

УДК 327:316.32
DOI: <https://doi.org/10.17721/1728-2292.2024/1-58/33-40>

Olena SHEVCHENKO, PhD (Polit.), Assoc. Prof.
ORCID ID: 0000-0002-3119-9193
e-mail: Shevchenko_olena@knu.ua
Taras Shevchenko National University of Kyiv, Kyiv, Ukraine

CLIMATE NEUTRALITY: CONTEMPORARY CHALLENGES FOR EUROPEAN POLICY

Background. *The article examines issues related to challenges to European climate neutrality, which have arisen before the European Union due to Russian armed aggression in Ukraine. The authors emphasize that the European Union has set an ambitious goal of becoming the world's first climate-neutral continent. The implementation of these plans requires a coordinated position not only of the member states, but also of the EU partners. Russia's military aggression against Ukraine may affect the achievement of European climate goals, as this conflict is accompanied by a significant impact on the environment. The authors set a goal to analyze how the Russian military invasion of Ukraine can affect the achievement of climate neutrality. To achieve the goal, the following research tasks were defined, in particular, to characterize the basic principles of the strategy and tools of the EU climate policy, to show the impact of Russian aggression on the ecology of the EU, to determine whether the topic of the environmental consequences of Russian aggression in Ukraine is relevant for the European public, and to assess how Russian armed aggression can influence the achievement of the goals of European climate neutrality.*

Methods. *The following methods were used: discursive analysis, the analysis of the documents, analysis and synthesis, comparative method, content analysis.*

Results. *In the frames of the study, it was revealed that the European Union has adopted a number of documents that fix the goals of the green transition, determine the tools for their achievement and are of an imperative nature. Since the war has the worst effect on the environment, the European climate policy will have to take into account the environmental consequences caused by the Russian aggression in Ukraine. There is a consensus that the ecological disaster in Ukraine, which is already characterized as ecocide, has a complex nature and will lead to a significant imbalance of ecosystems not only in Ukraine, but also in Europe. It is shown that the topic of the environmental consequences of the Russian invasion of Ukraine for the European Union is constantly present in the European media, which indicates its relevance for the European public.*

Conclusions. *The analysis of the environmental consequences of military actions made it possible to conclude that the challenges to the European climate policy in achieving the goals of climate neutrality can only be predicted, that is, the war can both intensify the climate crisis and, accordingly, political challenges, and improve progress in the implementation of the "Green Course", which will allow the European Union to realize its climate ambitions. On the one hand, it is obvious that the war exacerbates the climate crisis and, accordingly, political challenges. On the other hand, with the proper format, we can expect success in the implementation of the "Green Course", which will allow the European Union to solve its specific tasks, in particular, to become the first climate-neutral continent, to stimulate global climate actions and to increase the competitiveness of European economic sectors. Accordingly, it can be expected both more ambitious climate actions and the inhibition of the process.*

Keywords: *Climate neutrality, green transition, ecocide, Ukrainian-Russian war.*

Background

One of the most urgent problems of humanity is global climate change. At the international level, it is quite difficult to find ways to solve the problem of climate change and achieve a state of climate neutrality. This is due to the specifics of the problem, taking into account the different impact of climate change on territories, the different level of development of states, their institutional potential and ability to prevent and adapt to climate change. Achieving climate neutrality, i.e. a state where greenhouse gas emissions do not exceed the system's ability to absorb them, will allow the European Union to resolve the issue of increasing its own competitive advantages on the continent and in the world. Undoubtedly, such actions are associated with the implementation of an active climate policy, significant investments both in the short-term and in the medium-term perspective, but the result should be an increase in production efficiency, economic growth, stimulation of innovative activities, as well as a strengthening of the EU's position at the international level.

The implementation of the European climate policy includes the application of various instruments, in particular, those already implemented (EU ETS) and those to be implemented in the near future (CBAM). The use of such tools affects the economy of partner countries, including Ukraine, especially carbon-dependent sectors of the economy. Before the start of the full-scale Russian invasion, Ukraine actively supported European climate initiatives. Although the goals of the European climate policy were seen rather as a challenge for Ukraine, in particular the Carbon Border Adjustment Mechanism proposed by the European Commission, which provides for

the establishment of fees for the import of goods with a high carbon content, Ukraine considered the fulfillment of environmental obligations as an important prerequisite for successful European integration.

The full-scale Russian invasion led to significant negative consequences for the environment, which in turn complicated existing environmental problems on the continent and caused new ones to emerge. The lack of access to territories and objects of environmental management, the loss and destruction of infrastructure negatively affected the possibility of fully implementing state management in the field of environmental protection. The consequence of the Russian full-scale invasion was a significant threat to the environment not only for Ukraine, but also for Europe. We are talking about the deliberate actions of the occupiers, causing man-made accidents and threatening the environmental safety of millions of people living in the country, as well as far beyond the line of hostilities. Air, water, land, plants and animals suffer from this war. For the countries of the European Union, the forceful intervention of Russian troops on Ukrainian nuclear facilities (namely, the exclusion zone near the Chernobyl nuclear power plant and the seizure of the largest Zaporizhzhya nuclear power plant in Europe), and the related deliberate violation of radiation safety norms and the implementation of provocations, can be particularly dangerous.

Despite the war and the challenges faced by governments, the European Union continued its green transition. For Ukraine, the issue of environmental protection has also not receded into the background, as the reconstruction of Ukraine and all sectors of the economy should be planned with a green strategy in mind. Ukraine, as a candidate country and part of the European

© Shevchenko Olena, 2024

community, must act in sync with the European Union in matters of achieving climate neutrality, as well as creating new opportunities.

