

Of environmental issues and topical ways of its resolving

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Abstract. The current state of the environment, caused by the consumer attitude of mankind to nature, the exorbitant burden on it by industrial production for the sake of production, consumption and the increase in the benefits of capital owners, currently actualize the search for effective measures to prevent and resolve environmental disasters that have already occurred. A huge role in this process can and should be played by the subjects of macroeconomics, which, in addition to concluding (participating in) interstate agreements that meet modern realities and carry a constructive nature, should intensify their efforts towards the generation of new industrial technologies; contribute to the popularization of ideas of an environmentally friendly lifestyle among citizens of all countries of the world; to intensify the processes of international cooperation in solving environmental problems; promote the integration of environmental education into the system of state educational standards.

Keywords. Environment, ecological problems, ecological disasters.

Modern trends in the development of the world economy necessitate the actualization of environmental issues, the solution of which, due to the state of the environment, should currently be assigned not so much to the subjects of the micro-level (individual economic structures), but to the

national and supranational structures of the macro-level of economic analysis, the principles of which are based on the corresponding direction require serious adjustments.

The problem lies in the fact that the issues of prevention and possible options for resolving environmental disasters that have already occurred, discussed by the world community for more than a decade, have not yet led to the creation of clear unified mechanisms for their resolution, and the environmental problem has acquired a global status.

On the one hand, protocols, agreements, conventions on relevant issues are signed, however, on the other hand, the number and scale of environmental disasters continue to grow, the state of the environment is deteriorating.

In particular, one of the first documents on relevant issues was the Declaration of the United Nations (UN) Conference on the Human Environment, Stockholm, 1972, which proclaimed the inalienable human right to favorable environmental conditions and consolidated the provision on the deterioration of the "environment in as a result of underdevelopment and natural disasters...", which is a catalyst for serious problems for all mankind in the future [1].

In 1983, the UN General Assembly adopted resolution 38/161, which established a special commission on "environmental and global problems up to 2000 and beyond", the result of which was the definition of the concept of sustainable development as a model for the development of civilization based on the balance of solving problems in the economic and social and environmental protection [2]. Also, in order to develop resolution 38/161 and "establish a new, equitable global partnership by creating new levels of cooperation between states, key sectors of society and people" in 1992, the Rio Declaration on Environment and Development (UN Framework Convention on climate change), which determined the principles of activities in the field of environmental protection, in particular, such a principle as the inalienability of environmental protection from the development process to achieve sustainable development [3].

This declaration became the basis for a number of subsequent UN documents on the topic under consideration:

- the Johannesburg Declaration on Sustainable Development, where states agreed on collective responsibility "for strengthening and developing the interrelated and mutually supportive foundations of sustainable development - economic development, social development and environmental protection - at the local, national, regional and global levels" [4];

- Kyoto Protocol, 1997 [5];

- Paris Agreement, 2015 [6].

In addition, important, in our opinion, is the fact that the international community, represented by the UN, has formulated its goals: "clean water and sanitation", "inexpensive and clean energy", "responsible consumption and production", "combating climate change", "conservation marine

ecosystems", "conservation of terrestrial ecosystems" among the 17 proclaimed UN Sustainable Development Goals.

However, despite the work that has already been done, it is clear that the measures taken are inadequate when, within the framework of the agreements reached over the past half century, large-scale environmental disasters have not ceased to occur in the world (tab. 1), and the state of the environment only worsens from year to year.

Analyzing the causes of environmental disasters that have already occurred and the state of the environment in the world, we can state the obvious regional nature of modern environmental problems:

- the post-industrial countries of Western Europe and North America, in the main, suffer from the heavy legacy left by industrial objects, which have now been transferred abroad due to transnationalization and internationalization, mostly to the territory of developing countries; waste from citizens of countries with a high level and quality of life (for example, emissions of freons, leading to a decrease in the protective ozone layer, the formation of "plastic stones", etc.);

- industrial countries of Latin America, Central and Eastern Europe, Asia rightfully attribute industrial gas emissions to the number of leading problems; a weak system for the disposal of industrial waste and waste of citizens' vital activity; intensive use of national natural resources, often working in the shadow sector of the national economy [7 p. 3], leading to deforestation [8 p. 88], soil erosion, climate change, etc.;

- agricultural countries in Africa mainly face the problems of deforestation, soil erosion, lack of natural resources necessary for a full life, destruction of ecosystems, etc. soil, desertification, pollution of rivers as a result of emissions of oil refining waste and other industrial waste. Realizing the danger of these problems, assessing their consequences, Mauritania at one time became a party to the Kyoto Protocol, and is currently dealing with the problems of desertification, endangered species of fauna, hazardous waste emissions, the law of the sea, protection of the ozone layer, pollution from ships, the state of water and wetlands, whaling issues, etc.

