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## International Cooperation in Global Issue Solution Regarding Environmental Protection

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### Abstract

*In the modern world, environmental problems have reached a global level. Addressing environmental problems at the national and regional level is no longer as effective as it was, and the role of international cooperation is to support and complement national efforts. The exit to the international level of the issues of settling relations regarding environmental protection is due to two main factors. First, the development of scientific and technological progress. Secondly, a sharp increase in the population of humanity, which leads to an imbalance of world ecological relations. Only by working smoothly and together, countries can achieve a positive result that will make it possible to live on this planet for our descendants. The environmental problem is global; therefore it requires global action.*

*Keywords: environmental problems; international cooperation; international relations*

JEL classification: Q53; Q54; Q56; Q57; Q58

### 1. Introduction

International cooperation by its concept is the joint actions of parties in different areas of their mutual interests, their interrelated activities in coordinating their positions, coordinating actions, resolving common problems and making mutually acceptable decisions.

For a long time, the main form of international cooperation was trade and military alliances. With the development of society and technology, the increasing division of labour and new types of cooperation began to appear, starting from the economy, including trade, to culture and ecology.

Environmental problems affect the conservation of the natural habitat of people, requiring international efforts and coordination, and humanitarian issues are related to the human dimension of

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social progress, which involves ensuring the full range of human rights, spiritual development of the individual, overcoming cultural backwardness and expansion. The resolution of the global problems of our time is the most important task of international politics.

Humanity has not yet found reliable ways to solve problems threatening international stability. It is becoming increasingly obvious that decisive progress will be made along the path of reducing the contrasts that have matured in the political and socio-economic development of the people of the Earth, otherwise the future of the planet seems rather bleak.

*“Global problems are not just important problems, or problems that affect many people. Rather they are those problems that affect the whole of the planet, and potentially all of the people who live on it. Climate change is one clear example that springs to mind quickly. This is because the consequences of humanly generated changes in the atmosphere will, albeit in different ways according to region, affect everyone on the planet. In other words, the consequences are universal.”* Introduction to Global Problems, Nautilus Institute)

Ecological problems are in close relation with security and economics, which represent two areas of major importance for the country, this is why they are crucial to the international political agenda.

## **2. Literature review**

The environment, and more specifically natural resources, are strongly linked to security, which is a very controversial topic on the international relations field. In general terms, security as defined by Soroos (Fenton, 2014) represents people’s lack of doubt that they will be able to further enjoy the things that are important to their wellbeing and survival. In the modern world, environmental issues are viewed as security issues, as the changing climate and environmental degradation greatly affect the resources needed for the survival and comfortable existence of the global population. Today, the issues that pose a serious threat to the global security in this sense are deforestation, ozone layer depletion, loss of biodiversity, air pollution, desertification, ocean acidification, soil erosion, etc.

As the global society grew and evolved and such important steps in its development were taken as the industrial revolution, technological development and urbanization, the demand increased promoting consumption levels of such resources as water. Nowadays it seems that the existing water supply hardly meets such a high demand. In the last 60 years, water usage has increased twice as much as the population did (European Commission, 2013) and the projected population growth for the following years, accompanied by GDP growth and higher demand for energy respectively, lead to the increased number of regions in the world which are afflicted by water scarcity. Hence, global security and economic development are threatened by the misuse of the available water supply, which at its turn is strongly linked with such sectors as energy and food production. Environmental security, thus, covers food security, economic security, energy security and access to fundamental natural resources,

leading to the concept of human security, which shows the multidimensionality of the environmental issues.

Environmental threats are mostly indirect and international, emerging from within and without the state. Being part of the economic, social and industrial systems, they are generated in a protracted process correlated to economic activities. Hence, environmental degradation and the related issues of scarcity of resources, global financial instability and inequality imperil global security showing that in the future it will be infeasible to conduct business as it is today.

Demand for a wide range of goods and services significantly increases conditioned by transformations and adjustments in the demographic, socio-economic and technological spheres. This leads to a higher demand for natural resources used in the production of said goods and services in order to increase production and adjust the supply to the market demand. Unfortunately, numerous studies and reports show that the natural resources available to the human population are used inefficiently and ineffectively, and that a much bigger output can be generated using the same amount of resources if used correctly.

Climate change, poverty and human rights are directly linked to the issue of scarce natural resources and their exploitation, and so far, it is generally unclear how to deal with them. Under these circumstances, it seems that a new world order is emerging that is environment centred. This phenomenon can be observed in the mass ecological movement today, whether on the individual, on the business, on the national or even international levels.

