



Britannica
EDUCATION

SUSTAINABILITY



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Introduction

All life on Earth depends on the environment. The natural resources that come from the environment include food, water, plants and minerals. Sustainability is the idea that humans must interact with the environment in a way that ensures there will be enough resources left for future generations.



There are now more than seven billion people on Earth. These billions of people use the planet's resources every day. Human activity has harmed the environment in many ways. Some of the resources that people use cannot be replaced once they are used. People also use huge amounts of fossil fuels, which has led to pollution and other problems. Sustainability addresses ways to protect and conserve the environment.

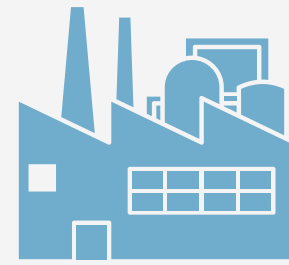
Industries



An industry is a group of businesses that make or sell similar products or perform similar services. Farms are part of the agricultural industry. Factories are part of manufacturing industries. Hotels are part of the tourism services industry. Industries are important to every country's economy.

In order to achieve sustainability, humans need to think about their decisions in almost every aspect of daily life. This applies to people's individual actions as well as to the actions of industries.

Industries & their impact



Manufacturing

Industries such as manufacturing involve burning fossil fuels which also leads to the production of greenhouse gases. These gases contribute to a problem called global warming. Fossil fuels are non-renewable resources. Once they are used up, they will be gone forever.



Agriculture

Agriculture uses about 70 per cent of the world's fresh water. Farmers can conserve water by planting crops that are suited to the climate where they are planted. Farmers can also collect rainwater and use it for irrigation.



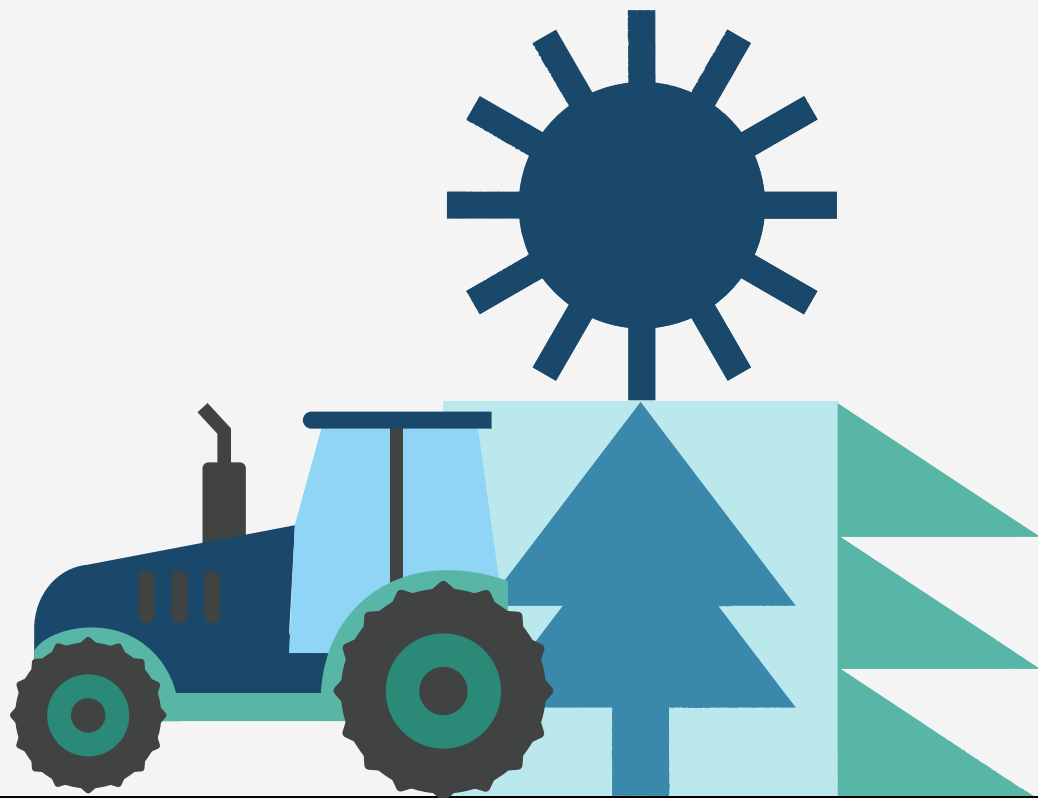
Construction

Construction requires a large amount of steel, concrete, wood and other materials. One way construction can be made more sustainable is by using recycled materials, such as metals and concrete from demolished buildings. Sustainable building design, or green architecture, focuses on making sure each structure wastes as little energy as possible.

