

presence of special protective physiological mechanisms. They are pollution-resistant organisms that are advisable to use in phytoremediation practice. Eliminators selectively absorb anthropogenic toxicants due to the presence of protective barriers in cells and high resistance to stress. Indicators detect the concentration of toxicants in the environment, reflecting its level in the body in direct proportion to the pollution of the habitat. They are sensitive organisms that react to the smallest concentrations of anthropogenic pollutants, while changing a number of physiological and biochemical parameters.

Each type of plant adapts to the stressful impact of anthropogenic pollution in accordance with individual internal potential, laid down genetically within the limits of the reaction norm.

The following types of herbaceous plants are most suitable for phytoindicative studies of urban ecosystems: *Ranunculus acris* L., *Trifolium repens* L., *Trifolium pratense* L., *Daucus carota* L., *Chelidonium majus* L., *Plantago major* L., *Achillea millefolium* L. Among the most promising woody plants in terms of biomonitoring are *Tilia cordata* Mill., *Aesculus hippocastanum* L., *Acer platanoides* L., *Betula pendula* Roth., *Salix caprea* L. [4].

References

1. Adak P., & Kour N. (2021). A Review on the Effects of Environmental Factors on Plants Tolerance to Air Pollution. *Journal of Environmental Treatment Techniques*, 9(4), 839-848. [https://doi.org/10.47277/JETT/9\(4\)848](https://doi.org/10.47277/JETT/9(4)848)
2. Dipti Karmakar, Kuheli Deb, Pratap Kumar Padhy. (2021). Ecophysiological responses of tree species due to air pollution for biomonitoring of environmental health in urban area. *Urban Climate*, 35, 100741. <https://doi.org/10.1016/j.uclim.2020.100741>
3. Daoming Wu, Xiaoli Yu, Mingli Lai, Jiayi Feng, Xiaoquan Dong, Weixin Peng, Sining Su, Xueping Zhang, Lixin Wan, Douglass F. Jacobs, Shucui Zeng. (2021). Diversified effects of co-planting landscape plants on heavy metals pollution remediation in urban soil amended with sewage sludge. *Journal of Hazardous Materials*, 403, 123855. <https://doi.org/10.1016/j.jhazmat.2020.123855>
4. Glibovytska N.I., Mykhailiuk Yu. M. (2020). Phytoindication research in the system of environmental monitoring. *Науково-практичний журнал «Екологічні науки»*, 28, 111-114. <https://doi.org/10.32846/2306-9716/2020.eco.1-28.16>

GLOBAL ENVIRONMENTAL PROBLEMS AND ATTEMPT TO RESOLVE THEM THROUGH INTERNATIONAL COOPERATION

*Khaustova M. PhD, Dvornikova P., Bach.,
Yaroslav Mudryi National Law University, Kharkiv, Ukraine
p.a.dvornikova@nlu.edu.ua*

In the 21st century, the most acute issue of environmental problems. Development world technological progress, population growth, irrational the use of the Earth's

resources has led to an environmental disaster that requires an immediate solution from the local level to the international one.

A component of the ecological system of the planet is the natural environment. The current state of the natural environment is characterized by the presence of global environmental problems: depletion of the ozone layer and atmospheric pollution, transboundary movement of pollutants, climate change, conservation biodiversity, acid rain, desertification, resource crisis, etc. These problems today are of particular concern on the part of the world communities, because they are the result of anthropogenic activity, often contrary to the laws of nature. These environmental issues are not one state is not able to overcome on its own, since they are based on phenomena and processes on a planetary scale lie. That is why overcoming them is possible only with the participation of the entire world community through the development of a coordinated international environmental policy based on effective organizational and legal methods and means. At the beginning of the 20th century, V. I. Vernadsky spoke about the need for joint actions to prevent the destruction of the planetary ecological system.

Today, most countries are involved in solving global environmental problems and, on the basis of international cooperation, determine rational norms for environmental management.

It should be noted that the leading role in international environmental cooperation is played by the UN, whose bodies deal with, among other things, environmental protection. The UN also has a special program for the protection environment - UNEP. Today, the International Union for the Conservation of Nature and Natural Resources is also involved in environmental issues, which was established back in 1956.

As follows from the report of the UN Commission on the Environment (UNEP), the forecast of human development until 2032 is disappointing. Under the influence of human activity, irreversible changes will occur on the planet. More than 70% of the earth's surface will be deformed in one way or another, more than 1/4 of all species of the animal and plant world will be irretrievably lost, safe air, clean drinking water, undisturbed landscapes will become an irreplaceable deficit, the ability of nature to recover after anthropogenic impact.

In recent years, there has been an increase in multilateral international cooperation in the field of environmental protection. International cooperation in this direction is carried out by: coordinating rule-making activities to resolve transboundary environmental problems (development model laws); interaction between states in the implementation of environmental programs under the auspices of the UN; regulation of environmental activities through conventions, treaties and agreements based on a unified approach of various states to solving environmental problems; joint environmental projects, scientific and technical cooperation, etc.

