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ARMED CONFLICT, ECOCIDE AND CLIMATE CHANGE AT A CROSSROAD: SOME LEGAL PERSPECTIVES

ЗБРОЙНИЙ КОНФЛІКТ, ЕКОЦИД І ЗМІНА КЛІМАТУ НА ПЕРЕХРЕСТІ ДОРІГ: ДЕЯКІ ПРАВОВІ АСПЕКТИ

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Abstract. *In this article, the rules of Law of State Responsibility, International Environmental, Humanitarian and Criminal Law as well as the law of the European Union and Ukraine concerning the responsibility and liability for widespread, long-lasting and severe damage to the environment are analyzed. The authors consider the perspectives of the criminalization of ecocide in international law and the relevance of global efforts to combat climate change to the armed conflict in Ukraine. The overall purpose of the paper is to link the international community's actions towards the addition of ecocide as the 'Fifth Crime' to the Rome Statute of the International Criminal Court, global efforts in relation to climate change mitigation and accountability, on the one side, and the implementation of the responsibility of the Russian Federation for its aggressive war against Ukrainian sovereignty, territorial integrity, human lives and the natural environment, on the other. The article analyses the concept of state responsibility, individual criminal responsibility and strict liability with regard to environmental damage and crimes with a special emphasis on wartime environmental harm. The authors consider climate change as a crime of ecocide from the perspectives of state, corporate and individual responsibility and study the relevance of these issues to the armed conflict in Ukraine. The article pays a special attention to the idea of drafting the special Convention on the Prevention and Punishment of the Crime of Ecocide.*

Key words: *ecocide, armed conflict, climate change, international law, responsibility, liability, European Union, Ukraine, environmental damage, environmental crimes.*

Анотація. *У цій статті аналізуються норми права міжнародної відповідальності, міжнародного екологічного, гуманітарного та кримінального права, а також права Європейського Союзу та України щодо відповідальності за широкомасштабну, тривалу та серйозну шкоду навколишньому середовищу. Автори розглядають перспективи криміналізації екоциду в міжнародному праві та зв'язок глобальних зусиль у боротьбі зі зміною клімату зі збройним конфліктом в Україні. Загальна мета статті полягає в тому, щоб пов'язати намагання міжнародної спільноти щодо додавання екоциду як «п'ятого злочину» до Римського статуту Міжнародного кримінального суду, глобальні зусилля щодо пом'якшення наслідків зміни клімату та відповідальності за них, з одного боку, та реалізацію відповідальності Російської Федерації за її агресивну війну проти українського суверенітету, територіальної*

цілісності, людських життів і навколишнього природного середовища, з іншого. У статті аналізується поняття відповідальності держави, індивідуальної кримінальної відповідальності та суворої відповідальності за екологічну шкоду та екологічні злочини з особливим акцентом на екологічну шкоду, завдану під час війни. Автори розглядають зміну клімату як злочин екоциду з точки зору державної, корпоративної та індивідуальної відповідальності, а також досліджують актуальність цих питань для збройного конфлікту в Україні. Окрему увагу в статті приділено ідеї розробки спеціальної Конвенції про запобігання злочину екоциду та покарання за нього.

Ключові слова: екоцид, збройний конфлікт, зміна клімату, міжнародне право, відповідальність, відповідальність, Європейський Союз, Україна, екологічна шкода, екологічні злочини.

Introduction. Widespread, long-lasting and severe damage to the human environment may be the consequence of armed conflicts, peaceful anthropogenic activities or natural disasters. In the first two instances, global, regional and national legal instruments must provide the possibility to bring public and private actors having caused such a damage to responsibility or liability. In this article, we'll consider the rules of Law of State Responsibility, International Environmental, Humanitarian and Criminal Law as well as the law of the European Union and Ukraine concerning the responsibility and liability for environmental harm, perspectives of the criminalization of ecocide in international law and the relevance of global efforts to combat climate change to the armed conflict in Ukraine.

The purpose of the paper is to link the international community's actions towards the addition of ecocide as the 'Fifth Crime' to the Rome Statute of the International Criminal Court (hereinafter – ICC), climate change mitigation and accountability, on the one side, and responsibility of the Russian Federation for its aggressive war against Ukrainian sovereignty, territorial integrity, human lives and the natural environment, on the other.

