

# Industrial Growth and Environmental Pollution

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## Abstract

Industrial growth has started to affect the entire environment with its sever downside problems. The formation of massive pollution making industries are the result of the constant need and greed of the human being. These industries include, transportation and manufacturing, which are exhausting the earth's resources, but also causing tremendous stress on the environment and ecological system. The productiveness of industries generally depends on the natural resources available.

**Keywords:** Environment, Industrial growth, Pollution and natural resources.

## 1. Introduction

Since the ages of industrial and technological revolution, economic growth has been regard as the major fundamental of the world's growth. The issue of industrial pollution has taken grave importance for agencies trying to fight against environmental degradation. Industrial pollution contaminates different sources of drinking water, releases unwanted toxins into the air and reduces the quality of soil. Major environmental disasters have been caused due to industrial mishaps which has to be under control (Arbor, T. 1971).

Industrialization is the process of social and economic change that transforms a human group from an agriculture land into an Industrial one. Part of a wider modernization process, where social change and economic development are closely related with technological innovation. Extensive organization of economy for the purpose of manufacturing. With the coming of the industrial revolution, humans were able to advance further into the 21st century. Technology developed rapidly, science became advanced and the manufacturing age came into view. With all of these came one more effect, industrial pollution. Earlier, industries were small factories that produced smokes as the main pollutant. However, since the number of factories were limited and worked only a certain number of hours a day, the levels of pollution did not grow significantly. But when these factories became full-scale. Industries and manufacturing units, the issue of industrial pollution started to take on more importance. Any form of pollution that can trace its immediate source to industrial practices is known as industrial pollution (Chefremisinoff, P.1977)

## 2. Causes of Industrial Pollution:

1. Lack of effective policies to control pollution: Lack of effective policies and poor enforcement drive allowed many industries to enforce laws made by the pollution control board which resulted in mass scale pollution that affected the lives of many people.
2. Unplanned Industrial Growth: In most industrial townships, unplanned growth took place wherein those companies flouted rules and norms and polluted the environment with both air and water pollution.

3. Use of outdated Technologies: Most industries still rely on old technologies to produce products that generate a large amount of waste. To avoid high cost and expenditure, many companies still make use of traditional technologies to produce high-end products.
4. Presence of a large number of small scale industries: Many small scale industries and factories that don't have enough capital and rely on government grants to run their day-to-day businesses often escape environment regulations and release a large number of toxic gases in the atmosphere.
5. Inefficient waste disposal: Water pollution and soil pollution are often caused directly due to inefficiency in the disposal of waste. Long term exposure to polluted air and water causes chronic health problems, making the issue of industrial pollution into a severe one. It also lowers the air quality in surrounding areas which causes many respiratory disorders.
6. Leaching of Resources From Our Natural World: Industries do require a large amount of raw material to make them into finished products. This requires the extraction of minerals from beneath the earth. The extracted minerals can cause oil spills that may prove harmful for marine life (Miller, D.F. 1984).

### **3. Effects of industrial pollution on Environment:**

#### **1. Water Pollution:**

- The effects of industrial pollution are far-reaching and liable to effect the ecosystem.
- Most industries require large amounts of water for their production. When involved in a series of processes, the water comes into contact with heavy metals, harmful chemicals, radioactive waste, and even organic sludge.
- These are either dumped into open oceans or rivers. As a result, many of our water sources have a high amount of industrial waste in them which seriously impacts the health of our ecosystem. The same water is then used by farmers for irrigation purpose which affects the quality of food that is produced.
- Water pollution has already rendered many groundwater resources useless for humans and wildlife. It can at best be recycled for further usage in industries (Pickova, F.O.1987).

#### **2. Soil Pollution:**

- Soil pollution is creating problems in agriculture and destroying local vegetation. It also causes chronic health issues to the people that come in contact with such soil on a daily basis.

#### **3. Air Pollution:**

- Air pollution has led to a step increase in various illness and it continues to affect us on a daily basis. With so many small, mid and large scale industries coming up, air pollution has taken the toll on the health of the people and the environment.

#### **4. Wildlife Extinction:**

- By and large, the issue of industrial pollution shows us that it causes natural rhythm and patterns to fail, meaning that the wildlife is getting affected in a severe manner.
- Habitats are being lost, species are becoming extinct and it is harder for the environment to recover from each natural disaster.
- Major industrial accidents like oil spills, fires, the leak of radioactive material and damage to property are harder to clean-up as they have a higher impact in a shorter span of time (Nwachukwu, F.O. 1987).

#### **5. Global warming:**

- With the rise in industrial pollution, global warming has been increasing at a steady pace. Smoke and greenhouse gases are being released by industries into the air which causes an increase in global warming.

- Melting of glaciers, extinction of polar bears, floods, tsunamis, hurricanes are few of the effect of global warming.
- The issue of industrial pollution concerns every nation on the planet. As a result, many steps have been taken to seek permanent solutions to the problem. Better technology is being developed for disposal of waste and recycling as much polluted water in the industries as possible (Eloh, L.O. and Odibo, A.A.1993).

**6. Climatic changes:**

- Changes in the average weather condition are called as climatic changes. The climatic changes are mainly caused by solar radiation, volcanic eruptions and certain human activities are also responsible for it. Globally climatic changes have led to different effects on the environment which may include loss of sea ice, accelerated sea level rise and more intense heat waves (Scorer, R.S. 1976).

**4. Effects of different industries on Environment:**

NAME OF INDUSTRY	EFFECTS ON ENVIRONMENT
CONSTRUCTION INDUSTRY	Emission of carbon dioxide, methane and other waste products that pollute the air and are believed to contribute to global climate change. Global cement industry contribute 5% of global carbon dioxide emission.
ELECTRONICS INDUSTRY	This results in a large amount of hazardous household waste that is often irresponsibly discarded in trash. When electronics are not recycled properly, the raw materials them leech toxic chemicals into the ground, spoiling both water and food supply for decades, at least.
CHEMICAL INDUSTRY	Climate changes across the global fertilizers consists of substances and chemicals like methane, carbon dioxide, ammonia and nitrogen, the emission of which has contributed to a great extent in the quantity of greenhouse gases present in the environment. This in turn is leading to global warming and weather changes.
TEXTILES INDUSTRY	During the production of textiles a large amount of energy is used to power the factories. This then creates more pollution such as carbon dioxide. Dyeing, bleaching or adding finishes to fabrics often involve using highly toxic chemicals. Water used in process is pumped into rivers and sewage offering wildlife and humans. Growing raw materials such as cotton requires large amounts of pesticides. These pesticides are harmful and often affect birds, the water system and insects.
MINING INDUSTRY	Water pollution, Loss of Biodiversity, Soil erosion and pollution, Formation of sink holes.
FOOD AND BEVERAGE INDUSTRY	Food accounts for over a quarter (26%) of global gas emissions. Half of the world's habitable (ice and desert free) land is used for agriculture.

Source: Herbert, L.F. (2022) Industrial Pollution Handbook. New York: McGraw-Hill book.

### **5. Conclusion:**

First, industries can reduce their reliance on a product that causing pollution and to treat industrial waste to remove toxic components so that the rest of the waste can be disposed of safely. It isn't always easy, and it does require that each factory implements the proper procedures to purify cleanse their waste by-products. However, it can help reduce soil, air and water pollution being produced but this facilities, and also help in conservation of natural resources, companies.

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