

Full Length Research Paper

Air Pollution from Industrial Areas of Azerbaijan and Measures against it

B Satheesh

Faculty, Dept of Horticulture,
Bharatiya Engineering Science & Technology Innovation University, Andhra Pradesh, India.

Accepted 11 February 2025

Abstract

The intensive development of industrial centers, the collapse of forests and pastures, plowing for agriculture, wind erosion, forest fires, pollution and dusting of atmospheric air. Air pollution and dusting are a great threat to the living world. Complex measures must be taken to combat this.

Keywords: Pollution; Industrial Areas; Wind Erosion

Introduction

Second half of the 19th century was marked by the intensive development of industry and agriculture, the growth of cities and industrial areas. It is in this period began the growth of scientific and technical progress, which evolved productive forces, improved production tools. With the growth of cities and industrial towns began to change dust and gas composition of the atmosphere. Change is caused by human induced in a natural atmospheric composition are air pollution [1,2].

Industry development, deforestation and plowing vast lands, soil blowing through wind erosion, forest and grassland fires—all this has been accompanied by the growth of dustiness. Now, admittedly, the amount of dust in the atmosphere has increased almost 20 times. Especially quickly dusting the air in the last decade, that is due to land reform in Republic in its transition to a market economy [3,4].

Course of the study

A large part of the dust in the atmosphere here now is related to blowing by cropland. Therefore, measures to combat wind erosion are not only important for maintaining soil fertility, but at the same time, they solve the problem of air protection.

It just proves that particulate matter (PM) combustion into the atmosphere gets a huge amount of ash substances. In addition to the ash, air is polluted by a variety of particulate matter of industrial origin, for example, millions of tons of dust are produced in the production of cement, cement factories, when welding in engineering plants, petrochemical, oil refining plants, with the contribution of rubbing metal parts and structures, etc. is sprayed in the air of the asphalt and concrete roads, rubber tires cars. It is dangerous, that the impressive atmosphere of a growing number of chemicals accompanies the chemicalization of agriculture. With the development of the energy industry, production of natural gas, combustion of hydrocarbons is enhanced by atmospheric pollution, where increasing every year gas pollution. Oil, gas, when burned, emit large amounts of sulfur compounds [2,5,6].

Sulfur dioxide with water forms droplets of sulfuric acid. Solutions of sulfuric acid can stay in the air for a long time as floating droplets of fog or fall together with rain on the ground. These solutions can corrode metals, paints, synthetic compounds, tissues, perniciously operating on plants and animals.

Huge quantities of gases spew into the air. From exhaust pipes into the atmosphere fall hundreds of millions of tons of carbon monoxide, nitrogen oxides, hydrocarbons and other substances.

A large part of the substances that pollute the atmosphere comes from neighboring republics of Armenia, Georgia, Iran and the Russian Federation.

That country accounted for about 50% of all polluting substances. Consequence analysis proved that Azerbaijan occupies the first place of the Transcaucasian Republics on the level of industrial production, the number of cars on the intensity of agriculture. However, measures for the prevention of pollution here are accepted here in limited sizes [5,7].

It is believed that the development of petrochemical and petroleum industry in all larger sizes changed proportion of gases to the atmosphere. With this increasing concentration of carbon dioxide increases and decreases the oxygen content.

The more burned in furnaces of mineral fuels, the faster they go.

An important factor is the destruction of forests, man-made, also increased its content. On the other hand decreased forest area, which were the main gas, sinks.

All this has resulted in the flow of carbon dioxide into the atmosphere was to transform its consumption by plants and other living organisms.

Increasing the concentration of carbon dioxide in the atmosphere increases the "greenhouse effect" generated by the gas.

The gist of it is that carbon dioxide prevents outflow of a large part of the heat radiated by the Earth's surface. So the increase in concentration of this gas in the atmosphere is accompanied by increases in average temperatures of the air in the Earth's surface.

As you know, plants consume carbon dioxide. Therefore, some scholars suggest that the increase in the concentration of carbon dioxide in the atmosphere will lead to more intensive growth of plants, and this in turn to cleanse the atmosphere from its excesses.

Up to the middle of the last century, the oxygen content of the atmosphere has been more or less gradual. Cost of oxygen on oxidation of organic residues in nature offset by photosynthesis now that balance Development. energy, in which fuel is burned, a number of industrial processes (metallurgy, chemical and others) require more oxygen.

Especially a lot of oxygen consuming industrial areas of the country, where a strongly developed oil refining and petrochemical industry, thermal power plants and automotive industry consumes a large amount of oxygen than it produces vegetation of the country [8]. However, despite the steady growth of its consumption, oxygen deprivation in the foreseeable future to humanity.

The total number of dust and gases resulting from human activities is very small relative to the total mass of the atmosphere air.

One share of pollutants accounted for approximately 24000 air cleaner shares. Under uniform distribution of all these substances in atmosphere air, protection objectives have largely been addressed [1,3,8].