Environmental protection calls for a new approach to relations between countries, markets and societies. As it was stated previously, environmental issues are directly linked to human security generating environmental and social inequality within and among countries. For example, since the dawn of humanity agriculture has always been a strategic sector, both for individuals and states. Nowadays, agriculture is of particular importance to the developing economies, as they are dependent on this sector for food, employment and trade. In the context of the fast-environmental degradation that takes place all over the world and taking into account the fact that developing economies are subject to a greater range of environmental problems, it is obvious that compared to developed economies, these countries are more vulnerable to climate change. Due to economic underdevelopment, they cannot face the consequences of natural disasters on their own and the high level of dependence on agriculture amplifies the losses that developing countries face because of climate change. This leads to them falling deeper into debt, to economic stagnation and recession, and to the increase in poverty rates as a result. Environmental protection and poverty, thus, are the two main problems that the world faces today and the failure in solving one of them will sabotage the efforts in solving the other.

All of the abovementioned reflects the complexity and the holism of the international relations system and of the global issues of the 21<sup>st</sup> century, as the environment is liable for a number of different challenges and problems. However, because it is a global issue of great importance, it represents an

instrument of promotion of cooperation for solving problems around the world, thence promoting a united system of international relations.

### **3. Research results**

One of the most actively used by States of forms of international cooperation in the field of environmental protection is their participation in the work of various international organizations. The purpose of such participation is to ensure that national environmental and closely related interests are taken into account in the priorities of international cooperation. In total, several hundred international environmental organizations are currently operating in the world, which creates certain prerequisites, opportunities and prospects in the search for and implementation of measures for the greening of world development, its harmonization with the laws and life of nature.

The United Nations (UN) plays a decisive role in shaping international environmental policy and in coordinating the international environmental activities of states. Of great importance for the development of international cooperation in the field of environmental protection is interaction with the Organization for Economic Cooperation and Development (OECD), the Council of Europe and the European Union TACIS Program, the Organization of Asia-Pacific Cooperation (APEC); World Wide Fund for Nature (WWF), International Union for Conservation of Nature (IUCN); International Geological Congress, World Petroleum Congress; Global Forest Fire Monitoring Centre; International Seabed Authority, etc.

As many as 5 of the SDGs of the UNDP are related to environmental protection, all of them aiming to conserve nature and minimize the harm done to the environment by humans. The climate change and environmental crisis that the world faces today calls for immediate global action. A great number of researches has been done on climate change, global warming, environmental degradation, ocean pollution, etc. in order to determine how harmful is the anthropomorphic factor to the environment and how much damage is suffered by people around the world due to the environmental crisis.

Economic and environmental problems are closely related, and solving some of them, the latter cannot be ruled out. The state of the environment directly forms the potential of the economic sphere. For example, resources for industrial enterprises are mined in the natural environment, and the quantity of plants and factories depends on their quantity. The amount of money that will be spent on the purchase and installation of treatment plants, on measures to eliminate water, air and soil pollution, depends on the size of the profit.

### **4. Case study presentation**

An econometric model was built in order to show the correlation between economic and ecological level of development of Romania. Since this country is on the bound between developed

countries of European Union and developing countries from Eastern Europe and it is the neighbour of the Republic of Moldova, its data is more representative for Moldova.

The data for the model was collected from World Bank Group web-site and is listed in the table presented below. The World Bank only provides data on CO<sub>2</sub> emissions and renewable energy consumption until the year 2014.

Data for the econometric modelling includes GDP per capita as dependent variable and CO<sub>2</sub> emissions, Renewable energy consumption and HDI index as independent variables. GDP represents economic development of the country, CO<sub>2</sub> emissions and Renewable energy consumption are ecological indicators and HDI being a complex indicator, represents the general development of the country and the standard of living of the population.

