

# HUMAN IMPACT ON FLORA AND FAUNA DEPLETION

## Abstract

Many human activities have led to the destruction of habitats on which plants and animals depend. Due to the increase in human population, animals and plants are disappearing 1000 times faster than 65 million years ago. Scientists estimate that 100 species will become extinct every day in the 21st century. In the past, animals became extinct for various reasons. In some cases, competition for a species' resources can be lethal, while in other cases environmental changes can be devastating. We have long known that human activities are responsible for environmental change. Often these changes affect plants and animals. Economic growth has led to changes in the world's biodiversity and ecosystem components, reducing ecosystem services. Population growth increases the conversion of natural ecosystems for agriculture, industry and housing, increasing the demand for ecosystem inputs such as freshwater, fiber and soil fertility, and increasing the density of natural ecosystem potential. Natural areas are also damaged by deforestation, agricultural development, illegal fishing and hunting, unplanned tourism and pesticides. This has significant consequences in terms of biodiversity loss and deforestation, leading to loss of food and habitat for forest animals. Environmental pollution has been reported due to uncontrolled use of pesticides and herbicides. The environment is contaminated with mercury from ongoing gold mining, municipal wastewater and waste (including untreated sewage), mysterious invasive species, deforestation, camping, wildlife, and soil degradation. Due to lack of awareness, human activities lead to the loss of biodiversity.

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## **I. INTRODUCTION**

Humans affect the world's biodiversity in many ways, intentionally or unintentionally. By far the greatest threat to biodiversity is the way humans alter natural habitats to make way for land or gain access to natural resources; but as climate change worsens, it will have a greater impact on ecosystems. This is because population growth is spread out so far, meaning that no matter how large the population is, the growth rate remains the same. This causes the population to increase faster than normal. Human activities affecting wildlife and their habitats are ubiquitous and increasing. The impacts of these activities are felt at all ecological scales, from short-term changes in the behavior of individual animals to local and global extinctions [1]. As we all know, India's population constitutes 16% of the world's population. The subcontinent has 411 animal species, 1,232 bird species, 456 reptile species, 219 amphibian species, 2,546 fish species, 83,436 invertebrate species and more than 50,000 plant species. India's wildlife is a priceless treasure containing a wide variety of animals and plants. India is a country with more biodiversity. The country's fauna includes many plant and animal species [2].

There is no doubt that human progress has had a negative impact on biodiversity, especially since the Industrial Revolution. Destruction from fishing and hunting, agricultural and urban expansion, use of pesticides and herbicides, and the release of other chemicals into the environment have led to dangerous situations, especially for vertebrates. The International Union for Conservation of Nature (IUCN; Gland, Switzerland) currently has more than 16,000 entries on the Red List of Endangered Species: 5,624 vertebrate, 2,101 invertebrate and 8,390 plant species. Human population growth and urbanization have had a major impact on ecosystems and native species worldwide. Effective conservation management depends on accurate information on wildlife decline-related events, which is difficult to obtain from natural populations [4]. Therefore, air pollution is one of the biggest threats to world health, affecting soil fertility, causing air pollution and causing water damage. Human activities and actions destroy and destroy the unity of natural areas by transforming natural ecosystems into land, urban or suburban land, roads and buildings. Environmental issues affect everyone, so everyone needs to know how to deal with them. However, collective success in achieving environmental sustainability will depend on the level of environmental education people receive and how they use it. In order to use our natural resources without polluting the environment, every member of society must have an environmental impact. Therefore, environmental education for adults is very important in ensuring the sustainability of the environment.

## **II. EFFECTS OF HUMAN ACTIVITIES ON THE FLORA AND FAUNA**

Many human activities have affected food plants in India and caused biodiversity loss. These include global warming, coral reef death, amphibian decline, animal extinction, land degradation, desertification, ocean acidification, as well as ecosystem damage, biodiversity loss and natural resource depletion. Human activities also affect the ozone layer and nitrogen cycle, causing water pollution [9]. Everyone is trying to use natural resources for comfort and development by intervening in the environment. This idea is also supported by the belief that humans should control and use the environment as they wish. This understanding does not see other organisms as important to ecological balance; they use all the resources available in the environment.

