

ADAPTATION TO CLIMATE CHANGE DURING ARMED CONFLICT: AN ECONOMIC AND INTERNATIONAL LEGAL ANALYSIS

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Abstract. The issue of environmental protection from global warming is a major area of research in the domain of international law. The phenomenon of climate change has exerted a deleterious effect on populations across the globe. Military conflicts have been demonstrated to exacerbate the problem of climate change, as hostilities increase the amount of emissions of hazardous substances. Consequently, climate change has been demonstrated to have far-reaching economic consequences, thus necessitating concerted international action. A separate question that must be addressed is that of whether states are bound by the obligations that arise from international climate law during periods of war. The purpose of this article is to analyse the economic consequences of climate change and to determine whether countries are obliged to comply with international climate law during armed conflicts. *Methodology.* In the course of composing the article, the primary focus was on the utilisation of general theoretical methodologies. A comprehensive evaluation of the economic ramifications of climate change and the adequacy of international legal regulation thereof was facilitated by analytical processes, theoretical generalisation and systematic interpretation. *Results.* The article under scrutiny examined the content of two seminal legal opinions on the obligations of states in respect of climate change. The first opinion was the Advisory Opinion of the International Court of Justice, delivered in July 2025, and the second was the Advisory Opinion of the Inter-American Court of Human Rights, delivered in May 2025. These opinions confirmed the obligations of states to protect the human right to a healthy environment, including the right to a safe climate. *Practical implications.* Drawing upon a comprehensive array of doctrinal provisions and contemporary international legal norms, the authors have meticulously delineated the prevailing issues that plague the realm of international legal regulation of environmental protection in the face of climate change. *Value/Originality.* It has been determined that states are obligated to comply with international climate law during military conflict. It was also determined that the obligation to refrain from causing irreversible damage to the climate and the environment falls under the jurisdiction of customary law. This implies that states are bound by this obligation and cannot deviate from it.

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1. Introduction

According to data from the Organisation for Economic Co-operation and Development (OECD), agriculture is the sector most adversely affected by climate change (OECD, 2014). According to the State Statistics Service of Ukraine, the agricultural sector constitutes almost 10% of the economy (State Statistics Service of Ukraine, 2025). Consequently,

the issue of climate change is of particular pertinence to Ukraine. The issue has been exacerbated by Russia's ongoing aggression towards Ukraine, leading to an increase in hazardous atmospheric emissions. This has a detrimental effect on the ecological situation. The implementation of international obligations in the field of preventing climate change could certainly improve the situation. Consequently, the question

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arises as to whether Ukraine should fulfil these obligations during a military conflict.

In the course of this scholarly work, particular attention was paid to the economic consequences of climate change, as well as to the provisions of the decisions of the International Court of Justice (ICJ) on obligations of states with regard to climate change and those of the Inter-American Court of Human Rights concerning obligations of states to protect the human right to a healthy environment, including the right to a safe climate. It is evident that proposals were made *de lege ferenda*. In the course of composing the present article, the authors drew upon the scientific contributions of scholars including S.V. Galárraga, J. Gilbert, O. Gulac, T. Novak and K. Yemelianenko, among others.

The objective of the present scholarly work is threefold. Firstly, it will analyse whether a state is bound to fulfil its climate change commitments during a military conflict. Secondly, it will identify the obligations of states with regard to climate change as determined by the decisions of the International Court of Justice and the Inter-American Court of Human Rights. Thirdly, it will highlight the shortcomings of these obligations and propose ways in which they can be improved.

2. Economic Impacts of Climate Change in Latin America

According to the statistics of the European Environment Agency, the economic losses of assets in the EU due to climate change amounted to 822 billion EUR during the period 1980–2024, with over EUR 208 billion (25%) occurring between 2021 and 2024 (European Environment Agency, 2025). The data also demonstrate a trend of increasing economic losses over recent years. A linear trendline through these 30-year averages represents a 54% increase from 2009 to 2024, or 3.4% per year (European Environment Agency, 2025).

Research conducted by the Intergovernmental Panel on Climate Change (IPCC) demonstrates that the level of implementation of international climate legislation has a direct impact on the level of economic losses (Ranasinghe, 2021). Consequently, the implementation of this approach is of paramount importance.

In its report, "Consequences of Climate Change Damages for Economic Growth", the Organisation for Economic Co-operation and Development (OECD) projects a loss of 0.7% to 2.5% of annual global GDP by 2060 (OECD, 2014). At the same time, according to this report, there are significant sectoral and regional variations in these annual global GDP losses. The agricultural sector dominates in most regions. Therefore, combatting climate change is a particularly

relevant issue for countries with significant agricultural production. Ukraine is one such country, and its situation is being further exacerbated by Russia's military aggression.

According to the World Bank Group, the number of people falling into poverty due to climate change is expected to range from 32 to 132 million in most scenarios (World Bank, 2020). These statistics highlight the urgent need for countries to address climate change issues.

