

ES 645
**Environmental
Law & Policy**

Lecture 4

**Definitions of
“Pollution” in
Different Countries**



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EU Legislation (1/4)

Biodiversity

Biodiversity is the variety of life and includes all living organisms found in the atmosphere, on land and in water.

It encompasses diversity within and among species, habitats and ecosystems.

Biodiversity underpins ecosystem functioning and the provision of ecosystem services.

Source: EEA, 2015, The European environment — state and outlook 2015: synthesis report, European Environment Agency, Copenhagen



EU Legislation (2/4)

Clean Water

“Water used for consumption by people” is defined, as any water supplied for consumer purposes or used in comestible (edible) industries for production, processing, conservation or introducing to market products and substances designed for consumption by human and water influencing the health of comestible (edible) products in their final form.

Source: Council Directive 79/869/EEC of 9 October 1979 concerning the methods of measurements and frequencies of sampling and analysis of surface water for the abstraction of drinking water in the Member States



EU Legislation (3/4)

Air Pollution

Air pollution harms human health and the environment. Air pollution is a local, pan-European and hemispheric issue.

Air pollutants released in one country may be transported in the atmosphere, contributing to or resulting in poor air quality elsewhere.

Source: <http://www.eea.europa.eu/themes/air/intro>



EU Legislation (4/4)

Noise Pollution

An unwanted or harmful outdoor sound — is spreading, both in its duration and geographical coverage. Noise is associated with many human activities, but it is road, rail and air traffic noise that has the highest impact.

Source: <http://www.eea.europa.eu/themes/noise/intro>



US EPA (1/5)

Biodiversity

Biodiversity refers to the variety and variability among living organisms and the ecological complexes in which they occur.

Source: <http://www.thefreediction>

http://nlquery.epa.gov/epasearch/epasearch?querytext=biodiversity&fld=&areaname=&areacontacts=&areasearchurl=&typeofsearch=epa&result_template=2col.ftl&force=no&filter=sample4filt.hts [ary.com/policy](http://www.ary.com/policy)



US EPA (2/5)

Clean Water

Water Quality Standards define the goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing provisions such as anti-degradation policies to protect waterbodies from pollutants.

Source: <http://water.epa.gov/scitech/swguidance/standards/>



US EPA (3/5)

Water Pollution

For purposes of the Clean Water Act, "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 USC 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Source: <http://www.epa.gov/region6/6en/w/pollutant.htm>



US EPA (4/5)

Air Pollution

Air pollution occurs when the air contains gases, dust, fumes or odour in harmful amounts. That is, amounts which could be harmful to the health or comfort of humans and animals or which could cause damage to plants and materials. Pollutants that are pumped into our atmosphere and directly pollute the air are called primary pollutants. Further pollution can arise if primary pollutants in the atmosphere undergo chemical reactions to form are called secondary pollutants.

Source: <http://www.epa.vic.gov.au/air/aq4kids/pollution.asp>



US EPA (5/5)

Noise Pollution

The traditional definition of noise is “unwanted or disturbing sound”. Problems related to noise include stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity.

Source: <http://www.epa.gov/air/noise.html>



German Framework (1/5)

- The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) is responsible for a range of government policies which are reflected in the name of the ministry itself. For more than 25 years the Ministry has worked to protect the public from environmental toxins and radiation and establish an intelligent and efficient use of raw materials; it has advanced climate action and promoted a use of natural resources that conserves biodiversity and secures habitats.
- In December 2013 the Chancellor issued a order transferring responsibility for urban development, housing, rural infrastructure, public building law, building, the construction industry and federal buildings to the BMUB, thus bringing the ministry key additional responsibilities from the former Federal Ministry for Transport, Building and Urban Development (BMVBS).
- The German Federal Agency for Nature Conservation (i.e. Bundesamt für Naturschutz – BfN) is the German government’s scientific authority with responsibility for national and international nature conservation. BfN is one of the government’s departmental research agencies and reports to the German Environment Ministry (BMU)



German Framework (2/5)

Biodiversity

Biodiversity is one of the essential fundamentals (basis) of human life. It is everywhere on earth. Every region is home to species and communities of species that are adapted to the respective local environmental and climatic conditions. Every species is valuable and in need of protection.

Source: https://www.bfn.de/0304_fakten+M52087573ab0.html#c32804



German Framework (3/5)

Clean Water

Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such.

Life is impossible without a sufficient supply of clean water.

