

Climate Protection Laws: European Reality and Ukrainian Prospects

by Anatolii P. Getman,ⁱ Yevhen A. Getmanⁱⁱ and Viacheslav I. Lozoⁱⁱⁱ

The global problem of climate change, originally manifested in air pollution and ozone layer depletion,¹ is evolutionary and anthropogenic in its nature. Its scale affects the interests of the entire present and future of humanity, calling for scrutiny and coordination of all the planetary efforts,² as regional activity alone is no longer sufficient.

Society and nature are open interacting systems. A continuously growing exchange of substances, energy and information between the environment and man may inexorably lead to the scaling-up and aggravation of environmental challenges. “Domestication” of the environment by man brings about a change in the intensity and even the direction of the natural exogenous processes. According to V.I. Vernadsky’s “Noösphere” concept,³ people have evolved from biological entities into planetary beings, which is why they should think and act globally, and not only as individuals. Beyond this, they can only exist within the environment – a biosphere, a shell of the Earth, with which they are connected naturally and inseparably – which they are not able to leave.⁴

“Climate” is generally understood to be a multi-year weather pattern, typical of a particular global region, and is one of that region’s geographic characteristics. By the middle of the 20th century, climate had also come to be seen as a statistic – a record of the various states through which the region’s geological components (ocean, land and atmosphere) have passed over several decades.

It is virtually impossible to identify a climatic system pattern at the existing level of scientific and technical progress. However, the task can be simplified to one parameter – the average annual global temperature of the surface air of the planet.⁵ A rise in temperature, being a sort of “sick person’s cough”, may well be an indicator of an increased concentration of CO₂ and other greenhouse gases (GHGs) in the atmosphere. As a result of fossil-fuel combustion, the atmospheric concentration of CO₂ has increased by one third compared to that of 50 years ago – something that has never occurred in human history,⁶ and the world’s ocean levels may rise by 80 cm over the 21st century. All this does not, however, suggest that global catastrophe or human extinction is threatening, as yet.

ⁱ Doctor of Legal Sciences, Professor, Pro-Rector for Scientific Work, Yaroslav Mudryi National Law University, Ukraine.

ⁱⁱ Doctor of Legal Sciences, Senior Research Fellow, National Academy of Legal Sciences of Ukraine.

ⁱⁱⁱ Doctor of Legal Sciences, Professor, Gregory Skovoroda Kharkiv National Pedagogical University, Ukraine.

Global Climate Regulation

The Vienna Convention and its Montreal Protocol

The start of global efforts at climate regulation was marked by the adoption of the Vienna Convention for the Protection of the Ozone Layer on 22 March 1985, and its 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. The European Community was one of the co-authors of this Convention,⁷ which identifies the Parties’ obligations as follows:

- cooperation by means of systematic observations;
- research and information exchange in that sphere;
- adoption of the appropriate legislative or administrative measures and harmonisation of environmental policies;
- formulation of agreed measures, procedures and standards for the adoption of protocols and annexes; and
- cooperation with competent international bodies to effectively implement the Convention.

The Parties undertake to facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information, and to protect its confidentiality. Fulfilment of these obligations would be facilitated by the annual Conferences of the Parties (COPs) convened by the Convention’s Secretariat for coordinating procedures and financial rules, reviewing implementation of the Convention, and harmonising appropriate policies and strategies in the relevant sphere. Thus, the Convention and its protocol established an institutional structure to regulate the Earth’s climate by means of intergovernmental bodies, COPs and non-governmental organisations.⁸

The Annexes to the Convention regulate procedures of systematic observation (of the radiation level, ozone distribution and physicochemical parameters of the atmosphere) and of information exchange (collection and distribution, criteria of selection and completeness and evaluation of results).