Did you know?

Agriculture accounts for about one per cent of the Ireland's economic production and employs about five per cent of the population.

Electronics and pharmaceuticals account for an important share of the Republic's industrial activity



Did you know?

Ireland has limited natural resources, including zinc, lead and silver, as well as small reserves of natural gas and coal.



Alternative Energy Sources

In order to achieve sustainability, industries are starting to focus on using [alternative energy](#) sources, such as solar power, wind power and water power.



Examples of Renewable Energy



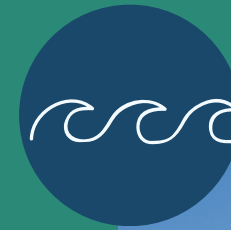
Solar Energy

The heat and light produced by the Sun provide an enormous source of renewable energy.



Wind Energy

When the blades of a wind turbine spin they convert wind energy to electrical energy by means of a generator. Wind turbines can work alone or in a group, called a wind farm.



Wave Energy

Wave energy is produced when generators are placed on the surface of an ocean. The amount of energy produced depends on the size, force and frequency of the waves.

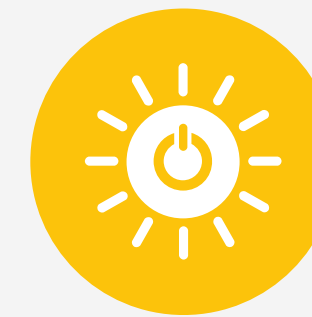


Geothermal Energy

Geothermal energy is heat that comes from inside Earth. In some places, such as Iceland, the heat is so close to the surface it can be easily used as an energy source.

Individuals

Individuals also can change how they use energy and what products they buy and use in order to work toward sustainability.



01/ Reduce Water Usage

People can buy appliances, such as dishwashers and washing machines, that are designed to reduce water usage. Also, don't leave the tap running whilst you brush your teeth!





02/ Recycle

People are encouraged to not use as much plastic and to recycle the plastic they do use. Glass, paper and other materials can also be recycled. Have you got yourself a reusable water bottle?

03/ Reduce Fuel Emission

Encourage your family to ride their bike, walk or take public transportation instead of driving their cars.



Individuals making a difference



Greta Thunberg

Swedish activist Greta Thunberg worked to address the problem of global warming. She founded a movement known as Fridays for Future. Thunberg began the movement in August 2018 when she missed school to sit outside the Swedish parliament with a sign that stated (in Swedish) "School Strike for Climate." Just over a year later, in September 2019, millions of protesters marched in climate strikes in more than 163 countries.



David Attenborough

English broadcaster and writer David Attenborough is known for his innovative and educational programs on television. These raise awareness about a variety of environmental issues, such as the impact of human activity on the environment and focused on animal species in danger of extinction. Attenborough was knighted in 1985 in recognition of his work.



Leonardo DiCaprio

DiCaprio also became active in a number of causes, most notably those involving environmental issues. In 2000 he hosted Earth Day festivities and interviewed U.S. President Bill Clinton for a television special on global warming. In 2004 DiCaprio joined the boards of the Natural Resources Defense Council and Global Green USA.

Biodiversity



Biodiversity is the variety of the animals and plants in any environment. It is lost when land is cleared for housing, when water is rerouted from its natural course or when new species are introduced into an ecosystem. Plants are killed, and animals either die or have to find a new habitat. Sometimes entire species become extinct. Biodiversity is important because the different plants and animals in an ecosystem each play a role in keeping the ecosystem active and healthy. Sustainability must be practised in order to maintain biodiversity.

Test your knowledge

Take our Sustainability Quiz to assess your understanding of this resource.

SCAN ME

