YOUR A TO Z DICTIONARY OF ENVIRONMENTAL WORDS

CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD
THIS CITY WORKS FOR YOU

How to use this Dictionary

- This dictionary is an A to Z list of important environmental words to help you read and understand more about our environment.

- Look up the word you need in the A to Z dictionary. Let's say you want to check on the meaning of "environmental policy". Look under the letter "E".
  Example under "E":
  Environmental policy
  Guidelines and rules for managing and protecting the *environment*.

- When explaining a word, we sometimes use words in *italic letters*. These words in *italic letters* are also in the dictionary - so you can look the word up if you are not sure of its meaning.
  Example under "C":
  Conservation
  Protecting, using and saving *resources* wisely.
  Now you can look up "**Resources**" under the letter "R".

- Also, when you see this sign >> you will be asked to look somewhere else in the A to Z dictionary.
  Example:
  >> See *Environmental Impact Assessment*.

A

Acid Rain
Polluted air from factories and power stations often has sulphur dioxide in it. When this combines with rainwater, you get acid rain. Acid rain damages plants and buildings, and can affect your health.

Aesthetic
Having a sense of the beautiful or characterized by a love of beauty.

Afforestation
The act or process of establishing a forest, especially on land not previously forested.

Agenda 21
The international policy agreed on at the Rio Conference in 1992. Under Agenda 21, countries agreed to work towards *sustainable* social, economic and *environmental development*.

Agricultural waste
Poultry and livestock manure, and residual materials in liquid or solid form generated from the production and marketing of poultry, livestock, furbearing animals and their products. This also includes grain, vegetable and fruit harvest waste.

Air pollution events
The days when air pollution levels go over the limits set in recommended guidelines.

Alien species
Plants and animals, which do not occur naturally in an area – they are brought in by humans. Alien plants often force *indigenous species* out of the area. Rooikrans is a good example of alien species in the Cape.

Alternative energy sources
Also called "renewable sources of energy" because these sources, such as the sun and wind, can never be exhausted. Unlike energy generated from fossil fuels such as coal and crude oil (which can be exhausted), they do not lead to high concentrations of harmful gases in the atmosphere.

Anthropogenic
Resulting from the presence or activities of humans.

Aquatic ecosystem
An *ecosystem* that provides a habitat for aquatic plants and animals which also sustains aquatic ecological processes.

Aquifer
Rock formations under the ground that carry water - this water can be recovered and used for washing and cooking.

Arable land
Land that is fertile enough for you to plant on and farm.

Assessment
A study to carefully check something.
>> See *Environmental Impact Assessment*.

Atmosphere
The air surrounding the Earth, described as a series of layers of different characteristics. The atmosphere is composed mainly of nitrogen and oxygen with traces of carbon dioxide, water vapour and other gases, acts as a buffer between Earth and the sun.

Audit
A way of measuring how well something is working.
>> See *Environmental audit.*

B

Best Practicable Environmental Option
The option that provides the most benefits or results with the least damage to the *environment* as a whole at a cost acceptable to society in the short- and long term.

Biodegradable
The ability of a substance to be broken down physically and/or chemically by micro organisms.

Biodiversity
The rich variety of plants and animals that live in their own *environment*. *Fynbos* is a good example of rich biodiversity in the Cape.

Biome
A major living unit consisting of plant and animal communities having similarities in form and *environmental* conditions, but not including the non-living (abiotic) portion of the environment.

Biophysical environment
The part of the *environment* which did not originate with and is not dependent on human activities (e.g. biological, physical and chemical objects and processes).

Bioremediation
The use of living organisms (e.g. bacteria) to clean up oil spills or remove other pollutants from soil, water and wastewater.

Biosphere
Part of the Earth system in which life can exist.

Biota
The living organisms (animals and plants) in an area.

Brownfields
Abandoned or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental *pollution*.

Brown haze
Air pollution caused by traffic and factories. Part of brown haze is smog, which forms when water vapour mixes with *pollution* particles in the air. You can often see brown haze over Cape Town in winter.