The UN Framework Convention on Climate Change and its Kyoto Protocol and Paris Agreement

Scientific and technical progress, and the accompanying anthropogenic impact on the natural environment, including the global climate, have significantly motivated the world community to combine efforts to create the conditions for ensuring climate protection. A meaningful outcome of those efforts was the UN Framework Convention on Climate Change (UNFCCC),⁹ signed at the UN Conference on

Environment and Development (UNCED) on 9 May 1992, and the Kyoto Protocol to the UNFCCC dated 11 December 1997. The ultimate goal of the Convention was stabilising the atmospheric GHG concentration level to a value that would prevent hazardous anthropogenic intervention in the climate system, while safeguarding sustainable development.

The Convention binds all the Parties to develop, periodically update and report to the COPs the national data on anthropogenic emission of all the GHGs that are not covered by the Montreal Protocol, using compatible methodologies, approved by the Conference. Additionally, the Convention binds the Parties to elaborate, implement and update periodically national and regional programmes that include measures aimed at climate change mitigation.

The Convention established a number of principles:

- (1) The Parties must protect the climate system in the name of the present and future generations, acting in accordance with common, yet differentiated, obligations and possibilities. Developed countries are to become initiators of dealing with climate change and its unfavourable consequences.
- (2) It is necessary to take into complete account the special needs and particular circumstances of developing countries, vulnerable to the adverse impacts of climate change, and of those Parties that would have to assume the corresponding burden, consistent with the Convention.
- (3) The Parties should take measures to prevent or minimise the causes of climate change and mitigate its adverse effects. In case of an outbreak of a major hazard or unpreventable environmental threat, lack of complete scientific certainty cannot be used as a pretext for postponement of such measures.
- (4) The Parties must cooperate with the aim of facilitating the creation of a favourable and open international economic system, which would lead to sustainable economic growth and development of all the convening Parties, in particular developing countries, allowing them to better respond to the climate change problems, without any discrimination.
- (5) In terms of the undertaken obligations, the Convention specified that the convening countries will
 - cooperate in the course of adaptation to the climate change impact, in integrated planning for the management of coastland, water resources and agriculture, as well as protection and restoration of areas that suffered from droughts, desertification or floods;
 - consider climate change in their social, economic and environmental policies, aiming to mitigate the negative impact on economy, healthcare and the quality of the environment, to apply the relevant national methods in order to understand the reasons for, consequences, scope and time of climate change, as well as economic and social effects of different global response strategies.

In 2005, the Kyoto Protocol at last became reality.¹⁰ The entry into force of the Agreement became possible

only after the document had been ratified by the countries with a minimal 55 percent share of greenhouse gas emissions.¹¹ That minimum was reached after ratification of the document by Russia, whose industry is answerable for 17 percent of all the world's GHG emissions. Kofi Annan, then Secretary-General of the United Nations, emphasised that it was a huge step forward in fighting one of the major dangers of the 21st century, and called climate change a global problem that requires a coordinated global answer.¹²

The Kyoto Protocol provided that 39 developed countries of the world and countries in transition must cut emissions of carbon dioxide and five more substances, the presence of which in the atmosphere affects the global climate. Over time, however, in view of recent trends in international and national legal regulation and protection of climate, it became essential to look at the climate problem from a new perspective.

In a UN session that was held from 30 November to 11 December 2015, the Paris Agreement to the UNFCCC was adopted. It supports the implementation of the Convention and accomplishment of its goals, aims to strengthen the global response to the climate change threat, in the context of sustainable development and efforts to eradicate poverty, including by the following means: curbing increases in the average global temperature, keeping it much lower than the set figures, with a view to reducing the risks and consequences of climate change to a large extent; enhancing adaptability for adverse impacts of climate change, fostering resilience to climate change and decreasing GHG emissions, in a manner that does not threaten food production; ensuring coordination of financial flows making them consistent with the pathway towards low GHG emissions and climate-resilient development (Article 2 of the Agreement). Part 2 of Article 5 of the Agreement recommends that the Parties take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: strategic approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivising, as appropriate, non-carbon benefits associated with such approaches.

