



# GREEN SPEAK

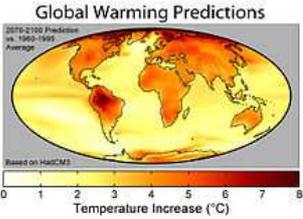
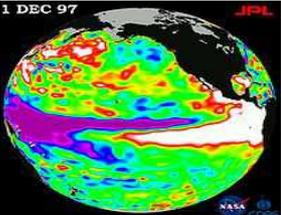
.....the language of sustainability and environmentalism

<p>Acid rain</p>  <p>Trees killed by Acid Rain. Source: Wikipedia</p>	<p>Acid rain is a rain or any other form of precipitation that is unusually acidic, meaning that it possesses elevated levels of hydrogen ions (low pH). It can have harmful effects on plants, aquatic animals, and infrastructure. Acid rain is caused by emissions of sulfur dioxide and nitrogen oxides, which react with the water molecules in the atmosphere to produce acids. The chemicals in acid rain can cause paint to peel, corrosion of steel structures such as bridges, and erosion of stone statues.</p>
<p>Acid Mine Drainage (AMD)</p>  <p>Source: WWF SA</p>	<p>Caused by large scale mining operations when mining operations caused excavation of rock to access and remove mineral bearing ore, thereby exposing previously buried rock to air. Pyrite, a mineral containing iron sulphate, which is associated with many type of rock, is oxidized when exposed to the atmosphere. When the oxidized material then comes into contact with water, sulphuric acid is formed. This is acid mine drainage, or acid rock drainage, and occurs in any type of mine. It becomes particularly problematic when the water that becomes acidic is ultimately used for human consumption as AMD contaminated water has adverse consequences for human health. The issue became increasingly contentious in SA when it emerged that many of the mines responsible for causing AMD have become ownerless or abandoned, leaving the taxpayer to foot the costs of clean up.</p>
<p>Alien vegetation</p>	<p>Alien species are species (fauna and flora) that are not indigenous to a particular area. The National Biodiversity Act 10 of 2004 aims to regulate activities including possession (or</p>



 <p>Example of alien vegetation: Port Jackson. Photo: <a href="http://www.biodiversityexplorer.org">http://www.biodiversityexplorer.org</a></p>	<p>planting) of alien species. The rationale for this is the adverse impact that alien vegetation has on biodiversity in the form of 'crowding out' and water usage as many alien species are water thirsty, something we can ill afford given that SA is borderline 'water stressed' as defined.</p>
<p><b>Carbon footprint</b></p>  <p>Calculate your own: <a href="http://www.nature.org/greenliving/carboncalculator/index.htm">http://www.nature.org/greenliving/carboncalculator/index.htm</a> Picture diagram: City of Cape Town Smart Living Guide</p>	<p>A much used buzz word of our age. It aims to measure and record the amount of carbon dioxide and methane gas released by a particular organization or entity. The term originated in the ecological footprint discussion which aimed at calculating how many 'earths' we require should each person consume resources at the same rate as the person or entity being measured. For instance, it has been calculated that the 'American way of life' costs approximately 6 earths. We however cannot afford to become pious as SA rates quite highly not in absolute terms but when expressed as a per capita figure, predominantly and simplistically put because of our reliance on coal as major source of energy.</p>
<p><b>Carbon credits and carbon taxes</b></p>  <p>Picture: Wikipedia</p>	<p>The Kyoto Protocol recognized the efficiency of markets as opposed to governmental measures to achieve the stated reduction in greenhouse gas emissions, and to allow flexibility as to where emissions reductions can be generated, Kyoto accordingly provided for emission trading or carbon trading. This would allow countries with excess emissions to buy allowances from other countries rather than achieving a reduction of its own emissions. This is referred to as the commodification of carbon</p>
<p><b>Climate change,</b></p>	<p>Whilst the earth's climate is highly variable from</p>