Built environment
Physical surroundings created by human activity, e.g. buildings, houses, roads, bridges and harbours. Themes that form part of the built *environment* are *urbanisation*, *infrastructure*, transport, energy and waste.

C

Capacity Building
The improvement of an organisation's or community's ability to perform its tasks effectively and confidently. It may include skills training, organisational development and financial resources.

Carrying capacity
The maximum number of users that can be supported by a *resource*, e.g. the maximum number of cattle that can feed on one farm.

Catchment
Area of land that collects rainwater into a river or stream, which then carries the water to a lake or the sea.

Catchment management
Controlling and protecting *catchment* areas – areas of land that collect rain water into a river or stream, which then carries the water to a lake, dam or the sea.

Chlorofluorocarbons (CFC's)
A family of chemicals commonly used in air conditioners and refrigerators as coolants and also as solvents and aerosol propellants. CFC's drift into the upper *atmosphere* where their chlorine components destroy *ozone*.

City of Cape Town (CCT)
The local authority that provides municipal services to the people of Cape Town (established in December 2000). The six previous municipalities of Blaauwberg, Cape Town, Helderberg, Oostenberg, South Peninsula and Tygerberg, along with the Cape Metropolitan Council, are now part of the new City of Cape Town (also called "the *Unicity*").

Climate change
A change which is attributed directly or indirectly to human activity that alters the composition of the global *atmosphere*. The build-up of manmade gases in the atmosphere trap the suns heat, causing changes in weather patterns on a global scale. The effects include changes in rainfall patterns, sea level rise, potential droughts, habitat loss and heat stress.

Coliform bacteria
Bacteria that are usually found in animal faeces and sewage, and are indicators of the quality of water. They are not pathogenic (disease-causing), but are indicators of the possible presence of pathogens.

Commercial waste
All solid waste from businesses. This category includes, but is not limited to, solid waste originating in stores, markets, office buildings, restaurants, shopping centres and theatres.

Community-based organisation (CBOs)
Groups based within communities that are involved in support and developmental work at a local level.

Compost
Decomposed organic material that is produced when bacteria/earthworms in soil break down garbage and *biodegradable* trash, making organic fertiliser.

Congestion
The daily build-up of heavy traffic that blocks the roads.

Conservation
Protecting, using and saving *resources* wisely, especially the *biodiversity* found in an area.

Consumption
Using something, e.g. by eating or burning.

Contamination
Polluting or making something impure.

Crime rate
The number of crimes committed for every 100 000 people in a year.

D

Data
Information, statistics and records used to update *Sustainability Reports*.

Deforestation
Destroying forests and woodlands, leading to climate changes, the death of animals and *soil erosion*.

Degradation
The lowering of the quality of the *environment* through human activities, e.g. river degradation, soil degradation.

Desalination
The removal, using any of several processes, of excess salt and other minerals from water in order to obtain fresh water suitable for animal consumption or irrigation, and if almost all of the salt is removed, for human consumption, sometimes producing table salt as a by-product.

Desertification
The process by which an area or region becomes more arid through loss of soil and vegetation.

Development
The *process* of changing something so that it moves forward, improves or grows.
>> See *Economic development* and *Environmental development.*

Disposal
The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or *hazardous waste* into the *environment* (land, *surface water*, *groundwater* and air).

Dump
A land site where wastes are discarded in a disorderly or haphazard fashion without regard to protecting the *environment*.

E

Ecology
The scientific study of the relationship between living things (animals, plants and humans) and their *environment*.

Economic development
Developing the economy of a region or country, e.g. expanding economic activities, improving work skills, creating jobs.

Economic Development Strategy
An approach to guide local government actions to promote global competitiveness and reduce poverty by co-ordinating and integrating a range of economic activities across the *City of Cape Town*.

Ecosystem
A system involving the relationships and interactions between plants, animals and the non-living *environment*.