According to the World Bank, by 2050, developing countries will need about US\$100 billion per year to protect their population against the grave consequences of global climate change: natural calamities, hurricanes, tsunamis and floods. If the necessary measures are taken in time, it could help to save funds in the future and to reduce the risks of the “worst case” scenario in those countries. Such measures should be financed by industrial countries, because it is these countries that produce the lion's share of hazardous emissions to the atmosphere.¹³

European Climate Regulation

The Sixth Environmental Action Programme of the European Community (6th EAP), adopted in 2002 (presently in force) updated the tasks and priority spheres of action on climate change. It was planned to attain the set objectives through fulfilment of the following tasks:

- ratifying and bringing into effect the Kyoto Protocol to the UNFCCC by 2002, as well as fulfilling European Community obligations to cut down emissions by 8 percent in 2008–2012 compared to 1990, as implied by the Council of the European Community conclusion dating 17 June 1998;
- achieving demonstrative progress in fulfilling the Kyoto Protocol commitments;
- taking a productive stand by defending the international agreement on greater emission abatement at the second stage of fulfilling the obligations of the Kyoto Protocol. The agreement in question aimed to cut emissions significantly, considering the necessity for a fair distribution of GHG emissions.

These tasks were to be fulfilled by putting the following priority arrangements into operational effect:

- (1) meeting international commitments on climate, including those of the Kyoto Protocol:
 - reviewing the output of the European Climate Change Programme, adoption of general and coordination policies and the relevant measures, and additionally – those for various sectors of engagement of member States;
 - establishment of a structure in the European Community aimed to develop an effective trade in CO₂ emissions, with a possibility of its extension to other kinds of GHGs;
 - upgrading the monitoring of GHG emissions and progress toward meeting the commitments of member States on the internal burden-sharing agreement;
- (2) reduction of GHG emissions in the energy sector:
 - providing, to the extent possible, subsidies encouraging the efficiency and stable use of energy with a tendency to a gradual general reduction;
 - encouraging the use of renewable and low-carbon fuels for generation of energy;
 - promoting the use of renewable energy sources;
 - stimulating the use of heat and energy up to 18 percent of the total electrical power generation;
 - reducing methane emissions in energy generation and distribution;
 - contributing to energy-saving;
- (3) reduction of GHG emissions in the transport sector:
 - encouraging transfer to more effective and cleaner modes of transport;
 - creating a stable transportation system;
 - contributing to development and use of alternative fuel and fuel-saving transport means;
 - taking environmental indicators into account when calculating transport rates, and in cases of inconsistency between traffic growth and its impact on the environment;

- (4) reduction of GHG emissions in industrial production:
 - promoting environmentally efficient industrial practices and technologies;
 - supporting small and middle-sized businesses in the field of innovations;
 - encouraging environmentally significant and technically feasible alternatives, including reduction of fluorine-containing gases such as hydrofluorocarbons, acid fluorocarbons and sulphur hexafluorides;
- (5) reducing GHG emissions in other sectors by raising energy efficiency, particularly for heating, cooling and hot-water supply in designing buildings as well as through reduced emissions in common agricultural policies and waste management strategies;
- (6) application of tools:
 - fiscal measures, including energy taxation schemes, encouraging transfer to effective use of energy, clean engineering and transport, and introducing technological innovations;
 - creating incentives for reduction of GHG emissions in industrial sectors;
 - ensuring the priority of climate change research and technological development.

Alongside its preventive measures, the European Community regulated adaptation to climate change effects:

- revision of its policies related to climate change in terms of investment decisions, so that it would include space for adequate adaptation;
- incentives for regional climate simulation and evaluation with a simultaneous preparation of such regional adaptation measures as water-resource management, preservation of biological diversity, prevention of desertification and flooding, and raising the awareness of populations and business circles.

Climate problems are specifically considered when the EU considers its own enlargement. Candidate countries are expected to apply the Kyoto mechanism with higher standards of reporting and monitoring of emissions, more stable transport and energy sectors, and activation of joint research in the climate change field.