<p>global warming and green house effect</p>  <p>Source: Wikipedia</p>	<p>a positional and time frame perspective, the general trends in climate have remained fairly consistent over the last 10000 odd years. That is until recently, as during the last 100 years or so, scientific evidence seems to suggest that a disturbing trend of gradual warming has been detected and that such trend is attributable to human activity. Human activities produce greenhouse gases (as a result of the burning of fossil fuels such as coal, oil and natural gas) in increasing quantities. This results in trapping of heat within the atmosphere and raising the planet's average temperature. The symptoms of global warming include changes in temperature and rainfall (both in terms of seasonality and intensity), drought, rising sea levels, more extreme weather conditions, melting polar ice caps and the like.</p>
<p>Cradle to grave principle</p>	<p>This is a technique or principle found generally in environmental legislation but particularly in the Waste Act and dictates that the environmental impacts of a processes or activities should be assessed at all stages of the production chain or life cycle, i.e. from extraction of raw materials, to processing, to distribution, consumption, repair, storage, disposal. The problems that surface when this approach is not adopted, are well illustrated in the current conundrum that we experience with the disposal of motor vehicle tyres, electronic equipment, plastic bags and other non biodegradable products generated in our society.</p>
<p>El Nino effect</p>  <p>Source: Wikipedia</p>	<p>This relates to the warming of the sea surface temperatures in the equatorial Pacific Ocean which influences atmospheric circulation and hence rainfall and temperatures in specific areas around the world. Sadly it impacts developing countries, highly dependent upon agriculture and fishing, bordering the Pacific the most. El Niño is Spanish for 'the little boy' and refers to the</p>



	Christ Child as the effects of El Nino are typically observed around Christmas.
Environment	<p>A dictionary definition of the term reads like this:</p> <p><i>n.1. physical surroundings and conditions, esp. as affecting people's lives 2. conditions or circumstances of living. 3. Ecol external conditions affecting the growth of plants and animals 4. a structure designed to be experienced from inside as a work of art 5. Computing the overall structure within which a user, computer or program operates.</i><sup>1</sup></p> <p>In legal-speak the term has evolved as follows:</p> <p>The Environmental Conservation Act<sup>2</sup> innocuously defined the term as follows:</p> <p><b>'environment'</b> means the aggregate of surrounding objects, conditions and influences that influence the life and habits of man or any other organism or collection of organisms'</p> <p>The definition contained in National Environmental Management Act reads as follows:</p> <p><b>"environment"</b> means the surroundings within which humans exist and that are made up of—</p> <ul style="list-style-type: none"> <li>(i) the land, water and atmosphere of the earth;</li> <li>(ii) micro-organisms, plant and animal life;</li> <li>(iii) any part or combination of (i) and (ii) and the inter-relationships among and between them; and</li> <li>(iv) the physical, chemical, aesthetic and cultural properties and conditions of the</li> </ul>

<sup>1</sup> The Readers Digest Oxford Wordfinder Clarendon Press Oxford 1993 at 493

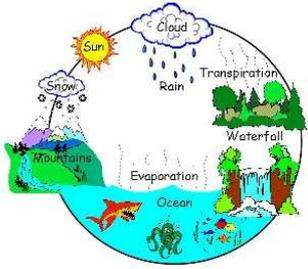
<sup>2</sup> 73 of 1989 ('ECA')



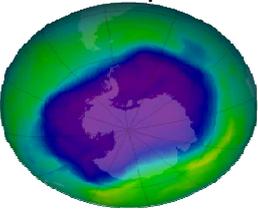
	foregoing that influence human health and well-being <sup>3</sup>
Eutrophication (and in particular anthropogenic eutrophication)	This refers to the excessive fertilization of surface water resulting in nuisance growths of algae and aquatic plants which in turn results in the deterioration of water quality, the production of algal toxins, taste and odour problems, oxygen depletion, decline in the production of fisheries, loss of user potential, health risks.....
Fracking	<p>Hydraulic fracturing is the propagation of fractures in a rock layer, as a result of the action of a pressurized fluid. Some hydraulic fractures form naturally—certain veins or dikes are examples—and can create conduits along which gas and petroleum from source rocks may migrate to reservoir rocks. Induced hydraulic fracturing or hydrofracking, commonly known as fracing or fracking, is a technique used to release petroleum, natural gas (including shale gas, tight gas and coal seam gas), or other substances for extraction. This type of fracturing creates fractures from a wellbore drilled into reservoir rock formations.</p> <p>Proponents of fracking point to the economic benefits from vast amounts of formerly inaccessible hydrocarbons the process can extract. Opponents point to potential environmental impacts, including contamination of ground water, risks to air quality, the migration of gases and hydraulic fracturing chemicals to the surface, surface contamination from spills and flowback and the health effects of these. For these reasons hydraulic fracturing has come under scrutiny internationally, with some countries suspending or even banning it.</p>
GMO's	This is an acronym for Genetically Modified Organisms used in agricultural food production.