The purpose of the article is to show, based on the analysis of the main documents, achievements and practice of the EU's green transition in the conditions of a full-scale Russian invasion to Ukraine, what challenges the war on the European continent poses to European climate neutrality. Therefore, the article will attempt to provide answers to the following *research questions*: what are the basic principles of the EU climate policy strategy; what climate policy instruments have been developed and implemented in the European Union to achieve climate neutrality; how Russian aggression in Ukraine will affect the ecology of the EU; whether the topic of environmental consequences of Russian aggression in Ukraine is relevant for the European public; how Russian armed aggression will affect the achievement of European climate neutrality goals.

Methods

The analysis of European climate neutrality is at the intersection of several directions, including international relations, economics, political science, international security, that is, it is multidisciplinary. It was this multidisciplinary and the complexity of the problem that determined the methodological basis of the study, which consisted of the principles of objectivity, multifactoriality, and consistency. To achieve the goals set in the article, the authors used the interdisciplinary method of discursive analysis, as it is the most productive for studying the consequences of the implementation of the European climate policy, which allows obtaining answers to the above research questions. To determine the possibility of achieving a state of climate neutrality within the framework of the European climate policy, a systematic approach and political analysis were used as its component, which made it possible to present a holistic vision of the challenges of the European climate policy. The analysis of the documents made it possible to determine the main principles and trends of the European climate policy.

The study of climate neutrality for European policy was conducted using a systemic approach and its component as an analyst of international relations, which gave a holistic view of the specifics of European climate policy. The method of analysis and synthesis helped to study, systematize and characterize the consequences for the environment of the EU and Ukraine caused by the military actions of the Russian army. The comparative method made it possible to compare the environmental consequences of the Russian war for Ukraine and the European Union. The content analysis made it possible to find out the degree of concern of the European media about the environmental consequences of Russian aggression in Ukraine in achieving the goals of European climate neutrality.

The official documents, studies and reports of international and intergovernmental organizations and official bodies became the empirical basis of the work, in particular, the UN Framework Convention on Climate Change, basic documents of the European Commission and the European Parliament, which determine the directions of European climate policy, in particular, The European Green Deal, the European program Fit-for-55, The EU Emissions trading scheme, analytical reports of the GMK Center and the Rozumkov Center, National Institute of Strategic researches, resources of the Ministry of Environmental Protection and Natural Resources of Ukraine.

Results

The EU was one of the first international actors to understand the relevance of climate change as a foreign

policy topic and began developing its own climate policy, which goes beyond international negotiations in the UN Framework Convention on Climate Change (UNFCCC) (United Nations, 1992). Since 2011, the European Council and the European Commission have been constantly updating their strategic documents on climate issues. The topic of climate change is constantly present in basic foreign affairs documents, such as the EU Global Strategy (European Union, 2016) and GreenComp – the EU Sustainability Framework (European Commission, 2023). European climate policy is also closely related to the EU's internal efforts to combat climate change and strengthen European resilience.

Basic principles of eu climate policy

The main features of the EU's climate policy are determined, in particular, by its high integration into the European strategy, constant updating, strong public support, the predominance of a single policy in the separation of powers between the EU and member states in decision-making issues, the intensity of international activity and leadership in the negotiation process, as well as a holistic approach to climate and energy policy (Climate diplomacy in the EU..., 2017, p. 10).

In the early stages of its formation, European climate policy included three main components: supporting the UNFCCC negotiations, promoting low-carbon transformations and sustainable transformations in third countries, and reducing the risks of climate instability in order to promote peace and international security. A 2018 European Parliament resolution set out a European vision of tasks to improve EU climate policy, while emphasizing the EU's global role in promoting sustainability and stability (European Parliament, 2018a). The EU Climate Diplomacy Strategy outlines several aspects of structural improvements, important actors and topics to work with, and presents a vision of the role of the European Parliament itself in addressing global climate challenges. The document regulates the inclusion of the topic of climate in all spheres of policy, including conflict prevention, trade, cooperation in the field of development and humanitarian aid, finance and sectoral policy (energy and agriculture). The resolution emphasizes that the achievement of ambitious climate goals requires adequate funding, and proposes to allocate at least 30% of the EU's financial budget to climate-related expenditure. The document notes that the financial system should support the goals of sustainable development while avoiding the accumulation of assets and climate-related risks. The European Parliament aims to make political promotion of sustainable finance in the EU with performance indicators a "role model for other countries to follow" (European Parliament, 2018b).

The adoption of the Green Deal by the European Commission in December 2019 was an important step for European climate policy, but the global pandemic has had a serious impact on international relations and domestic imperatives. The European "Green Deal" is a long-term transformation program that envisages the possibility of achieving climate neutrality in the EU by 2050. The document, which was adopted shortly before the pandemic, sets out a vision of sustainability and decarbonisation for all sectors, including energy, industry, agriculture and food, ecosystem protection, buildings and transport. The goals of the "Green Deal" are directly correlated with the goals of the Paris Agreement and are mandatory in all European trade agreements (European Commission, 2019).

The European Parliament supported the "Green Deal" by issuing a corresponding resolution in January 2020, which emphasized the role of the EU as a world leader in

the fight against global climate change. The document states that the leading role of the EU as a market is to establish standards of sustainable development in global chains of added value creation and rules of trade relations; integrated and coherent policies, in particular the policy of "one voice", the provision of "green screening" in all external actions (European Parliament, 2020).