Next Avtoromi proved that in fact most of the contaminants are concentrated in the three-kilometer height surface layer of air. These concentrations are particularly acute over the cities, where gases and dust builds up in a layer of up to several hundred meters.

The air of cities differed, especially, dramatically increased content of dust on the numerous furnaces, industrial enterprises, transport spew into the air, huge masses of powdered substances. Dust in urban areas decreases the duration of sunshine.

In connection with dust in the cities decreased the intensity of UV radiation. Ultraviolet rays are known to kill bacteria.

Therefore, in the cities, ceteris paribus, the number of microorganisms in the air much more than in the countryside.

Dust from numerous industries and heating installations, and dramatically increases the number of condensation nuclei. As a result, major regional centers and cities are increased number of cloudy days.

Following the rising dust increases the number of days with fog. In addition to dust in the air of towns ingested different gases.

The most common release sulfur compounds. These compounds are primarily an enemy of green space in the regions. Dry the tops of pine trees, with foliage, Brown and red spots on the leaves, crumbling needles-all ghosts high content sulfur compounds in the air [1,4].

Under their influence in the cities, quickly staling destroyed metal constructions, granite and marble monuments, therefore it is necessary to use special protective varnishes.

It should also be recognized that immeasurable quantities of poisonous gases spew on city streets. On some streets and squares, where there are a lot of machines, the concentration of carbon monoxide and other gases sometimes reaches dangerous proportions.

Its eobraznaja air pollution form-all sorts of noises. While noise remains an inevitable consequence of technological change. It is especially dangerous in cities, where the constant exposure is harmful to healthy people.

An important role in the concentration of pollutants and moving them from release play winds.

Strong winds carry away pollutants from cities and industrial centers, scatter them in large volumes of air concentrations of air pollution in cities is reduced. However, pollution is not disappearing, just move in space.

For example, when strong winds, dust and gases in the cities of Baku, Sumgait and Ganja reach up to the peak, forming there hazardous air pollution concentrations.

In some cases the wind leads to an increase in the concentration of dust in the air. For example, in the steppes and semi-deserts destruction of vegetation contributes to the spread of dust storms in the air rise large particulate mass of soil and soil.

With weak winds, pollutants accumulate in dangerous concentrations near their release.

When cyclones when slow dominate rising thin air pollutants are distributed on atmospheric layer at a considerable height and do not form large concentrations. Rain and snow, the usual weather conditions ciklonalnyh wash part of solid impurities from the air.

In anticyclone, as you know, air descends from the higher layers of the atmosphere. Anticyclone pollution accumulated directly from Earth's surface, forming in stormy weather conditions, significant concentrations. The lack of rainfall in anticyclone also contributes to the accumulation of pollutants in the lower layer of the atmosphere. Air pollution is in good agreement with the change of anticyclones and anticyclones conditions of the atmosphere.

This allows to tie simultaneously with weather forecasts to give timely warnings about the need to reduce all emissions into the atmosphere.

During the existence of the Soviet Union in the face of fewer vehicles air in settlements has become relatively cleaner, but in large cities in such cities is unacceptable even a slight rise in industrial pollution air, and the number of vehicles should be restricted [1,3,7].

One of the most effective ways to combat air pollution control is to remove polluting substances as far as possible from the place it is necessary to strictly regulate emissions. also, the construction of bypass roads at a great distance from the Centre of cities.

Conclusions

1. Most of the dust in ambience related to blowing by cropland. Therefore, measures to combat erosion are not only important for maintaining soil fertility, but at the same time, they solve the problem of air protection.
2. Chemical reactions taking place directly in the air leads to smoky mist-dipping reflections.
3. One of the important ways of combating air pollution is to remove pollutants as far as possible from the site of release.

Bibliography

1. Aliyev BH. "Management of summer and winter pastures in Azerbaijan". Baku (2007): 510.
2. Mamedov GSh. "State Land Cadastre of Azerbaijan: Laws, Practical and Practical Problems". Baku. Elm (2003): 445.
3. Aliyev BH., *et al.* "Problems of erosion in Azerbaijan and ways of its solution". Publishing house "Zia-Nurlan" Baku (2000): 122.
4. Mamedov GSh. "Methodological indications on the semiotic cultivation of cereals". M (1987): 197.
5. Aliyev BH. "Problems of desertification in Azerbaijan and ways of its solution". Publishing house "Zia-Nurlan" Baku (2005).
6. Mammadova SZ and Jafarov AB. "The soil fertility property". Baku (2005): 194.
7. Shakuri Bk and Mammadov OG. "Technogenic pollution Wednesday of Absheron peninsula". Baku, IZD-vo Chenlibel (2001).
8. B Ş Şuri. "Influence of mineral and microorganisms on biological processes in gray-brown mountain-brown and carbonate mountain-gray-brown (chestnut) soils of the Greater Caucasus". Land and water resources protection. Baku (2008): 3.