

Ecological Problems of the Modern World and their Impact on International Politics

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Introduction

Environmental resources such as water and air have always been necessary for human life and human activities. For the majority of human history, the environment did, however, not represent a problem for mankind and its sustainable development. The environment and the natural resources satisfied the needs of the people, without causing damage to the next generations.

In the second half of the 20th century, the topic of environmental protection has entered the political agenda, because humanity's economic activities have raised environmental pollution to a level that threatens various species and even the ecosystem as a whole. The urgency of the problems, research in the field of ecology and the popularization of knowledge, as well as the active involvement of international nongovernmental organizations and movements in the field of ecology have resulted in a more widespread consideration of ecological problems.

Legislation and Programs in the Framework of Environmental Protection

Several technological catastrophes, which first attracted the attention of the concerned states and later of the whole world community, have been an additional stimulus for reviewing ecological problems. One of the first countries that took measures to protect the atmosphere was Great Britain, which adopted appropriate legislation in 1956.

In the end of 1960s and beginning of 1980s, ecological problems entered the political agenda, mainly due to the fact that the economic damage inflicted on nature raised serious and acute question about the sustainable development of humanity. In the 1970s, many countries began to create special departments and ministries for environmental protection. While in 1972 only 26 countries had such institutions, ten years later the number rose to 144 countries. At the same time, contradictions between appropriate ecological protection on the one hand and economic and financial considerations on the other hand emerged in several countries.

In 1972, the first United Nations (UN) conference on environmental problems was held in Stockholm. The conference established the United Nation Environmental Program (UNEP), which has the aim of stimulating international cooperation in this field. In the following years the

conflict between economic and ecological interests intensified. The conflict was illustrated by the example of the third UN conference on Maritime Law (1973-1982), which adopted the UN Convention on the Law of the Sea (UNCLOS).

The conference concluded that it was difficult to reach consensus among the more than 1000 representatives from 150 countries, which stood at different levels of economic and technological development and, accordingly, had different abilities to conduct economic activities in the ocean. Despite these challenges, an agreement was reached. The Convention of 1982 created a twelve-mile zone for shipping and a 200-mile zone for economic activities at sea (fishery, extraction of fossil products etc.).

Overall, the conference established the principle that the ocean represents a common heritage of humanity and recommended to keep a balance between economic activity and considerate consumption of natural resources.

The Deterioration of Environmental Conditions Since the 1980s

In the 1980s, new topics appeared on the ecological agenda. While earlier the political aspects of ecology had been limited to the discussion of atmospheric and water pollution problems, in the following years problems such as global warming, ozone depletion, and the preservation of flora and fauna diversity were added to the agenda.

According to the World Health Organization, more than 1 billion people inhabit highly populated areas, where the quality of the air does not meet the standards. If the economically developed states do not adopt appropriate legislation and commit significant resources to the fight against emissions and other forms of air pollution, poorer countries will not be able to do the same. As a result, the situation is often becoming critical. One of the most polluted cities in the world is Mexico City.

Similar problems exist with regard to the pollution of water resources. It is especially difficult to resolve this problem, when big cities and industrial enterprises with bad water purification systems are located on the banks of water reservoirs.

The next ecological problem is connected to the reduction of fertile soil, which is increasing desertification and significantly reducing forest areas. During many centuries, the human civilization has developed as a result of gaining control over new land territories. In the beginning of the 21st century, these possibilities have been practically exhausted. According to expert estimates, in 2025, the annual acreage of arable lands, on average in the whole world, can only be 0,17 hectares. Under those conditions, the agricultural development can be implemented only by intensification of the employment of land. However, due to the excessive use of new arable lands, an active intensification of agricultural production can cause serious ecological problems.

Increasing the area of new arable lands, for example, is implemented by cutting down forests. Furthermore, forests, being a valuable raw material, are also cut down for commercial purposes. As a result, according to the World Resources Institute, in the beginning of the 21st century the forest area of the world has been reduced to 4 billion hectares, which is approximately half of what it was about eight thousand years ago. Only half a century ago 12% of our planet was covered by tropical forests. Today, tropical forests remain on 6% of the world's surface.