Recent literature review. The issue of the criminalization of ecocide in international law has been duly elaborated in academic literature. It was highlighted in the works of prominent foreign authors, such as J. Hemptinne, M. Gray, A. Greene, K. Mackintosh, L. Oldring, S. Mehta, P. Merz, G. Okwezuzu, D. Palarczyk, as well as in the works of the 'Stop Ecocide International' team. Some of the scholars paid a special attention to climate change in relation to environmental damage and deliberated on the possibility to recognize 'climate crimes' (A. Branch, L. Minkova, P. Canning, H. Wilt). J. Wyatt analyzed the main conceptual issues of damage to the environment in relation to international armed conflict, meanwhile Th. Hansen and M. Milanovic considered the problem of the destruction of the Nova Kakhovka dam from international law perspective. Ukrainian authors didn't pay enough attention to the relationships between state responsibility, individual criminal responsibility, strict liability in relation to environmental crimes and damage, on the one hand, and climate change, on the other. Besides, the relevance of these issues to the armed conflict in Ukraine is insufficiently considered in modern scientific literature.

Main research results. In Public International Law, there are some types of accountability concerning environmental damage. First, responsibility of states comes for the violation of the international legal obligation of a state on the protection of the environment in peacetime or during an armed conflict under the treaty or customary rules of international law. The violation may consist in illegal intentional act or inaction (omission) of a state. For example, intentional environmental harm was caused during the Iraq invasion into Kuwait or the USA war in Vietnam. Inaction of a state means the breach of its 'due diligence' obligations, like in the case of the negligence of the USSR in case of Chernobyl disaster or some states – emitters of greenhouse gases (hereinafter – GHGs) to stop global warming. Second, responsibility of individuals (individual criminal responsibility under International Law) comes for crimes against the environment, whether they act as state representatives or in an individual capacity. For example, General Alfred Jodl was found guilty by the Nuremberg Military Tribunal for implementing the 'scorched earth' tactics. Third, civil (strict) liability of states and individuals comes for environmental damage inflicted in the course of ordinary but dangerous industrial activities which are not prohibited by International Law. For example, such type of liability may be the result of the accidents during the transportation of harmful substances like oil or wastes as well as accidents at nuclear powerplants. Thus, the term 'responsibility' refers to the breach of obligation to

prevent environmental harm or refrain from illegal activity by states as well as commitment of an environmental crime by private entities, while the term ‘liability’ refers to the obligation to compensate environmental harm irrespective of the fault of a state or an individual [Medvedieva, 2021].

State responsibility. Under current International Law, widespread, long-term and severe damage to the environment caused during peacetime or wartime is the basis for a state responsibility. According to customary rules of International Law, ‘[e]very internationally wrongful act of a State entails the international responsibility of that State’ [Draft Articles ... 2001]. If those acts, e.g., wanton destruction of the protected areas or massive pollution of watercourses, are attributable to the state under International Law and constitute a breach of its international obligation, that state will be held responsible. There are also some specific treaties dealing with responsibility of states for environmental harm caused during armed conflicts or peacetime. Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 1977 (hereinafter – Protocol I) lays the ground for responsibility of states as well as individuals for environmental harm caused during armed conflicts. Article 35(3) stipulates that it is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment [Protocol Additional ... 1977]. Article 55 adds that care shall be taken in warfare to protect the natural environment against such damage and that attacks against the natural environment by way of reprisals must be prohibited [Protocol Additional ... 1977]. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, 1977 (hereinafter – the ENMOD Convention) envisages in Article I that each State Party undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party [Convention ... 1977]. Article II further defines environmental modification technique as any technique for changing – through the deliberate manipulation of natural processes – the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space [Convention ... 1977]. In the Understandings to the Convention there are some examples of such techniques, among them changes in climate patterns are listed. Thus, only deliberate manipulation with global climate may constitute an internationally wrongful act of a state, while everyday human activities contributing to global warming seem to be out of reach of the Law of State Responsibility.

When it comes to a state responsibility for climate change, we should understand that it will rise in case of non-fulfilment by a state of its obligations under the United Framework Convention on Climate Change (hereinafter – the UNFCCC), 1992, the Kyoto Protocol, 1997 or the Paris Agreement, 2015. Thus, when a state causes widespread, long-term and (or) severe damage to the climate system intentionally or with the high degree of knowledge about the consequences, mainly as the means of destruction or injury to another state, it will be held responsible under the customary rules of the Law of State Responsibility, ENMOD Convention and Protocol I. When a state causes some damage to the climate system which is not widespread, long-term and (or) severe, mainly as a result of non-fulfilment of its obligations under the UNFCCC and Paris Agreement (e.g., it does not report to the secretariat all the necessary information or does not adhere to the timeframes for the submission of the GHGs reduction commitments), it will be held responsible under the customary rules of the Law of State Responsibility and the above-mentioned agreements on climate change.

