

ECOLOGICAL PROBLEMS**Serebryakov Y.****Scientific supervisor - Associate professor Almabekova O.A.*****Siberian Federal University***

Do you make a mess in your home??? Of course not, we all clean and wash our houses every day. But why people pollute and destroy their communal home day by day. The protection of the environment is now the question of life or death on the Earth. Life on our planet needs special conditions such as temperature, the composition of the ground, air and water, the level of radiation and so on. If these conditions are broken, there will be no life in a few decades.

Technological progress improves people's lives, but at the same time it causes numerous problems that were unimaginable in the past centuries. Through their daily activities people pollute and contaminate land, water and air. Today pollution has become a universal problem. Both the atmosphere and hydrosphere of the Earth are poisoned with toxic wastes created by the humans. Millions animals, birds, fish have already disappeared from our planet; thousands of others will be gone in the future. Natural resources are exhausted; the ecology of the planet is disbalanced.

Big cities face the environmental catastrophe. Concentration of millions of people on a tiny area causes numerous problems. Some of them can be solved only at the expense of creating new ones. For example, air pollution is caused by the ever-increasing number of automobiles that help to cope with the transportation problem.

The need for energy generates pollution on a large scale. Energy that derives from fossil fuels contaminates the atmosphere. Nuclear power stations threaten air, water and land. The necessity to employ all the inhabitants of the city leads to the creation of new factories that produce not only consumer goods, but wastes and smog as well.

Chemical pollution is change of the chemical composition of water in a particular area and its natural qualities as a result of addition of unnatural and alien chemical substances (harmful impurities) of both inorganic (mineral salts, alkalis, acids, clay fractions) and organic nature (oil and oil products, organic remainders, surface active substances) to it. For example, tremendously harmful effect is produced by tanker wrecks after which tons of oil is spread over a vast area of water killing thousands of species of sea or ocean fauna.

Every year world industry pollutes the atmosphere with about 1000 million tons of dust and other harmful substances. Many cities suffer from smog. Vast forests are cut and burn in fire

The main causes of air pollution are automobile emissions, tobacco smoke, combustion of coal, acid rain, noise pollution from cars and construction, power plants, manufacturing buildings, paint fumes, aerosol sprays, wildfires, nuclear weapons.

For example, almost 232 million different types of vehicles are driven by U.S. citizens every day, adding greenhouse gases into the air, vehicle exhaust contributes to 95% of carbon monoxide emissions in large cities, the average adult consumes 3,000 gallons of polluted air every day as a result every year 335,000 people die of lung cancer, which is a direct result of air pollution.

Land pollution is pollution of the Earth's natural land surface by industrial, commercial, domestic and agricultural activities. All types of waste can be found on land. Some is left behind after human activities and some is washed ashore from boats and sewage outlets. We are creating too much waste due to in particular too much unnecessary packaging. In addition to this, we do not adequately recycle the waste we create. Many of the resources we use in our everyday lives, are disposed of quickly. Food is wrapped in paper or plastic bags, drinks are

in throw-away bottles or cans, batteries are disposed of after a short life. To many cans are needlessly ending up in landfill, when they could be recycled into cars, bridges, freezers or more steel cans. Industrial activities also contribute to land pollution.

Another source of global danger is acid rain. It is a relatively new kind of pollution. Acid rains appeared as a reaction of the atmosphere to the air contamination. Acid rains damage water, forest, and soil resources. Acid rains cause the disappearance of fish from many lakes, bring death to the forests and woods in Europe and America.

It would be naive to think that the environmental problems are limited to big cities only. Our Earth is a living entity; land, air and water are inseparable. Water contaminated in big cities runs to the major rivers that then flow into oceans and seas, thus affecting places far from the point of origin. The atmosphere is in constant movement; the air polluted in the United States can travel the next day to Russia poisoning our people.

Beginning with the 1960s the pollution problems have received great publicity. Recently the environmental movement has gained widespread support. Environmental activists, organizations of volunteers do their best to stop pollution of our planet. Due to such groups many laws aimed at environmental protection have been passed. Such laws as the Clean Air Act, Water Pollution Control Act, Endangered Species Act led to considerable specific improvements in the environment. Numerous chemicals, gases that were once used in agriculture and industry are banned today. Standards for food have become strict, because agricultural chemicals, used for growing crops, may poison people and end up in food and water supply. In many countries purifying systems for treatment of industrial waters have been installed, measures have been taken to protect rivers and seas from oil waters.

Greenpeace organization was created in 1987. This organization carries out numerous campaigns against the global environmental pollution. The protection of natural resources and wild animals is becoming a political program in every country.

Public attention to the problem of pollution has now become part of the contemporary life. The solution of this global problem requires the co-operation of all nations. People also worry about the dangers resulting from massive releases of radioactive materials from nuclear weapons, which, if used on a major scale, could seriously endanger the humanity. Another concern is accidents at nuclear power plants. In 1978 a nuclear power plant in the United States suffered a severe accident leading to radioactive contamination of water and atmosphere. In 1986 the Chernobyl nuclear power plant near Kiev suffered a fire and a serious breakdown that led to a radioactive explosion. The contaminated air was soon carried to northern and eastern European countries that suffered radioactive rains.

To protect nature people should change their attitude to it. People should stop taking from nature everything they needs and give it his love instead. Otherwise the price that mankind will have to pay will be too high. It is good that at last people started to realize that they should keep air and water clean by establishing strict pollution control. Efforts are made to reduce pollution from automobile engines by developing pollution-free engines, which may eventually eliminate the more serious air pollution problems. Certain countries have already agreed to limit their carbon dioxide emissions. Moreover, the strong public reaction can facilitate the exercise of absolute pollution control in various contamination industries.

In my opinion, we should begin with small things. Authorities can help by improving public transport. If public transport were better people would be able to leave their cars at home, Also authorities can help to reduce litter by putting bins on every street corner, and if we planted more trees and created more green areas, people would have more oxygen. In conclusion I would like to say that if we want our children to live in the same world we live, or in a better healthier world, we must learn to protect the Earth from ourselves.

As for me I try to economize electricity, water, use public transport, and always throw rubbish to dustbin.