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Short Communication

Air Pollution and Health, Effects on the Immune System

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INTRODUCTION

Sources of Air Pollution

Natural sources

Dust from the earth's surface (crustal material), sea salt in coastal locations, and biological material in the form of pollen, spores, or bacteria are all examples of naturally occurring particulate matter (PM). Debris from plants and animals [1]. Eruptions of volcanoes can inject significant amounts of into the atmosphere of gases and particles For the Etna volcano, for example, spews 3,000 tonnes of ash each second. During a typical day, sulphur dioxide (SO_2), and during periods of high activity, up to 10,000 tonnes may be produced. During the volcano's devastating outbursts, Tambora, Indonesia, 1815, 100 billion tonnes spewed volcanic products into the sea 300 million tonnes of CO_2 were released into the atmosphere The stratosphere cooled by 0.7°C, resulting in a global temperature drop of 0.7°C. In Forest fires occur on a regular basis in certain rural regions, resulting in large PM levels is high. Other natural causes of pollution in the atmosphere include: Thunderbolts, which emit large amounts of nitrogen oxides (NOx); algae on the surface the ocean's surface, which emits hydrogen wind erosion, which adds hydrogen sulphide (H_2S); particles into the atmosphere, as well as humid zones Swamps, peat bogs, and small deep lakes, for example, it generates methane (CH_4). Low levels of O_3 are found in nature. In the presence of sunshine, the ground level is generated.as a result of interactions between NOx and volatile organic compounds assemblages (VOCs).

Human-made Sources

The majority of air pollution in cities originates from human-made causes. Mobile sources (cars, trucks, aeroplanes, marine engines, etc.) and point sources (factories, electric power plants, etc.) are two types of mobile sources. Road traffic is currently the most significant cause of air pollution in industrialised nations' main cities. Carbon-based fuels (coal, fuel oil, wood, natural gas) are never completely burned, and carbon monoxide (CO) and hydrocarbons are produced. NOx is produced when fossil fuels in motor fuel are burned at high temperatures, resulting in a mixture of nitrogen and oxygen [2,3].

Because of petroleum, chemical industries, and transportation, as well as NOx from power plants and autos, human activities have increased the quantity of VOCs and NOx. As a result, O_3 is more concentrated and concentrated.

Sources of main air pollution indicators: There are just too many contaminants in the atmosphere to keep track of them all. Some pollutants are monitored because they are dangerous. A feature of a certain pollutant (released) (e.g., by industrial plants or automobiles) and because they are known to cause or are suspected of causing negative consequences for the ecosystem and/or health. Air pollution is the term for these contaminants. [4,6] indications Figure 2 illustrates the sectorial approach. In 2002, the following graph depicted the distribution of French emissions. Data is a valuable resource. Obtained from the Interprofessionnel Centre Atmospheric Pollution Research Technique ([Inter-professional Technical Centre] CITEPA) for Air Pollution Research]). CITEPA publishes estimates on a regular basis. Amounts of various chemicals discharged into the atmosphere from various sources;Estimates of emissions are made with the use of a CORINAIR is a well-known approach that is based on it.

Main Air Pollution Indicators

Sulphur Dioxide (SO_2): In France, sulphur-containing fossil fuels (fuel oil and coal) account for 85 percent of SO2 emissions. The majority of these emissions are emitted into the atmosphere. petroleum refining (24 percent of total) has a negative impact on the environment. Emissions on the continent of France in 2002), power production (16%), and heating systems the diesel vehicle industry is also growing. responsible for just a small percentage of SO_2 emissions

Nitrogen oxides (NOx): In mainland France, road traffic was responsible for 48 percent of NOx emissions (16 percent for diesel vehicle traffic) in 2002, followed by agriculture/forestry, manufacturing, and energy conversion.

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