Individual criminal responsibility. Today only the Rome Statute of the ICC refers to individual criminal responsibility for environmental crimes within the context of war crimes. According to Article 8(2)(b)(iv) of the treaty, an armed forces’ commander or an ordinary soldier of a belligerent state may be held responsible for the crime [Wyatt, 2010] – ‘[i]ntentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated’ [Rome Statute ... 1998]. Meanwhile, no individual has ever been charged with for war crimes of damaging the natural environment since the Rome Statute was enacted [Greene, 2019]. Several environmental agreements encourage states to criminalize some offences in their national legislation (*Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, 1989 and *Convention on the International Trade in Endangered Species of Wild Fauna and Flora*, 1973), but such

environmental crimes can be prosecuted in national criminal courts, not in international tribunals like the ICC. At the European Union level there is the Directive 2008/99/EC on the protection of the environment through criminal law that obliges state members to ensure that certain conduct constitutes a criminal offence, when unlawful and committed intentionally or with at least serious negligence [Directive 2008/99/EC].

Some experts propose to expand the *ratione materiae* jurisdiction of the ICC by adding ecocide as a fifth crime, along with the crimes of genocide, war crimes, crimes against humanity and aggression. In this case causing a widespread, long-term and severe damage to the natural environment will be prosecuted if committed not only during an armed conflict but also in peacetime. There is no definition of the term 'ecocide' in international treaty law, meanwhile, there are plenty of definitions of the new crime in the doctrine. The one thing which unites them is the association with widespread, long-term and severe damage to the environment.

After the Second Indochina war (Vietnam War, 1955-1975) international community applied the term 'ecocide' for the first time [Medvedieva, 2021]. The scientist A. Galston, who discovered the chemical Agent Orange used by the US troops in Vietnam, proposed a new international agreement to ban ecocide as a crime against humanity [Okwezuzu, 2015]. After this, a lot of initiatives to criminalize ecocide in international law were triggered in different forms: preparation of draft conventions by individual scholars; speeches of prominent politicians and experts at the international conferences in support of the idea; proposed amendments to the draft conventions dedicated to other crimes (e.g., genocide). The work of the UN International Law Commission during the drafting of the Code of Crimes against the Peace and Security of Mankind is the most cited example. Unfortunately, the draft Article 26 which provided that 'An individual who wilfully causes or orders the causing of widespread, long-term and severe damage to the natural environment shall, on conviction thereof, be sentenced' [Okwezuzu, 2015] disappeared from the final version of the document and was replaced by another provision referring only to wartime environmental damage within the context of war crimes.

Some countries included the crime of ecocide into their criminal codes: Vietnam, Ukraine, Moldova, Georgia, Armenia, Kazakhstan, Kyrgyzstan, Tajikistan, Belarus, Russia. For example, in the Section dedicated to criminal offences against peace, safety of the humankind and international legal order, the Ukrainian Criminal Code provides such a definition: 'mass destruction of flora and fauna, poisoning of air or water resources, and also any other actions that may cause an environmental disaster' [Criminal Code ... 2001]. The definitions envisaged in the codes of former Soviet states rely on the concrete damage to the natural environment and are linked to environmental disaster or catastrophe. Vietnamese code clearly defines ecocide as a crime against humanity [Ecocide law]. The criminal codes of Kazakhstan and Tajikistan call ecocide a crime against the peace and security of mankind [Ecocide law]. Some other states like France and Belgium declared the intention to recognize a crime of ecocide in their national law.

With the creation of foundation 'Stop Ecocide International' in 2017 by P. Higgins and J. Mehta, the movement to recognize ecocide as international crime has acquired more weighty sound. They proposed amendment to the Rome Statute and defined ecocide as follows: 'ecocide' means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts [Independent Expert Panel, 2021]. Besides, the terms 'wanton', 'severe', 'widespread', 'long-term' and 'environment' were also defined. J. Hemptinne observes that the proposed definitions were rooted into the Rome Statute because the drafters wanted to be 'realistic' in order to maximize the chances of building a consensus among state parties around the definition [Hemptinne, 2022]. To our mind, these definitions must be supplemented by the list of concrete acts which amount to ecocide. A lot of proposals have already been made by prominent experts, e.g., by Professor Falk in his International Convention on the Crime of Ecocide published in 1973. [Greene, 2019] or Promise Institute for Human Rights (UCLA) Group of Experts [Proposed Definition ... 2021]. D. Palarczyk observes that such 'list' technique is more practical and desirable from the perspectives of certainty and predictability, and thus might be relatively easier to gain states' acceptance [Palarczyk, 2023].