Combating climate change became an integral part of the EU's policies in the sphere of foreign relations and one of the priorities of sustainable development policy. It required intense coordination on behalf of the European Community when providing assistance to developing countries and countries in transition, *e.g.*, through support for projects related to implementation of the Clean Development Mechanism, defined by the Kyoto Protocol, and its joint implementation; ensuring a transfer of technologies; and rendering assistance in adaptation to climate change results.

The Role of Ukraine in Prevention of Global Climate Change

Ukraine has been one of the world leaders in the implementation of joint environmental projects within

the framework of the Kyoto Protocol, which provided for reduction of CO₂ emissions by 53 million tons before 2012,¹⁴ since the main task of our country, according to the Protocol, was stabilising emissions, while the US would have to reduce theirs by 36 percent.¹⁵

At the same time, imbalance of the climate system threatens Ukraine with natural disasters, extreme temperatures, and a climate belt shift. For the southern and eastern regions, there is a risk of drinking water shortages, while in Western Ukraine, the Trans-Carpathian region, there is a threat of frequent storm rainfalls and extreme precipitation, which indicate the possibility of major malaria outbreaks. Thus, climate change is a socio-economic problem that affects people's health and lives. Ukraine being an agrarian country, climate change will have an adverse effect on the productivity of its lands and agricultural crop capacity.

According to the Climate Change Expert Group (CCEG), humanity will be able to adapt to a temperature rise on condition that it does not exceed 2°C. In the last hundred years it grew by 0.8°C. Thus, the remaining 1.2°C does not give much ground for optimism. Providing that the industrial countries of the Kyoto Protocol cut their GHG emissions by 25–40 percent before 2020, humankind will fit within the 2°C threshold value with a probability of 50 percent. However, presently the world expects a temperature rise of 3–4°C by 2050. This means, in effect, that the human race is heading stubbornly towards self-destruction. This testifies to the lack of political will, including in Ukraine, which is planning a gradual increase in emissions, as declared at the international level.

The Present State of Ukrainian Legislation on Climate Protection

For a long time, national environmental laws left unaddressed the legal issues of climate protection. Scientific research avoided examining environmental problems, basically being engaged in the legal aspects of environmental social relations. Considerable changes occurred after adoption of the UNFCCC of 9 May 1992 and the Kyoto Protocol to the Convention dating 11 December 1997. The Convention was signed on behalf of Ukraine on 11 June 1992, ratified by the Law of Ukraine on 29 October 1996, and came into effect in Ukraine on 11 August 1997.¹⁶

The ultimate objective of the Convention and of all the related legal documents consists in stabilising, through implementation of its provisions, the concentration of GHGs in the atmosphere at a level which would prevent a dangerous anthropogenic impact on the climate system. This should be achieved within the time limits necessary for a natural adaptation of ecosystems to climate change, without threatening food production, and providing further economic growth on a stable basis (Article 2 of the Convention).

Numerous principles guide the activity of the Parties in fulfilling the Convention goals. Among these, one can

highlight the following: climate system protection for the benefit of present and future generations on an equity basis; taking preventive measures to forecast, prevent or minimise the causes of climate change and mitigate its negative consequences; policies and measures aiming to protect the climate system against anthropogenic changes must comply with the specific conditions of each Party and be integrated into the national development programmes; cooperation with a view to establishing a favourable and open international economy.

Adopting the Convention, the Kyoto Protocol and the Paris Agreement gave a mighty impetus to essential transformations within the environmental legislation of Ukraine and launched scientific research in this field. In particular, the Decree of the Cabinet of Ministers of Ukraine “On the Climate Programme of Ukraine” of 28 June 1997 defines climate as one of the main natural resources that determines the living standards and vital activity of people, and also that affects the direction and level of economic development. One of the first scientific publications on this problem was a paper by V. Komarnitsky titled “Ukraine in international legal cooperation on climate change”, published in 2005. In the author's opinion, the Kyoto Protocol covered a variety of trends, aimed at solving global economic and environmental problems, and is a component of sustainable development *i.e.*, a harmonious economic, environmental and social development of society. Ukraine's joining the Kyoto Protocol called for fulfilment of certain national commitments: establishment of a national system for assessment of anthropogenic emissions from sources and absorption of GHGs by adsorbents; creating and keeping a national record of the set amount of GHG emissions; and encouraging public involvement in climate-change decision making.¹⁷

