

**SCIENTIFIC AND TECHNOLOGICAL PROGRESS
OR ENVIRONMENTAL SAFETY**

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Gradual development of social production, its constant improvement of the fundamental laws of the economic life of mankind. They are based on the progress of science and technology.

Scientific and technological progress for the millennium of human civilisation has passed a complex and contradictory path of development. This was due to the fact that it was the technical progress that was carried out at the first stages of the development of society that was carried out separately from scientific progress until the end of the eighteenth and early nineteenth centuries. And only in the period of the industrial revolution did the rapid rapprochement of scientific and technological progress and the emergence of integral scientific and technological progress begin.

Scientific and technological progress is probably the most important phenomenon for the destiny of humanity in the history of the Modern Age. There are not enough epithets to convey all the new things that science and technology have brought to human life. Their flourishing has led to the creation of a modern material civilisation on Earth, characterised by extreme dynamism - the speed with which scientific discoveries and new technical solutions are made is so great that people sometimes do not have time to master the innovations.

Scientific and Technological Progress is the process of the emergence of science, in which science and production are mutually enriched and the latter becomes a mass consumer of scientific knowledge. Since the middle of the 20th century, the social life of the planet has been attracted by a variety of technical developments that have made life more comfortable and, by consuming natural resources more and more intensively with the help of improved knowledge-intensive achievements, mankind has improved the conditions for the development of its civilisation and its species as a biological species.

However, although scientific and technological progress has brought a great number of benefits to the human world, the "price" for human well-being is very high. Science is taking people to a great future, but at the same time it is destroying life on Earth. Today, environmental degradation is a global problem in the world. With the continuous development of science and technology, with the increasing application of all scientific and technological achievements, not only the advantages of the modern scientific and technological progress, but also its very impressive disadvantages have become visible. The most obvious of the negative factors is its devastating impact on nature, resulting in a disruption of the ecological balance on the planet, which could lead to a planetary catastrophe.

Environmental problems in the 21st century have become one of the most acute. Human interference in all spheres of nature causes a sharp deterioration of ecological systems, pollution of water, land and air in the late XX - early XXI centuries has acquired such a scale that thousands of species of animals and plants have already died and continue to die every year.

The air is polluted by smoke and dust, exhaust gases, which leads to lung diseases, acid rain that destroys forests, greenhouse effect (increase in the temperature of the atmosphere and the Earth's surface due to an increase in the concentration of carbon dioxide in the air).

Pollution of the water environment with industrial waste leads to poisoning of marine and river flora and fauna and to the multiplication of pathogenic microorganisms.

Soil absorbs harmful substances contained in the air and water and becomes unsuitable for wild plants.

The use of mineral fertilisers, toxic chemicals, hormones and antibiotics in agriculture makes its products hazardous to health. The use of substances harmful to humans in the food, textile, woodworking industries, toy production, etc. Periodic accidents at nuclear power plants pose a direct threat to present and future generations.

Moreover, progress cannot be stopped. It is as objective a law of the material world as it is impossible to stop a nuclear reactor suddenly, instantaneously.

However, stopping progress would be catastrophic for humanity as a whole. Hunger and disease are only one of the threats to the existence of the human community if science and technology are impeded.

Thus, having considered all the positive and negative aspects of scientific and technological progress, we can conclude that a compromise must be sought between the development of science and the preservation of human security.

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