

# Air Pollution a Major Threat to the People of Khrew (J&K)

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**Abstract** - At present, pollution is a major issue and a severe threat to the stability of an environment. It has completely transformed the pleasant and stable state of an environment to its un-pleasant and unstable state. It has a significant impact directly or indirectly on the human lives and the lives of other species. It introduces filth that is partly natural and partly manmade. The filth introduced by it has degraded the production standards of saffron, fruits, vegetables, and whatnot. The lands have become barren and the resources of water have degraded. Moreover, the living species are on the verge of death. So there is a dire need to emphasize how the environment (natural and manmade resources) can be saved from getting extinct. This paper illustrates a brief study on air pollution, types of air pollution, its effects and safety measures.

**Key Words:** Air pollution, Effects of Air Pollution, Filth, Khrew, Pollution, Saffron, Safety Measures, Types of Air Pollution

## 1. INTRODUCTION

The term pollution has been derived from the Latin word 'Pollutio', that means to make filthy. Pollution is an unpleasant transformation in the features of an environment. It is a major threat to the natural habitat and its impact either on the human lives or on the lives of the other species (that exist on the earth's crust) is significant. It is a term that can adversely transform an environment's state by introducing filth into it. It can take the shape of chemical elements [1]. It harms the standard of an environment and imbalances it. The filth introduced by pollution in an environment can be natural or manmade [4]. Some of the sources of natural filth include volcanoes, forest fires, and wind erosions. Emission of dust and toxic gases from the cement plants, dust and toxic gases from the brick clamps and the emission of the exhaust and toxic gases from the vehicles are some of the sources of manmade filth. The components of the dust emitted from the cement plants include Carbon dioxide (Co<sub>2</sub>), Nitrogen oxide (Nox) and Sulphur oxide (Sox). The components of toxic and exhaust gases from the vehicles include Carbon monoxide (Co), Nitrogen oxide (Nox), Particulate matter (PM) and Sulphur oxide (Sox) [2], [4]. So both the sources of filth play a vital role in unpleasantly transforming the precious resources and features of an environment.

Pollution harms the living standard one can visualize. It deteriorates everything from the air that living species inhale and the water they drink. It may be problematic to

the lives of humans and the lives of other species as the level of pollution increases. There are four types of pollution: Air Pollution, Water Pollution, Soil Pollution, and Noise Pollution. This paper mainly emphasizes Air Pollution.

This paper consists of five sections. Section 2 describes the Air Pollution, Section 3 describes the effects of air pollution, Section 4 describes the safety measures and Section 5 discusses the Conclusion.

## 2. AIR POLLUTION

Air being the most important element of an environment as it constitutes the earth's atmosphere. It is a heterogeneous mix of various gases (oxygen, nitrogen, carbon dioxide, methane). Air being an essential element of respiration plays a vital role in the living standards of human lives and the lives of other species [4]. It is a severe threat that badly affects human life and their surroundings [4]. It is evident in many developed nations as an outcome of activities carried out by various industries and maximizes the number of different types of vehicles [2], [3], [6]. Air pollution is the addition of air with filth into the atmosphere in such a manner that it may be problematic to the lives of humans and the lives of other species dwelling in the Khrew area [4]. The basis of air pollution in the Khrew area of Jammu and Kashmir is the introduction of filth. The cement plants and vehicles (especially trucks) partly support the filth introduced. At present, there are probably 6 cement plants and 800 trucks that emit filth in extremely large quantities. The filth produced by the cement factories is a heterogeneous mix of various toxic gases (Co<sub>2</sub>, Nox, and Sox). These factories emit about one lakh (100,000) Kg's of toxic filth from their chimneys. The filth emitted by the vehicles (trucks) is a heterogeneous mix of Co, Nox, PM, and Sox.

No doubt, the contribution of cement plants and trucks to the economy of Khrew is immense but at the same time, its adverse effects on the health of the people dwelling in this area are also significant.

Air Pollution is a critical concern and its severe problems are prevailing in Khrew. The air is filthy and causes enormous respiration issues to the people of this area. It is very hard for them to breathe properly, their lungs have inflammation, lungs do not work properly and they suffer from chronic disease asthma. According to the various researches conducted in this area, air pollution harms the

nervous system of the people dwelling in this area. According to the World Health Organization (WHO), this area is the only town with larger death rates than other towns in J&K.

**2.1 Types of Air Pollution**

Despite the filth introduced by the cement factories and trucks, other reasons contribute to air pollution. The various types of air pollution summarize the role of these cement factories and trucks in making the air filthy. The various types of air pollution in the Khrew area are

1. Internal Pollution
2. External Pollution
3. Smog
4. Particle Pollution

As the name indicates, this type of pollution takes place inside homes. This type of pollution arises from the smoke of burned materials that serve the purpose of cooking, lighting, heating, etc. The use of various chemicals, paints and air fresheners contributes to this pollution. This is the reason why this type of pollution is also known as indoor pollution.