**Table 1. Collected data for the econometric modelling.**

	Y= GDP per capita	R=Renewable energy consumption	O=CO <sub>2</sub> emissions	H=HDI
2005	9723.533	18.51017	96456.768	0.755
2006	11687.5	17.41051	103350.728	0.767
2007	13792.61	18.17943	102224.959	0.781
2008	16726.7	20.389	96365.093	0.795
2009	16492.76	22.18227	81576.082	0.798
2010	16966.47	24.09571	79412.552	0.797
2011	17907.65	21.11274	84880.049	0.798
2012	18931.49	21.55096	81722.762	0.795
2013	19797.36	23.09023	70945.449	0.8
2014	20623.35	24.33188	70003.03	0.802

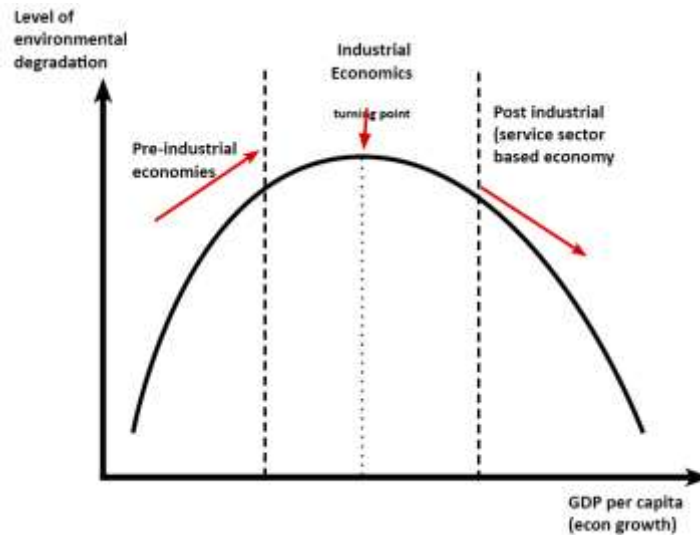
*Source: Elaborated by the author based on data from World Bank Group.*

The econometric model showed that the HDI of Romania is positively influenced by the increase in the share of renewable energy used. The issue of quality of life cannot be examined separately from common ecological issues throughout the world and in Romania, because they are closely related not only to economic decisions but also social and political decisions. A clean environment is essential for human health and well-being. However, interactions between the environment and human health are extremely complex and difficult to assess. The most known health impacts are related to ambient air pollution, poor water quality and poor hygiene. Climate change, ozone depletion, biodiversity loss and soil degradation can also affect human health and quality of life.

One of the indicators of the quality of life is the level of energy consumption per capita. However, the generation of energy in particular to thermal power plants and hydroelectric power plants leads to serious environmental pollution. The econometric model built in this paper showed a positive relation between the GDP per capita and CO<sub>2</sub> emissions in Romania. This result compliments the

environmental Kuznets curve that introduces a U- shaped relationship between environmental pollution and economic development.

**Figure 1. Kuznets environmental curve**



**Source:** Environmental Kuznets curve. Environment. Economics help (Online) (Cited 20 March 2019) Available on: <https://www.economicshelp.org/blog/14337/environment/environmental-kuznets-curve/>

As it is illustrated by the graph above, according to Kuznets, depending on the level of economic development of the country the relationship between economic degradation and economic growth changes.

Speaking about Romania, based on the data and the results of the econometric model, it can be inferred that the economy is placed in the “Industrial Economics” segment, more specifically at the turning point. The case study showed a positive correlation between the CO<sub>2</sub> emissions level and the GDP per capita. In 2017 over 33% of the country’s GDP was generated by the industrial sector, services accounting for almost 63% of the domestic product. Even though the majority of the country’s GDP is generated by the services sector, industry also has a significant share in the domestic product. Hence it is expected that economic growth would be accompanied by increasing levels of CO<sub>2</sub> emissions. However, in the past couple of years, a decrease in CO<sub>2</sub> emissions can be noticed parallel to the GDP per capita growth. This shows that Romania slowly is becoming a post-industrial economy, and just as it is displayed in the Kuznets environmental curve, the level of economic development of the country is rising. Today Romania is at the tipping point of being recognized as a high- income economy by the World Bank. It can be expected that the level of CO<sub>2</sub> emissions in Romania, and the general environmental degradation, will continue to decrease in the future as the GDP and GDP per capita of the country will experience continuous growth.

The Republic of Moldova, as an actor on the global arena, now participates in a lot of international organizations and conventions regarding environmental protection, but there are still some examples of the situations where Government needs to work at in the field of environmental protection, and namely: rational use of natural resources, waste management, biodiversity conservation, geological research, use of and protection of the subsoil, hydro melioration, water resources management, water supply and sewerage, regulation of nuclear and radiological activities, state environmental control, hydrometeorology and environmental quality monitoring.

Since the 1990s, the Republic of Moldova has signed 20 bilateral and multilateral agreements and protocols through which it engages in active cooperation with second parties in the field of environmental protection.

