Human beings form an integral part of the environment and have the greatest ecological footprint. We have resourcefully restructured all aspects of earthly life. This has influenced human evolution, from the very first human ancestors to our modern-day selves, and indeed, we have come a long way through nearly two million years of evolution. From advances in man's social behavior to accomplishing new feats in various fields, we always strive to provide a better standard of living for civilization. However, humans are very much a part of the environment we live in, and our mostly well-intended actions have far-reaching side-effects on the entire ecosystem and environment. In this article, we explore the various human activities that destroy the environment.

**Human Activities That Affect The Environment**

1. **Deforestation:** Deforestation refers to the clearing of trees from a forest, which is then converted into non-forest use. Deforestation can include forest land being turned into farmland, ranches, or for public usage and urbanization. Trees take in greenhouse gases and give oxygen to nature, which we use to breathe. Chopping down trees to increase land availability due to an increase in population and bringing up new industries has led to an ecological system imbalance, leading to a decrease in oxygen levels.
2. **Water Pollution:** The presence of an excessive amount of toxins in water bodies is referred to as water pollution. Polluted water from large-scale factories, the absence of adequate sanitation facilities, numerous human actions along water sources have facilitated water contamination to a great degree. Industrial effluents and sewage are directly released into the rivers, increasing this pollution. Seas and oceans also sometimes face oil spills, which have long-term effects on water, leaving it inhospitable to aquatic life.
3. **Air Pollution:** The presence of an excessive amount of toxins in the air is referred to as air pollution. Overpopulation has caused a great deal of air pollution, especially due to the use of vehicles for transport. Harmful factory gases are released into the atmosphere, forcing us to breathe air that contains toxic substances and pollutants, which contribute to different medical conditions, including respiratory and cardiovascular disorders.
4. **Exploitation of Marine Life:** our marine life is becoming endangered due to the massive scale of commercial fishing. Water degradation continues to hamper the lives of marine organisms and renders their longevity uncertain. In certain instances, when these fish are ingested by humans, it contributes to sickness and disease.
5. **Global Warming:** Global warming refers to the rapid rise in Earth's average surface temperature over the past century, mainly due to the greenhouse gasses released by people burning fossil fuels necessary for industrialization. It is seen as a consequence of an increase in Earth's temperature due to the greenhouse effect and connected human actions. It results in the melting of ice caps and therefore increases the sea levels triggering tsunamis, cyclones, and other natural calamities.
6. **Habitat Loss:** Wildlife conservation is becoming tougher because their natural habitat is constantly being threatened and destroyed. Water pollution and deforestation are the main reasons for habitat loss.  Deforestation may give rise to abundant land for humans but leaves animals homeless.
7. **Extinction:** Human activities are triggering extinction on an unprecedented and mass scale. The destruction of natural habitats, environmental hazards, global warming, poaching, pollution, and deforestation are some of the leading causes of this tragedy.
8. **Overuse Of Harmful Pesticides And Fertilizers:** With a great uptick in population, there is also a rise in food production. To aid this production, however, crops are produced through the use of toxic fertilizers and have extremely poor nutritional values to satisfy the demand for food security.
9. **Urbanization:** Urbanisation refers to the increasing number of people who reside in cities. Urbanization has also contributed to a major transition and disparity in our ecological environment. This is because urbanization requires large tracts of land to be deforested and then used for building cities.
10. **Ozone Layer Depletion:** The three oxygen atoms make up an ozone ring. While oxygen lends life to organisms, ozone is a toxic gas. It may be dangerous on Earth, but ozone plays a critical function in the various ambient layers of the atmosphere. UV rays are emitted by the sun, causing harm to animals, specifically skin cancer in humans, and hence are harmful. Ozone is preventing such UV radiation from entering the planet, thus protecting all of us from UV-damage. Over the years, however, this defensive layer has been eroding across the world. A dramatic depletion was discovered back in the 1980s due to the CFCs (chlorofluorocarbons) used in refrigerators and fire extinguishers. This is why production firms are now mandated to produce CFC-free devices around the world.