Some recent initiatives to support the criminalization of ecocide include the following. UNEP noted the calls that have been made regarding the creation of an international crime of 'ecocide', specifically through amending the Rome Statute of the ICC and expressed its opinion that further

investigation into the merits of this proposal would be warranted [UNEP]. Resolution of the Parliamentary Assembly of the Council of Europe 2477 (2023) ‘Environmental impact of armed conflicts’ highlights that currently ongoing revision of the Convention on the Protection of the Environment through Criminal Law offers the possibility of establishing a new criminal offence of ‘ecocide’ at Council of Europe level, that it is necessary to codify this notion in both national legislation and international law and that the Assembly supports efforts to amend the Rome Statute so as to add ecocide as a new crime [Resolution ...]. The European Economic and Social Committee in its Opinion on the right to a healthy environment in the European Union, especially in the context of the war in Ukraine (2022) stressed that Russia’s actions appear to amount to ecocide and called for ‘ecocide’ to be codified as a criminal offence under the European Union Law [European Economic and Social Committee, 2022]. The Committee observed that the recognition of the crime of ecocide in the revised EU Environmental Crime Directive will lead to developments in legislation beyond the EU, in particular in the ICC, which may aid in bringing a degree of accountability for Russia, reflecting the environmental harm caused [European Economic and Social Committee, 2022]. In 2023, the EU Parliament decided to amend this Directive and proposed to insert the following provision on ecocide: ‘Member States shall introduce in their national law a crime of ecocide, which shall be considered a serious criminal offence ... and shall be defined as unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and widespread or long-term damage to the environment being caused’ [Report ...].

Strict liability. Some authors are of opinion that ecocide should be a crime of strict liability [Gray, 1996]. For example, S. Mehta and P. Merz consider that liability arises even if environmental damage was not intended but is rather the side effect of industrial activity [Mehta et al., 2015]. G. Okwezuzu stipulates that the criminal codes of the above-mentioned states lack ‘a test of intent’ making ecocide a strict liability offence [Okwezuzu, 2015]. On the other hand, A. Greene analyzes this option stressing that ‘[e]cocide as a crime of strict liability ... considers the *effect* of the relevant act, not the *intent*’ and further refutes that possibility because ‘[s]trict liability ... is rare and disfavored in criminal law’ [Greene, 2019]. We think that the crime of ecocide must be constructed upon the principles of the Law of State Responsibility and International Criminal Law: it embraces illegal act or omission (failure to act) of a person and is always based upon fault. The act or omission in ecocide can be willful, reckless or negligent [Gray, 1996] but it is always linked to fault-based liability. Meanwhile, strict liability, or liability for acts not prohibited by international law, is always implemented without the need to prove the fault of an operator. If ecocide is added to the Rome Statute it must be in full compliance with the main principles of that document and will be defined in a way similar to other crimes, including the components of ‘intention’ and ‘knowledge’. Article 30 ‘Mental element’ of the Rome Statute clearly stipulates in paragraph 1 that a person shall be criminally responsible and liable for punishment for a crime only if the material elements are committed with intent and knowledge [Rome Statute ... 1998]. Thus, ecocide has the potential to become a ‘crime of intent’ and to be placed among crimes against humanity or it may take a separate position as a ‘fifth core crime’. The issue of intention and knowledge is at the centre of debates around criminalizing ecocide because individual criminal responsibility requires proof not only of a criminal act having occurred but also of the culpability of the actor’s mental predisposition [Branch et al, 2023]. In case of ecocide the perpetrator performs the illegal act with certain level of knowledge about the probability of catastrophic consequences and has to assess all available alternatives. But the question is what level of knowledge is needed to trigger responsibility for environmental crime. Some authors pay attention to the beginning of the cited paragraph 1 of the Article 30 of the Rome Statute: D. Palarczyk thinks that the component ‘[u]nless otherwise provided’ allows departures from the general standard prescribing both knowledge and intent [Palarczyk, 2023].

In the European Union Law criminal responsibility for crimes against the environment and civil liability for the environmental damage are separated issues: the former is governed by the Directive 2008/99/EC on the protection of the environment through criminal law, while the latter is governed by the Directive 2004/35/CE on environmental liability with regard to the prevention and remedying of environmental damage.

