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Assignment

Subject: Environmental Education.

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Course:

Methodology: B.Ed, Social Science & English.

Name of the unit: Objectives, Scope, Nature of Environmental Education.

Name of the Topic: Pollution

Submitted TO:

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Pollution and types of pollution

Pollution -

Pollution is the introduction of contaminants into the natural environment that cause adverse change. Pollution can take the form of any substance (solid, liquid, or gas) or energy (such as radioactivity, heat, sound, or light). Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants.

Although environmental pollution can be caused by natural events, the word pollution generally implies that the contaminants have an anthropogenic source—that is, a source created by human activities, such as manufacturing, extractive industries, poor waste management, transportation & agriculture. Pollution is often classed as point source or nonpoint source pollution.

Many sources of pollution were unregulated parts of industrialization during the 19th and 20th centuries until the emergence of environmental regulation and pollution policy in the later half of the 20th century. Sites where historically polluting industries released persistent pollutants may have legacy pollution long

~ the source of the pollution is stopped. Major forms of pollution include air pollution, water pollution, litter, noise pollution, plastic pollution, soil contamination, radioactive contamination, thermal pollution, light pollution, and smog pollution.

Pollution has widespread consequences on human and environmental health, having systematic impact on social and economic systems. In 2019, pollution killed nine million people worldwide (one in six deaths), a number unchanged since 2015. Air pollution accounted for 3/4 of these deaths. Levels of anthropogenic chemical pollution have exceeded planetary boundaries and now threaten entire ecosystems around the world. Pollutants frequently have outsized impacts on vulnerable populations, such as children and the elderly, and marginalized communities, because polluting industries and toxic waste sites tend to be concentrated with populations with less economic and political power. This outsized impact is a core reason for the formation of the Environmental Justice movement, and continues to be a core element of environmental conflicts, particularly in the Global South.

Because of the impacts of these chemicals, local, country and international policy have increasingly sought to regulate pollutants, resulting in increasing air and

air quality standards, alongside Regulation of specific air streams. Regional and National policy is typically supervised by environmental agencies or ministries, while international efforts are coordinated by the UN environmental program and other treaty bodies. Pollution mitigation is an important part of all of the sustainable development goals.

The Major Forms of Pollution are listed below along with the particulate Rehtaminants relevant to each of them:

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. particulate matter, or fine dust is characterized by their micrometre size PM_{10} to $PM_{2.5}$.

Electromagnetic pollution:

The overabundance of electromagnetic Radiation, in a then non-ionizing form, such as Radio and Television transmissions, Wi-Fi etc. Although there is no demonstrable effect on humans there can be interference

ie With Radio-astronomy and effect on safety systems of aircraft and cars.

Light pollution:

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

Littering:

The Criminal throwing of inappropriate man-made objects, unremoved, onto public and private properties.

Noise pollution:

Noise pollution, which encompasses Roadway noise, aircraft noise, industrial noise as well as high-intensity sonar.

Plastic pollution:

Plastic pollution involves the accumulation of plastic objects and microplastic in the environment that adversely affects wildlife, wildlife habitat, or humans.

Soil contamination:

Soil contamination occurs when chemicals are released by spill or underground leakage. Among the most significant soil contaminants are hydrocarbons, heavy metals, MTBE, herbicides, pesticides and chlorinated hydrocarbons.

Radioactive contamination:

Radioactive contamination, Resulting from both military activities in atomic physics, such as Nuclear power

neration and Nuclear Weapons Research, manufacture & deployment.

Thermal pollution:

Thermal pollution is a temperature change in surface water bodies caused by human influence, such as use of water as coolant in the power plant.

Visual pollution:

Visual pollution, which can refer to the presence of overhead power lines, motorway bill boards, cluttered landscapes, open storage of trash, municipal solid waste or space debris.

Water pollution:

Water pollution, caused by the discharge of industrial wastewater from commercial and industrial waste into surface waters; discharges of untreated sewage and chemical contaminants, such as chlorine, from treated sewage; and releases of waste and contaminants into surface runoff flowing to surface waters (including urban runoff and agricultural runoff, which may contain chemical fertilizers and pesticides, as well as human feces from open defecation.

