

## **Causes, Effects and Solutions for Depletion of Natural Resources: Theoretical Perspective**

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### **ABSTRACT**

A natural resource refers to materials from the Earth that are used to support life and meet people's needs and wants. The natural substance available for humans use in any form can be considered a natural resource. Materials like ores, coal, crude Oil, natural gas, metals and non-metals, precious stones etc., are some examples of natural resources. Materials like ores, coal, crude Oil, natural gas, metals and non-metals, precious stones etc., are some examples of natural resources. Along with the mentioned materials Animals, birds, trees, fish and plants are also the natural resources available for satisfying human needs and wants. These materials support humans in preparing food, fuel and raw materials for the production of goods for business houses. The food that humans consume primarily comes from various plants and animals. The main feature of natural resources is that they dictate the survival of humans and other forms of life on the earth.

The Present paper titled "Causes, Effects and Solutions of Depletion of Natural Resources" was majorly focused on Causes for resource depletion, Effects on environment for resource depletion and Solutions of Depletion of Natural Resources.

**Keywords:** Depletion of Natural Resources, Causes, Effects of Depletion of Natural Resources and its Solutions

## **INTRODUCTION**

A natural resource refers to materials from the Earth that are used to support life and meet people's needs and wants. The natural substance available for humans use in any form can be considered a natural resource. Materials like ores, coal, crude Oil, natural gas, metals and non-metals, precious stones etc., are some examples of natural resources. Along with the mentioned materials Animals, birds, trees, fish and plants are also the natural resources available for satisfying human needs and wants. These materials support humans in preparing food, fuel and raw materials for the production of goods for business houses. The food that humans consume primarily comes from various plants and animals. These naturally available materials are prime source of raw materials for making products that we use every day from our toothbrush and lunch box to all other required utilities and helps us to lead a luxurious life.<sup>1</sup>

## **OBJECTIVES**

- a. To Study the Causes and Effects of Depletion of Natural
- b. To Analyze the Solutions for Depletion of Natural

## **RESEARCH METHODOLOGY**

The present paper had included the complete information from secondary source. The information collected were from various Books, Journals, thesis, websites Etc.

## **LIMITATION OF THE STUDY**

- a. The Study is limited to the said topic and only related information was included.
- b. The study covers only the theoretical aspect of the topic
- c. The study is completely based on the Secondary Data

## **WHAT IS THE DEPLETION OF NATURAL RESOURCES?**

The depletion or exhaustion of the naturally available resources occurs when resources are consumed at a faster rate than that of replacement or substitution. The materials or resources that are in existence without human actions and they can either be renewable or non-renewable are called a natural resources and when it gets down to the discussion of natural resource depletion, the terminology is mainly used in reference to usage of water, the ways and means of farming, level of consumption of fossil fuels and mining percentage in a given region. Natural

resource depletion is defined on the premise that the value of a resource is measured in terms of its availability in nature at a given period of time its consumption.

A material that is rare on earth due to depletion has a higher value than a natural resource which is in great quantity. The major factor contributing to the depletion of these resources is the increasing of global population. Accordingly, the global eco-footprint is estimated to be one and a half times the ability of the earth to sustainably provide each individual with enough resources that meet their utilization echelons. In the below topics a detailed explanation of the causes, effects, and solutions of natural resource depletion is provided.<sup>2</sup>

### **CAUSES OF DEPLETION OF NATURAL RESOURCES**

The basic causes of depletion of natural resources are given below:

- **Overpopulation:** The overall population in the world is more than 700 crores and still there is a consistent increase in the overall earth populace and this has been a critical factor in accelerating the depletion of resources all around the world. The increase in population expands the need for resources and the ways and means for survival of the people, Moreover it contributes to increased ecological contamination. Research in this field indicates that developing countries are using more and more resources to industrialize and support their ever-increasing population needs and wants. Therefore, the overall reduction of natural resources will continue as long as the world population keeps on increasing.
- **Poor Farming Practices:** in order to satisfy the basic needs and wants of the people, a huge stress is laid on the land resources due to the over-reliance on food production for daily nutritional consumption. The process of pitiable irrigation practices is a major contributing factor to salinization and alkalization of the soil that reduces the fertility of soil and also reduces plant growth. There are few farming practices such as excessive use of pesticides, fertilizers, fungicides and herbicides equally kill important soil micro-organisms that are essential in replenishing nutrients in the soil that support fertility of the land.
- **Logging:** According to the World Bank report it was stated that the net loss of global forest between 1990 and 2016 was 1.3 million square kilometers and on the same route, the tropical deforestation is estimated to occur at a rate of one percent annually mainly in Latin American province. Human beings are clearing forests primarily for agricultural reasons due to the increase in the population pressure and their survival, they are cutting down trees to make

space for residential complexes and multiplexes and industrial development. If deforestation continues the planet not only loses trees but also thousands of animals and great plant biodiversity due to the destruction of their natural habitats results in ecological imbalance.

- **Overconsumption of Natural Resources:**In the year 1760 we witnessed industrial revolution resulting in large-scale mineral and oil exploration and the practice has been gradually growing and leading to more and more depletion of various natural resources and minerals. This depletion has been accompanied with the advancements in technological development and research in the contemporary era; utilization of minerals has become easier and humans are digging deeper to access different ore from the earth's crust. This increase in the exploitation of different minerals has led to some of them entering into a production decline all around the world.

