

# Introduction of Alternative Sources of Energy as a Tool for Provision of Environmental Human Rights

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## Abstract

The importance of introducing and developing of alternative energy in the context of ensuring environmental human rights were analyzed in the article. The role of international governmental and non-governmental environmental organizations in ensuring environmental human rights was identified. The main international legal treaties governing the reduction of greenhouse gases into the atmosphere and the introduction of renewable energy were analyzed. Attention was drawn to the need to strengthen the role of international governmental and non-governmental organizations within the framework of oversight and monitoring functions regarding the possibility of influencing specific states that do not comply with the provisions of signed and ratified international conventions. It was concluded about the necessary adjustment of the vector of development of environmental rights protection instruments in the direction of its world globalization. To date, the process of world globalization must be shifted from a purely economic to a social and environmental one. The current global concept of supporting the development of alternative energy sources needs to undergo some changes. Considering that the environmental problem is universal and, although to varying degrees, it still applies to every individual, regardless of country or nationality of a person, the obligation to protect the environment should be universal and not only provided by government bodies of sovereign states, but also by international governmental organizations. The position of the necessity of establishing of international financing funds which would be implemented by their Member States on a permanent basis as a percentage of their budget is being maintained. Expanding the power of controlling entities of international organizations in respect of environmental human rights of citizens of different countries and of the whole society is considered necessary.

*Keywords: alternative energy, environmental human rights, international protection of environmental human rights, international governmental and non-governmental environmental organizations*

## 1. Introduction

Nowadays human rights can be recognized as the most important achievement of civilization, given the complex history of human development. By adopting the Universal Declaration of Human Rights at the UN General Assembly in 1948, the world

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community recognized a person of the highest social value, making a significant step to protect his rights and freedoms, and therefore to protect and improve the quality of life. One of the most important rights is the human right to a healthy and safe environment. Although these rights were not envisaged in the Universal Declaration of Human Rights, due to the lack of proper environmental impact assessment at that time, environmental rights were enshrined in the Stockholm Declaration [1]. The Declaration recognized that natural and man-made aspects of the environment play a decisive role in the well-being and realization of other human rights, focusing on the priority right - the right to life.

Attempts to ensure environmental human rights have been made since understanding the negative impact of scientific and technological progress on the environment. Awareness of such problems as global warming, air pollution, soil, water resources, ozone hole formation, caused primarily by CO<sub>2</sub> emissions from the transformation of mineral resources into energy, forced the signing of such important international legal acts as: Stockholm Declaration (Declaration of the United Nations Conference on the Human Environment), United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, the Paris Agreement et al. These acts recognize the importance of ensuring environmental human rights, which are to ensure a healthy natural environment and aim to take measures to minimize carbon dioxide emissions while maintaining the level of development of the national economy.

Given that energy today is a key factor in maintaining and developing economic relations between states, it is necessary to point out the impossibility of abrupt and immediate abandonment of such energy sources as coal, natural gas, oil and more. Just as it is inappropriate to say for certain what period of time humanity will have enough mineral resources for energy production, however, it may be said with a sufficient degree of confidence that the above resources are exhaustive, which will inevitably lead to their depletion.

One of the main ways to reduce the level of CO<sub>2</sub> emissions into the atmosphere is the introduction of alternative (renewable) energy sources, namely, sun, water, wind, biomass and more.

The prerogative of alternative (renewable) energy sources is their ecological safety, inexhaustibility, and the approximation of their specific cost of power and energy of most of them to traditional energy sources with the development of new technologies. Alternative energy is currently an area of energy with potential available to every country in the world. Its development requires considerable investment, but the result is much more important given the priority of environmental rights. That is why states are investing billions of dollars today, creating national strategies and common programs. The capacity of renewable energy installations can vary widely. In order to achieve maximum efficiency of such installations, the energy resources of potential renewable energy sources of individual regions their impact on the energy balance and economic feasibility in comparison with the energy of fossil sources are determined. In addition, there are many technological means of converting renewable energy and producing artificial fuel. The degree of sophistication of most technologies does not yet allow one to prefer a particular means of energy conversion, given the narrowing of their efficiency from local environmental conditions [2].

Nowadays, developments in all areas of renewable energy, for instance, development of

mini hydroelectric power stations operating with the use of a circulating effect are presented to improve the rotation of the turbine and protect its surface from the ingress of mechanical impurities [3] or improving systems for solar power provide inertial response or control of statism [4]. This shows significant advances in the development and improvement of the use of renewable energy sources, aimed at reducing harmful emissions of CO<sub>2</sub> and promoting environmental rights.

