

IMPACT OF CHANGING ENVIRONMENT (ENVIRONMENTAL IMPACT)

Dr. Preetee Pandey

Assistant Professor

Department of Psychology

Gokul Das Hindu Girls' College

Moradabad (U.P.)

Email: preetee13@gmail.com

Dr. Renu Sharma

Assistant Professor

Department of Botany

Gokul Das Hindu Girls' College

Moradabad (U.P.)

Email: drsharmarenu@gmail.com

Abstract

The environment is the real world that has the living as well as non-living types of surroundings on the earth. It also refers to a particular geographical area. The plants, air, water, animals, human beings, and other living things exist in the environment. Atmospheric process, Geomorphic process, Hydrologic process are the factors affecting the environment. The Biotic process involves living organisms. Living organisms strongly connected with the environment which is known as Ecology. An environment is a nature that nurtures our life on the earth. Everything which we feel, breathe, and eat in our life comes from the environment. Like land, plants, water, air, sunlight, forests, food, rivers, and other natural things come within the environment. The environment has a complete cycle to maintain the proper balance on the earth. A healthy environment supports growing and nurturing the living and nonliving things on the earth. The existence of our healthy life depends on the environment which maintains nature's balance. So, it is very essential to keep our environment clean to live a healthy and peaceful life. It is important to save our environment and maintain nature's balance for the existence of life.

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**Dr. Preetee Pandey,
Dr. Renu Sharma**

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“We were born to help the world, Not to destroy it”

All life depends on a healthy planet, but the interwoven systems of atmosphere, oceans, watercourses, land, ice cover and biosphere, which form the natural environment, are threatened by human activities. The Global Atmosphere Watch (GAW) programme provides reliable scientific data and information on aerosols, greenhouse gases, selected reactive gases, ozone, ultraviolet radiation and precipitation chemistry (or atmospheric deposition). The natural environment suffers, for example, from lack of precipitation for extended periods and uncontrolled land use, leading to desertification. It is estimated that one-third of the Earth's surface and one-fifth of the world's population are threatened by desertification. WMO, therefore, directs its attention to the aspects of climate variability and change that impact the environment. The observational data of weather, climate and the atmosphere that are collected through the WMO networks of observing, data-transmitting and forecasting systems keep policy-makers informed of the state of the environment so that they are in a better position to prevent its further degradation and are used by the Intergovernmental Panel on Climate Change (IPCC) in its assessments of climate change, its potential impacts and options for adaptation and mitigation.

WMO is the recognized, comprehensive source of unique global systematic observations on the state of a wide variety of geophysical phenomena, datasets and long-term archives, and scientific and technical expertise in support of policy advice on various critical environmental issues.

Biodiversity (the variety of life on Earth and the natural patterns it forms) helps keep the global environment working. Polluted air, depleted or contaminated water, degraded soil and urban growth are all threats to biodiversity. Rising ocean temperatures are responsible for the widespread bleaching of coral reefs that support vast populations of marine life and are also important tourist attractions. Ecosystems such as wetlands, forests and lakes are an important part of the natural regime of a river. They are a buffer between river and terrestrial ecosystems and play an important role in storing or attenuating floodwaters. Stratospheric ozone protects plants, marine life, animals and people from solar ultraviolet radiation, which is harmful for life on Earth. Chlorofluorocarbons and other anthropogenic chemicals are responsible for the destruction of ozone. It is necessary, therefore, to ensure that all these Earth systems remain healthy.

An essential activity of National Meteorological and Hydrological Services is to monitor long-term changes in atmospheric greenhouse gases, ultraviolet radiation, aerosols and ozone, and to assess their consequent effects on people, climate, air and water quality and marine and terrestrial ecosystems. Another important activity is monitoring the atmospheric and water transport of dangerous particles in the wake of a volcanic explosion or an industrial accident.

The Global Atmosphere Watch (GAW) programme provides reliable scientific data and information on aerosols, greenhouse gases, selected reactive gases, ozone, ultraviolet radiation and precipitation chemistry (or atmospheric deposition). The GAW Urban Research Meteorology and Environment (GURME) project works together with the Group of Experts on Scientific Aspects of Marine Environmental Protection (GESAMP) as well as provides Sand and Dust Storms Warning (SDS-WAS). GAW recently initiated the Integrated Global Greenhouse Gas Information System (IG3S) that will use observations of greenhouse gases and inverse modelling techniques to support climate mitigations efforts. This new approach (explained in the animations below) supports of the UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement by providing an additional way of identifying and estimating urban and national emissions. It seeks to empower policymakers to take more effective action on mitigation.



Impacts on the Environment

Since human activities cause many impacts on the environment. So, an environment should be safe and clean, without it we cannot imagine the existence of our life in the future. Water pollution occurs due to the release of unrefined industry wastes and other unsafe elements into the water.

The air is polluted due to the uncontrolled discharge of harmful smoke from vehicles and industries. Soil and noise pollution also impacts our environment. The extreme secretion of greenhouse gases raised the surface temperature of the earth. This is the reason behind global warming. The existence of our life will become dangerous in the future on earth.