2) External Pollution

As the name indicates, this type of pollution takes place outside the homes. This type of pollution arises from the smoke of burned materials (leaves and wood) for making coal. The people make use of coal (in Kangri's) to protect themselves from cold and to make tea in Samovars. The filth from private transport is also a reason. This is the reason why this type of pollution is also known as outdoor pollution.

3) Smog

Smog is a combination of two elements Smoke and Fog. It is also a combination of internal and external pollution. It arises because of enormous smoke from burned leaves and wood for making coal. Moreover, the filth emitted from public transport and private transport has a major contribution in making air filthy.

4) Particle Pollution

Particle Pollution is a severe problem in this area. It arises by burning leaves and wood by making use of diesel, petrol, and kerosene and by burning fuels in power plants. It is also known as particulate matter. Filth emitted from the vehicles is also a reason for this type of pollution.

**3. EFFECTS OF AIR POLLUTION**

Air Pollution is a critical concern and its severe problems are prevailing in Khrew. It has completely transformed the pleasant stable state of this to its un-pleasant un-stable

state. It has a significant impact directly or indirectly on the human lives and the lives of other species. It has an adverse and significant effect on the health of the people. It has degraded the production standards of saffron, fruits, vegetables, and whatnot. The lands have become barren and the resources of water have degraded. Moreover, the living species are on the verge of death.

Table I depicts the effect of various types of pollution on human lives

**Table -1: EFFECTS OF POLLUTION ON HUMAN LIFE**

| S.NO | Types of Pollution | Effects on Human Health  |
|------|--------------------|--|
| 01   | Internal Pollution | Eye and throat irritation, breathing problems, and Lungs inflammation        |
| 02   | External Pollution | Lungs inflammation, Lungs do not work properly and Asthma                    |
| 03   | Smog Pollution     | Reduction in resistance to infections, eye irritation, and throat irritation |
| 04   | Particle Pollution | Cardiac diseases, Lung Cancer, Nerve problem and Asthma                      |

According to the dermatologists and various researches conducted, PAHs, VOCs, oxides, and PM badly affect the human skin and causes pigmentation and aging of the skin [5], [7], [8].

The figures Fig. 1 and Fig. 2 show the production standard of the saffron before and after 2015.



**Fig -1: Saffron Production Before 2015**



**Fig -2:** Saffron Production After 2015



**Fig -5:** Vegetable Production After 2015

The Fig.3 and Fig.4 show the production standard of fruits before and after 2015.

The figures Fig. 7 and Fig. 8 show the level of water before and after 2015.



**Fig -2:** Apple Production Before 2015



**Fig -6:** Water Level in Springs Before 2015



**Fig -3:** Apple Production After 2015



**Fig -7:** Water Level in Springs After 2015

Fig. 5 and Fig. 6 show the production standard of vegetables (spinach).

#### 4. SAFETY MEASURES



**Fig -4:** Vegetable Production Before 2015

Safety plays a vital role in securing human health and avoiding hazardous health-related issues. Safety is a critical and a major concern to the people of Khrew. At present, there is a rapid growth in air pollution in this area and its impact on the people dwelling in this area is significant. Moreover, the number of cement plants and trucks is increasing day by day, so it is very essential to adopt safety measures and to lay emphasis on how to filter out and minimize pollution levels. There are numerous ways to avoid air pollution and increase production

standards of Saffron, fruits, and vegetables. Some of the ways are

1. The cement plants should be located away from the area where people are dwelling.
2. The owners of cement plants should install dust controllers in their cement plants.
3. The production of the cement should be minimized to some extent.
4. The priority should be given to the use of CNG in trucks instead of petrol and diesel.
5. People should make the minimum use of private transport.
6. People should use natural fertilizers for agricultural purposes rather than manmade ones.
7. People should utilize the minimum of chemicals and pesticides.
8. People should plant more and more trees.
9. People should use electric pieces of equipment rather than conventional ones.
10. Avoid unusual movement outside the homes.
11. Avoid smoking.

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#### 4.1 Facts about Air Pollution in Khrew (J&K)

1. Air pollution in khrew mainly affects children rather than adults due to the presence of maximum filth in the air.
2. In Jammu and Kashmir (J&K), it is the only town with higher levels of air pollution.
3. The major source of air pollution in this area is cement plants.
4. According to the World Health Organization (WHO), these factories emit about one Lakh (100,000) Kg's of toxic filth from their chimneys and it is the only town with larger death rates than other towns in J&K.

#### 5. CONCLUSIONS

Air pollution is a severe threat to the people of Khrew, especially children. Higher levels of air pollution result in various acute and chronic diseases. To avoid and minimize it, people and owners of the cement plant must avoid the use of filthy materials that contribute to air pollution. Moreover, the Government of J&K should spread awareness among people and people should try to adopt safety measures at their level to get rid of the pollution.

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