- 1. Overpopulation:** The beginning of the Second World War, the human population has increased at an unprecedented rate, which has negatively affected the capital. Non-human animals are alive in nature. More and more people are using more and more land to create less and less space for wildlife, pushing many species to the brink of extinction. While animals have become extinct throughout history, today we are also in danger of extinction compared to dinosaurs. Nearly 20 plant and animal species disappear every hour. Human development and human activities are eroding migration routes important for the survival of animals such as humpback whales, ruby-throated hummingbirds, azure warblers, arroyo frogs, monarch butterflies, and many fish species and wildlife and their habitats. Lakes face serious threats due to population growth, development and the impact of this growth. Overpopulation is one of the problems behind global warming, environmental pollution, habitat loss, loss of biodiversity, agricultural conflict and soil fertility. Resources such as fresh water and fossil fuels are consumed faster than they can be regenerated [9]
- 2. Effects of Mining in Flora and Fauna:** Mining is an industry that deals with the extraction of minerals. This is the process of extracting valuable minerals from the soil. Mining is an attractive business. Not only mining companies do this, but the government also gets money from taxes and licenses. Miners also make a living. The country's economy is based on the economic value of metal mining. It provides significant revenue to the government during tax season [11]. Mining and other activities are the main cause of environmental degradation of flora and fauna. In addition to mining, large areas of forest and fauna are used for agriculture, industry, railways and human settlements, causing damage, destruction and extinction of the area and harming the environment. The lack of habitat and biodiversity associated with mining and extractive operations destabilizes ecosystems [12]. The mining industry has many impacts that can affect wealth, prosperity and diversity, as well as polluting the environment through environmental change. There is food, water, shelter for wildlife and poison for animals. The negative impact of mining on biodiversity depends mainly on the nature of the pollutants, their concentration in the environment and the nature of the pollutants themselves. Although some species are resistant to human intervention, some disappear completely in polluted environments [13]. The negative impact of these mining activities on the environment is mainly due to production losses. These cuttings often have negative effects on the native plants they grow on, such as low pH, heavy metals, lack of water retention, and lack of plant nutrients [14].
- 3. Effects of Pollution:** Pollution is a major concern for all countries and a recognized threat to biodiversity. Pollutants are chemicals that enter the environment and cause instability or injury. Pollutants can serve many purposes because many pollutants can harm the environment depending on their nature and concentration. Air Pollution - Air pollution affects plant growth, destroys chlorophyll and affects photosynthesis. The increase in carbon dioxide and other greenhouse gases (such as methane, nitrogen oxides, CFCs, water vapor) is responsible for global warming. These gases trap the earth's heat and cause global warming, which can affect the environment. Water Pollution - Water pollution causes biodiversity loss and depletes aquatic ecosystems, affecting the regeneration and reproduction of fish and plants. Plant Pollution - Wildlife is chronically stressed has growth issues, and migration patterns are changing due to noise. For plants, noise will affect their growth, and plants will not sprout in areas where there is too much

noise. Soil pollution - Soil pollution can mean the presence of persistent chemicals, salts, chemicals and radioactive substances from plants that can affect animal health, sanitation and the environment.