Ecotourism
Planning and managing tourism in a way that is sensitive to the *natural environment*. Ecotourism also involves helping the *natural environment* to be sustained by the economic benefits of tourist activities, e.g. camping facilities, hiking, horse trails, and game-watching.

Effluent
Liquid released as waste from sewage and industrial plants.

Emissions
Discharging or sending out of substances or fluids, e.g. car fumes.

Endangered species
Animals, plants, birds, fish, or other living organisms threatened with extinction by manmade or natural changes in the *environment*.

Endemic species
Plants and animals that are found nowhere else in the world.

Environment
Our surroundings, including living and non-living elements, e.g. land, soil, plants, animals, air, water and humans. The environment also refers to our built, social and economic surroundings, and our effect on our surroundings.

Environmental
To do with the *environment*.

Environmental audit
A detailed *assessment* to check if an organisation is following the law, its *environmental policies* and its *Environmental Management System (EMS)*. The results of the *audit* help the organisation to improve its *environmental policies* and management system.

Environmental development
Taking steps to develop and improve the *environment* by carrying out responsible *environmental policies*.

Environmental equity
Equal protection of people, groups and communities from *environmental* hazards.

Environmental governance
Government's present and future duty to protect the *environment* through things like monitoring, control, management and making laws.

Environmental Impact Assessment (EIA)
A scientific study of the likely effect on the *environment* of proposed activities or development. EIAs help bodies like local authorities to decide if they should accept proposals, e.g. to develop a piece of land for housing.

Environmental management
Making sure that *environmental* concerns are included in all stages of *development*, so that *development* is *sustainable*.

Environmental Management Systems (EMS)
The structures, plans and *processes* that are developed to manage the *environment* in an area.

Environmental policy
Guidelines and rules for managing and protecting the *environment*.
>> See *Integrated Metropolitan Environmental Policy*.

Environmental sustainability
Maintaining the *environment* in a responsible way to keep it healthy for future generations.

Estuaries
The widening channels of rivers as they near the sea.

Eutrophication
The process whereby nutrients (e.g. phosphates or nitrates) accumulate in a body of water.

Event greening
Hosting events or associated services, in such a way that have minimal effect on the *environment* and maximum benefit to the people.

F

Faecal
Referring to body waste, e.g. faecal *coliform bacteria* found in water.

Faecal coliforms
These are a sub-group of *coliform bacteria* and are more accurate indicators of faecal *pollution* due to their growth at high temperatures.

Fauna
Animal life in an area.

Floodplains
Flat area next to rivers, made up of soils deposited during flooding.

Flora
Plant life in an area.

Formal sector
Part of the economy where people are employed by government, industries and companies.

Fossil fuels
Non-reusable and decayed organic material that can be burned or consumed to produce energy e.g. oil, natural gas and coal.

Fynbos
Low-growing and evergreen *vegetation* found only in the South Western Cape. Fynbos is known for its rich *biodiversity*.

G

Geomorphology
The study of the characteristics, origin, and development of landforms.

Global competitiveness
The ability of an area to attract foreign and local investment and to sell goods and services internationally.

Globalisation
The process of becoming part of the world economy.

Global warming
The noticeable increase in the average temperature of the Earth's *atmosphere* and oceans in recent decades and its projected continuation. An increase in global temperatures can in turn cause other changes, including a rising sea level and changes in the amount and pattern of rainfall. These changes may increase the frequency and intensity of extreme weather events, such as floods, droughts, heat waves, hurricanes and tornados.

Governance
The system and manner used to govern an area or issue, e.g. *environmental* governance.

Greenfields
Sections of undeveloped land, either currently used for agriculture or just left to nature.

Greenhouse effect
The gradual increase in the temperature of the earth, caused by the sun's rays reaching the surface of the earth and being trapped by *pollution* in the air.

Greenhouse gas
A gaseous component of the atmosphere contributing to the *greenhouse effect*.

Grey water
Any water that has already been used and has the potential for reuse without treatment.

Groundwater
Water found underground, typically supplying wells, boreholes and springs.