Climate change as a crime of ecocide: state, corporate or individual responsibility? Many calls are heard to recognize climate change as an ecocide. With the increasing urgency of the global climate crisis, a growing number of different stakeholders believe [Mackintosh et al, 2022] that ecocide should

also include climate-related damage. According to the UNEP and INTERPOL, environmental crimes became the fourth largest criminal sector in the world putting at risk the environment in general and the climate in particular [Report ...]. The Promise Institute for Human Rights (UCLA) Group of Experts among the acts of ecocide listed '[s]ignificantly contributing to dangerous anthropogenic interference with the climate system, including through large scale emissions of greenhouse gases or destruction of sinks and reservoirs of greenhouse gases' [Proposed Definition ... 2021]. There are several pending requests for advisory opinions submitted to international courts, namely, the International Court of Justice, International Tribunal for the Law of the Sea and Inter-American Court on Human Rights concerning obligations and responsibility of states in respect to climate change. Criminal codes of some countries describe a crime of ecocide in terms of ecological disaster or catastrophe. Climate change is certainly ecological disaster threatening the humanity. These initiatives show the awareness of states about climate change accountability and the growing interest of the world community in recognizing of damaging the global climate a criminal offense.

Meanwhile, some problems arise: it may be impossible to establish any casual relationships between the action (GHGs emissions) and the damage caused to the climate system, humanity in general, states and private entities. A. Branch and L. Minkova observe that 'it is the lack of a clear link between intention, action, and harmful outcome that tends to characterize peacetime environmental damage' [Branch et al, 2023] including damage to climate. Next, who will bear responsibility in that case: states – the biggest GHGs emitters, major corporations or individuals who consume the products and use the services which produce GHGs? It is very difficult to separate a perpetrator and a victim in case of climate change. H. Wilt stresses that the early proposition of Polly Higgins to focus on state officials and representatives of large corporations as the main or even sole culprits of the crime of ecocide has found wide acclaim, because, e.g., individual consumers should not incur criminal responsibility for global warming [Wilt, 2023]. At the same time, the scholar provides the example of the international crime of illicit traffic in narcotics and supports the view that both producer/seller and consumer are in principle partners in a harmful activity, including GHGs production, that deserves a criminal response [Wilt, 2023]. In view of the current knowledge of the detrimental effects of GHGs emissions for the climate, we cannot preclude the co-responsibility of consumers [Wilt, 2023]. Many harmful acts like the massive deforestation in the Amazon region or the dramatic rise of sea-level in the Pacific, 'involve concrete acts that are the outcome of deliberate corporate or governmental policy' [Wilt, 2023] and 'it would generally be relatively easy to identify the main culprits' [Wilt, 2023]. Consumers who certainly know the impacts of GHGs emissions on climate can also be held responsible. But the tricky question is how to evaluate the level of knowledge and the input of every person into global warming.

Another challenge P. Canning pays attention to is a fact, that climate change has been caused primarily by western nations [Canning, 2022] but due to temporal limits of the ICC jurisdiction some unfairness may be created in relation to climate change and ecocide. Indeed, due to the principle of non-retroactivity a lot of perpetrators guilty of the climate disastrous impacts will escape responsibility. Developing countries having less capacities to combat climate change will take longer to bring emissions down as they need energy to develop that leaves them potentially more vulnerable to a new crime of ecocide at the ICC as it relates to climate change [Canning, 2022]. Since the top three historical emitters, who have contributed the most to global climate change (the USA, China, and Russia), are not signatories to the Rome Statute, and all three are permanent members of the UN Security Council, it would be impossible to trigger the ICC jurisdiction over their state officials or CEOs of major corporations in this regard.

In general, climate change as a crime of ecocide may lead to a state, corporate or individual responsibility only if it is clearly provided in a treaty. It is desirable that such a treaty contain the list of acts including widespread, long-term and severe damage to the climate through 'large scale emissions of greenhouse gases or destruction of sinks and reservoirs of greenhouse gases' [Proposed Definition ... 2021].

Relevance of the discussed issues to the armed conflict in Ukraine. Recently, with the beginning of the Russian war against Ukraine, the move towards the criminalization of ecocide has gained a new momentum. The world has already witnessed fragrant disregard by the Russian Federation of international legal principles and rules. It will be responsible as a state for gross violations of

International Humanitarian Law as well as International Environmental Law. The damage caused to the Ukrainian environment is enormous: massive contamination of the atmosphere, water resources, destruction of the protected areas, loss of biodiversity, forest fires, land degradation, etc. The recent blowing up of the Kakhovka dam in June 2023 by the Russian military forces will obviously cause the widespread, long-term and severe damage to the environment having transboundary impact and amounts to ecocide under the Ukrainian law: the disappearance of the protected areas (such as the Chornomorskyi Biosphere Reserve, many Emerald Network and Ramsar sites), destruction of ecosystems, disappearance of wild flora and fauna, poisoning of water resources (e.g., the pollution of the Dnipro River and the Black Sea by toxic substances), land degradation, soil contamination, etc. Since such acts are prohibited by the ENMOD Convention, Protocol I and the UN Convention on the Law of the Non-navigational Uses of International Watercourses, 1997, Russia will be responsible for the breach of its obligations under these treaties as well as individuals who gave orders may be criminally responsible for these acts of ecocide. Individual responsibility may be realized in Ukrainian criminal courts and in the ICC.