Later on, the problems of legal regulation and protection of climate change were elucidated in a number of scientific works by such authors as Getman and Lozo,¹⁸ Kuznetsova,¹⁹ Miroshnichenko²⁰ and Surilova.²¹ A specialised dissertation research on climate as an object of legal environmental protection in Ukraine was conducted by Prokhorenko.²²

The legal literature regards the concept of climate (in the environmental legal aspect) as an integral total (system) of natural conditions and processes that are in continuous interaction, exchanging and distributing energy among natural objects, and subject to legal protection. It sees such interaction as a prerequisite for, and indicator of, a safe, stable and quality condition of the natural environment.²³ The climate system (atmosphere, hydrosphere, biosphere and geosphere in their interrelation and interaction) is recognised by the norms of international environmental law as an object on which a dangerous anthropogenic impact is exerted. Control of that impact, specifically of legally defined activities related to GHG emissions, necessitates special international and national legal measures to stabilise the concentration of GHGs in the atmosphere and avoid degrading the natural environment.²⁴

The legal literature shows some scepticism towards the legal framework that regulates climate change, qualifying it as understudied. Specifically, according to Kuznetsova, the regulatory system in Ukraine is inadequate and needs considerable improvement, mostly with regard to legal regulation of climate change issues. The author believes that it is necessary to adopt strategic documents on global climate changes and their influence over the natural environment, economy and people, which will shape State policy in the said sphere for the next few years (political programmes, State strategies for industrial development, power industry, transport, public utilities sector, agriculture, waste management, land use and forest management and other economic branches).²⁵

The Paris Agreement was ratified by the Ukraine in 2016 (Law of Ukraine, 14 July 2016). Further acknowledgement by Ukraine of its commitments under the UNFCCC was the Order of the Cabinet of Ministers, adopted 7 December 2016, "On approval of the Concept for implementation of the state policy in the sphere of climate change for the period till 2030" (the Concept).²⁶

The purpose of the Concept was to improve State policy in the sphere of climate change in order to attain the country's sustainable development. It laid the legal and institutional groundwork to ensure a gradual conversion to low GHG emissions in conditions of economic, energy and environmental safety, and improving the wellbeing of the people.

The Concept emphasises that the urgency of addressing climate change problems is connected with: the need for improvement of the legal environment in this sphere; unclear distribution of functions, low level of action coordination and insufficient institutional capacity of public authorities for planning and pursuing activities in this field; inconsistency of climate change policy with legal and other regulatory acts in various socio-economic spheres; lack of a systemic approach to scientific capacity building related to climate change activity; poor awareness on the part of civil society and public authorities of all aspects of the climate change problem and the country's low GHG emissions development.

The main elements in implementing the Concept are as follows: enhancing the institutional potential for forming and promoting implementation of the State climate change policy; preventing climate change by reducing anthropogenic emissions and increasing absorption of GHGs, providing for a gradual transfer to low GHG emissions; adapting to climate change, strengthening resilience and lowering climate change risks.

Conclusions

Thus, Ukraine has undertaken commitments and is building its climate policy by harmonising the national legislation with the existing international climate protection standards. The first harmonisation stage was marked by the country's adoption of the Concept for the implementation of State policy in the sphere of climate change for the period till 2030. The Concept acknowledges that its realisation will make it possible: to improve State

climate change policy and enhance its institutional capacity; to guarantee the observance of all the obligations of Ukraine under the UNFCCC and other international agreements in the field of climate change, such as the Association Agreement between Ukraine and the EU, the European Atomic Energy Community and its member States; to ensure legal and normative regulation of market and non-market tools for reducing anthropogenic emissions and increased absorption of GHGs, including introduction of an internal system for the sale of GHG emission quotas and upgrading environmental laws with regard to GHG emissions, and to enforce such regulation; to strengthen the capacity of local executive bodies and local governments for designing and implementing measures on climate change prevention and adaptation to it; to improve the eco-tax system with regard to GHG emissions; to provide a systemic scientific, methodological and educational support for all aspects of the climate change activity; to raise the level of public participation in administrative decision making in the sphere of climate change, etc.