H

Habitat
The physical *environment* that is home to plants and animals in an area, and where they live, feed and reproduce

Hazardous waste
Waste that is a threat to the well-being of people, plants and animals, e.g. hazardous waste from factories, detergents, pesticides and vehicles.

Heavy metal
A common *hazardous waste*; can damage organisms at a low concentration and tends to accumulate in the food chain.

Herbicide
A *pesticide* designed to control or kill plants, weeds or grasses. Almost 70% of all pesticides used by farmers are herbicides. These chemicals have wide-ranging effects on non-target *species* (other than those the pesticide is meant to control).

Hydrology
The properties, distribution and circulation of water on Earth.

I

Indicator
A mark or a measure that helps you to know if you are succeeding in reaching your goals. Indicators are often used in a *State of Environment Report* to measure *environmental* quality and changes.

Indigenous species
Plants and animals that are naturally found in an area.

Informal sector
Part of the economy where people are self-employed and earn a living through activities such as street-trading.

Informal settlement
Houses (often of a temporary nature) erected on land of which the majority have not formally been proclaimed and serviced for residential use.

Infrastructure
The *network* of facilities and services that are needed for economic activities, e.g. roads, electricity, water, and sewerage treatment.

Integrated
Mixing or combining all useful information and factors into a joint or unified whole.
>> See *Integrated Environmental Management*.

Integrated Catchment Management (ICM)
The policy of managing *catchments* by including all important information, factors and *stakeholders* that can affect the *environment* in the catchment.

Integrated Development Plan (IDP)
A plan for *development* of the *City of Cape Town* that considers and combines all important elements and factors, e.g. land use planning, economic development, public investment and the monitoring of performance.

Integrated Environmental Management (IEM)
A way of managing the *environment* by including *environmental* factors in all stages of *development*. This includes thinking about physical, social, cultural and economic factors, and consulting with all the people affected by the proposed developments.

Integrated Metropolitan Environmental Policy (IMEP)
The *environmental policy* developed for the *City of Cape Town*. The IMEP is a good example of *Integrated Environmental Management*.

L

Land degradation
Reduction in capacity of the soil or vegetation to support life, through the damage to physical, chemical or biological properties, contributing to an unsustainable ecological system.

Landfills / Landfill site
Places like quarries and mines, used for disposing household and industrial waste, and *hazardous waste*.

Landscape
The patterns and structure of a specific geographic area or place, including its *natural*, *built* and *socio-economic environments*.

Land use
The use of land for human activities, e.g. residential, commercial, industrial use.

Local Agenda 21
Local government projects to carry out *sustainable development* under *Agenda 21*. This charter developed out of the UN Conference on Environment and Development held in Rio, Brazil in 1992.

M

Mariculture
Growing sea-plants and animals in their *natural environment* in the sea or on land-based sea farms.

Marine
Of the sea, or to do with the sea.

Marine Protected Area (MPA)
An area where some types of fish or plants are protected.

Median concentration
Average amount of water quality measurements like nitrogen and phosphates found in a quantity of measured water.

Metropolitan
Of or to do with a large town or city, e.g. metropolitan government

Metropolitan Open Space System (MOSS)
A planned *network* to ensure open spaces in cities and towns to facilitate conservation, agriculture and recreational and cultural enjoyment.

Metropolitan Spatial Development Framework (MSDF)
The overall plan to guide what kinds of physical developments are allowed in the *City of Cape Town*, and where these should be positioned, e.g. housing, transport and social services developments.

Mixed land use
Mixed land use refers to a combination of land uses such as a mixture of commercial, industrial, retail, entertainment and institutional uses.

N

National park
Land kept for protecting plants, animals and scenery, and for human enjoyment. In the *City of Cape Town*, the Table Mountain National Park includes Table Mountain and other mountains and *wetlands* ending at Cape Point.

Natural environment
Our physical surroundings, including plants and animals, when they are unspoiled by human activities. Themes that form part of the natural *environment* are: air quality, inland waters, coastal waters and *biodiversity*.