The main institution activating in Republic of Moldova in the field of environmental protection is the Agency of the Environment from the Ministry of Agriculture, Regional Development and Environment which was reorganized in 2017 by the Law Nr. 695 from 30.08.2017. After this reform, existing previously Ministry of Environment was eliminated and transformed to an Agency.

Republic of Moldova is working towards European Union integration and the fulfilment of obligations stipulated in the Association Agreement. In this regard approximation of the environmental legislation is one of the main goals for our country. Efforts are being focused on transposing of the EU acquis and Directives concerning Air Quality, Water, Nature Protection and Biodiversity, Wastes, Climate Change, Chemicals, Mining, Fisheries etc.

Moldova is a country highly vulnerable to climate change. This become more dangerous in the situation that Republic of Moldova is an agriculture country. One of the agreed and declared targets in the area of climate change is to reduce the total national level of greenhouse gas emissions by 2020 not less than 25% compared to the base year (1990), by implementing economic mechanisms focused on global climate change mitigation, in accordance with the principles and provisions of the United Nations Framework Convention on Climate Change. To address this issue, Ministry of Environment has been working towards implementation of the Strategy on adaptation to climate change until 2020, (Hotărârea Guvernului 1009/2014) elaborated in accordance with provisions of the Association Agreement.

In the biodiversity area Republic of Moldova implements Strategy on biological biodiversity for the period 2015-2020. (Hotărârea Guvernului 274/2015)

In the water quality area, 5 Directives are to be transposed, 4 of them are already transposed in the Water Law and its secondary legislation. (LEGE Nr. 272 din 23.12.2011 a apelor.) Agency of Environment is implementing the National Environmental Strategy ( Hotărîrea Guvernului nr. 301 din 24 aprilie 2014) , which states that it should be implemented a management system of hydrographical basins in order to improve the surface water quality by 50% until 2023. In order to reach the target the approval and implementation of the management plan of the hydrographical basins of River Nistru and Danube-Prut-Black Sea is a priority.

Moldova has already initiated the implementation of the Water Supply and Sanitation Strategy, which establishes the goal to assure the access of the 80% of population to secure water supply system and the access of 65% of population to the sanitation system.

Association Agreement provides that a monitoring programme regarding the protection against pollution with nitrates from agricultural sources should be elaborated and adopted.

Air quality is very vulnerable for the Republic of Moldova, from political and legislative aspects. The Association Agreement establishes 6 directives in the field of Air Quality to be transposed. Nevertheless, a small progress has been achieved until now. Republic of Moldova needs the support of the development partners for establishment of the integrated management system for air quality, especially for the installation of the air monitoring systems, development of national programmes to meet national ceilings, delimitation of the agglomerated areas and elaboration of the air quality plans for these areas. Also, taking in consideration that transport is the main source of air pollution, there is a need for elaboration and implementation of policies in the field of transport.

Waste management domain is covered by Waste Management Strategy, which establishes how the waste management system should be developed in the country. On the other hand, the activity of this sector is based on the old legislation. Elaboration of the new legislation, approximated to the EU Directives is in progress, but no law and regulation has been approved until now.

## **5. Conclusion**

Each state can independently choose whether to participate or not in international environmental agreements regarding climate change and environmental problems. Unfortunately, this leads to the late impact of international politics, because first there is an awareness of the global nature of the problem, and only then the development and implementation of the global environmental policy and this is not a quick or easy process. To do this, negotiations should be conducted, harmonized, ratified international treaties in the quantity necessary for their entry into force; the policy must be effective for a certain length of time in order to have time to solve the environmental problem.

And while all the negotiations and agreements take place, the problem does not wait. In parallel with the negotiations, greenhouse gas emissions will continue, biodiversity will be reduced, and toxic pollutants will continue to be concentrated. To prevent the most serious and possibly irreversible damage to the environment, it is necessary to take measures against them even before the situation becomes global and passes the line of no return. Behind these critical points comes the loss of the most important and sometimes unrecoverable components of nature. The development of a global environmental policy takes years and decades, even if this process ends with the adoption of a new agreement, there are significant procedural obstacles to effective global environmental policies and regimes, because by the time this policy is implemented, the situation with a specific environmental problem is much worse.



So, summing up, we can say that international interaction and coherence of states on environmental issues is of great importance. Environmental issues are inseparable from major political and economic interests, and this is a critical obstacle to global environmental policy.

Thus, international cooperation of the countries of the world in the field of environmental protection entails actual cooperation on important economic problems, as well as on safety issues.

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