

IMPACT OF TOXIC METALS, MINERALS AND SOLVENTS LEADING TO ENVIRONMENTAL POLLUTION

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ABSTRACT

Environmental Pollution is the introduction of contaminants into the natural environment that cause adverse change. Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants. Pollution is often classed as point source or nonpoint source pollution.

It was the industrial revolution that gave birth to environmental pollution. The emergence of great factories and consumption of immense quantities of coal and other fossil fuels gave rise to unprecedented air pollution and the large volume of industrial chemical discharges added to the growing load of untreated human waste.

FORMS OF POLLUTION

Air pollution: The release of chemicals and particulates into the atmosphere. Common gaseous pollutants include carbon monoxide, sulfur dioxide, chlorofluorocarbons (CFCs) and nitrogen oxides produced by industry and motor vehicles. Photochemical ozone and smog are created as nitrogen oxides and hydrocarbons react to sunlight.

Light pollution: Includes light trespass, over-illumination and astronomical interference.

Noise pollution: Which encompasses roadway noise, aircraft noise, industrial noise as well as high-intensity sonar. Soil contamination occurs when chemicals are released by spill or underground leakage. Among the most significant soil contaminants are hydrocarbons, heavy metals, herbicides, pesticides and chlorinated hydrocarbons. Radioactive contamination, resulting from 20th century activities in atomic physics, such as nuclear power generation and nuclear weapons research, manufacture and deployment.

Thermal pollution, is a temperature change in natural water bodies caused by human influence, such as use of water as coolant in a power plant. Visual pollution, which can refer to the presence of overhead power lines, motorway billboards, scarred landforms (as from strip mining), open storage of trash, municipal solid waste or space debris. Water pollution, by the discharge of wastewater from commercial and industrial waste into surface waters; discharges of untreated domestic sewage, and chemical contaminants, such as chlorine, from treated sewage; release of waste and contaminants into surface runoff flowing to surface waters (including urban runoff and agricultural runoff, which may contain chemical fertilizers and pesticides, waste disposal and leaching into groundwater.

Number of synthetic chemicals are currently in use in industry, and they find their way into our air, water, food, cleaning products, personal care products, cosmetics, and other substances we regularly use. Nearly 80 percent of the chemicals currently in commercial use while 95 percent have not been tested for their long-term effects on human health.

Chemicals used in everyday household products have been found to cause health problems such as asthma and other respiratory ailments, birth defects, heart disease, and cancer, among other serious concerns. Most popular brands of cosmetics are loaded with artificial colors, synthetic fragrances, petroleum products, emulsifiers, preservatives, and solvents. Over 850 toxic chemicals are used in makeup alone. Ninety-five percent of the chemicals used in perfumes and colognes are derived from petroleum. The food supply contains rancid oils, trans fats, food additives, pesticides and herbicides, fillers, colors, excessive amounts of sugar, artificial sweeteners, artificial flavors, and other substances that are toxic to the body.

Tips to deal with plastic waste: Plastic is now an integral part of the everyday activity of human life and one cannot out rule out the advantages of plastic but the disadvantages can be reduced to some extent if certain tips to deal with plastic waste are followed and these are:

Plastic Recycling: Separating the plastic products from the garbage and at home and handling over this plastic for recycling can reduce the impact of environmental pollution due to plastic waste. Plastic recycling industry is now a billion dollar industry in developed economies. Recycled plastic is usually used for laying down roads in place of bitumen, bottles, benches etc. Buying recycled plastic also helps with plastic management.

With all of the pollution in the world, it can be difficult to feel as if you can take positive steps toward preventing environmental pollutants. However, you can do many things to help. Reducing pollutants at home and at work can play a small but important part in eliminating pollution and reducing its effects. Inspire friends and family to follow your lead by driving less, cutting back on household waste and avoiding chemical pesticides. Drive Less. Drive your car less often. Walk to your destination if it is in walking distance. Buy a bike to travel farther away. If you have the option, use public transportation, which offers alternatives to dozens of people who would otherwise be polluting in their cars. Join colleagues from work in a carpool, meaning that instead of six cars, only one will be driven to work. Drive only when it is absolutely necessary, and you can help cut environmental pollutants. Conserve Household Items Carefully conserve your household items and avoid turning these everyday objects into pollutants. Plastic will not biodegrade in many lifetimes, and metal will slowly rust and leach harmful chemicals if left in the environment. Instead of throwing your plastic away, recycle it and see how it will be converted into new products.