Natural heritage site
A site of outstanding universal value from the *aesthetic*, scientific or *conservation* point of view which encompass natural features consisting of physical and biological formations or groups of such formations. This also includes precisely delineated areas which provide a *habitat* for threatened *species* of animals or plants.

Natural resource
Any *resource* provided by the *biophysical environment*.

Network
A system of things that are all connected and dependent on each other, e.g. roads, telephone lines.

Non-governmental organisation (NGOs)
Groups and bodies, outside of the government that are involved in advice, support, funding and *development* work.

Non-renewable Resources
Raw materials available for a limited time, which can run out. Examples include coal and oil.

Nuclear power
The energy generated by nuclear power stations that leads to *nuclear waste*.

Nuclear waste
The energy generated by *nuclear power* stations leads to nuclear waste – leftover substances and materials that can pollute the *environment*.

Nutrients
Mineral substances that are absorbed by living organisms for nourishment.

O

Over-utilisation
Over-using *resources* - this affects their future use and the *environment.*

Ozone
An almost colourless, gaseous form of oxygen with an odour similar to weak chlorine.

Ozone layer
The layer of *ozone* that begins approximately 15km above the Earth and thins to an almost negligible amount at about 50km; it shields the Earth from harmful ultraviolet radiation from the sun.

P

Perennial
All year round.

Pesticide
A substance meant to repel, kill or control any species designated a ‘pest’ including weeds, insects, rodents, fungi, bacteria or other organisms. The family of pesticides includes *herbicides*, insecticides, rodenticides, fungicides and bactericides.

Point-source pollution
Pollution that comes from a single source.

Policy
A framework or basis for action to overcome identified problems and to achieve stated goals. A policy helps you make decisions and manage an organisation or structure. Policies are based on people’s values and goals.
>> See *Integrated Metropolitan Environmental Policy*.

Pollution
Harming or contaminating the *natural environment* as a result of human activities, especially through household and chemical waste, e.g. substances, noise, dust, smells.

Population growth
An increase in the number of people, e.g. when the birth rate is higher than the death rate; when more people arrive in a city to live than leave the city.

Poverty
More than a lack of income. A situation where people cannot achieve a minimum standard of living.

Pressure-State-Response model
A model used for *environmental* reporting that covers: the pressures affecting the *environment*, the state of the *environment*, and the current and future responses to these *environmental* challenges.

Prevalence
The rate at which something exists, happens or spreads, e.g. the prevalence of HIV and AIDS.

Process
Development usually happens through a process - a number of planned steps or stages.

R

Rare and endangered species
Species that have naturally small populations and species which have been reduced to small (often unstable) populations by human activity.

Recycling
Collecting, cleaning and re-using waste materials.

Red Data species
Classified *endangered species* threatened with extinction.

Renewable Resources
Raw materials that can be replaced by natural *processes*.

Resource management
Controlling and running *resources* in a planned and responsible way.

Resources
Parts of our *natural environment* that we use and protect e.g. land, forests, water, wildlife, and minerals (like sand for building).

Riparian
Living or located on the banks of streams or rivers.

Runoff
Water that does not filter into soil but flows over the surface and into natural *surface waters*.

S

Salinisation
Increase in the amount of salts or dissolved solids in the water or the process by which salts accumulate in soils, to the detriment of cultivated plants.

Scoping report
The first stage of an *Environmental Impact Assessment (EIA).*

Sectoral strategies
Plans, programmes and actions to address the needs and concerns of different *environmental* themes, e.g. air quality, waste, *biodiversity*.

Sewage
Household or industrial liquid waste that is carried away in sewers and drains.

Smog
Dust, smoke or chemical fumes that pollute the air and make hazy, unhealthy conditions (literally, the word is a blend of smoke and fog).

Socio-economic environment
The part of the *environment* that is linked to human activities (e.g. social, economic, cultural and political *processes*). Themes that form part of the socio-economic *environment* are: the economy, health, education, safety and security, and *environmental governance*.

Soil erosion
The loss of soil through the washing, wearing and falling away of the soil.