Table 1

Examples of large-scale environmental disasters in the XX-XXI centuries

Date	Epicenter	Cause	Effects
1952	Great Britain, London	As a result of combustion and some chemical processes, sulfur dioxide entered the atmosphere, which became lethal. It contributed to acid rain.	High levels of sulfur dioxide in the atmosphere damaged the respiratory system of residents and, as a result, killed thousands of Britons.
1960-2007	Central Asia, border of Kazakhstan and Uzbekistan	The rapid development of agriculture in Central Asia, which entailed the withdrawal of large amounts of water from	Complete drying up of the Aral lake. Mesoclimatic changes, degradation of the river delta ecosystem, an increase in the number of sand and salt-dust storms, the destruction of

		the two main tributaries of the Aral Sea	the fishing industry, a reduction in the growing season and a decrease in field productivity
1974	Great Britain, Lincoln	Flixboro chemical plant accident	Fires within 10 days, chemical release into the air and poisoning of the local population
1986	USSR, Chernobyl	Nuclear power plant accident	The wind carried radioactive dust not only over the territory of the USSR, but also across Europe and America, after the catastrophe many animals died, the forest was damaged
1991	Middle East, Persian Gulf	Deliberate setting fire to oil fields and dumping oil into the Persian Gulf	The detrimental effect of oil itself on plants and animals, harm from the use of toxic substances to clean up the spill, pollution of drinking water and air
1994	Russia, Komi Republic	The accident on the Vosey-Headworks oil pipeline	Oil almost completely destroyed all flora and fauna in the disaster region. The vast territory has turned into a lifeless desert.
2011	Japan, Fukushima	Fukushima-1 nuclear power plant accident	More than 21 thousand people died, there was a release of radioactive substances. a third of the world's oceans were exposed to radiation contamination
2020	Lebanon, Beirut	The explosion of ammonium nitrate	Serious air pollution, which subsequently has a negative impact on the environment

Note: compiled by the authors on the basis of summarizing sources [TOP-15 largest environmental disasters [Electronic resource]. Access: <https://vyvoz-org.turbopages.org/vyvoz.org/s/blog/top-15-krupnejshih-jekologicheskikh-katastrof-v-mire/> (appeal date 22.04.2021), Environmental consequences of the accident at the Fukushima-1 nuclear power plant [Electronic resource]. Access: <https://ecologynow.ru/knowledge/zdorove-cheloveka/ekologicheskie-posledstviya-avarii-na-aes-fukusima> (appeal date 22.04.2021), Environmental consequences of the accident at the Chernobyl nuclear power plant [Electronic resource]. Access: <https://ecologynow.ru/knowledge/tekhnologii-i-ekologiya-goroda/ekologicheskie-posledstviya-chernobylskoy-avarii-spustya> (appeal date 22.04.2021)]

Today it is obvious to the international community that the main reason for the current crisis state of the environment, albeit with "nuances", but nevertheless on absolutely all continents of the planet has become the consumer principle of human life - the rapid pace of industrial production for the sake of production, consumption and the increase in the benefits of capital owners; large-scale, and in some cases - just barbaric nature of the depletion of natural resources. The entire planet is suffering from global warming, which further results in energy and water shortages, air pollution [9], ever-increasing pressures on public health and transport systems; poisoning of flora and fauna with industrial waste and plastic waste,¹ etc. [10 p. 105, 11 p. 30].

We agree with the opinion of experts that the options for solving the existing problems can be:

1. Generation of new industrial technologies aimed not only at meeting the needs of people, but also at preservation, for the benefit of nature; intensification of the development and implementation of green technologies.

2. Popularization of ideas for a sustainable lifestyle among citizens of all countries of the world. Transnational companies (TNCs) of the world can play a huge role in this context. The fact is

¹ Since 1950, the planet has produced 8,300 million tons of plastic, 6400 million tons of which have been turned into unusable garbage. 79% of this garbage settled in nature - forests, lakes, seas. Only 9% of all garbage was recycled [Official site How to green [Electronic resource]. Access mode: <https://howtogreen.ru/> (appeal date 19.04.2021)]

that from year to year more and more global companies begin to call themselves "ecological" and declare friendship with nature through the use of recycled materials or, for example, reducing the carbon footprint. On the one hand, we can say that concern for the environment for large TNCs is a trend or advertising that fits so well with the goals of sustainable development of the entire international community. On the other hand, it is the rhetoric of transnational companies recognized and loved by hundreds of millions of people around the world that is the most effective tool for conveying information to the masses about the existence of a problem, the need and ways to solve it. Notable examples of related activities are:

- innovations from Tesla - electric vehicles and recently developed solar panels, which combine two functions: it is both the roof and the power supply system of the house;
- eco-friendly collection from IKEA (75% of the materials used in the brand's products are made from renewable resources);
- cutlets, developed by Beyond Meat and already in stores in the United States (the uniqueness of these cutlets is that they look, cook like meat, have the appropriate taste, while they have more vitamins and minerals than meat; they are prepared only from herbal ingredients) [12] and others.

3. Intensification of international cooperation in solving environmental problems. Currently, this step is already being actively implemented among representatives of developing countries. For example, such an African country as the Republic of Namibia is currently actively cooperating with the world community on the protection of the environment, in particular, the world's oceans. Various non-profit organizations are already working on the territory of the relevant state to reduce the risk of environmental disasters, in particular, an organization such as Ocean Conservation Namibia has demonstrated its effectiveness in the event of an environmental disaster that occurred in October 2020.

4. Integration of environmental education into the system of state educational standards, followed by the formation of a unified interstate strategy for environmental education, which is a matter of paramount importance for the further adoption of more radical measures to eradicate existing pollution, prevent the formation of new ones, preserve the ozone layer, etc. In particular, we believe that the strategy of environmental education has every chance to go beyond the purely academic level in the future. We are deeply convinced that it can contribute to the formation of ecological thinking [13], ecological culture, which, in turn, will lead to the activities of the population in relation to environmental protection, which will really contribute to the prevention and prevention of environmental disasters [14].

We believe that the proposed measures can contribute to solving environmental problems on the planet, however, it is important to understand that achieving an optimal result will be possible only when all of humanity understands the importance of environmental problems and the need for their own participation in their resolution.

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