On July 14, 2021, the European Commission presented the program to combat climate change Fit-for-55 ("Fit for 55": delivering the EU's 2030 Climate Target on the way to climate neutrality). The global goal of the program is to achieve climate neutrality by 2050 and transform Europe into the world's first climate-neutral continent. According to the head of the European Commission, for this, it is necessary to reduce the level of greenhouse gas emissions (European Commission, 2021). One of the first steps on the way to climate neutrality is to reduce greenhouse gas emissions by at least 55 % by 2030. The program identifies proposals for revising and updating EU legislation and implementing new initiatives to ensure compliance of EU policy with the climate goals agreed by the Council and the European Parliament. In general, the Fit for 55 program provides changes in the energy (including renewable), transport, emissions trading, and import of polluting goods sectors as also in the environment, land use and forestry management, aviation sectors.

Thus, all European documents adopted after the 2018 resolution of the European Parliament on European climate diplomacy and the adoption of the Green Deal (2019) have a number of similarities, in particular, climate topics are seen as cutting across all areas of EU activity, trade and development policies are also important, and the EU's numerous partnerships are also seen as key.

EU climate policy tools

Achieving the goals of climate neutrality should be facilitated by the developed tools of climate policy. Today, the main tool for the EU to achieve its goals for reducing greenhouse gas emissions, which are declared at the international level and reflected in EU legislation, is the European Emissions Trading System (EU ETS). The ETS began operating in 2005 and today operates in 31 countries (all 28 EU countries plus Iceland, Liechtenstein and Norway) and limits emissions from more than 11,000 energy installations (power plants and industrial plants) and airlines operating between these countries. Thus, ETS covers about 45 % of greenhouse gas emissions in the EU. ETS also promotes the development of emissions trading in other countries and regions (European Parliament, 2003). The efforts of the EU climate policy are aimed, in particular, at establishing a connection between the ETS and other compatible systems of the partner countries.

In essence, the EU ETS is the world's first largest carbon market. Setting a carbon price and GHG reduction targets within the ETS contributes to environmental development and strengthening the competitiveness of the European economy, as it stimulates investment in energy-saving measures, reducing energy costs and financial risks associated with rising energy prices, as well as investment in renewable energy technologies, reducing energy dependence on fossil fuel imports and increasing energy security (European Commission, 2015, p. 14). ETS also promotes the development of emissions trading in other countries and regions. In various countries, including Ukraine, there is talk about the possibility of linking the ETS after its creation with the EU ETS, but for this, it is necessary to harmonize and universalize the rules,

transparency and proper control in the sphere of the operation of the ETS. In general, the essence of ETS is that, as part of the emission cap, companies receive or buy emission allowances that they can trade among themselves when necessary. They can also purchase limited amounts of international credits from projects aimed at reducing emissions around the world. Since the EU ETS is the central tool of the European Union for reducing its own emissions of greenhouse gases, its revision will be important in the adopted legislative package "Fit for 55".

One of the new proposals in the "Fit for 55" package is the creation of the Carbon Border Adjustment Mechanism, which will set a price for the import of a limited number of goods that pollute the environment, based on carbon emissions during their production. This measure is aimed at protecting European business from environmental dumping and preventing "carbon leakage", in situations where European businesses want to move outside the EU to avoid paying for CO₂ emissions. The introduction of the mechanism is also aimed at encouraging industry outside the EU and encouraging the EU's international partners to take steps in the same direction.

CBAM (Carbon Border Adjustment Mechanism) is one of the main parts of the "Fit for 55" package of the European Green Deal (Green Deal), and even earlier this mechanism was announced by the EU as a central element of the European Green Deal, designed to achieve the goals of the Paris Agreement. CBAM is an addendum to the European Emissions Trading System, but instead of quotas, special CBAM certificates are introduced, which importers of products must purchase in the EU in accordance with the volume of emissions during their production. Certificate prices will be calculated based on the average auction price of quotas within the EU ETS. CBAM will initially apply to the import of fertilizers, electricity, products of the cement industry and metallurgy (iron, steel, aluminum) and take into account only direct emissions during production. Because, as noted, these are the sectors with the largest CO₂ emissions and high trade intensity, which creates the risk of "carbon leakage" to other countries.

According to the action plan, a transition period starts in 2023, when companies will begin to report CO₂ emissions recorded during the production of relevant products. The mechanism will take into account the volume of direct CO₂ emissions obtained during the production of products, without including at the first stage indirect emissions obtained during the consumption of "dirty" electricity. At the same time, the European Commission proposes to introduce CBAM in full from 2026, when companies will be obliged to buy CBAM certificates.

Thus, these tools in a complex will help companies both inside and outside the EU to gradually adapt to the certificate system and go toward climate neutrality.

Impact of russian armed aggression in Ukraine on Europe's environment

The war in Ukraine will have not only economic consequences, it has ecological consequences for many countries in the region. For the EU today, this is a question of a common future, because any military conflict does not have a local character when it comes to the environment. The war of the Russian Federation in Ukraine is the first international conflict in the last 20 years with such significant and irreparable damage to the environment. In Ukraine, as of July 2023, estimated damages caused by the environment and calculated by the State Environmental

Inspection amounted to approximately UAH 2,070 billion. (approximately 50 billion euros) (MEPR, 2023).