## **2. Problems and Conditions of Widespread Use of Alternative Energy Sources in the World**

The introduction of alternative energy sources and adoption of legislation have emerged as the primary objective of realizing environmental human rights and reducing harmful anthropogenic impact on the environment. Nowadays we can say about the relative success of introducing alternative energy sources in individual countries, especially the economically developed countries of continental Europe, the USA, Japan and some others. The lack of an interest in accelerating the transition of the economy to renewable energy by most countries of the world, in our opinion, is due primarily to the low level of environmental awareness of human, lack of understanding of the environmental problem and its role in ensuring normal living conditions. The environment is still the only possible natural habitat for humanity, and the care and preservation of it for future generations is an honorable duty of the entire world community.

In the context of the development of instruments to encourage the international community to introduce alternative energy sources an important problem is to bring to the member states of international organizations of global and environmental type understanding the real importance of introducing alternative energy sources both in the system of ensuring environmental human rights and economic well-being of the country. This thesis reinforces the need to understand that preserving the environment within the framework of ensuring environmental human rights is a key task for all countries of the world, because nature is not shared by administrative borders, and its pollution in one part of the earth's surface will inevitably lead to environmental imbalances in another.

Currently, there are more than 11 global intergovernmental environmental organizations in the world directly involved in protecting the environmental rights of human through the implementation of measures to promote environmental education; control over the state of the environment; environmental research; creation of funds and other associations for nature conservation; organizing measures to ensure environmental safety and improve the environmental situation, etc. Among them the biggest international organizations are the United Nations (UN) as the main international organization, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Program (UNEP), the United Nations Children's Emergency Fund (UNICEF), the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO) etc.

Some authors point to the presence of environmental courts in the courts of general and special (environmental) jurisdiction in different countries. Scientists devote three types of systems of ecological justice in the world, namely: 1) systems that transfer environmental

affairs to the courts of the general jurisdiction; 2) systems based on the internal specialization of the judiciary (creation of green benches, so called «green shops» or green judges without formal change of the judicial structure); 3) systems in which innovative environmental courts or tribunals are created. The first type includes the judicial systems of the most countries of the Romano-Germanic law, as well as Ukraine. The second involves the US judicial system (Vermont and Hawaii), Austria, a number of countries in Asia and South America. The third type of environmental justice system is the most innovative and progressive, based on the practice of Sweden, Australia, New Zealand, India, etc [5].

There are also a number of non-governmental environmental organizations that are primarily concerned with environmental assessment and the promotion of environmental education. Greenpeace, Global Nest, the World Society for the Protection of Animals, the World Wide Fund for Nature, the Global Ecolabelling Network, the Global Environment Facility and more can be highlighted. So, according to the Global NGO Carbon Project, worldwide, more than 40 billion tones of carbon dioxide is being produced worldwide due to harmful emissions [6]. The main reason for this is the heavy using of coal in China, which is now showing rapid growth in economic development.

Indeed, the level of environmental impact of thermal power plants that make up the backbone of energy production in the world cannot be underestimated. It should be noted that thermal power plants produce energy by burning coal, which today can safely be called the "dirtiest" energy resource, because among other sources of coal burning energy poses the greatest threat to the Earth's climate by changing it. Some experts confirm this thesis on the example of official data of the Ministry of Energy and Coal Industry of Ukraine, according to which more than 10 large condensing thermal power plants of five generating companies with a total installed capacity of 27.6 GW are operating in the territory of Ukraine, of which 21 coal power units, 8 GW, or about 41% of the capacity of the united power grid of Ukraine [7].

In this regard, international environmental organizations are constantly setting up platforms to discuss the reduction of CO<sub>2</sub> emissions into the environment as part of protecting environmental human rights and signing international treaties. This has led to the adoption of a number of international environmental acts, which has demonstrated the international community's understanding of future and existing environmental problems. Convention concerning the Protection of Workers against Ionising Radiations (entry into force: 17 Jun 1962); - Convention on International Liability for Damage Caused by Space Objects (1972) [8]; - Convention on Long-Range Transboundary Air Pollution (entered into force on March 16, 1983) [9]; - Sulfur Emissions Reduction Protocol; - the Vienna Convention for the Protection of the Ozone Layer (signed 1985) and the Montreal Protocol on Substances that Deplete the Ozone Layer (entered into force on 16 September, 1989) [10]; - Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes (1988) can be distinguished. The adoption of these acts demonstrated an understanding of future and existing environmental problems by the international community and initiated the fight against negative environmental anthropogenic changes.