Nowadays, the food we are supplying to our body is not healthy since it has affected by the bad impacts of artificial fertilizers. These fertilizers reduce our body's resistance power to fight against diseases causing microorganisms. That is why we can fall sick at any time even if we are maintaining a healthy lifestyle. Many health diseases and disorders increasing due to Water and air pollution. Environmental pollution is impacting negatively on many factors of our daily life. These are socially, economically, and physically affected factors.

Human Responsibility in Environment

The advanced technologies destroying the environment which results in the imbalance of nature. Harmful smoke exhausted from industrial companies daily is polluting the natural air. This air impacting the health of human beings, animals, and other living things as they daily inhale it.

In our busy and advanced lifestyle, we must take care of this type of small bad habits daily. It is important that everyone should put a little effort to bring a positive change in the destruction of the environment. We should take an initiative to make our environment safe and pollution-free.

We should follow some rules to make our environment clean and safe. We can get pure air, greenery, and water with peace and a serene atmosphere in our life from a healthy environment. A good environment brings happiness to our children's life. An environment plays an important role in the development of society or an individual.

The quality of the environment is increasing by making laws against noise pollution. Also, inspiring the usage of public transport. We should stop using poly bags, throwing wastes on the road or in public areas. We can adopt the recycling of old things, repair and use broken things without throwing it. We can use rechargeable batteries or alkaline batteries, and fluorescent lights. We can also adopt rainwater conservation, reduce wastage of water, energy conservation, less consumption of electricity, and so forth.

People should take part in tree plantation to make a healthy environment. we are making noise pollution by listening to loud music which impacts the environment. Spreading awareness and inspirational speeches are not enough to save the environment. We must take a strong initiative to protect the environment.

Problems in Environment

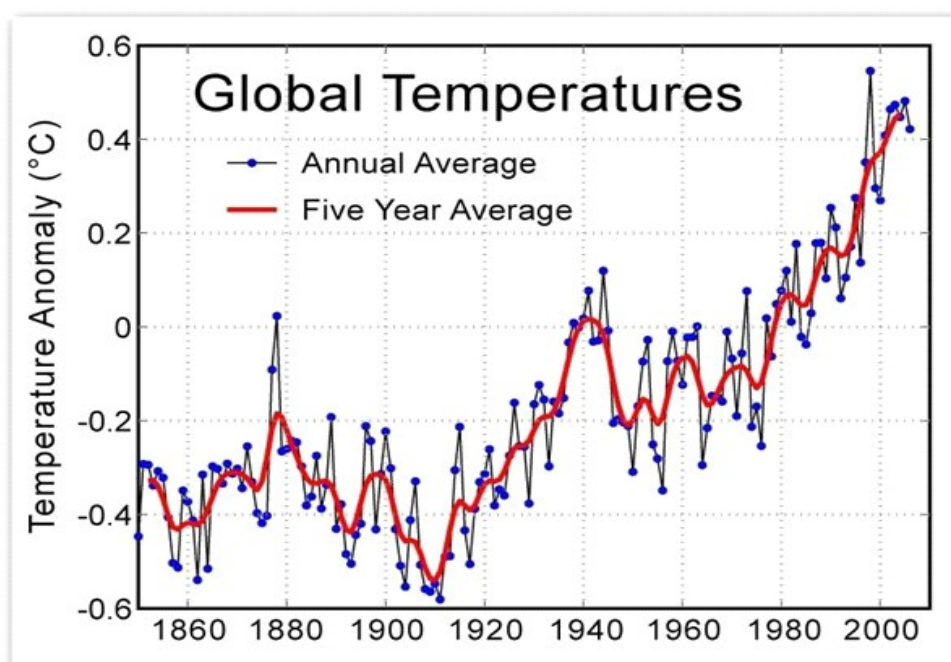
The following problems occur in the environment due to the change in lifestyle and advanced technology.

- Pollution is one of the major problems which occur due to the build-up of harmful substances in the air, water, and ground.
- Desertification also causes problems due to the conversion of land into desert areas when the soil gets dry and frail.
- The extinction of animals is the reason for the problem which occurs due to extreme fires, hunting, development, and other actions.
- Habitat loss is a problem occurs due to the destruction of natural areas for building houses and industries.
- Deforestation occurs due to cutting trees, desertion of forests, fires, and pollution.

Protect Environment

It is not so easy to protect the environment, it will take lots of energy, time, and effort. Everybody should come forward and work together to maintain a clean and healthy environment. We can protect the environment in the following ways:

- People must follow strict laws on pollution control.
- The usage of environmentally unfriendly materials like plastic should not be adopted.
- Recycling of old and waste products must be adopted.
- Save water by reducing the wastage of water.
- A zero-tolerance policy for deforestation should be applied.
- Animal hunting should be prohibited.
- The emission of carbon dioxide and other greenhouse gases should be controlled.
- Energy conservation and less use of electricity.
- Invent technologies that are not harmful to our environment.



Environmental pollution is negatively impacting our daily lives. The inventions of advanced technologies are providing comfortable in human life. But, these inventions cause danger for the survival of our environment. Pollution of the environment brings a lot of health diseases which human beings may suffer throughout their life. It should be considered seriously to make the existence of life on earth. It is a worldwide problem that can be solved by the nonstop efforts of everyone.