In Ukraine, as of July 2023, estimated damages caused by the environment and calculated by the State Environmental Inspection amounted to approximately UAH 2,070 billion. (approximately 50 billion euros)

These calculations include damages from air pollution (from the burning of petroleum products and forest fires), soil, water, and waste generation. The term "ecocide" is used to characterize crimes against nature caused by Russian military aggression. Ecocide can be considered, in particular, the blowing up of fuel and lubricant warehouses, storages of oil products, airstrikes on enterprises that use dangerous chemicals in production, damage and destruction of sewage treatment facilities, and the spilling of sewage into reservoirs, as well as damage to the soil cover, burning of forests – especially in the territories of the nature reserve fund.

Due to the actions of the Russian Federation, 2,5 million hectares of the nature protection network of Europe were threatened with destruction, including 160 objects of the Emerald network – the territories of existence of species and habitats protected at the pan-European level, 17 Ramsar objects with an area of 627,3 thousand hectares – wetlands of international importance. In general, more than 20 % of all protected areas of Ukraine remain in danger from the actions of the Russian Federation (Ivanyuta, 2022). Combat operations are being conducted in protected territories of international and European importance, where the habitats of rare and endemic species are being destroyed. This can change the behavior of birds, including their migration. For example, in 2015, when Russian troops began to use Kryva Kosa in Donetsk region for landing, all bird diversity disappeared there. Although before that, the largest colony of red-booked Caspian martins nested en masse on the coast (WWF, 2022). Military operations are destroying the forests of Ukraine, which will also affect the food security of the world. Since the beginning of the full-scale invasion, almost three million hectares of forest in Ukraine have been covered by the war, which is almost the size of Belgium. Pollution from shelling has no borders. Shells that hit critical infrastructure and residential buildings every day cause significant fires, including forests, leading to significant air pollution with hazardous substances. Also, mined areas cannot be considered as an exclusively local problem. Mine ruptures lead to soil contamination with heavy metals, which makes the soil unsafe and in some cases unsuitable for further agricultural use. River pollution will also affect neighboring countries, as the Danube, Dniester, Prut, Tisza and Western Bug flow through Poland, Hungary, Romania and Moldova.

During a full-scale invasion, Russia actively engages in acts of nuclear terrorism on the territory of Ukraine: striking nuclear facilities, seizing them and using them as military bases. The Chernobyl nuclear power plant and the exclusion zone were under the control of the occupiers for more than a month. Ukraine's loss of control over the Chernobyl nuclear power plant led to the loss of control over radiation-hazardous facilities, namely over the new confinement and the "Shelter" facility; spent nuclear fuel storage facilities; liquid radioactive waste processing plants. As a result of the movement of Russian armored vehicles through the territory of the exclusion zone, the top layer of the soil in the territory of the placement of radioactive waste was removed, which caused an increase in the radiation level by 8 times. The Director General of

the International Atomic Energy Agency, Rafael Grossi, who later visited the Chernobyl nuclear power plant, said that "the situation was completely abnormal and very, very dangerous" (IAEA, 2022).

During the fighting for Kharkiv in the spring and summer of 2022, Russian troops targeted the Neutron Source nuclear facility on the territory of the Kharkiv Physical and Technical Institute several times, into which 37 fuel cells were loaded. Its damage and destruction of nuclear material storage facilities could lead to a large-scale environmental disaster.

Until now, another nuclear facility is under the control of the Russian troops – the Zaporizhzhia NPP – the largest nuclear power plant in Europe. Its capture today is considered not only as a violation of international law, but also as an act of nuclear terrorism. The South Ukrainian nuclear power plant near Mykolaiv also became a target of Russian troops, over which three missiles were launched. According to experts, the threat of hitting the nuclear reactor was high. Radioactive pollution in the event of the destruction of the nuclear power plant will make large areas uninhabitable. The same could happen if tactical nuclear weapons were used.

The explosion of the Kakhovka hydroelectric power station became the biggest man-made disaster in Ukraine since the beginning of the full-scale invasion. It can be compared to the use of nuclear weapons in terms of the scale of destruction and environmental damage.

The impact of Russian armed aggression on achieving the goals of European climate neutrality is not limited exclusively to the territory of Ukraine. Thus, Bloomberg analysts believe that "damage to the Nord Stream pipelines could cause a powerful climate catastrophe" (Bloomberg, 2022a). In particular, as a result of the accident, gas leaks created a 700-meter pool of boiling water in the Baltic Sea, about 300,000 metric tons of methane, one of the most powerful greenhouse gases, entered the atmosphere. Germany's Federal Environment Agency estimates that this amount of gas will have roughly the same impact on the climate over 20 years as the annual emissions of more than 5 million cars in the United States.

Accounting for carbon dioxide emissions will be one of the main topics of discussion at the COP28 climate summit in Dubai. Military emissions are often overlooked, but they are important in calculating a country's total emissions. However, reporting on military emissions is often complicated by the lack of transparency of data and emissions produced by militaries abroad.

In international law, intentional damage to the natural environment is considered a war crime. According to the Geneva Convention, "it is prohibited to use methods or means of warfare that are intended to cause or can be expected to cause widespread, long-term and serious damage to the natural environment" (OHCHR, 1977). According to the 1st Protocol to the Geneva Conventions of August 12, 1949, which concerns the protection of victims of international armed conflicts, adopted in 1977, belligerent states are required to protect the natural environment from "large-scale, long-term and serious damage", and prohibits methods or means of warfare "which are intended or may lead to such damage" (OHCHR, 1977). Russia also grossly violates the UNECE International Convention "On the Protection and Use of International Watercourses and International Lakes", the Convention on Wetlands of International Importance (Ramsar Convention). The 24th Principle of the Rio Declaration on Environment and Development declares

that war is inherently destructive to sustainable development. Therefore, states respect international law, which ensures the protection of the environment during an armed conflict, and, if necessary, cooperate for its further development. The International Court of Justice, in its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, held that environmental obligations – in particular the obligation of States to ensure that activities within their jurisdiction or control do not adversely affect the environment of other States – apply in the context of armed conflict, at least if they do not conflict with the law of war.

