

# ecologic

CREATING A SUSTAINABLE FUTURE



## Glossary

### **Acid sulfate soils**

Soil containing acid sulfate buried about one metre below the surface of coastal topsoil. It is safe when covered up, but when it is disturbed and exposed to air it releases sulfuric acid, which severely damages coastal ecosystems.

### **Agro forestry**

The practice of growing trees and crops together. Agro forestry systems benefit from the ability of trees to protect soil from erosion and to capture and recycle plant nutrients.

### **Aquaculture**

The science, art, and business of cultivating for food marine or freshwater fish or shellfish, such as oysters, clams, salmon, and trout, under controlled conditions.

### **Atmosphere**

Layer of gases surrounding the Earth. Many of these gases are involved in chemical cycles such as the nitrogen and carbon cycles that sustain life on Earth and shape the planet's habitability.

### **Bio-indicators**

Fish and other freshwater organisms from polluted waterways, for example, whose unusual behaviour or death may indicate the presence of hazardous pollutants that have escaped other detection methods.

### **Biodiversity**

The variety of living species of plants, animals, and microorganisms on Earth, as well as the range of genetic variety within each species.

**Carbon cycle**

The carbon cycle involves the movement of carbon from the air, into plants, animals, people, the Earth and back into the air.

**Carbon sinks**

Carbon locked away for many years in trees, in the sea and in built structures.

**Carbon credits**

What polluting companies might use to pay for the maintenance of forests.

**Catalytic converter**

A device connected to the exhaust system of all new vehicles in Australia to control emissions of air pollutants such as nitrogen oxides and carbon monoxide.

**Catchment area**

The area of land that drains water to a river.

**Composting**

The biological decomposition of organic material.

**Conservation**

The protection or wise use of natural resources that ensures their continuing availability for future generations.

**Consumption**

The amount of any product or resource (eg material or energy) used up by a given number of people.

**Deforestation**

The clearing and removal of trees and undergrowth.

**Development**

A process of economic and social transformation.

**Ecological footprint**

The impact of an entity, for example a person, city or country, on local, regional and global ecosystems. It is a measure of direct and indirect consumption of resources and production of wastes.

**Economy**

The activity of managing resources and producing, distributing, and consuming goods and services.

**Ecosystem**

An interdependent community of plant, animal and microbial species that interact with each other and their physical and chemical environment.

**Efficiency**

A measure of how resources are used or employed.

**Emission**

The discharge of gases or particles, such as from a smoke stack or car engine.

**Environment**

The biological, natural and human-made systems that surround us. It includes everything that affects an organism during its lifetime eg soil, rock, water, air, and other living organisms.

**Environmental impact**

The net change (positive or negative) in human health and the condition of the environment that results from human actions, activities or development.

**Environmental impact assessment**

A formal procedure for the assessment of the effects of a proposed new activity or development on the environment.

**Fossil fuels**

Sources of energy including coal, oil, and natural gas formed in geological deposits from carbon-rich remains of prehistoric plants, animals and microbes.

**Global warming**

The expected rise in global temperature caused by an increase in the concentration of greenhouse gases (carbon dioxide, methane, nitrous oxide, water vapour).

**Greenhouse effect**

The name given to the phenomenon by which gases in the atmosphere allow sunlight to warm the Earth's surface, and then prevent that warmth from escaping back into space.

**Gross domestic product (GDP)**

The statistical measure of the total economic value of all the goods and services produced within a nation in a given year.

**Habitat**

A geographic area of environment that can provide for the key activities of life.

**Heavy metals**

Elements such as copper, lead, cadmium, zinc, mercury and other toxic metals used in industrial processes and often released as both air and water pollutants. Some are always toxic and others are toxic at high concentrations (eg zinc, copper).

**Hydrocarbons**

Air pollutants that are important precursors of smog.

**Industrialisation**

A development path based on expanding a country's capacity to process raw materials and manufacture products for consumers, businesses and export.

**Innovation**

The use of a new idea, material, or technology to change an activity, development, good, or service or the way goods and services are produced, distributed, or disposed of.

**Intensive agriculture**

A method of land cultivation intended to increase the productivity of a fixed area by means of an increase in capital and labour.

**Landfill**

A site designated for disposal of solid or chemical wastes by burial.

**Life cycle**

The complete cycle of events occurring over the lifetime of an animate or inanimate object.

**Manufacturing**

The process of turning raw materials into a product by hand or machinery.

**Non-renewable resources**

Those resources which are not self-renewing or regenerative and which exist only in fixed amounts. Coal, oil, gas and minerals are all non-renewable.

**Nutrients**

Elements or compounds required by plants and animals for growth and reproduction.

**Packaging**

A cover, wrapper, container, or stabiliser designed to store, transport, display and protect a product and attract purchasers.

**Pollution**

An undesirable contaminant (gas, liquid, noise, solid) which has been released into, or is now part of the environment.

**Product life cycle**

The series of steps involved in manufacturing, distributing, using, reusing, recycling, or ultimately disposing of a product.

**Quality of life**

Composed of several aspects including material living standards, public health and safety, access to education, health care, employment, opportunities for personal development and advancement, community, culture, social life and recreation, environmental amenities and aesthetic qualities.

**Raw materials**

Unprocessed materials used in the manufacture of products.

**Recycling**

Methods for recovering discarded materials and refashioning new materials of the same, or differing type.

**Renewable resources**

Naturally occurring materials that come from a limitless or cyclical source. Fish, trees and energy from the sun, wind and waves are renewable resources.

**Reusable**

Materials that can be used again, either for their original purpose, or for a new purpose.

**Salinisation**

The accumulation of salts in topsoil caused by the clearing of native vegetation. Clearing causes the water table to rise to the surface, bringing salt with it.

**SEDA**

Sustainable Energy Development Authority, set up in 1999 to reduce the greenhouse gas emissions from the production and use of energy in NSW.

**Soil erosion**

Movement of soil by exposure to wind or flowing water.

**Sustainable development**

A concept that has emerged in recent years, based on the premise that development must meet the needs of the present generation without compromising the ability of future generations to meet their needs.

**Vermiculture**

The use of special kinds of worms to process and purify organic wastes.

**Water cycle**

The water cycle involves the movement of water from the sea, through the atmosphere, over and through the land and back to the sea.

**Wellbeing**

The state of being healthy, happy, or prosperous.