

Air Pollution	Agriculture	Biodiversity	Chemicals	Climate change	Desertification
<i>Definition and significance</i>					
<p>Air pollution results most often from industrial processes and carries a high economic toll especially in urban settings. Air pollution exerts direct health effects, impairs many ecosystem functions directly or as a result of acid rain, and leads to losses in production and tourism.</p>	<p>Agriculture, the process of producing food, feed, fiber and other goods by the systematic raising of plants and animals, relies heavily on the use of natural resources. As one of the largest drivers of the global economy, agriculture is also a significant contributor to pollution, soil erosion, and climate change.</p>	<p>Biodiversity sustains life on earth. Biodiversity provides fundamental ecosystem services such as water purification, nutrient cycling, and climate stabilization. In addition, the protection of biodiversity and genetic resources is intricately linked to solving major diseases through new pharmaceutical discoveries.</p>	<p>To date, over 10,000 chemical compounds have been identified, including among them known carcinogens, immuno-toxins and hormone disrupters. Human-made chemical compounds have been found in even the most remote areas of every continent. Some chemicals bioaccumulate poisoning not only humans but other higher level organisms, as in the case of birds and DDT.</p>	<p>Climate change is defined by the UNFCCC as any change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time period. Climate change is one of the most salient issues on the global agenda, cross-cutting nearly every environmental concern.</p>	<p>Desertification occurs most often as a result of human activity and climate change. The loss of productive topsoil associated with desertification reduces biomass productivity and arable land. For example, desertification removes 12 million hectares of land from production each year which could have been used to produce 20 million tons of grain (MA 2005a).</p>
<i>Encompassed terms and concepts</i>					
<p>Air quality Ozone Indoor air pollution Traffic emissions Smog</p>	<p>Farming Aquaculture Livestock Food security Agroecosystems Grazing Genetically modified crops Agrarian Rural poverty</p>	<p>Fauna Genetic resources "conserve species" "ecosystem management" Biosafety GMO's Coral</p>	<p>Industrial accidents Pesticides Hazardous waste POPs</p>	<p>Global warming Monitoring atmosphere Greenhouse gases Emission trading CDM Weather Meteorology Climate prediction</p>	<p>Drought Land degradation Drylands Soil conservation Grasslands Land resources Land management</p>

Energy	Fisheries	Forests	Invasive Species	Trade in Endangered Species	Water
<i>Definition and significance</i>					
<p>Energy encompasses both production and conservation measures. Energy programs receive enormous subsidies from national governments around the world. The search for alternative energy sources is also increasing. The extraction and consumption of energy resources such as coal and oil contribute to air and water pollution as well as increased greenhouse gas concentrations and subsequently climate change.</p>	<p>Fisheries, especially ocean fisheries, have been in rapid decline as a result of rapid technological improvements in fishing fleets. About half of the wild marine fish stocks for which information is available are fully exploited and offer no scope for increased catches. Like agriculture, fisheries provide enormous impetus to the global economy. Fisheries also provide a key source of protein for millions of people around the world, many in developing nations.</p>	<p>Forests are classified by the level of canopy cover in an area, and any reduction of canopy cover is considered to be deforestation or degradation. Forests present an important carbon sink for greenhouse gases but are cleared at increasing rates around the world, especially so in tropical regions. Currently, there exists no international environmental organization or convention focused on forests but a large number of NGOs work exclusively in this field.</p>	<p>Invasive species have become an increased threat that represents the “globalization of nature” (MA 2005b). For example, waters in North America are heavily invaded by mollusks transported in ship ballast water tanks in a pattern corresponding to trade routes. The Great Lakes have suffered from the introduction of the zebra mussel native to the Black Sea. Similarly, the American comb jellyfish in the Black Sea has led to the destruction of 26 fish stocks.</p>	<p>Trade in endangered species encompasses the illicit dealing of protected plant and animal specimens. The international illegal trade in wildlife and wildlife products such as ivory endangers the species, which are often already threatened. Such trade also poses a security risk: transnational criminal organizations engaged in the trade of endangered species have been found to also engage in arms, narcotics and human trafficking (Lin 2005).</p>	<p>Water, the most vital natural resource to human survival, is in short supply in many parts of the world. Globally, from 5 to 25% of freshwater use exceeds long-term accessible supplies and is now met either through engineered water transfers or overdraft of groundwater supplies. Water scarcity poses both a health and a security risk to numerous nations and regions as conflicts arise over water use.</p>
<i>Encompassed terms and concepts</i>					
<p>Energy production Hydraulic power Alternative energy Nuclear Energy conservation Clean fuels</p>	<p>Marine resources Fishery subsidies</p>	<p>Timber Trees Deforestation Reforestation</p>	<p>Invasive species Alien species</p>	<p>International wildlife trade Exploitation of species Import, export, re-export</p>	<p>Water management Water resources Water conservation Water and sanitation Freshwater Eutrophication Dumping Oil spills/pollution</p>

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