<sup>3</sup> Section 1: National Environmental Management Act 107 of 1998



 <p>Source:  <a href="http://www.saynotogmos.org/">http://www.saynotogmos.org/</a></p>	<p>These are crops that received genetic material from unrelated organisms endowing the host plant or organism with altered (improved) attributes such as increase resistance to drought or insects. The rationale behind the use of GMO crops is that it would increase food production both in yield and cost as crop failures are reduced. The benefits are certain, the risks not. The risks include: reliance on manufacturers to supply patented seeds, unknown long term impact on human health,, genes from herbicide resistant varieties may inadvertently be transferred to wild relatives creating 'wild weeds' etc</p>
<p>Grey water</p>	<p>This term relates to water generated from domestic activities such as laundry, bathing, dishwashing which can be re cycled for on site uses such as irrigation. Grey water is different from black water which emanates from toilets, contain human waste and which need to be channeled into sewage system.</p>
<p>Hydrological cycle</p>  <p>Source: Wikipedia</p>	<p>This is a continuous cycle without beginning or end that describes the movement of water, for ease of convenience we start with water that evaporates from the surface of the ocean, as it lifts it cools and condenses to form clouds, from where it is transported and returns to the surface as precipitation. Once it reaches the ground it may evaporate back into the atmosphere, it may penetrate the surface and become groundwater, or it may remain on the earth's surface and empties into lakes, rivers, and streams where it is carried back to the ocean, starting the cycle afresh.</p>
<p>King III and Integrated reporting</p>	<p>King III refers to the King Code of Governance principles for South Africa issued in 2009 and calls for a fundamental shift in the way in which entities report their activities. In particular, it calls for the preparation of an Integrated report that is aimed at enabling stakeholders to assess</p>



 <p>Does the thought of accounting excite you? Read more at <a href="http://www.sustainabilitysa.org/">http://www.sustainabilitysa.org/</a></p>	<p>the ability of an organization to create and sustain value over the short medium and long term. This in turn requires entities to have regard for the environmental, social and economic consequences of their activities. The discussion paper on integrated reporting can be downloaded from <a href="http://www.sustainabilitysa.org">www.sustainabilitysa.org</a></p>
<p>Locus standi and public interest litigation</p>  <p>Source: <a href="http://www.fotosearch.com/photos-images/courtroom.html">http://www.fotosearch.com/photos-images/courtroom.html</a></p>	<p>Locus Standi in lay man's terms relates to the right to bring an action in law in a court. In the context of environmental litigation, the common law rules of locus standi were complex and subject to limitations. This has to a large extent been addressed by section 38 of the Constitution and section 32 of NEMA (listed elsewhere on the website). The courts however are weary of vexatious claims of 'pranks and busibodies' and persons wishing to litigate in the interests of the environment are well advised to ensure that they can demonstrate a genuine interest in the environment.</p>
<p>NEMA</p>  <p>Source: <a href="http://www.inimage.com/ims9a00067/ims9a00067006-photo">http://www.inimage.com/ims9a00067/ims9a00067006-photo</a></p>	<p>The National Environmental Management Act 107 of 1998, South Africa's overarching 'general' environmental legislation.</p>
<p>Ozone depletion</p>  <p>Source: Wikipedia</p>	<p>The release of substances such as Chlorofluorocarbons (CFC's) as a byproduct of industrial processes, are the most important contributor to depleting the ozone layer, thereby exposing humans to increased harmful ultraviolet radiation.</p>
<p>Precautionary principle</p>	<p>This principle is incorporated into our environmental legislation and stems from the</p>



	<p>German concept <i>Vorsorgeprinzip</i>. It entails the application of preventative measures where a scientific uncertainty exists and a course of action may harm the environment.</p>
<p>Sustainability</p>	<p>This relates to the fact that we need to live within our 'ecological' budget, or to use natural resources in a sensible manner. It requires the balancing of environmental, sociological and economic needs in such a manner that the needs of future generations are not compromised.</p>
<p>Tipping point</p>  <p>Source: <a href="http://www.gladwell.com/tippingpoint/">http://www.gladwell.com/tippingpoint/</a></p>	<p>A term attributed to Malcolm Gladwell in his book by the same name (Published by Abacus 2000). In environmental terms it describes or indicates the non linearity of cause and effect or input/output relationships in issues relating to global warming, water pollution and the like especially in the context where pollution levels reach a critical point so that the natural ability of water to 'absorb' the pollutants become compromised.</p>
<p>Working for water</p>  <p>Accessible via: <a href="http://www.dwaf.gov.za/wfw/">http://www.dwaf.gov.za/wfw/</a></p>	<p>Launched in 1995 by the Department of Water Affairs, it tackles the problem of invasive alien vegetation, particularly in water catchment areas, and unemployment simultaneously.</p>

Would you like additional terms listed here? Please give us your feedback

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