

Environmental science, interdisciplinary academic field that draws on ecology, geology, meteorology, biology, chemistry, engineering and physics to study environmental problems and human impacts on the environment. [1]

Environmental science is a quantitative discipline with both applied and theoretical aspects and has been influential in informing the policies of governments around the world.

The publication of books such as Rachel Carson's *Silent Spring* (1962) and Paul R. Ehrlich's *The Population Bomb* (1968), together with nuclear proliferation and growing concerns over the anthropogenic release of toxins and chemicals, raised awareness about the need to study the effects of human actions on the environment.

Definition as per Environmental Protection Act 1986

"environment" includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

Complexity of the Environment: Recognizes the environment as a dynamic system affected by multiple factors. Utilizes tools like GIS, remote sensing, and statistical analysis for comprehensive study.

Sustainability: Emphasizes the sustainable use of natural resources to meet present needs without compromising the ability of future generations to meet their own needs. Focuses on balancing economic development with resource protection.

Broad Disciplinary Range: Encompasses various disciplines such as ecology, geology, atmospheric science, hydrology, and oceanography.

Focus Areas: Human Impact Studies: Examines how human activities impact the natural environment, addressing issues like pollution, climate change, deforestation, and biodiversity loss.

Resource Management: Studies sustainable use and management of resources like water, forests, and minerals. Develops policies for balancing economic development with resource protection.

Policy and Regulation: Analyzes legal and policy frameworks governing environmental management, both at international and national levels. Evaluates policy effectiveness and recommends improvements for better environmental outcomes.

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