In the future, Ukraine should focus its attention on international cooperation with the Parties to the UNFCCC in the following spheres: deepening scientific knowledge of climate, including research, regular observation of the climate system and early-warning system, in a manner that creates an information background for delivery of climate services and support of decision-making processes; strengthening of institutional mechanisms for consolidation of the relevant information and expertise for providing the Parties with technical support and guidelines; and other areas, mentioned in the Convention.

Notes

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United States

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Climate Change in the Foreign Policy of the Trump Administration

Majid Asadnabizadehⁱ

This paper summarises the recent changes of foreign policy direction in the US, following the election of President Donald Trump. It focuses on the Trump administration's foreign policy relative to climate change. Following a brief background on the Paris Agreement, it provides an analysis of the reasons underlying the Trump administration's decision to withdraw from this agreement, with context on the historical background of the initial US ratification.

The key objective of this paper is to show analytically that the manner in which the Trump administration's foreign policy addresses climate change is not in line with previous US and global environmental concerns. As it will explain, the underlying issue/problem is not global climate change, but rather the nature of Trump foreign policy on the climate regime. This article will highlight the various drivers in the US that lie beneath these policy choices (see Figure 1). It is of paramount importance to address such questions, based on qualitative analysis, applying the analysis-of-factor method to draw out the diverse range of reasons underlying those policy choices.

The author has chosen to examine this topic for both practical and theoretical reasons. Concerns about climate change are mounting, and many now regard it as the major challenge confronting the US and the international community.

Background: Climate Change

Climate change is one of the greatest global challenges of the 21st century. Increasing evidence of present and anticipated impacts of climate change highlights the need for action (Akasaka, 2005). The evidence of climate change is compelling: Between 1880 (the industrial revolution) and 2015, average global surface temperature

rose by 0.9°C (1.5°F), as shown in Figure 2. In 2016, the earth experienced its third consecutive hottest year since records began (Greenfieldboyce, 2017). According to the Intergovernmental Panel on Climate Change, the current rate of greenhouse gas (GHG) emissions is likely to cause average temperatures to rise by 0.2°C per decade, reaching by 2050 the threshold of 2°C above pre-industrial levels. Some evidence suggests an even more rapid change, which will greatly, and in some cases irreversibly, affect not just people, but also species and ecosystems (Adedeji *et al.*, 2014).

The US is already experiencing the effects of climate change, and these effects will be much worse without action to sharply curtail emissions. Average US temperatures have already risen by 2°F over the past 50 years, and are projected to rise another 7–11°F by the end of this century under a high-emissions scenario, and 4–6.5°F under a low-emissions scenario (Ackerman and Stanton, 2008). Thus, most Americans understand that climate change is real and are concerned about it. Climate change, as well as related extreme events across shared US borders, can have direct and indirect impacts on those living in the US. For example, increased temperatures coupled with decreased precipitation in northern Mexico can lead to an increase in the intensity of dust storms and wildfires, which can cross the border into the US. Similarly, smoke from wildfires across the Canadian borders can lead to air quality and health concerns in the US (US Global Change Research Program, 2018).

Actions in response to these effects of climate change fall into two broad categories. The first involves *mitigation* measures to reduce future climate change by reducing emissions of heat-trapping gases and particles, or increasing the removal of carbon dioxide from the atmosphere. The second involves *adaptation* measures to improve society's ability to cope with or avoid harmful

ⁱ Ph.D. student, Department of International Relations, Maria Curie-Skłodowska University, Lublin, Poland.