- **Environmental Pollution:**The increase in population and modern anthropogenic activities is a major contributor to the disposal of pollutants into the natural environment resulting in the pollution. The value of natural environment like soil, air, lakes and seas are being contaminated with sewage, radioactive and toxic chemicals resulting in huge pollution.

Unrestrained discharge of carbon monoxide, nitrous oxide and sulfur dioxide have resulted in the degradation of the ozone layer and global warming. The change in the environment has resulted in the depletive impacts on different spheres of life on earth. Thousands and millions of various animals and plants species have come to the point of extinction of earth.

- **Industrial and Technological Advancement:** The present-day world is incessantly becoming industrialized as more and more countries make major technological breakthroughs. But as technological advancements continue, there is similarly a considerable growth in industries that release toxins and chemical by-products which are eventually deposited in lakes, soils, and lands. As a result, the by-products and toxic materials alter natural habits such as aquatic systems and wildlife. The results of the impacts of this advancement include making the lakes acidic, increase in the dead zones and the death of wildlife as well as aquatic life and causing ecological degradation. The paces of industrial and technological advancements have also driven the demand for various materials for research and development and production of other materials and machineries for human use.<sup>3</sup>

## THE MAJOR EFFECTS OF DEPLETION OF NATURAL RESOURCES

The depletion of natural resources effects as follows:

- **Water Shortages:** The process of poor farming practices, deforestation, and pollution are major causes of water resource depletion due to contamination, wastage, and the destruction of natural water catchment areas. As of today, approximately one billion people lack access to clean water because of the effects of deforestation and contamination of water sources and groundwater. Water shortage further contributes to famine and food insecurity.
- **Oil Depletion:** one of the natural resource available for human use is oil and it is a non-renewable resource that accounts for approximately 40 percent of the total energy used globally. Research by EIA's International Energy Outlook had shown that due to the high rate of oil exploitation, the amount of oil remaining would last for only 25 years. Oil is an essential commodity in manufacturing, planting, mining, and transportation among many activities, and its depletion would be devastating. The adverse effects of oil depletion include the fall of the business, the high cost of living in developing countries, and uncertainty in the transport sector.
- **Loss of forest cover:** Almost 18 million acres of forest cover are destroyed annually. This means that half of the world's natural forest cover has already been cleared. Furthermore, studies indicate an increase in deforestation in the past three decades has resulted in a 12% to 17% rise in greenhouse gases globally. Other devastating effects of deforestation include soil erosion, an increase in the greenhouse gases leading to global warming, loss of biodiversity, increased flooding, and drought.
- **Depletion of Minerals:** The minerals that are naturally available have been exploited in huge numbers such as phosphorus, gasoline, copper, and zinc among others to sustain the seven billion people on earth. Studies by Global Phosphorus Research Institute, for example, shows that the **earth** could run out of phosphorus – an essential element for plant growth, in the next 50 to 100 years. Studies by the United States Geological Survey also indicate that there is an increase in non-renewable resources consumption of natural minerals and construction materials such as copper, sand, gravel, and stone.

## **FEW SOLUTIONS TO CONTROL THE DEPLETION OF NATURAL RESOURCES**

a. **Increasing Forestations:** There are many Programs aimed at checking against deforestation such as REDD (Reducing Emissions from Deforestation and Forest Degradation) created by the World Bank, the New York Declaration on Forests, and the United Nations are initiatives that could help reducing the depletion of natural resources. The initiatives may also act as incentives for encouraging the general public to conserve forests as these are the habitat and protectors of some of the world's unique plant/animal species and water sources respectively. Sustainability programs that aim to educate people about the importance of conserving natural resources should also be enacted as a way of focusing on the long-term risks associated with environmental degradation.

b. **Reducing consumption of materials:** All international and local bodies should join hands together towards a common international objective of discussing how oil and mineral consumption, as well as exploitation, can be reduced. Manufactures can, for instance, be trained on lean manufacturing (recycling, re-use, and reducing wastage) while consumers sensitized on how to adopt re-use, reducing wastage, and recycling techniques.

c. **More use of renewable sources of energy:** Renewable such as solar and wind power can be explored more and utilized to reduce the dependency on fossil fuel, which is a major cause of environmental pollution, climate change, global warming, and destruction of natural habitats.

d. **Protecting wetlands and coastal ecosystems:** Wetlands are regions saturated with groundwater that serve a significant role in sustaining vegetation cover. The coastal and wetland ecosystems are thus vital in sustaining the food chain as they replenish water sources and avail minerals and nutrients for primary producers (green and flowering plants), essential for maintaining plant and animal biodiversity. Also when coastal ecosystems are protected, they aid in controlling marine overfishing and protect coral reefs.

e. **Creating awareness among people:** human beings should be educated on how their daily practices put a strain on the scarce natural resources and their individual contributions to the depletion of natural resources. The main purpose of creating awareness would be to encourage people to preserve and restore the natural environment by getting involved in conservation efforts.<sup>4</sup>

## **CONCLUSION**

In the above topics a brief perspective is presented about the cause and effects of depleting natural resources. The results of the depletion is clearly visible through the changes happening in the climatic conditions and extinction of various plant and animal species. The effect of the depletion should not reach the extreme limit else it will threaten the existence of human beings also. Therefore clear steps must be undertaken to save the life and ultimately our planet EARTH.

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