Therefore, crimes against the environment, which were committed on the territory of Ukraine, are war crimes, as well as a violation of international law. Military actions in Ukraine will affect the state of the environment of the countries of the European Union, which will manifest itself in air pollution, there is a threat of radiation safety, since it is extremely difficult to predict the direction and strength of the wind at the time of explosions, due to forest fires, mining and soil degradation, some agricultural lands will become unfit for cultivation, which will affect the quantity and quality of food from Ukraine.

Awareness of the environmental threat in the EU from russian armed aggression

It should be noted that the European Union is aware of the threat to the environment due to Russian aggression in Ukraine. The presence of the environmental theme in the European media can be considered an indicator of this, because the issue of ecology and climate neutrality is not the problem of one country. France 24, The Guardian, Bloomberg, Green European Journal, Radio Free Europe, Polske Radio, Business Insider and other influential media wrote about the potential impact on the environment in EU countries. For example, France 24 emphasized that "Ukraine is one of the most industrialized countries in Europe, where, according to estimates, 6 billion tons of liquid waste are stored, which are generated by coal mines, chemical plants and other branches of heavy industry. During the war, these extremely sensitive objects were constantly bombarded" (France 24, 2022). The Guardian notes that "politically, the war risks jeopardizing the European Green Deal's biodiversity plan as the EU delays publication of a directive on sustainable pesticide use and 'nature restoration' targets, citing concerns about war-induced food security" (The Guardian, 2022). Bloomberg reports on the need to rebuild cities devastated by the Russian invasion in a way that is cautious to the environment and helps fight climate change. For Ukraine, the EU plan for the aesthetics of green transformation of the continent "New European Bauhaus" can be a model. Analysts positively assess the prospects of implementing this approach in Ukraine, as Europe's highest executive body supports this idea to go beyond the union and play a role in the reconstruction of war-torn Ukraine (Bloomberg, 2022b). Green European Journal draws the attention of the European public to the fact that "the war in Ukraine is being waged through one of the most industrialized and polluted territories in the world due to the legacy of Soviet heavy industry" (Green European Journal, 2022).

Another wave of interest in the environmental consequences of the Russian-Ukrainian war for Europe occurred after the explosion of the Kakhovskaya Dam in June 2023. Although the position regarding the causes of the explosion differed in media, most of them spoke about the negative consequences of the event not only for Ukraine, but also for the European region. The dynamics of the Google trend show constant requests in the

Internet about "ecocide", "ecocide in Ukraine", "ecological consequences of war".

The analysis shows that the surge of publications coincides with significant events, such as the occupation of nuclear power plants, the blowing up of the Kakhovskaya dam, the announcement of the transfer of certain types of weapons, etc.

Will russian armed aggression affect achieving European climate neutrality goals

Analysis of assessments of the impact of the Russian armed invasion of Ukraine on the achievement of the goals of European climate neutrality made it possible to distinguish two types of scenarios – pessimistic and optimistic.

Pessimistic. In the report of the World Economic Forum "The Global Risks Report 2023", the risk of failure to combat climate change is defined as the first of the ten main risks in the ten-year perspective and the fourth in the two-year perspective (WEF, 2023). UN Secretary General António Guterres warned about global environmental threats in a speech at the World Economic Forum in Davos (Switzerland) in January 2023. He emphasized the devastating consequences of global climate change, as a result of which "some regions of our planet will become uninhabitable, and for many people it will be a death sentence" (UN, 2023). According to the UN, the war of the Russian Federation against Ukraine can disrupt the achievement of goals slowing climate change. The consequences of the war risk destabilizing global food and energy markets and will have a significant impact on climate change. There is also a risk of restoration of dependence on fossil fuels, although EU countries are attracting additional resources to get rid of energy dependence on Russian energy resources.

During the UN Climate Conference COP27, the leaders of the EU countries emphasized that, on the one hand, there is a difficulty in approaching the defined goals of the Paris Climate Agreement, and on the other hand, due to the criminal aggression of the Russian Federation against Ukraine, climate transformation is becoming even more difficult. Greenhouse gases formed on the territory of Ukraine as a result of the war will affect global warming. In addition, in connection with the war, the military industry is growing, which is very energy-intensive and additionally emits greenhouse gases into the atmosphere. Such emissions will have significant climatic consequences, because in terms of volume they can affect entire regions in terms of several months to several years.

Experts of the Ukrainian National Institute of Strategic Studies agree with such assessments, who believe that "the active phase of hostilities in Ukraine negatively affects not only the environmental security of Ukraine and the EU, but can also become one of the leading factors of climate change" (Ivanyuta, 2023).

Before the start of the full-scale Russian invasion of Ukraine, greenhouse gas emissions were reduced by 24 % in the EU compared to the 1990s. According to the modeling of the European Commission, at such rates of environmental transformation, the EU will not be able to achieve the required 55 % reduction by 2030. In addition, achieving ambitious climate goals requires restructuring the European energy sector, which accounts for more than 75 % of all greenhouse gas emissions.