### 3. Implementation of International Environmental Acts in the Field of Alternative Energy Sources

However, the United Nations Conference on Environment and Development (UNCED, known as the Rio de Janeiro Earth Summit, 1992) in Rio de Janeiro [11], the main act of which was the adoption of the United Nations Framework Convention on Climate Change (UNFCCC), played a key role in discussing the environmental challenges of continued economic growth, which entails increased energy production, and therefore CO<sub>2</sub> emissions on climate change [12]. The Convention aimed stabilizing greenhouse gas concentrations in the atmosphere at a level that would not allow a dangerous anthropogenic impact on the Earth's climate system and initiated the global process of limiting greenhouse gas emissions into the atmosphere.

The next major document was the Kyoto Protocol to the UN Framework Convention on Climate Change (UNFCCC). The main assignments were to improve energy efficiency in the relevant sectors of the national economy; research, development, promotion, and deployment of new and renewable energies, carbon dioxide sequestration technologies, and advanced, environmentally friendly technologies to promote appropriate reforms in their respective industries to facilitate the implementation of policies and measures to reduce or reduce emissions of greenhouse gases [13]. That is, under the Kyoto Protocol countries were obliged to seek and globally deploy alternative energy sources in the economies of the world to reduce greenhouse gas emissions.

The main mechanism for implementing the Kyoto Protocol was the quota trading route. However, the protocol did not provide for an equal obligation to be shared among countries. Developing countries have made no commitments whatsoever, including: India and China, which are experiencing the highest economic growth rates. The most significant commitments were made by the countries of Europe, which together with Japan were the main initiators of the Kyoto agreement (about 8%). The US pledged to reduce emissions by 7%, but did not ratify the document [14].

The Paris Agreement, adopted in 2015, aimed at realizing the principle of a common but differentiated responsibility of States to restrain global average temperature growth well below 2° C compared to pre-industrial levels and to strive to limit temperature growth to 1.5° C, recognizing that this will substantially reduce the risks and consequences of climate change [15]. Unlike the Kyoto Protocol, which sets out a list of greenhouse gas emission reduction targets for developed countries and some transition economies only, the Paris Agreement extends its commitment to limit emissions to a broad group of developing countries [14].

However, given that the document did not specify either quantitative commitments to reduce or limit greenhouse gas emissions by signatory states, nor a mechanism to control and enforce legal liability for the non-compliance with these objectives, it can again be assumed executed exclusively by the initiating States. That is, it can be said that, with the adoption of a number of international treaties, the international community is gradually approaching clear requirements from signatory states for methodical and rapid reductions in emissions, but the lack of a mechanism for directly influencing states to induce states to induce them is still an undetermined problem.

As we can see, the international legal regulation of the process of development of alternative energy sources is quite voluminous and detailed. That is why it seems appropriate to ask why the transition to green energy production is proceeding rather slowly? We believe that this problem must be addressed systematically. Thus, all the main factors that "hinder" (slow down) the process of transition to alternative energy sources that are taking place today can be divided into problems of environmental, economic, technological and administrative nature. Note, that despite their conditional distribution, they are all interconnected. We consider each in turn.

#### **4. Global Challenges of the Establishment of Alternative Energy Sources as a Tool of Providing Environmental Rights**

Thus, environmental issues include the weak interest of the ruling elite of many countries in the world in environmental issues in general and the protection of environmental human rights in particular. It should be noted that this is not only about the lack of political will of the ruling elite (though it also takes place), but in general about the attitude of the population to protect their own environmental rights and the rights of others. Our thesis is supported by statistics. So, if you look at the German parliamentary elections, the party 'the Union 90 / Greens' won 67 seats, which is almost 9 percent of the Bundesrat, adding 0.6 percent to its rating [16]. A similar situation can be seen in other EU countries, while in Ukraine, Russia and other post Soviet countries, the so-called "environmental political parties", are constantly losing their ratings and are not receiving public support. In Africa, South America, India and other countries, the problem of ecology is also not in demand. And the point is not that their ecology is better than the EU or the US. Due to the economic development of the countries, other issues such as the fight against corruption, adjustment of infrastructure, social sphere, increase of material well-being of the population, maintenance of macroeconomic stability, etc. are at the center of attention. Despite the implementation of the state general and special environmental control, the problems of ecology are still mostly point-specific, fragmented and are resolved as they are received. But as mentioned earlier, the problem of ecology is a common problem. The planet and the environment "do not understand" the administrative boundaries, the sovereignty of states and their personal economic, social and other problems.

