of sufficient water in dry summers due to climate change.
- **Wedding Cake Model:** Visualizes SDGs as layers—environment (foundation), society (middle), and economy (top).