In 2021, Ukraine made a voluntary commitment to reduce greenhouse gas emissions. But as a result of Russian armed aggression, funds that were planned to be spent on energy efficiency, green economy, renewable

energy sources, creation of new nature reserves, preservation of species, are now spent on military actions, which experts define as lost opportunities.

Optimistic. At the same time, despite the existing internal contradictions within the EU regarding the achievement of climate neutrality goals and the war in Ukraine, the Green Deal remains a key priority for the European Commission. Thus, EU Commissioner for Agriculture Janusz Wojciechowski believes that "the war in Ukraine cannot be an excuse for delaying the Green Deal" (Morrison, 2022), although he does not rule out the softening of the Commission's environmental obligations due to the consequences of the war in Ukraine.

The website of the European Commission states that "despite the pandemic and Russia's war against Ukraine, the pace of the green transition to overcome energy dependence has doubled" (European Commission, 2022). The European Commission defines key achievements on the way to climate neutrality as, in particular, the adoption of the European Green Agreement, which established the main climate goals, the adoption of the Climate Law, which recorded the intentions of climate neutrality at the legal level, the approval of the package of measures to reduce greenhouse gas emissions (fit for 55 package) and the economic recovery program (Next Generation EU). Also, in order to achieve the goals of climate neutrality, the documents defined a plan for the introduction of alternative types of fuel and infrastructure in transport, an action plan for the development of the organic products industry, the restoration of nature, rules regarding chemical pesticides, and the "New European Bauhaus" movement was launched, which should shape the climate-friendly behavior of citizens in their everyday life. In November 2021, at the COP26 conference, the European Union reported on significant progress in the implementation of the Paris Agreement. In June 2022, the Commission obliged the conclusion of bilateral trade agreements to take into account the criteria of sustainable development, which includes not only provisions on trade and sustainability, but also sanctions related to compliance with the Paris Agreement.

BP's (British Petroleum) forecast that the Russian-Ukrainian war will accelerate the world's "green" transition due to long-term energy demand can be considered optimistic. One can agree with BP experts that "the heightened focus on energy security as a result of the Russian-Ukrainian war has the potential to accelerate the energy transition as countries seek to increase access to domestically produced energy, much of which is likely to come from renewable sources and other non-fossil fuels." (British Petroleum, 2023). Optimism is shared by experts of the Professional Association of Ecologists of Ukraine, who believe that "the war in Ukraine, which has a significant impact on the global world, will provoke a massive and powerful transition to "green" energy" (PAEU, 2023)

Thus, the main negative scenario regarding the achievement of the goals of European climate neutrality in connection with Russian armed aggression is associated with an increase in greenhouse gas emissions as a result of military operations on the continent and increased dependence on fossil fuels. The optimistic hopes for the European green transition and climate neutrality are connected with the inevitability for Europe of abandoning fossil fuels, as this creates greater security for the EU countries against the background of global climate change.

This means that after the Russian full-scale invasion of Ukraine, we can expect both more ambitious climate goals and movement in the opposite direction. For example, the

closure of coal mines, of which there are many in Germany and Poland, may be suspended. The war in Ukraine will definitely affect the plans of European countries.

Discussion and conclusions

The analysis of challenges for European policy in the context of climate neutrality in the conditions of a full-scale Russian invasion of Ukraine made it possible to draw the following conclusions and obtain answers to the research questions. The goals of the green transition are defined by the European Green Deal. The document states that by 2050, Europe should turn into a climate-neutral territory, that is, one where greenhouse gas emissions do not exceed the absorbed volumes. The adoption of the European Climate Law has become an imperative for all EU member states and their international partners. A number of programs and regulations have also been developed that determine the components of the green transition in various areas of the economy.

European climate neutrality not only declares the ambitions of the transition to a climate neutral continent, but also includes the developed tools for their achievement. Such tools are, in particular, the program to combat climate change, mechanisms for regulating carbon emissions, programs for the transformation of the economy, the transition to renewable energy sources, environmental protection, and the formation of environmentally friendly behavior in citizens.

The European climate policy will have to take into account the environmental consequences caused by the Russian aggression in Ukraine, because of all types of human activity, war has the worst effect on the environment. It is obvious that the ecological disaster in Ukraine will have not only a local, but also a regional character, since the pollution of water and marine ecosystems, groundwater with possible radiation, chemical or toxic waste, air and soil will have a cross-border impact, which will lead for decades to a significant imbalance of ecosystems not only in Ukraine, but also in the whole of Europe. Many researchers today claim that those processes that take place in the war zone, in particular, crimes against the environment are war crimes, violations of international law and can be qualified as ecocide (Zasyadko, 2022). This means that the problem of averting ecological threats to the environment due to Russian military aggression in the context of achieving the goals of European climate neutrality requires special attention from both Ukrainian specialists and the European and world community.

The topic of the environmental consequences of the Russian invasion of Ukraine for the European Union is constantly present in the European media, which indicates its relevance both for the European public and for people who make high-level political decisions. European media discuss not only the ecological component of Russian aggression in Ukraine, but also ecocide. At the same time, the activity of the media is increasing with the onset of large-scale environmental threats, such as the occupation of Ukrainian nuclear power plants, the blowing up of the Kakhovskaya Dam, and the mass mining of territories, which will have direct consequences for the environment of European countries.

Since we are dealing with a complex problem – the study of the environmental consequences of military actions, which have only been partially studied, the final challenges to European climate policy in achieving the goals of climate neutrality can only be predicted. On the one hand, it is obvious that the war exacerbates the climate

crisis and, accordingly, political challenges. On the other hand, with the proper format, we can expect success in the implementation of the "Green Course", which will allow the European Union to solve its specific tasks, in particular, to become the first climate-neutral continent, to stimulate global climate actions and to increase the competitiveness of European economic sectors. Accordingly, it can be expected both more ambitious climate actions and the inhibition of the process.