Treaties are the basis for international cooperation in solving global environmental problems. For example, between Russia, Japan and The United States signed an agreement in 1897 for the protection of fur seals in the Pacific Ocean. From 1954 to 1973, a number of agreements were concluded to protect seas from oil pollution, other discharges and radioactive waste.

Key in the history of international environmental cooperation is The Treaty on the Ban on Tests of Nuclear Weapons in the Atmosphere, Outer Space and Under Water, which was signed in Moscow in 1963 by more than 100 countries [1]. And in 1977, the Convention for the Prohibition of Military or any other hostile use of means of environmental impact [2].

In addition, conventions have a great importance for international environmental protection. For example, the Convention on Transboundary Air Pollution at long distances 1979 [3], Vienna Convention for the Protection of the Ozone Layer 1985 [4], 1986 Convention on Assistance in the Event of Nuclear War or Radiological Emergency [5], etc.

Environmental problems, depending on the scale of the impact of human economic activity on the environment, are usually divided into global and local. Global environmental issues directly associated with local environmental problems.

For example, the problem of global climate change, according to scientists, is associated with the expected warming, which is caused by man-made emissions of greenhouse gases, which have the ability to trap heat radiation from the earth's surface heated by the sun. Accumulation of greenhouse gases in atmosphere will lead to warming, which will be accompanied by the melting of polar ice, the rise in the level of the World Ocean, the flooding of densely populated coastal lowlands and island states, desertification, and a reduction in summer precipitation by 15–20% in the main agricultural areas. According to forecasts

According to scientists, by 2035 the amount of CO₂ in the atmosphere is expected to double. Accordingly, global warming will be between 1.5 and 4.50 degrees C. By this time, sea level is expected to rise from 8 to 29 cm and up to 65 cm by 2100. Mostly high percentage of emissions occurs in countries such as China and the United States.

One of the most effective ways to address climate change is the reorientation of all countries towards the rational use of energy resources, as well as the reduction of emissions of greenhouse gases into the atmosphere. For implementation of this, the world community needs to move from traditional methods of generating energy to alternative ones (for example, to the use of wind turbines, power plants, solar panels, etc.). In addition, it is necessary to develop and improve the legal and regulatory framework containing the rules governing the reduction of greenhouse gas emissions. Today, many countries of the world have accepted the obligations contained in the United Nations Framework Convention on Changing climate change and the Kyoto Protocol. At the level of governments of individual countries, laws are adopted that regulate carbon emissions. According to climatologists, for containment of temperature rise within up to 2 degrees, countries until 2050 must bring global emissions down from 1990 levels, and by the end 21st century - cut to zero.

Summing up, it should be noted that in order to overcome global environmental problems, it is necessary to: gradually reorient all countries towards the rational use of energy resources and reduce greenhouse gas emissions. This is possible under the condition of transition from traditional methods of obtaining energy to alternative ones; it is necessary to develop and improve the regulatory legal framework, containing norms regulating the reduction of greenhouse gas emissions; the content of the Parisian

climate agreement needs to be revised, and precisely in the aspect of establishing measures of responsibility for failure to fulfill obligations countries participating in the agreement, as well as in terms of determining specific commitments undertaken by states to reduce greenhouse gas emissions.

References

1. Treaty banning nuclear weapons tests in the atmosphere, outer space and under water in 1963. URL: http://www.mid.ru/aderno-e-nerasprostranenie/-/asset_publisher/JrcRGi5UdnBO/content/id/609152 – date of access (04/10/2022).
2. Convention on the prohibition of military or any other hostile use of means of influence on the natural environment in 1977. URL : http://www.mid.ru/foreign_policy/un//asset_publisher/U1StPbE8y3al/content/id/557030 – date of access (04/10/2022).
3. Convention on Long-range Transboundary Air Pollution, 1979. URL : http://www.un.org/ru/documents/decl_conv/conventions/transboundary.html – date of access (04/10/2022).
4. Vienna Convention for the Protection of the Ozone Layer, 1985. URL : http://www.un.org/ru/documents/decl_conv/conventions/ozone.shtml – date of access (04/10/2022).
5. Convention on Assistance in Case of Nuclear War or Radiation Emergency, 1986. URL

THE INFLUENCE OF TRANSPORTATION FACILITIES ON THE ENVIRONMENT

*Mikulina M.O., PhD, Assoc. Prof., Polivany A.D., Bach.,
Sumy National Agrarian University, Sumi, Ukraine
marinamikulina1@ukr.net*

The rapid development of scientific and technological progress on the one hand will bring economic growth and prosperity to life, and on the other hand, it will lead to significant environmental impacts in the wake of the growth of technogenic demand for living. Virishennya environmental problems of humankind today are the main tasks in the context of the Concept of Staliy development. Today's life is impossible without transport services.

The transport infrastructure is constantly developing. Such a development is invariably accompanied by a negative influx on the right middle.

Transport is creating an even more technogenic quest for dovkilliya. Alive and inanimate nature in rich vipadkakh vdchuvae on their own transport and yogo infrastructure. Tse give the right to speak about the vindication of a new environmental directly - transport ecology, which shows different aspects of transport objects in the middle of nowhere.