

# Air pollution and climatic changes assignment

[Environment](#), [Air](#)



Air pollution is actually the addition of any harmful substances to the atmosphere, which causes the damaging of the environment, human health and the quality of life. Air pollution has been a serious problem throughout the history. This can have series effect on the health of human beings. Every day, the average person inhales about 20, 000 liters of air. Every time when we breathe in we inhale dangerous substances. These dangerous substances can be in the form of gases or particles.

Sources of Air pollution: ; Natural source Artificial source Natural sources: Natural air pollution does not occur in abundance and also possesses little threat to health of the peoples and ecosystem. Volcanic eruptions, Forest fires, Biological decay of organic matters are some of the natural causes of air pollution. Artificial sources: The man made reasons for air pollution are vehicular emission, burning of waste products, thermal power plants, industries and refineries.

Vehicular emissions are responsible for 70% of the country's air pollution. \* Brat stage 1 to 4 emission norms are emission standards that focus on regulating Laotians released by automobiles. Most sulfur dioxide comes from power plants that use coal as their fuel. Automobiles produce about half of the nitrogen oxide. When wood, household garbage, plastic, or leaves are burned, they produce smoke and release toxic gases. The smoke contains vapors and solid compounds suspended in the air called particulate matter.

The particulate matter and toxic gases released during burning can be very irritating to people's health. People who are exposed to these air pollutants can experience eye and nose irritation, breathing difficulty, coughing, and

headaches. People with heart disease, asthma, emphysema, or other respiratory diseases are especially sensitive to air pollutants Major air pollutants: ; Sulfur oxide ; Nitrogen oxide ; Carbonation oxide ; Decomposition of organic matters. \* India emits the fifth most carbon of any country in the world. The Bhopal gas tragedy is one of the world's worst industrial disasters that killed almost 8, 000 people in December 1984. Air pollution can adversely affect human health not only by direct inhalation but indirectly by other routes through water, food and skin infections. Health hazards due to air pollution: Cardiac vascular diseases ; Asthma ; Bronchitis ; Allergies ; Lung and heart diseases. Consequences of Air pollution: 1. Ozone layer depletion 2. Global warming( Greenhouse effect) 3. Acid Rain 4.

Smog Ozone layer depletion The atmosphere contains a thin layer of ozone about 24 to 40 Km above earth's surface which protects us from harmful ultraviolet rays of the sun. The release of chemicals such as CFC widely used in refrigerators has damaged the ozone layers. Ozone monitoring stations in Antarctica have already detected average loss of 30% to 40% of ozone over the region. Each one percent loss of ozone is to cause an increase of about 2% in UV Radiation. This will reduce the immunity of the body and cause eye cataracts and skin cancer.

For the protection of ozone layer, Montreal protocol and Vienna meet of 30 nations world wide agreed to reduce the use of CFCs- Global warming Global warming is caused by increase of greenhouse gases such as carbon-dioxide, methane, water vapor, CFCs which are responsible for the heat retention ability of the atmosphere. The rapid increase in average

temperature of earth will cause major changes in weather pattern all over the world. Rise in global temperature, will also result in the melting of polar ice caps glaciers. This in turn will raise the sea level.

Land use changes will occur in coastal areas due to sea level rise. It will cause damage to coastal Structures, port facilities and water management systems. Global warming also affects the agricultural patterns. Intense tropical cyclone activity has increased in the North Atlantic since about 1970. Heat waves have become more frequent over most land areas. More intense and longer droughts have been observed over wider areas since the 1980s, particularly in the tropics and subtropics. If ocean temperature increases, growth of coral reefs will be affected.

The corals control the proportion of carbon dioxide in water by turning them in to limestone shell. Moreover, coral reefs grow in temperature just above 10 degree Celsius. Other ecosystems such as forests and desert will also be harmed. Loss of bio-diversity and extinction of rare species will occur. Acid Rain: Acid rain was first discovered in 1852. This is one of the most important environmental problems, caused by invisible gas given out by automobiles or coal burning by power plants. The gases that cause the acid rain are sulphur dioxide and nitrogen oxides.

Fire and bacterial decomposition are the natural causes which increase nitrogen oxide in air. These pollutants combine with water vapor in the presence of sunlight and oxygen and form dilute sulfuric and nitric acids. When this mixture precipitates from the atmosphere, it is called acid rain. Acid rain falls down to the earth in all forms of precipitation. Acidity in the

rain can harm and even destroy both natural ecosystems and man-made products. Acid rains, when falling on oceans, reach the coral reefs. This has killed more than 70% of corals in Leaseholder ND Madman islands.

They also change the acidity level of the soil by leaching crucial nutrients. Thus it affects forest vegetation. The most basic microscopic organisms such as plankton may not be able to survive. So the sea animals depending on plankton will die and the food chain will be affected. Smog: The word smog is a combination of the words smoke and fog. Smog causes a smoky dark atmosphere, especially over cities, it decreases visibility, and creates haze throughout the area. Smog is caused by many factors, major producers of smog include automobiles, fires, Waste treatment, industries, etc.

The articulates present in smog include carbon monoxide, dirt, dust. The smog effect is created when sunlight, hydrocarbons, nitrogen oxide are mixed together smog creates harmful health hazards like lung failure and pneumonia. Smog is not only a city problem. As smog level increases, wind carry smog away from urban areas and harm other areas too. Agriculture is also affected by smog. Steps to be taken to control Air pollution: Reduce and reuse The most sustainable solution is to reduce the amount of waste we create. Recycling Recycling uses old waste to make new products.