Solar power
Power harnessed from the sun's energy and light.

Solar water heater
A complete operating system that uses energy from the sun to produce hot water and that comprises one or more collectors, hot water tanks and includes all the necessary interconnecting pipes and functional components.

Solid waste
Any solid, semi solid, liquid or contained gaseous materials discarded from industrial, commercial mining or agricultural operations and from community activities. Solid waste includes garbage, construction debris, commercial refuse, sludge from water supply or waste treatment plants or air pollution control facilities and other discarded materials.

Spatial planning
Working out the best use of space for *development,* e.g. houses, factories, roads and sports fields.

Species
Types of animals or plants.

Species diversity
The range of *species* in an area or *habitat*.

Species richness
The number of *species* in an area or *habitat*.

Stakeholders
People and organisations that are involved or interested in an area or an issue, e.g. residents, councillors, business people, trade unions.

Stormwater drainage
System of underground pipes that removes rain and other water from the ground, roads and roofs to rivers, lakes and the sea.

Strategic Environmental Assessment (SEA)
The administrative or regulatory process of evaluating the *environmental* impacts of a policy, plan or programme and its alternatives.

Surface water
Water above the ground surface in lakes, dams, rivers and pans.

Sustainability
Being able to meet the needs of present and future generations by the responsible use of *resources*.

Sustainability Report
A progress report on *environmental* conditions, issues and conditions, that helps in the drawing up of *environmental policies* and meeting *environmental* challenges.

Sustainable
Something that is protected and maintained so that it can be used in the future.

Sustainable agriculture
Environmentally friendly methods of farming that allow the production of crops or livestock without damage to the farm as an *ecosystem*, including effects on soil, water supplies, *biodiversity* or other surrounding *natural resources*.

Sustainable development
Development that is planned to meet the needs of present and future generations, e.g. the need for basic *environmental*, social and economic services. Sustainable development includes using and maintaining *resources* responsibly.

T

Toxic chemical
A substance that can cause severe illness, poisoning, birth defects, disease or death when ingested, inhaled or absorbed by living organisms.

Toxic cloud
An airborne mass of gases, vapours, fumes or aerosols of toxic materials.

U

Unemployment
When people are not working – this includes discouraged job seekers who have not recently taken active steps to find work.

Unicity
The one-city political and administrative Council that united seven local government structures as "the *City of Cape Town*" from the December 2000 local government elections.

Urban agriculture
The cultivation of crops within urban areas and on urban fringes, for subsistence or commercial purposes. The activity is often of a small scale and a high intensity.

Urban form
The structures found in an urban *environment*.

Urbanisation
Migration of people from rural to urban areas - this can lead to overpopulation and unemployment in urban areas. Urbanisation is the main process driving the creation and development of cities.

Urban sprawl
The gradual and uncontrolled spread of urban areas into the surrounding natural areas.

V

Vegetation
The different types of plants in an area.

Veld
A South African term for natural *vegetation*, usually grassland, typically containing scattered shrubs or trees.

W

Waste
Any superfluous by-product, emission, residue or remainder of any process or activity.

Waste management
A control system to limit, collect and dispose of waste in an efficient and environmentally friendly way through clear policies and *environmental* standards, e.g. reducing plastic packets.

Wastewater
Water left over after it has been used, e.g. in homes, gardens and factories.

Water supply
Water that is collected and stored - usually in dams to be sent for use in cities and towns.

Wetlands
An area of land with water mostly at or near the surface, resulting in a waterlogged *habitat* e.g. vleis, swamps.

World heritage site
A natural site that is internationally recognised as very important for the *conservation* of *biodiversity*, e.g. a *habitat* for plants or animals that are in danger of dying out. World heritage sites are often used as areas for *ecotourism* to create jobs.

Z

Zoning
The control of *land use* by only allowing land *development* in fixed areas or zones.

City of Cape Town, 2007

Plain-language text: Derrick Fine

This Dictionary of Environmental Words is also available in Xhosa and Afrikaans