The armed conflict in Ukraine as a result of the Russian Federation aggression undermines the efforts of the world community in the fight against climate change. The war has already resulted in the emissions of at least 33 million tons of carbon dioxide, including emissions from war hostilities, the use of diesel, gasoline and aviation fuel by military units, the production of ammunition, movements of the internally displaced persons and refugees, forest fires. The post-conflict infrastructure recovery will add other 50 million tonnes of GHGs. The world witnessed the acts of Russian nuclear terrorism which threatens the climate of the whole planet. About 2 million hectares of forests which must be protected as providers of natural carbon sinks, were exterminated during this war. Renewable energy projects in the southern part of Ukraine which would have effected the achievement of climate neutrality were destroyed. Russia's war against Ukraine has brought about an energy crisis that has forced many countries to turn back on coal-fired power generation. The problem is exacerbated due to the need to re-locate funds from GHG emissions reduction initiatives to strengthening defence capability of Ukraine and other countries in the face of new military threats. Although the war caused Ukraine's economy to decline resulting in some reduction in GHG emissions, however, most of the emissions simply moved outside Ukraine.

Blowing up of the Kakhovka dam by the Russian forces resulted in the draining of the reservoir that will also lead to the appearance of large sand areas, desertification of the southern region of Ukraine including the Crimea peninsula and in the nearest future – to climate change. Huge land areas were flooded, but later the water will go down, the fertile soil layer will be washed away, meanwhile the irrigation systems will be completely destroyed so that any agriculture activity and the existence of biodiversity indispensable for climate change mitigation will be impossible. The UN Country Team in its analytical note on the event observes that 'the destruction of the dam, beyond these immediate humanitarian needs, will have a significant impact in the longer term on a much larger geographical area and population. It will have severe, long-term impacts on Ukraine's environment' [UNCT ... 2023].

These consequences are not the result of everyday harmful activities of people who consume products and use services dangerous for climate without certain knowledge and, moreover, without the intent to cause climate disaster. These consequences are the result of internationally wrongful act of a state – the Russian Federation – which invaded the Ukrainian territory in 2022 and will bear international responsibility as an aggressor state and as an occupying power. The attribution of responsibility is clear: the dam was under the Russian control since the beginning of the war, it was immediately mined by the occupying power and it is technically impossible to blow up the structure from outside, e.g., with the help of Ukrainian missiles, – only from inside – with the help of Russians mines.

During the war, the Ukrainian Prosecutor General's Office opened about 16 criminal proceedings in accordance with article of the Criminal Code devoted to ecocide which relates to the Russian aggression. In June, 2023 the Prosecutor General's Office announced the opening of criminal proceedings under the Criminal Code Articles 441 'Ecocide' and 438 'Violation of the laws and customs of war' in relation to the blowing up of the Kakhovka dam by the Russian forces. Article 438 is designed in more general terms, neither refers to wartime environmental damage (unlike Article 8 of

the Rome Statute devoted to war crimes), nor establishes any thresholds to trigger criminal responsibility for widespread, long-lasting and severe damage to the environment. Article 441, in contrast, provides a rather high threshold to trigger criminal responsibility referring to environmental disaster but doesn't give any definitions for the latter term. Furthermore, the term 'environmental disaster' is not defined in International Criminal Law. International Humanitarian Law is always used as *lex specialis* in relation to other branches of international law. This means that the better qualification for crimes against the environment caused during an armed conflict is provided by article on war crimes rather than article on ecocide. Nevertheless, we think that the most appropriate way is to use both articles in conjunction.

