Prime Scholars Library

Journal of Science and Geosciences

Short Communication

Vol. 9 (2), pp.3, June, 2021

Available online at
https://primescholarslibrary.org/

Effects of chemical pollution

David Friedman*
Department of Environmental Quality Science, The Herbrew University of Jerusalem,Jerusalem, Israel.

DESCRIPTION

Chemical pollution introduces chemicals into the natural environment, negatively affecting the air, water and soil. Such pollutants can come from a wide variety of sources. When chemical pollutants are concentrated or in an area for period, they can adversely affect the ecosystem and those who live in the area.

Effects on marine water

Three general categories of chemicals are of particular concern in the marine environment: oil, toxic metals and persistent organic pollutants. Although some countries possess good data on the occurrence and concentrations of such chemicals in their waters, such data are not available globally. Therefore, proxy methods were used to estimate the intensity of chemical pollution based on the amount of pesticides used by each country. Chemical pollution has high effect (weight=3) for Tourism and Recreation, Sense of Place (Iconic Species) and Clean Waters (where it is also a Status component). It has medium effect (weight=2) on Natural Products (Aquarium Trade, Fish Oil and Seaweed), Carbon Storage (Seagrass), Coastal Protection (Seagrass), Livelihoods and Economies (fishing, Mariculture and Aquarium Trade), and Sense of Place (Lasting Special Places). Its effects on other goals are low (weight=1) (Hiroshi 1953 ; Syunro 1953).

Effects on plant

The ecological balance of any system gets affected due to the widespread contamination of the soil. Most plants are unable to adapt when the chemistry of the soil changes so radically in a short period of time. Fungi and bacteria found in the soil that bind it together begin to decline, which creates an additional problem of soil erosion.The fertility of the soil slowly diminishes, making land unsuitable for agriculture and any local vegetation to survive. The soil pollution causes large tracts of land to become hazardous to health (Kenzo 1994). Unlike deserts, which are suitable for its native vegetation, such land cannot support most forms of life.

Effects on air

“Most air pollution comes from energy use and production,” says John Walke, director of the Clean Air Project, part of the Climate and Clean Energy program at NRDC. “Burning fossil fuels releases gases and chemicals into the air.” And in an especially destructive feedback loop, air pollution not only contributes to climate change but is also exacerbated by it. “Air pollution in the form of carbon dioxide and methane raises the earth’s temperature,” Walke says. “Another type of air pollution is then worsened by that increased heat: Smog forms when the weather is warmer and there’s more ultraviolet radiation.” Climate change also increases the production of allergenic air pollutants including mold (thanks to damp conditions caused by extreme weather and increased flooding) and pollen (due to a longer pollen season and more pollen production).

.

Effects on soil

The toxic chemicals present in the soil can decrease soil fertility and therefore decrease in the soil yield. The contaminated soil is then used to produce fruits and vegetables, which lacks quality nutrients and may contain some poisonous substance to cause serious health problems in people consuming them (Ljubo 2015).

CONCLUSION

Chemical pollution has been tackled, with moderate success, in the developed world at least, with treatment controls of point-source discharges and the reduction of wastewater-contained contaminants hence this is less likely to be of major concern in the coming decades (Lesley 2004).

REFERENCE

Hiroshi F, Syunro Utida, (1953). The Effect of Population Density on the Growth of an Animal Polution. Ecology. 34(3):488-498.

Kenzo H (1994). The Current Environmental Issues of PCB. The Countermeasure to the Environmental Polution and Disruption in the Assembly. Circuit Technology. 9(6):411-417.

Ljubo P (2015). Polution of basic natural resources with hazardous matters. Ekonomika poljoprivrede. 62(4):1095-1107.

Lesley CB (2004). Adsorption of Bovine Serum Albumin onto Titanium Powder. Surveys in Geophysics. 25(1):55-67.