Source: <http://www.bmub.bund.de/en/topics/water-waste-soil/water-management>



German Framework (4/5)

Air pollution

Breathing clean air is a basic human need. However, air pollution is caused by human activities. Emissions are generally defined as the release of substances or energy from a source into the environment. The Federal Immission Control Act defines emissions as air pollution, noise or odour originating from an installation. Immission relates to the effects of emissions on the environment. With regard to air pollution control, this means the effect of air pollutants on plants, animals, human beings and the atmosphere

Source: <http://www.bmub.bund.de/en/topics/air-mobility-noise/air-pollution-control/general-information/?cHash=708635c8a9f766bc5d0c165b53867c44>
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German Framework (5/5)

Noise Pollution

Noise considerably impairs quality of life for many people. Main sources are motor vehicles, trains and aircraft, but also industrial and commercial facilities.

Exposure to high levels of noise is not just disturbing or annoying, it may also lead to significant health risks in particular with regard to the cardio-vascular system

Source: <http://www.bmub.bund.de/en/topics/air-mobility-noise/protection-against-noise/general-information/?cHash=708635c8a9f766bc5d0c165b53867c44>



Framework in Sweden (1/5)

Biodiversity

Biological diversity must be preserved and used sustainably for the benefit of present and future generations. Species habitats and ecosystems and their functions and processes must be safeguarded.

Species must be able to survive in long-term viable populations with sufficient genetic variation.

Source: <http://www.swedishepa.se/Environmental-objectives-and-cooperation/Swedens-environmental-objectives/The-national-environmental-objectives/A-Rich-Diversity-of-Plant-and-Animal-Life/>



Framework in Sweden (2/5)

Clean Water

Access to an improved water source refers to the percentage of the population using an improved drinking water source. The improved drinking water source includes piped water on premises (piped household water connection located inside the user's dwelling, plot or yard), and other improved drinking water sources (public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, and rainwater collection).

Source: <http://data.worldbank.org/indicator/SH.H2O.SAFE.ZS>



Framework in Sweden (3/5)

Water Pollution

Groundwater must provide a safe and sustainable supply of drinking water and contribute to viable habitats for flora and fauna in lakes and watercourses.

Groundwater is important as drinking water for humans, and also affects the habitats of plants and animals in surface waters. Emissions of environmentally hazardous substances can contaminate this water resource – pesticides are one example, particularly in agricultural areas of southern Sweden.

Source: <http://www.swedishepa.se/Environmental-objectives-and-cooperation/Swedens-environmental-objectives/The-national-environmental-objectives/Good-Quality-Groundwater/>



Framework in Sweden (4/5)

Air Pollution

Inhaling air pollutants adversely affects health. The pollutants that are most harmful to health are inhalable particles, ground-level ozone and certain hydrocarbons. Air pollution also causes corrosion, speeding the breakdown of materials such as metals, plastics and limestone. This can result in damage, for example, to buildings and cultural heritage. In addition, ground-level ozone harms forest trees and farm crops.

Source: <http://www.swedishepa.se/Environmental-objectives-and-cooperation/Swedens-environmental-objectives/The-national-environmental-objectives/Clean-Air/>



Framework in Sweden (5/5)

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Clean Air

The air must be clean enough not to represent a risk to human health or to animals, plants or cultural assets.

Source: <http://www.swedishepa.se/Environmental-objectives-and-cooperation/Swedens-environmental-objectives/The-national-environmental-objectives/Clean-Air/>



Glossary of the U.N. (1/4)

Biodiversity

The range of genetic differences , species differences and ecosystem differences in given area.

Source: *Glossary of Environment Statistics*,
Studies in Methods, Series F, No. 67,
United Nations, New York, 1997



Glossary of the U.N. (2/4)

Water Pollution

Presence in water of harmful and objectionable material- obtained from sewers , industrial wastes and rain water runoff- in sufficient concentrations to make it unfit for use.

Source: *Glossary of Environment Statistics*,
Studies in Methods, Series F, No. 67,
United Nations, New York, 1997



Glossary of the U.N. (3/4)

Air Pollution

The presence of contaminant or pollutant substances in the air that do not disperse properly and that interfere with human health or welfare or produce other harmful environmental effects.

Source: *Glossary of Environment Statistics*,
Studies in Methods, Series F, No. 67,
United Nations, New York, 1997



Glossary of the U.N. (4/4)

Noise Pollution

Audible sound from traffic, construction and so on that may generate unpleasant and harmful effects (hearing loss). It is measured in decibels. Sound at excessive levels that may be detrimental to human health.

Source: *Glossary of Environment Statistics*,
Studies in Methods, Series F, No. 67,
United Nations, New York, 1997