The next issue is "an administrative" problem. We deliberately gave her the name "administrative", not legal, because from the above analysis of international legal regulation of the area under study, it appears that it is quite regulated in details. It cannot be called the one that was left unattended. However, this does not prevent States Parties to multilateral international environmental treaties from neglecting their environmental commitments. The main problem is that international environmental law itself is a relatively young field of law, and there is clearly a lack of instruments of legal influence on countries with low levels of environmental protection by international institutions.

In fact, the only legal method to date is persuasion, the main expression of which is manifested in the creation of special programs to support the development of alternative energy and control over their implementation. Moreover, it is appropriate to note that the control measures themselves are rather poorly developed, and the application of the

coercive method in general is contrary to the principles of international law. The existing competition of interests of the state, supported by the sovereignty and interests of the international community, rarely leads to the impossibility of solving a specific environmental problem. It is hardly feasible to envisage a mechanism for the use of, for instance, the NATO army, or other forceful measures to ensure the environmental rights of citizens in an African country. Nowadays the main contributors to the development of alternative energy sources are the above-mentioned international non-governmental organizations, the funding of which mainly consists of donations from individuals and corporations [17].

Another problem of environmental character is the lack of a unified conception on the environmental friendliness of energy sources. In fact, the problem outlined is ideological. Thus, despite the consolidation of a large number of rules in international documents and the worldwide proclamation of the need to switch to alternative (green) forms of energy production, questions remain on which debate are ongoing. This is clearly seen in the example of the energy of a peaceful atom. A situation has emerged when the entire civilized world has split into two camps: for and against nuclear power. Today, lively discussions continue on this issue in France, Spain, and others countries in both the European community and other parts of the world. At the same time, some political forces are appealing to the wider recognition of the fact that without using of nuclear energy, it is impossible to meet the rapidly growing energy needs of society and minimize harmful emissions into the atmosphere, while others continue to exploit the popular atoms of protest in certain parts of society. Comparison of these processes in different countries leads to quite interesting conclusions [18].

The described above problem of a two-pronged attitude to nuclear energy clearly points to another problem of introducing alternative energy sources - economic. Thus, nuclear power is indeed the most cost-effective. Other types of electricity production are inferior to nuclear. Although it should be noted in this aspect that investing in alternative energy is now forward-looking, it is especially true of solar and geothermal, which has become widespread in almost 100 countries in recent years. This is evidenced by the data of the world investment published by the UN [19]. Also interesting is Eurostat statistics, according to which 7.9% of EU electricity was generated from RES in 2004, compared to 13% in 2011 and an upward trend [20]. It should be noted that we have identified the list of obstacles to the development of alternative energy sources is not exhaustive in the world.

## 5. Conclusions

To summarize, we consider that the global introduction and enhanced development of alternative (renewable) energy sources will help to ensure a good development of environmental human rights for their protection not only in countries with sustainable democracy, but also in other countries of the world. The current global concept of supporting the development of alternative energy sources needs to undergo some changes. Considering that the environmental problem is universal and, although to varying degrees, it still applies to every individual, regardless of country or nationality, the obligation to protect the environment must be universal and not only safeguarded.

government bodies of sovereign states, but also representatives of international governmental organizations. We believe that the vector of development of environmental rights protection instruments should be directed towards its world globalization. Nowadays the process of world globalization must be shifted from a purely economic to a social and environmental one. In our opinion, the role of non-governmental international organizations in this process should be significantly increased. In particular, we stand for the need to create international financing funds that would be implemented by their member states on a permanent basis as a percentage of their budget and expand the powers of controlling entities of international organizations in the field of environmental protection for both, nations and the global society as a whole. It is also necessary to provide at the regulatory level for the possibility of the actual application of coercive measures by the controlling bodies of such international organizations to member states that do not fulfill their obligations to develop alternative energy sources, to expand their personnel, material and organizational support.

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