Referenciac

- Ainger, J., & Clark, A. (2022, September 28). Nord Stream Gas Leaks May Be a New Disaster for the Climate. *Bloomberg*. <https://www.bloomberg.com/news/articles/2022-09-28/nord-stream-gas-leaks-could-be-unprecedented-climate-disaster?smid=premium-europe>
- Millan, L. (2022, June 10). War-Torn Ukraine Looks to Europe's Green Plans for Reconstruction Ideas. *Bloomberg*. <https://www.bloomberg.com/news/articles/2022-06-10/ukraine-post-war-reconstruction-may-have-green-inspiration-from-europe>
- British Petroleum. (2023, January 31). *Війна в Україні прискорить світовий "зелений" перехід*. <https://ecopolitic.com.ua/ua/news/vijna-v-ukraini-priskorit-svitovij-zelenij-perehid-british-petroleum/>
- Climate diplomacy in the EU: conclusions and recommendations for Ukraine*. (2017). Analytical report. Pravova analityka [in Ukrainian]. [Кліматична дипломатія в ЄС: висновки та рекомендації для України. (2017). Правова аналітика].
- Consequences of military actions and impact on the environment. (2023). *Ministry of Environmental Protection and Natural Resources of Ukraine*. <https://ecozagroza.gov.ua/en>
- European Commission. (2015). *EU ETS Handbook*. https://aeaep.com.ua/en/wp-content/uploads/2015/07/ets_handbook_en.pdf
- European Commission. (2019). *The European Green Deal*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2019:640:FIN>
- European Commission. (2021, July 14). *Fit for 55: delivering the EU's 2030 Climate Target on the way to climate neutrality*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0550>
- European Commission. (2022, August 31). *Leading the green transition: Europe's roadmap to become the first climate-neutral continent by 2050*. https://state-of-the-union.ec.europa.eu/state-union-2022/state-union-achievements/leading-green-transition_en
- European Commission. (2023, June 13). *The EU Sustainable Finance Framework*. <https://thedocs.worldbank.org/en/doc/8dea75f98f65a824e389/bdb422f06d8-0430012022/related/Andreas-Rajchl-EU-Commission.pdf>
- European Parliament. (2003). *Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC*. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:275:0032:0046:en:PDF>
- European Parliament. (2018a). *European Parliament resolution of 25 October 2018 on the 2018 UN Climate Change Conference in Katowice*. Poland (COP24) (2018/2598(RSP)). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52018IP0430>
- European Parliament. (2018b). *Climate diplomacy, European Parliament resolution of 3 July 2018 on climate diplomacy*. https://www.europarl.europa.eu/doceo/document/TA-8-2018-0280_EN.pdf
- European Parliament. (2020, 15 January). *Resolution of 15 January 2020 on the European Green Deal*. https://www.europarl.europa.eu/doceo/document/TA-9-2020-0005_EN.html

- European Union. (2016). *Shared Vision, Common Action: A Stronger Europe. A Global Strategy for the European Union's Foreign And Security Policy*. https://www.eeas.europa.eu/sites/default/files/eugs_review_web_0.pdf
- France 24. (2022, August 24). *Ukraine war passes half-year mark, leaving a 'toxic environmental legacy'*. <https://www.france24.com/en/europe/20220824/-ukraine-war-passes-half-year-mark-leaving-a-toxic-environmental-legacy>
- Green European Journal. (2022, May 19). *Las repercusiones medioambientales de la guerra en Ucrania*. <https://www.greeneuropeanjournal.eu/las-repercusiones-medioambientales-de-la-guerra-en-ucrania/>
- IAEA. (2022, 22 April). *Chief Grossi to Head Assistance Mission to Ukraine's Chernobyl Nuclear Power Plant Next Week*. <https://www.iaea.org/newscenter/pressreleases/iaea-chief-grossi-to-head-assistance-mission-to-ukraines-chernobyl-nuclear-power-plant-next-week>
- Ivanyuta, S. (2022). *Threats to Ukraine's ecological security from mining territories*. Center for security studies. National institute of strategic studies [in Ukrainian]. [Іванюта, С. (2022). *Загрози екологічній безпеці України від мінування територій*. НІСД].
- Ivanyuta, S. (2023). *Impact of Russian armed aggression on climate change and greenhouse gas emissions*. National institute of strategic studies [in Ukrainian]. [Іванюта, С. (2023). *Вплив російської збройної агресії на зміну клімату та викиди парникових газів*. НІСД].
- Ministry of Environmental Protection and Natural Resources. (2023, November 28). *Damage to Ukraine's environment as a result of the Russian war is unprecedented and global* [in Ukrainian]. [Міністерство захисту довкілля та природних ресурсів. (2023, 28 листопада). *Збитки довкілля України внаслідок російської війни – безпрецедентні та глобальні*]. <https://mepr.gov.ua/zbytky-dovkillyu-ukrayiny-vnaslidok-rosijskoyi-vijny-bezprecedentni-ta-globalni>
- Morrison, O. (2022). *The war in Ukraine 'cannot be a justification to delay the Green Deal', stresses EU*. <https://www.foodnavigator.com/Article/2022/06/01/the-war-in-ukraine-cannot-be-a-justification-to-delay-the-green-deal-stresses-eu>
- OHCHR. (1977, June 8). *Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II)*. <https://www.ohchr.org/sites/default/files/protocol2.pdf>
- PAEU. (2023). *Vijna v Ukraini vidkrye eru zelenoi energetyky dlya vsogo svity*. <https://paeu.com.ua/2022-ecotransformationsg-without-borders> [in Ukrainian]
- The Guardian. (2022, March 27). *Ukraine war deals 'massive blow' to nature as Belarus's largest wildlife NGO shut down*. <https://www.theguardian.com/environment/2022/mar/27/ukraine-war-deals-massive-blow-to-nature-as-belarus-largest-wildlife-ngo-shut-down-aoe>
- United Nations. (1992). *United Nations Framework Convention on Climate Change*. <https://unfccc.int/resource/docs/convkp/conveng.pdf>
- United Nations. (2023). *Secretary-General's remarks at the World Economic Forum*. <https://www.un.org/sg/en/content/sg/statement/2023-01-18/secretary-generals-remarks-the-world-economic-forum>
- WEF. (2023, January 11). *The Global Risks Report 2023*. World Economic Forum. https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf
- WWF. (2022, July 5). *Zayava WWF pro pislyavoennu stalu vidbudovy Ukrainy*. <https://wwf.ua/stay-tuned/news/?6984391/postwar-reconstruction-Ukraine> [in Ukrainian].
- Zasyadko, Y. (2022). *Month of war: crimes against the environment*. Ecodiya. <https://www.epravda.com.ua/columns/2022/03/26/684714/> [in Ukrainian]. [Засядько, Є. (2022). *Місяць війни: злочини проти довкілля*. Економічна правда].