According to the European Environment Agency (EEA, 2022), states are obliged to implement measures at the national level with the aim of combating climate change. In consideration of Ukraine's aspirations for European integration and its international obligations, it is asserted that Ukraine is bound by its international climate commitments. In the subsequent section, the authors present their argument on the subject of international climate commitments and their fulfilment during the period of Russian aggression.

3. International Climate Obligations of States During Armed Conflict

The UN Framework Convention on Climate Change (1992), the Paris Agreement (2015) and the Kyoto Protocol (1997) do not contain clauses that suspend obligations of states during armed conflict. It is therefore the objective of this study to ascertain the response to the question of whether countries should fulfil their international climate change obligations in the Vienna Convention on the Law of Treaties.

In accordance with Article 73 of the Vienna Convention on the Law of Treaties (1969), the following stipulation is to be observed: the convention shall not prejudice any question that may arise in regard to a treaty from a succession of states, from the international responsibility of a state, or from the outbreak of hostilities between states. This indicates that the Convention does not inherently result in the suspension of treaties due to armed conflict.

According to Article 26 of the Vienna Convention on the Law of Treaties, all treaties in force are legally binding on the parties involved and must be carried out in good faith. Article 61 of the Convention permits the suspension of a treaty due to the impossibility of performance. With regard to the application of Article 61, states can still fulfil their climate change obligations during an armed conflict. It is acknowledged that armed aggression certainly makes it more difficult to fulfil climate change commitments. However, this does not mean that no efforts should be made in this direction.

Article 60 is dedicated to the process of suspension or termination of a treaty as a consequence of its breach. Notably, armed conflict is not included in the list of factors that could result in suspension.

In consideration of the aforementioned, it is concluded that nations are obligated to honour their global climate obligations in the context of military conflict. Ukraine is obliged to fulfil its obligations under the Paris Agreement, and its nationally determined contributions must be ambitious. The necessity for ambition is further substantiated by the rulings of international courts. The following sections of the article will analyse the aforementioned points.

4. Obligations of States According to the International Court of Justice

The UN International Court of Justice made an important contribution to explaining the obligations of states under international climate law in 2025. In its advisory opinion on the obligations of states with regard to climate change, the Court recognised the link between climate change and human rights. The Court also recognised that preventing climate change and protecting the environment is essential for the enjoyment of human rights. Therefore, the state has a duty to protect the climate, including protecting environmental human rights, taking mitigation and adaptation measures, adopting relevant legislation, and setting adequate environmental protection standards. This is the state's obligation under international law (ICJ, 2025).

In accordance with paragraph 404 of the Advisory Opinion, human rights law, climate change treaties, other environmental treaties and customary international law are not distinct norms. Rather, they are intertwined, meaning that they must be interpreted and applied concurrently. The fulfilment of obligations by a state in one branch of international law (for example, the norms of international climate change law) cannot compromise the fulfilment of obligations in another branch (for example, international human rights law). The ICJ has determined that obligations under human rights law, climate change treaties, other environmental treaties, and customary international law in this sphere overlap. These obligations cannot be implemented separately.

It is evident from paragraphs 207-208 of the Advisory Opinion that all states, irrespective of their economic development, are bound by legal obligations with regard to mitigation. Furthermore, the infringement of states' obligations as stipulated in the climate change treaties gives rise to their responsibility for the transgression of international law norms. The violation of obligations of conduct occurs when the state has not utilised all available means and has not demonstrated a best effort to achieve the objectives of the convention. However, such obligations are not violated if the state has employed all available means yet failed to achieve the desired outcome (ICJ, 2025).

In the case of obligations of result, such as the obligation to formulate and publish national programmes and the obligation to communicate information to the COP, these will be met merely by the adoption of policies and the implementation of corresponding measures. It is therefore vital that these obligations are fulfilled. Furthermore, in paragraph 427, the court acknowledged that the failure of a state to undertake adequate measures to safeguard the climate system from greenhouse gas (GHG) emissions, whether through fossil fuel production, consumption, the allocation of exploration licences for fossil fuels, or the provision of fossil fuel subsidies, might be considered an internationally wrongful act attributable to that state (ICJ, 2025).

As is apparent, the ICJ delineates the obligations of nations, accentuating the imperative to curtail the utilisation of fossil fuels. The delineation of states' obligations in the domain of climate change prevention is a commendable development, and it is noteworthy that such a progressive provision was not anticipated. The activities of private fossil fuel companies should be reduced, and the court's recognition of the possibility of establishing the international legal responsibility of states for the activities of state bodies that have unlawfully issued licences for such activities, or failed to take the necessary steps to prevent climate change as specified in the decision's provisions, should contribute to climate system protection.

5. Obligations of States According to the Inter-American Court of Human Rights

In May 2025, the Inter-American Court of Human Rights issued an Advisory Opinion which confirmed the obligations of states to protect the human right to a healthy environment, including the right to a safe climate. The Inter-American Court of Human Rights has provided an interpretation of the scope of the general obligations of states derived from the American Convention and the Protocol of San Salvador in relation to the substantive and procedural rights in the context of the climate emergency.