| **Air** | **Surface water (e.g., lakes, rivers)** | | **Groundwater** | **Coastal areas / marine** | **Land** |
| --- | --- | --- | --- | --- | --- |
| * Transportation (all modes) * Energy (production, refining, and distribution) * Generation of electricity (e.g., burning of coal, natural gas) * Use of refrigerants and coolants (ozone-depleting substances) * Metal smelting and other industrial activities (e.g., pulp and paper, chemical manufacturing, and other heavy industries) * Mining of aggregates * Application of pesticides * Waste incineration * Use of various volatile chemicals * Heating (e.g., with wood, oil) | | * Removal of shoreline vegetation * Forestry and mining * Collection, storage, and disposal of agricultural waste * Application of pesticides * Sewage discharges * Industrial and other discharges (e.g., pulp and paper, mining, chemical, food processing) * Manure management * Spills and accidental releases of pollutants * Boating and shipping (e.g., discharges of fuel, ballast water) * Waste disposal * Fuel storage, distribution, refuelling * Draining and removal of wetlands * Development of infrastructure (e.g., dams and bridges) | * Provision of water for drinking and household uses * Water for industrial activities * Irrigation * Manure management (e.g., collection, storage, disposal, or spreading) * Fuel storage, distribution, and refuelling * Waste disposal * Urban development (removal of vegetation, increase in hard surfaces) * Fires and explosions | * Discharges of sewage or waste water * Energy (exploration, production, distribution) * Commercial fisheries * Dredging * Ocean dumping * Boating and shipping (e.g., discharge of fuel, ballast water) * Aquaculture * Urban development (removal of coastal vegetation, including wetlands) * Spills and accidental releases | * Transportation infrastructure (roads, highways, bridges) * Forestry and mining activities * Agriculture (e.g., soil tilling, livestock grazing, fertilizers and pesticides) * Spreading of manure and sewage sludge * Storage and distribution of fuels and other hazardous materials (e.g., storage tanks) * Landfilling of waste * Spills and accidental releases * Military training and testing (use of training areas) * Fires and explosion |

**HUMAN ACTIVITIES AFFECTING ENVIRONMENT**

| **Air** | **Surface water (e.g., lakes, rivers)** | **Groundwater** | **Coastal areas / marine** | **Land** |
| --- | --- | --- | --- | --- |
| * Releases of carbon dioxide and other greenhouse gases that contribute to global warming * Depletion of the ozone layer * Impairment of air quality * Smog (including particulates, ground-level ozone) * Effects on human and wildlife health (e.g., upper respiratory problems and higher rates of hospitalization) * Acidification of lakes and rivers (acid rain) * Deposition of air pollutants on land | * Reduction in quality of habitat for fish and other aquatic organisms * Increased runoff and erosion * Depletion of fish populations * Impairment of water quality (pollutants, pathogens, bacteria, nutrients) * Need for increased water treatment * Increased algal growth/blooms * Decreased biodiversity * Introduction of exotic, invasive species (e.g., zebra mussels) | * Reduced groundwater quality (e.g., from pollutants, toxins, hydrocarbons, pathogens, bacteria) * Impairment of drinking water quality * Need for increased water treatment * Reduced groundwater quantity * Surface water effects (reductions in quality and quantity) | * Alteration or degradation of quality of fish and other marine habitat * Depletion of fish populations * Increased disease and pathogens affecting fish * Impairment of water quality (e.g., pollutants, including petroleum products, pathogens, bacteria, nutrients) * Introduction of exotic, invasive species * Reduction of tourism activity | * Depletion of renewable and non-renewable resources * Soil and groundwater contamination * Erosion or desertification * Reduction or removal of wildlife habitat * Reduction or removal of wetlands * Reduction in biodiversity (soil organisms, plants, wildlife) * Increased surface water runoff or stormwater runoff * Mining waste * Opening of remote areas |

**POTENTIAL IMPACTS OF HUMAN ACTIVITIES ON ENVIRONMENT**