Отримано редакцією журналу / Received: 23.07.24
 Прорецензовано / Revised: 17.08.24
 Схвалено до друку / Accepted: 29.10.24

Олена ШЕВЧЕНКО, канд. політ. наук, доц.
ORCID ID: 0000-0002-3119-9193
e-mail: Shevchenko_olena@knu.ua
Київський національний університет імені Тараса Шевченка, Київ, Україна

КЛІМАТИЧНА НЕЙТРАЛЬНІСТЬ: СУЧАСНІ ВИКЛИКИ ДЛЯ ЄВРОПЕЙСЬКОЇ ПОЛІТИКИ

Вступ. У статті розглядаються питання викликів європейській кліматичній нейтральності, які постали перед Європейським Союзом через збройну агресію Росії в Україні. Автори підкреслюють, що Європейський Союз поставив перед собою амбітну мету – стати першим у світі кліматично нейтральним континентом. Реалізація цих планів потребує скоординованої позиції не лише держав-членів, а й партнерів з ЄС. Військова агресія Росії проти України може вплинути на досягнення європейських кліматичних цілей, оскільки цей конфлікт супроводжується значним впливом на довкілля. Автори поставили за мету проаналізувати, як російське військове вторгнення в Україну може вплинути на досягнення кліматичного нейтралітету. Для досягнення мети були визначені такі завдання дослідження: охарактеризувати основні принципи стратегії та інструменти кліматичної політики ЄС, показати вплив російської агресії на екологію ЄС, визначити, чи тема екологічних наслідків російської агресії в Україні є актуальною для європейської громадськості та оцінити, як російська збройна агресія може вплинути на досягнення цілей європейської кліматичної нейтральності.

Методи. Використовувалися такі методи: дискурсивний аналіз, аналіз документів, аналіз і синтез, порівняльний метод, контент-аналіз.

Результати. У межах дослідження було виявлено, що Європейський Союз прийняв низку документів, які фіксують цілі зеленого переходу, визначають інструменти їхнього досягнення та мають імперативний характер. Оскільки війна найбільше впливає на навколишнє середовище, європейська кліматична політика має враховувати екологічні наслідки, спричинені російською агресією в Україні. Існує консенсус, що екологічна катастрофа в Україні, яка вже характеризується як екоцид, має комплексний характер і призведе до значного дисбалансу екосистем не лише в Україні, а й у Європі. Показано, що тема екологічних наслідків російського вторгнення в Україну для Європейського Союзу постійно присутня в європейських ЗМІ, що свідчить про її актуальність для європейської громадськості.

Висновки. Аналіз екологічних наслідків військових дій дав змогу зробити висновок, що виклики європейській кліматичній політиці в досягненні цілей кліматичної нейтральності можна лише прогнозувати, тобто війна може як посилити кліматичну кризу, так і, відповідно, політичні виклики, а також покращити прогрес у реалізації "Зеленого курсу", що дозволить Європейському Союзу реалізувати свої кліматичні амбіції. З одного боку, очевидно, що війна посилює кліматичну кризу і, відповідно, політичні виклики. З іншого боку, за належного формату можна очікувати успіху в реалізації "Зеленого курсу", який дозволить Європейському Союзу вирішити свої специфічні завдання, зокрема стати першим кліматично нейтральним континентом, стимулювати глобальні кліматичні дії та підвищення конкурентоспроможності європейських економічних секторів. Відповідно, можна очікувати як більш амбітних кліматичних заходів, так і гальмування процесу.

Ключові слова: Кліматична нейтральність, зелений перехід, екоцид, українсько-російська війна.

Автор заявляє про відсутність конфлікту інтересів. Спонсори не брали участі в розробленні дослідження; у зборі, аналізі чи інтерпретації даних; у написанні рукопису; в рішенні про публікацію результатів.

The author declares no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses or interpretation of data; in the writing of the manuscript; in the decision to publish the results.