

Sustainable Development

Glossary of Terms

Introduction

At Amida we pride ourselves in providing expert knowledge and advice pertaining to sustainable development markets and would like to share with you some definitions that could prove useful to you in your job search. There is growing governmental, industrial and public interest in sustainable development, which is itself a dynamic and ever-changing entity, with countless definitions. What follows is a snippet of Amida's working knowledge of the issues facing us, laid out in basic terms, rather than a comprehensive description of what is out there.

GENERAL TERMS

Amida: The name of our Search and Recruitment Agency, focused on Sustainable Development. Out of interest, Amida has many other meanings including 'The Buddha of Infinite Light', which is the Japanese version of Pure Land Buddhism.

Biofuel: A renewable energy source that is in some way derived from biomass, biogas or liquid fuel. Biomass in this context comes primarily from degraded plant material.

Carbon Capture and Storage: The process of removing carbon dioxide (CO_{2(g)}) from the atmosphere and sequestering this back into the ground or ocean to prevent additional atmospheric CO_{2(g)} pollution.

Carbon Management System: An Environmental Management System (EMS) dealing specifically with carbon. These types of systems can involve emissions measurement and embodied carbon analysis, enabling target setting. There are a growing number of companies offering services around this.

Consultancy: In the sustainable development sector, consultants are often brought into a business on a short-term contractual basis to offer their expertise in a particular area for a specific project. An example of this would be Corporate Sustainability Strategy and Communications Agency consultants helping big businesses to discover the issues that are material to them in sustainability and writing their sustainability report. Consultancy is a broad term, however, which also refers to large engineering consultancies, for example. This is different from an 'in-house' position, which is a role within one company.

Climate Change: The earth's climate naturally oscillates between warming and cooling periods over thousands of years, but since industrialisation, measurements show that the climate has warmed at a rate never seen before. This increase directly correlates with the increase in greenhouse gas emissions in the atmosphere due to human activity. 'Climate change' or 'global warming' nowadays often refers to this anthropogenically-caused (human-induced) warming. The consequences of this

are many and include sea level rise and an increased rate of extreme weather events such as droughts and heavy rains. It is imperative that climate change mitigation strategies are implemented globally, to reduce the emissions contributing to the warming. There is evidence that the consequences are already happening, so there is now also a focus on adaptation.

Corporate Sustainability: A company's work to ensure its impacts on society and the environment are positive and less damaging. The 'triple bottom line' of sustainability (a term coined by John Elkington) includes environmental, social and economic issues. Companies are tackling these issues for several reasons including taking the opportunity to save and make money as a business (for example with energy efficiency improvements in operations, or offering new products or services), to negate risk against 'bad press' from investors and other stakeholders, and to comply with regulation. Corporate Sustainability, CSR, Corporate Responsibility are just a few of the terms often used interchangeably to describe this. [Click here](#) to find out what Amida are doing for sustainability.

Energy Efficiency: This often refers to changes in building fabric or operations resulting in reduced energy use and wastage. Improvements to a building can include cavity wall insulation (meaning that less heat is lost from the building) and replacement of halogen light bulbs with Light Emitting Diodes (LEDs), which use less electricity to be powered.

Geothermal Energy: A 'renewable' energy source that originates with the natural heating properties of the earth. Areas heavily using this include Iceland, which has many natural geysers closer to the earth's surface.

Greenhouse Gas: The atmosphere of the earth contains many invisible gases which act like the glass of a greenhouse and trap the heat in, keeping life on earth at a comfortable temperature. Greenhouse gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (NO_x) and water vapour (H₂O_(g)). Too much of these greenhouse gases in the atmosphere causes global warming and they are being increased by human activities such as travel (planes, trains, buses, cars emit carbon dioxide) and increased meat, cheese and milk production (cows produce a lot of methane).

Hydroelectric Power: A renewable energy source produced by the movement of water. The largest producer of this is a large dam in Aswan. There are more being built in London (Thames barrage) and research going on around the world including on La Reunion island.

Low Carbon Technology: An umbrella term for new technological developments that will aid our transition to systems operating with lower carbon emissions. Electric vehicles powered by renewable energy sources are an example. Other examples include smart meters, which enable energy use figures to be viewed first-hand in real-time. The latter has been shown to reduce energy use as it affects individual behaviour and enables measurement of usage and therefore target setting.

Resource Efficiency: It is said that in the UK we would need three planets to support our rate of resource use. Ellen MacArthur, the round-the-world sailor has said that her time aboard boats really taught her about the word 'finite'; once you have used your fuel and food on board, that's it, no more. It is the same for the planet: oil, coal, gas, wood, water, the soil we use to grow food, cotton for clothes and now biofuels. Reducing our resource use, reusing where we can and recycling is important. InterfaceFLOR adopt 'cradle-to-cradle' recycling method whereby every material within

their carpet tiles can be processed and used again. Reduction of packaging in Fast Moving Consumer Goods, and sustainably sourced wood for building materials are other examples of improvements in resource efficiency.

Responsible Investment: There are a wide range of banking and investment options available to the general public. Companies also invest some of their assets in order to make more money off their profits. Responsible, Socially Responsible or Ethical Investment refers to that which considers Environmental, Social and Governance (ESG) issues. Many of our pensions invest in unsustainable mining companies due to their high returns on investments (ROIs), but there are now specific green funds that only invest in companies that are having more positive impacts. The United Nations-backed Principles On Responsible Investment (UN PRI) act as a guide for many asset management and pension funds.

Renewable Energy: Sometimes called alternative energy. This refers to energy that is produced using a source that is infinitely renewable. Coal, once burnt, cannot be used again to produce energy: it is a finite resource and a fossil fuel. It is assumed that wind, ground heat, the sun and water movements will always be there and by using them, we are not 'using them up'.

Solar Power: Harnessing the sun's heat and light energy to produce electricity (Solar Photovoltaic/PV for short) or to heat water (Solar Hot Water). 'Solar power' often refers to the production of electricity. In some European countries there has been a government drive to increase the use of solar power through the provision of a Feed In Tariff (FiT), which over time is reduced.

Sustainable Development: Development that meets the needs of the present generation, without compromising the ability of future generations to meet their own needs. It generally refers to progression towards more prosperous living, whilst helping to conserve the planet.

Wind Power: Is the conversion of wind energy into a useful form of energy, such as using wind turbines to make electricity, windmills for mechanical power, wind pumps for water pumping or drainage, or sails to propel ships. At the end of 2010, worldwide capacity of wind-powered generators was 197 gigawatts (GW). Energy production was 430 TWh, which is about 2.5% of worldwide electricity usage; and has doubled in the past three years. Several countries have achieved relatively high levels of wind power penetration, such as 21% of stationary electricity production in Denmark, 18% in Portugal, 16% in Spain, 14% in Ireland and 9% in Germany in 2010.

Waste-to-energy or energy-from-waste (EfW): Is the process of creating energy in the form of electricity or heat from the incineration of waste source. WtE is a form of energy recovery. Most WtE processes produce electricity directly through combustion, or produce a combustible fuel commodity, such as methane, methanol, ethanol or synthetic fuels.

Wave Power: Is the transport of energy by ocean surface waves, and the capture of that energy to do useful work, for example electricity generation, water desalination, or the pumping of water (into reservoirs). Machinery able to exploit wave power is generally known as a wave energy converter (WEC). Wave power is distinct from the diurnal flux of tidal power and the steady gyre of ocean currents. Wave power generation is not currently a widely employed commercial technology although there have been attempts at using it since at least 1890. In 2008, the first experimental wave farm was opened in Portugal, at the Aguçadoura Wave Park.