Many countries have practically lost their entire forest stocks. For example, only 10% of the territory of Madagascar is covered by forests. The countries of Eastern Africa, Brazil, and China are also in a difficult situation. Tropical forests are cut down intensively in developing countries (14 million hectares annually), because forests represent a significant part of the income of those states. Brazil in particular obtains approximately 6 billion USD as a result of the export of forests and forest materials. The serious consequences of these actions have been observed since the 1950s.

Oftentimes, restored forest areas are still experiencing negative developments: Usually, only one species of trees is planted, which grows rapidly and is subsequently cut down again. The effects of deforestation contribute to other negative effects, which are caused by human economic activity, like acid rain and the pollution of air and water. The disappearance of forests causes the erosion of soil and the expansion of desert areas. According to information of the United Nations Environmental Program, 35% of land was under the threat of harmful processes connected to deforestation and the expansion of deserts in 1984.

The loss of forest areas and the pollution of the environment are main reasons for the disappearance of several types of animals and plants. According to the estimates of ecologists, a habitat reduction by 1/10 causes the number of species to decrease by almost 50%. Besides losing the opportunity to enjoy the aesthetic beauty of nature, the economic consequences of such losses for different industry branches cannot be overestimated. The pharmaceutical industry, for example, cannot function without natural raw materials.

The emission of a large quantity of gases in the atmosphere causes another phenomena – the greenhouse effect. Despite the fact that this phenomenon was described since the XIX century this problem started to cause serious concerns only in the 1980's. During the conference in Toronto in 1988, which was dedicated to climate change, the greenhouse effect problem was included on the event's agenda. After considering this topic, several suggestions related to the reduction of gas emissions in the atmosphere were regarded and worked out.

Rio de Janeiro Conference in 1992 and Signing of the Kyoto Protocol in 1998

In 1989, the General Assembly of the United Nations adopted the decision to organize a UN Conference on Environment and Development, which was held in Rio de Janeiro in 1992. Approximately during this period, more and more fears were caused by the decrease of the ozone layer of the earth. During the Rio de Janeiro conference the Framework Convention on Climate

Change (FCCC) was adopted. Due to the fact, that the rich and poor countries have different abilities, the conference also adopted the concept of common, but at the same time different responsibilities for the environment. It was mentioned that the countries of the “North”, which have a share of about 20% of the world population, produce more than 70% of the emissions that generate the greenhouse effect. Due to this fact, the Conference appealed first to the countries of the North not only to be maximally responsible in their actions, but also to assist the countries of the ”South” to protect the environment from a technological and economic point of view. Both developed and developing countries supported this position.

The conference furthermore mentioned the important role of the society and the non-governmental organizations in evaluating the effects of human activity on the environment and its protection. Having been created as a result of the conference, an intergovernmental group was given the responsibility to prepare the conference in Kyoto. With regard to the session of the group, which was held in Berlin in 1995, the American authors A. Lamborn and J. Lepgold stated:

- It was recognized, that the purposes, which were suggested in the framework-convention for the reducing of harmful waste in the atmosphere, would not be achieved by 2000;
- It was pointed out that it was necessary to adopt new legal obligations for environmental protection after 2000 as well;
- It was determined that the developed countries were not able to resolve the problems related to environmental protection by themselves. The “Global South” will increase its emissions and would reach the same number of problems as the “Global North” approximately in 2030;
- It was decided to reformulate the principles regarding the responsibilities of the states.

Before the conference in Kyoto, the intergovernmental group met again in Bonn. At this stage, members of the European Union presented suggestions, according to which the developed countries had to take on the responsibility to reduce emissions in order to stop the greenhouse effect. Different types of radical sanctions and fines were suggested for those, who would not fulfill the obligations. Several states, which were immediately threatened by the greenhouse effect (for example Cyprus, which was concerned about the sharp rise of the ocean level), supported the initiative to move the starting point of the agreement to the year 2005 instead of 2010.

The conference in Kyoto, which was held in 1997, clearly demonstrated the different viewpoints on the ecological problems and potential solutions. The developed countries argued that in the 21st century the countries of the “Global South” would be the main source of emissions, as several of them were undergoing rapid socio-economic development. In contrast, China, India, and other countries joining their initiative insisted that the reduction of emissions should not concern them. They provided several arguments. Firstly, in the contemporary period, the volume of emissions, caused by the developed and developing states, had not been equal. Secondly,

developing countries could not afford to reduce emission. Furthermore, they argued that the biggest share of emissions causing ecological problems was produced by the USA.