Everybody should come forward and take part in the environmental safety campaign. World Environment Day is an environment safety event celebrated on 5th June every year across the world. People and many organizations celebrate the day to know about the factors which destroy our environment. The motive behind celebrating the day is to spread awareness among people across the world. They should take positive actions for protecting the environment. So, it is the responsibility of every human being to save the environment. So that the next generation may enjoy the gifts of nature.

Consumption and production relies on the input of natural resources, which are extracted from the environment and often processed or manufactured to form the final products and services that we produce and consume.

- This includes materials like metals and minerals that are used to create products such as steel for buildings, aluminium for cars, copper for electrical products and many other rare-earth minerals that go into making electronics such as smartphones.
- The farming that produces our food and drinks, and the clothes we wear, depends significantly on natural resources including land, soil and water, as well as ecosystem services like pollination.
- The products and services we produce and consume also depend on burning fossil fuels such as coal, oil and gas to generate the energy that powers machinery, factories, processing plants, transportation and the use of many products and services.
- Even services like finance, education, healthcare and telecommunications that don't produce physical products rely on infrastructure, technology and energy that are built and powered using natural resources.

The amount of materials used in production and consumption continues to rise at the global level and the rate at which materials are being extracted globally is outpacing both population and economic growth, meaning we are using more materials and less efficiently.

If business as usual continues, global resource extraction will increase 110% by 2060.



Environmental Impacts

Unsustainable consumption and production practices not only deplete natural resources through the use of material inputs, but also cause environmental impacts as a result of the extraction, processing, manufacturing, consumption and waste disposal at every stage of a product or service lifecycle.

These environmental impacts of unsustainable consumption and production are driving the three planetary crises we are currently facing: climate change, biodiversity loss, and pollution.

Climate Change

- One of the most well-known environmental impacts of unsustainable production and consumption is climate change, which is primarily caused by burning fossil fuels like coal, oil and gas to create the energy that powers economic activity. This energy is used for heavy machinery for mining and industrial farming; factories for processing and manufacturing products; trucks, ships and planes for transporting products; energy related to consuming products and services; as well as the energy to power the necessary disposal and treatment of waste leftover from production and consumption.
- In addition to energy, climate change is also caused by the extraction and production of certain materials, which can release greenhouse gases as a result of chemical processes like in making steel for buildings and infrastructure. The production of food and agricultural products is also a major source of greenhouse gases, through the use of fertilisers containing nitrogen, as well as the raising of livestock which excrete methane, and the clearing of land for farming and grazing cattle which reduces the amount of carbon that can be captured and stored by trees and vegetation and increases the amount of CO₂ in the atmosphere.

Biodiversity Loss

- The ever-increasing amount of land that needs to be used for production and consumption, such as for agricultural, raw material extraction, forestry, or buildings and infrastructure, means clearing the land and removing all natural trees and vegetation. This destroys the biodiversity of the plant life on that land, and also harms animal and insect life through the loss of their habitats. The consequences of this biodiversity loss are dire and are already damaging the life-supporting systems of food, water and air on which all living things on Earth depend.

Pollution

- The amount of pollution that is created as a result of unsustainable production and consumption is also causing great damage to the planet's life-supporting systems of food, water and air, and as a result harming human health and the health of the planet. While rubbish in the form of packaging or disused products is a major issue that harms both life in the oceans as well as on land, pollution doesn't just happen at the end of a product or services' lifetime. Pollution takes places at every stage of the value chain of a product or service, during the extraction of raw resources, the processing and manufacturing of goods, as well as distribution and consumption.

The consequences of these environmental impacts caused by unsustainable consumption and production can have a rebound effect that further reduces the quality and quantity of natural resources available. For example, unsustainable use of fertilisers in farming can end up reducing the quality of soil and water that is needed for future farming and fishing.

These environmental impacts are also deeply interconnected and affect one another, for example pollution contributes to climate change, and biodiversity loss is exacerbated by both climate change and pollution.

Socio-economic Impacts

Natural-resource use and environmental impacts from unsustainable consumption and production also have socio-economic consequences for people around the world.

- Loss of natural resources and environmental damage can threaten livelihoods, especially of the more than one billion farmers in the world, leading to food and economic insecurity as well as nutritional issues.
- In addition to nutrition, pollution in land, air and water from unsustainable consumption and production also cause major health problems, especially for people living in poor countries.
- Loss of availability of natural resources and the livelihoods that depend upon them is also a major cause of conflict and war, which can jeopardise human rights, further damage the environment, destroy livelihoods and harm human health.

These socio-economic impacts caused by unsustainable consumption and production are also felt unequally throughout the world, thereby worsening inequality.

It is the poorest people who are most directly dependent on natural resources for their livelihoods, and most exposed to risk from damage to these resources and environmental impacts, with the least means and support available to cope with the consequences.

The government must make harming forests a criminal offense. Soil conservation is yet another important way to save the Environment. For this, there must be control of landslides, floods, and soil erosion. Furthermore, there should also be afforestation and tree plantation to conserve the soil.

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