

Air pollution in Bangladesh

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Bangladesh, the lovely daughter of nature, was known as the place to assure healthy life. The beginning of morning was with fresh air and day was ended with calm night. These all realities became dreams after the revolution of the '90s industrialization and for the lack of our own concern. Environment covers both living and non-living parts of nature, thus the connections between living and non-living are very remarkable. Non-

living part of environment includes all the air, water, soil, sound, light and others, which play very significant roles in environment. To have a healthy and safe life the 'Equilibrium' in environment is needed. Whereas the normal air should carry 78 per cent of nitrogen and 21 per cent of oxygen including some trace amount of water vapour, carbon dioxide and very tiny different other components. Since the beginning of 1990s the equilibrium has been getting vulnerable.

Air pollution occurs when air loses its standard composition and introduction of metallic particulates, biological molecules, or other harmful gases into atmosphere, resulting diseases, death and damage to living organisms. According to the World Health Organisation (WHO), annually two millions of premature deaths occur worldwide due to the devastating air pollution and in last 2012 outdoor air pollution killed 3.7 millions of lives, where major part of the victims were form the Western Pacific and South-East Asia regions. Now Bangladesh has the increased CO (carbon monoxide), SO₂ (sulphur dioxide), nitrogen gases and hydrocarbons. The percentage of humidity is also changing rapidly. CO is one of the major reasons of global warming, which plays a role as temperature insulator and entraps the heat in the earth, thus resulting increased temperature day by day. At the same time the SPM or suspended particulate matters like lead and nickel are about two times higher in the industry area and more than eight times higher in commercial and living areas than the standard value given by WHO (10²g/m³). Another identical gas is 'Ozone' which has the composition like oxygen (O₂) having one oxygen atom extra (O₃). This gas is one of the unavoidable components of smog. Though ozone is very important in the upper layer of the atmosphere named stratosphere, but it becomes harmful when comes in the lower parts of the atmosphere.

The increased amount of metal in air can deposit in bones, livers and brains of animals and humans, as a result irritation, eye burning, liver or kidney damage can occur and in the severe condition it can be the reason for different cancers. The extended amount of carbon gases are inhaled faster than the natural gases, which create various respiratory and hematological diseases. If we see the developed industrialised countries like the United States where 20 million people including six millions of children are affected by the asthma due to air pollution. Asthma is one of the major problems that occur from the polluted air, and besides this COPDs (chronic obsessive pulmonary disorders) are also result of air pollution.

Alongside the human health issues there are other issues that are influenced by air pollution. Air pollution is responsible for acid rain. Fresh water has the pH 7, which does mean it is neither acidic nor basic, but the acid rain turns the water pH less than 5.5, which is acidic in nature. In the acidic water it is quite challenging for the water lives to survive and as a result the acidic water is reducing the number of fishes in the small rivers and

cannels. In the agricultural sector acid rain has pointed its devastating signature. Crops get damaged and tasteless or toxic in the contact of acidic water. Acid rain also increases the acidity of fertile soil which leads the soil to get more unfertile.

The reasons behind the pollution are classified into two categories, one is indoor air pollution and another is outdoor reasons. Indoor pollutions include all the unnecessary use of gases, smoking, moulds and other household chores that release harmful pollens. In outdoor pollution all the industrial toxic gases, fine particles after burning, noxious gases, traffic waste gases and ground level ozone play the crucial role.

This pollution can be reduced by doing technological and regulatory initiatives, but to reduce the indoor air pollution only awareness is necessary. Avoiding burning the household wastes, avoiding the car in short distance, gardening, quit smoking can be the initiatives from an active citizen. Bangladesh is one of the most polluted countries in the world and it was ranked 169 out of 178 countries in early 2014 at the Environmental Performance Index for Air Quality. So it's up to us whether we are going to make hazy and threatening days or paving a green future.

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