Environmental crimes have been ignored by international tribunals for a long time, there were no prosecutions for them so far, but Ukrainian courts may pave the way to the emerging state practice on individual accountability for ecocide. The destruction of the Kakhovka dam may become the first ICC case on environmental war crime. The ICC has different options to prosecute the perpetrators under more general Rome Statute's provisions regarding war crimes (attacks on civilian objects) or crimes against humanity (inhumane acts intentionally causing great suffering). But to our opinion, Article 8(2)(b)(iv) of the Rome Statute may be activated and create a long-awaited precedent. This catastrophe made by the Russian Federation meets the cumulative requirement of the provision: the damage is obviously widespread, and severe, and will be long-term that is supported by many environmental experts. Though some authors claim that 'it is ... not entirely clear whether there has been such an attack, defined by Art. 49(1) of Additional Protocol I to the Geneva Conventions' [Milanovic, 2023], the internationally wrongful acts (aggression against Ukraine, occupation of the part of its territory, mining and putting at risk of the dam which is indispensable for the survival of civilian population) are attributable to the Russian Federation and must trigger its responsibility. The dam was not a military objective and was under the total (effective or overall) control of the occupying power, furthermore, Article 56 of the Protocol I explicitly forbids any attacks on installations containing dangerous forces such as dams even if they are military objectives, that's why Russian soldiers violated the customary principles of distinction and proportionality and must incur criminal responsibility too. M. Milanovic points out that if the dam was destroyed by Russian forces deliberately and that they did so without pursuing any definite military advantage and did so knowing of the harm to the civilian population, the dam's destruction could amount to a war crime or even a crime against humanity [Milanovic, 2023]. Some experts highlight that the Kakhovka dam destruction will provide the ICC with the incentive to start investigation in order to counter the criticism on its behalf that the Court have been ignoring environmental crimes for so long [Hansen, 2023].

Conclusions. To make ecocide a crime against international law is possible because there is strong public movement, international organizations support, a real and current case-study (many instances of widespread, long-term and severe damage to the environment caused by Russia during its aggressive war against Ukraine) and some legislative state practice which is the evidence of *opinion juris* towards the criminalization of ecocide which has the potential to boost law-making at the international level. The Rome Statute's preamble refers to 'grave crimes' which threaten 'the peace, security and well-being of the world' [Rome Statute ... 1998] and the crime of ecocide, including climate change, matches this definition. Until the indictment in Al-Mahdi case at the ICC, it was considered unrealistic to establish individual responsibility for crimes against culture. Thus, crimes against the environment have a potential to find their own path to the Court.

Meanwhile, if the process comes to a dead end, there are still some alternatives. Since all other 'core crimes' had been strongly elaborated in treaties and judicial practice of international courts and tribunals before the Rome Statute which incorporated them was adopted, an effective way for the crime of ecocide to fall under the ICC jurisdiction may be the same: first, to adopt a convention on ecocide and second, to amend the Rome Statute.

If ecocide becomes the fifth crime under the Rome Statute, only individuals will bear criminal responsibility for its commission. This will prevent similar crimes in the future but it will have little significance for the destroyed environment. That's why a special Convention on the Prevention and Punishment of the Crime of Ecocide may be elaborated. Should it be adopted, the international community will get a legal ground to file a case before the International Court of Justice against a state for breaching its 'due diligence' obligations under the Convention or intentional acts

leading to severe, widespread and long-term environmental damage. Convention may also envisage the obligation of state parties to establish the responsibility of individuals as well as organizations (corporations) for committing the crime. Another option open for the drafters of the Convention is to establish a special international environmental court dealing with individual and corporate criminal responsibility and civil liability.

Anyway, that instrument will oblige the subjects of responsibility (state, organization and individual) to provide sufficient and effective reparation for the ecocide-related damage in order to restore the destroyed environment. The Convention could avoid the problematic components of 'intention' and 'knowledge' and make the crime of ecocide a 'crime of strict liability', thus, preventing large corporations and states to escape responsibility (liability) because of the lack of intent to cause widespread, severe and long-lasting environmental damage. Such acts which lead to powerplant explosions, oil spills or climate change will find their way to criminal responsibility (liability) at the international level. The Convention will oblige state parties to set up effective national legal mechanism on ecocide and in this way a new customary rule of international law may appear. To adopt the Convention may become the first step – to create a firm universal legal basis for a new crime which later can enter the Rome Statute as a second step in global efforts to combat environmental offences, prevent environmental damage and restore the destroyed environment.