4. **Effects of Agriculture:** Various agricultural practices such as tillage, drainage, mixing, crop rotation, grazing, intensive use of pesticides and fertilizers have a positive impact on wild animals. The movement of animals to agricultural areas will be directly affected by animal husbandry, planting and harvesting, and indirectly by the number of plants and insects. Some management practices, such as irrigation, can cause changes in habitats, leading to significant changes in species. The use of fertilizers and pesticides has many negative effects on the environment, and in this article we try to explain how these products affect biodiversity at different levels, including plants, invertebrates and vertebrates. Factors include the movement of various pesticides, atmospheric interactions, and risk and toxicity profiles. We investigate the problems caused by the overuse of chemical fertilizers by comparing the ecological benefits of organic and inorganic fertilizers. Species and management impacts of agriculture-related technology can also be modified to minimize negative impacts on certain species, such as birds. For plants and insects that need to be controlled for agriculture, population reduction through interventional control may be one of the best ways to control pests [15].
5. **Effects of Urbanization:** Some species will disappear from their new habitats in cities. For example, birds that eat certain foods fly to other areas in search of food. Animals that cannot keep up with urban expansion will become extinct. Urban development results in fragmented residential areas where larger, connected areas are subdivided into smaller, less connected areas. It also causes damage with the addition of roads and buildings that do not produce biomass. This leaves wildlife facing new challenges created by humans. Physiological and ecological constraints directly affect disease but also alter host-parasite and predator-prey interactions. The unprecedented costs of urbanization pose a major threat to biodiversity. This represents one of the greatest environmental challenges of our time. Understanding exactly how cities impact wildlife is important to helping animals survive in our communities [16].
6. **Effects of Industrialization:** Ecosystem damage: Industry is an important source of pollution. According to the statistics of the Food and Agriculture Organization of the United Nations, as of 2011, 6.3 million tons of carbon dioxide is released in to atmosphere every year. Many animals, such as aquatic animals, cannot withstand high levels of pollution and one day die. Plants are an important food source for animals and are also affected by air and water pollution. Migration: "Managed migration" or "assisted migration" is a new phenomenon affecting the animal kingdom. Both words refer to the movement of an animal from one place to another. The system is designed to protect animals from negative effects such as extinction and pollution. Scientists who oppose the process argue it could lead to overcrowding in new areas and threaten species. Additionally, displaced animals lose their families and have to move to new places [18].
7. **Degradation of Wildlife Habitats:** The main problem of habitat loss is the damage to water resources due to deforestation and construction, roads, hunting, and unplanned tourism also cause further damage. During construction, many people will work in the forest. Hence anthropogenic pressure will be generated in the form of litter generation, garbage disposal etc. they affect directly or indirectly to flora and fauna species. The

temporary established labor camp will also affect the movement of the animals. During the construction phase the operation of HEMM (heavy earth-moving machinery) will generate noise, dust with different toxic gas that might degrade the nearby flora and fauna species with their habitat. Interference of noise generated due to construction and transport to the communication systems of the wildlife. The impact of noise on wildlife is a controversial issue. Noise can interfere with communication between wildlife, trigger the “fight or flight” response, and affect predators and prey. Construction equipment will become a significant source of noise at this stage and will have a temporary and reversible impact on noise levels in the area. After the project is completed, normal driving will make noise and this will negatively affect the noise environment.

### **III.A PALEO-PERSPECTIVE ON HUMAN ACTIVITY AND BIODIVERSITY**

A Paleoperspective on Human Activities and Biodiversity: One of the most controversial issues in Quaternary research is the role of prehistoric humans in eliminating the impacts of animals. Paul Martin (Martin 1984) [19] argued that human exploitation through intensive hunting was responsible for the extinction of the North American mega fauna at the end of the last glacial period; This claim remains controversial to prove or disprove, in part due to prehistoric times of human development. This increase in the United States is consistent with strong evidence of significant climate change. However, while rapid changes are taking place in the natural environment, human development is still considered to be an important factor in the change of ecosystems and fauna. Many paleoecological studies do not have the taxonomic resolution necessary to investigate animal biodiversity issues, and human impact has increased the diversity of mountain landscapes by creating different habitats [20].

### **IV. DISCUSSION**

The growth and development of the population does not only mean the change of natural ecosystems such as agriculture, mining, industry and housing; it also requires resource-based ecosystem services such as freshwater and soil fertility. Ecosystems that absorb waste, including air and water pollution and waste are under increasing pressure [21, 22, 23]. Deforestation is increasing to convert land into cattle pasture. The result is loss of biodiversity, such as deforestation and loss of food and habitat for forest wildlife. Environmental pollution from illegal use of pesticides and herbicides, mercury pollution from uncontrolled heat treatments, waste disposal (including municipal sewers and sewers), presence of alien species, lack of tourism, illegal hunting, wildlife trade, land degradation, lack of education and information promotes the negative effects of environmental organizations [24].

### **V. CONCLUSION**

Environmental knowledge and education for adults is the best tool for people to live in harmony with the environment. Environmental education educates adults about human activities that harm the environment; It is needed to teach people how to use available resources and suggest other ways to improve. Any work done by unknown people will harm the environment. These activities include urban development, exploration, agriculture and mining, etc. is located. These activities affect flora and fauna in many areas such as animal

and plant loss, damage to plants and animals due to water and soil pollution, and decrease in vegetation, causing global warming, ozone layer depletion, and climate change.

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