Despite the disagreements, the Kyoto conference was concluded by the signing the Kyoto Protocol, which was approved by 159 states. According to this document, the 38 industrially developed states had to reduce the emissions of six types of gases that were causing the greenhouse effect in comparison with the baseline year 1990 in the period from 2008 to 2012 – this included an 8% reduction for EU members, 7% reduction for the USA, and a 6% reduction for Japan.

Until the end of the year 2000, 84 countries signed, and 31 countries ratified the Kyoto Protocol. However, most of these countries are small island states, for which the Kyoto Protocol is not a big burden on the one hand, and who are less vulnerable as a result of the greenhouse effect, on the other hand.

Over the next years, several countries led hard discussions about the possibility and feasibility of fulfilling the Kyoto Protocol. Several developing countries like, for example, Argentina decided to support the Kyoto Protocol's common direction for emission reductions. Many developing countries did however remain outside of the protocol's frame of action, as they were mostly oriented towards the goal of economic development. The attempts to establish a system, which can foster the reduction of harmful emissions independent of countries' economic development, their level of dependence on the greenhouse effect, and their contemporary level of emissions, has not yielded any result.

The problem of protecting the environment is not limited to the above-mentioned aspects. Further concerns are the question of nuclear waste and the possibility of technological catastrophes with global or regional ecological consequences. One of the first of this type of ecological catastrophes took place in the USSR near the city Chelyabinsk. The next big accident, involving nuclear pollution, happened in Pennsylvania in 1976. Another serious incident was registered at the Chernobyl nuclear power plant in 1986.

Ecological danger does, however, not only stem from nuclear facilities. Accidents in chemical and other enterprises, especially those, which are located in areas with high population density, can have equally devastating consequences. Other dangers stem from the daily activities of humans. In 1984, for example, a chemical production accident in the Indian city of Bhopal cost the lives of about 1500 people.

Another problem in the field of environmental protection is the construction of hydropower stations. On the one hand, hydropower stations offer the possibility to produce clean energy. On the other hand, these projects are interfering with the ecological balance of river basins, flood large areas, and create obstacles for fish movement etc. The economic interests of states and private transnational corporations hereby often conflict with the interests of environmental

protection organizations, including ecological movements and also human rights organizations. Conflicts have, for example, erupted about the construction of the hydropower stations on the Danube, the Amazon, and other rivers.

Lastly, armed conflicts and their influence on the environmental situation represent a problem. Even small, local conflicts can create big ecological catastrophes. The war in the Persian Gulf, caused by Iraq's occupation of Kuwait, for example, has demonstrated the danger of arson in oil fields. The efforts of many countries were required to stop those fires and clear the area from oil pollution.

At the same time, the environment itself can become the source of conflict, for example conflicts over control of fresh water resources or the possibility to eat clean products and breathe fresh air.

Overall, according to Oxford researcher A. Hurrell, within the period from 1970 till the end of 1990, in the discussion of the ecological issues, one could note a transition from discussing issues, which are connected with the "limits of the resources existing on the planet", to topics related to the need to set "limits to the wastes resulting from economic processes".

Conclusion

The ecological problems of the modern ages require joint efforts by states, international governmental and non-governmental organizations, think tanks, transnational corporations, and individual experts in related fields. In this regard, ecological problems require the involvement of different international actors in the process of world politics and highlight their interactions during the resolution of contemporary problems. The example of ecological problems shows the interdisciplinary character of the problems of the modern world, the resolution of which requires expert knowledge from specialists in the fields of international relations, law, economics, biology, chemistry, geography, and others.

Finally, the above-mentioned examples emphasize the blurring of the boundaries between internal and external policies, on the one hand, and between the two scientific disciplines of political sciences and classical international (interstate) relations, on the other hand. As it was noted by E. Harrell during the analysis of the global problems of the environment, applying political theory to separate countries is intellectually not an adequate choice.

Overall, despite the difficulties and contradictions that the modern world is facing during the resolution of ecologic problems, it is important to find methods and capabilities to manage these problems. International regimes in the field of ecology are one of these methods.