References

1. Hemptinne, J. (2022). Ecocide: An Ambiguous Crime? *EJIL: Talk!* <<https://www.ejiltalk.org/ecocide-an-ambiguous-crime/>>.
2. Branch, A. and Minkova, L. (2023). Ecocide, the Anthropocene, and the International Criminal Court. *Ethics and International Affairs*, 37(1), p. 51-79.
3. Canning, P. (2022). Climate Crime at the ICC – Environmental Justice through the Looking Glass. *Lewis and Clark Law School*. <<https://law.lclark.edu/live/blogs/177-climate-crime-at-the-icc-environmental-justice>>.
4. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (1977). <<https://ihl-databases.icrc.org/assets/treaties/460-IHL-70-EN.pdf>>.
5. Criminal Code of Ukraine (2001). <<https://zakon.rada.gov.ua/laws/show/2341-14?lang=en#Text>>.
6. Directive 2008/99/EC on the Protection of the Environment through Criminal Law. <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0099>>.
7. Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries (2001). <https://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf>.
8. Ecocide law in national jurisdictions. <<https://ecocidelaw.com/existing-ecocide-laws/>>.
9. European Economic and Social Committee (2022). Opinion on the right to a healthy environment in the European Union, especially in the context of the war in Ukraine. <<https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/right-healthy-environment-european-union-especially-context-war-ukraine>>.
10. Gray, M. (1996). The International Crime of Ecocide. *California Western International Law Journal*, 26(2), p. 215-271.
11. Greene, A. (2019). The Campaign to Make Ecocide an International Crime: Quixotic Quest or Moral Imperative? *Fordham Environmental Law Review*, 30(3), p. 1-48.
12. Hansen, Th. (2023). Could the Nova Kakhovka Dam Destruction Become the ICC's First Environmental Crimes Case? *EJIL: Talk!* <<https://www.justsecurity.org/86862/could-the-nova-kakhovka-dam-destruction-become-the-iccs-first-environmental-crimes-case/>>.
13. Independent Expert Panel for the Legal Definition of Ecocide. (2021). Commentary and Core Text. <<https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d7479cf8e7e5461534dd07/1624721314430/SE+Foundation+Commentary+and+core+text+revised+%281%29.pdf>>.

14. Mackintosh, K. and Oldring, L. (2022). Watch This Space: Momentum Toward an International Crime of Ecocide. *Just Security*. <<https://www.justsecurity.org/84367/watch-this-space-momentum-toward-an-international-crime-of-ecocide/>>.
15. Medvedieva, M. (2021). *International Environmental Law: Textbook*. Kyiv, Publishing and Polygraphic Centre 'Kyiv University', p. 58.
16. Mehta, S. and Merz, P. (2015). Ecocide – a new crime against peace? *Environmental Law Review*, 17(1), p. 3-7.
17. Milanovic, M. (2023). The Destruction of the Nova Kakhovka Dam and International Humanitarian Law: Some Preliminary Thoughts. *EJIL: Talk!* <<https://www.ejiltalk.org/the-destruction-of-the-nova-kakhovka-dam-and-international-humanitarian-law-some-preliminary-thoughts/>>.
18. Okwezuzu, G. (2015). Revivification of Efforts to Criminalize Ecocide in International Law: Emerging Trend. *National Law School Journal*, 13(1), p. 52-76.
19. Palarczyk, D. (2023). Ecocide Before the International Criminal Court: Simplicity is Better Than an Elaborate Embellishment. *Criminal Law Forum*. <<https://link.springer.com/article/10.1007/s10609-023-09453-z>>.
20. Proposed Definition of Ecocide (2021). Promise Institute for Human Rights (UCLA) Group of Experts. <<https://promiseinstitute.law.ucla.edu/wp-content/uploads/2022/08/Proposed-Definition-of-Ecocide-Promise-Group-April-9-2021-final.pdf>>.
21. Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (1977). URL: <https://www.icrc.org/en/doc/assets/files/other/icrc_002_0321.pdf>.
22. Report on the proposal for a directive of the European Parliament and of the Council on the protection of the environment through criminal law and replacing Directive 2008/99/EC. <https://www.europarl.europa.eu/doceo/document/A-9-2023-0087_EN.html#_section1>.
23. Resolution of the Parliamentary Assembly of the Council of Europe 2477 (2023) 'Environmental impact of armed conflicts'. <<https://pace.coe.int/en/files/31600/html>>.
24. Rome Statute of the International Criminal Court (1998). <<https://www.icc-cpi.int/sites/default/files/RS-Eng.pdf>>.
25. UNCT Joint Analytical Note 'Potential Long-Term Impact of the Destruction of the Kakhovka Dam' (2023). <<https://reliefweb.int/report/ukraine/potential-long-term-impact-destruction-kakhovka-dam-unct-joint-analytical-note-9-june-2023>>.
26. UNEP. Observations on the Scope and Application of Universal Jurisdiction to Environmental Protection. <https://www.un.org/en/ga/sixth/75/universal_jurisdiction/unep_e.pdf>.
27. Wilt, H. (2023). Climate Change as the Ultimate Form of Ecocide: Are Producers and Consumers 'Partners in Crime'? *Amsterdam Law School Research Paper* No. 2023-05. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4343903>.
28. Wyatt, J. (2010). Law-Making at the Intersection of International Environmental, Humanitarian and Criminal Law: The Issue of Damage to the Environment in International Armed Conflict, *International Review of the Red Cross*, 92 (879), p. 593-646.