The Inter-American Court of Human Rights has characterised the right to a healthy environment as a fundamental human right. This right is recognised as belonging not only to the present population, but also to future generations. The court emphasised that climate change and environmental deterioration have a detrimental impact on all human rights. It was therefore concluded that states have a responsibility to protect the environment. It is imperative that the court elaborated on the respective obligations of the countries in this particular domain. Several scientists have emphasised the importance of establishing countries' responsibilities more clearly in the areas of climate

change prevention and environmental protection (e.g., Gulac, 2022; Krasnova, 2017; Novak, 2024; Vaschenko, 2021; Yemelienenko, 2024).

One of the strengths of the Advisory Opinion lies in its detailed explanation of state due diligence obligations in the prevention of climate change. According to paragraph 236 of the Advisory Opinion of the Inter-American Court of Human Rights, these obligations include identifying and assessing environmental risks, taking proactive and ambitious preventive action, integrating a human rights approach into all climate-related policies, upholding procedural environmental rights and regulating corporate environmental responsibilities (Advisory Opinion, 2025).

The court also endorsed the concept of shared yet differentiated responsibilities, acknowledging that all states are obligated to act, though their respective obligations may be subject to variation based on their economic development and their contributions to climate change (paragraph 253). Furthermore, the necessity to undertake an environmental impact assessment was emphasised. The Espoo Convention has been identified as a significant instrument in the context of environmental impact assessment in transboundary scenarios. The court emphasised that the obligation to comply with the Convention's provisions should not be confined to its signatories. The conclusion drawn was that environmental impact assessment is in accordance with customary international law.

The Inter-American Court of Human Rights has adopted an innovative approach to environmental protection that represents a significant shift in legal thinking. This approach recognises nature as a subject of law, rather than simply an object of protection. The court determined that the conferral of legal personality on nature is imperative to ensure sustainable development and the right to a healthy environment for future generations. As stated in paragraph 280, this shift in approach to environmental protection is vital for the survival of local communities and indigenous peoples (Advisory Opinion, 2025). The court acknowledges that the natural environment is indispensable not only to the existence of states, but also to the life of all species on Earth. This extends the ambit of environmental protection beyond the realm of human rights, encompassing the rights of the planet itself.

Scholars such as Gilbert J. and Galárraga S.V. posit that a shift in the prevailing paradigm to acknowledge nature as a legal entity could enhance environmental protection and ensure the survival of all life forms, not merely human beings (Gilbert, 2023; Galárraga, 2018). It is the position of the present author and the Inter-American Court of Human Rights that the issue under discussion should be approached in

the following manner. This approach is intended to ensure a sustainable future. The court's reasoning is founded on principles of progressive development and intergenerational equality, a concept of particular interest as it is not limited in its application to Latin American states, some of which have recognised nature's rights in their constitutions (for example, Ecuador and Brazil), but can also be applied more widely. This approach has the potential to enhance environmental protection by prioritising the health of ecosystems.

Notwithstanding the numerous positive provisions of the advisory opinion of the Inter-American Court of Human Rights, it is evident that the opinion is not without its shortcomings. For instance, the document does not pay particular attention to the protection of the environmental and climate rights of women and children, nor does it address the protection of the rural population. As demonstrated by statistical data, these demographic groups are disproportionately impacted by climate change. Consequently, it is considered that these rights should be accorded particular consideration.

6. Conclusions

The economic consequences of climate change are undeniable, yet the current pace of action remains insufficient. The impacts of climate change will continue to worsen. Countries with large agricultural sectors, such as Ukraine, are at greater risk. Therefore, it is necessary to combat climate change even during military conflict.

It is evident that the legal obligations of states, as stipulated in the conventions concerning climate change, persist during periods of armed conflict. It is evident that the fulfilment of these obligations is becoming increasingly challenging. However, it is imperative that nationally determined contributions under the Paris Agreement are ambitious. The necessity for ambition is further substantiated by the rulings of international courts.

The advisory opinion of the UN International Court of Justice (ICJ) in 2025 signifies a substantial progression in the evolution of international climate change law and its intersection with human rights. A particularly progressive aspect of the court's jurisprudence is its recognition that if a nation state does not adequately address the issue of climate change, it may be held internationally responsible for its inaction.

The Inter-American Court of Human Rights' decision represents a significant development in international environmental law by recognizing nature as a legal subject with its own inherent rights. This progressive shift in perspective challenges the traditional

conception of nature as merely an object of protection. A thorough examination of the Inter-American Court of Human Rights' ruling reveals that it contains comprehensive obligations for states concerning the prevention of climate change and the mitigation of its consequences. However, a detailed analysis reveals the absence of any explicit obligations for states with regard to women and the rural population. Such obligations should be given due consideration, as this category of persons requires special protection. Women and rural communities are particularly vulnerable and require special protection. It is imperative that the rights

of these communities are given due consideration when formulating state programs aimed at counteracting climate change. Investment in renewable energy is undoubtedly a step in the right direction, but it is imperative that greater efforts are made to mitigate the consequences of climate change, particularly for vulnerable populations.

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