

ECOCIDE A THREAT TO BIOLOGICAL TISSUE AND ECOLOGICAL SAFETY

ECOCIDIO: UNA AMENAZA PARA EL TEJIDO BIOLÓGICO Y LA SEGURIDAD ECOLÓGICA

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Abstract

Over time, ecocide was considered mainly through the praxiology of command. This paper will demonstrate that actions aiming to prevent ecocide are hindered by the existing reference point in the construction of environmental standards. In order to build ecological safety, the illusory and short-term nature of environmental projects should be neutralised. Ecocide is a threat that requires solutions both at the level of national law and a forward-oriented global strategy. The discussion will show that ecocide is a virulent and pejorative phenomenon that currently goes beyond classically understood ecocrime. Preventing ecocide is an urgent necessity of a civilisational nature. The intergeneration component will be highlighted in considerations, which should encourage the updating and implementation of a strategy with a view to ensuring ecological safety on a continuous basis. The formal-dogmatic and comparative method in interpretation legal acts of international law with legal documents in the field of environmental protection has been applied in order to justify the hypothesis.

Resumen

A lo largo del tiempo, el ecocidio se ha considerado principalmente a través de la praxiología del mando. En esta discusión se demostrará que la acción para prevenir el ecocidio obstaculiza el punto de referencia existente en la construcción de normas ambientales. Para construir la seguridad medioambiental, hay que neutralizar la ilusión y el cortoplacismo en las actividades medioambientales. El ecocidio es una amenaza que requiere soluciones tanto a nivel de la legislación nacional como de una estrategia global con visión de futuro. En las deliberaciones se demostrará que el ecocidio es un fenómeno virulento y peyorativo que ahora va más allá del eco-delito clásicamente entendido. La prevención del ecocidio es una necesidad civilizatoria urgente. En las deliberaciones se destacará el componente intergeneracional, que debe impulsar la actualización y la realización de estrategias con vistas a garantizar la seguridad ecológica de forma continua. Para fundamentar las hipótesis de investigación planteadas, las consideraciones utilizan un método formal-dogmático y un método comparativo de los actos de derecho internacional con los documentos



Scientific research are accompanied by an analyze the relationship between the nature and human world.

Keywords: ecocide; ecological safety; environmental protection; biodiversity; environmental law.

jurídicos en el ámbito de la protección del medio ambiente. La investigación se complementa con un análisis de la relación entre la naturaleza y el mundo humano.

Palavras-chave: ambientalismo; seguridad ecológica; protección del medio ambiente; biodiversidad; derecho ambiental.

Introduction

The natural environment creates a space for the existence of living beings. At the beginning of the 21st century, biodiversity of plants and animals is disappearing on an unprecedented scale, and the degree of pollution of the natural environment exceeds acceptable standards. In the previous period, ecocide occurred mainly locally. Technological progress, economic and industrial expansion contributed to a systematic increase in threats to the environment. The above circumstances have intensified law-making activity on the international forum. However, the phenomenon of ecocide has not been neutralised. From the perspective of the evaluation of *modus operandi*, ecocide constitutes currently an amorphous global threat for the social and natural environment. This article will present arguments indicating the need to reshape the existing model of environmental protection and the way of understanding ecological safety in terms of more effective prevention and combating ecocide.

1 Ecological safety

Security is one of the greatest desires of human beings, and at the same time, one of the goals pursued by states in the framework of national security strategies. The term “security” is defined as a state in which there is no physical threat to the existence and various manifestations of human life and activity. The state of physical security is the opposite of anxiety, angst and fear (SZUNIEWICZ, 2016). Therefore, for the complementarity of protective actions, it is necessary to take into account and neutralize threats to security also in the psychological dimension. In many parts of the world, people are forced to leave or flee their previous places of residence due to environmental degradation (THE BROOKINGS INSTITUTIONS *et al*, 2015; see: UNHR, 2021). Criminal activity against nature diversifies biological structures and causes changes in the delicate and subtle fabric of nature. Intentional deprivation of livelihoods of people resulting from

the devastation of natural environment may become one of the most serious and multidimensional violations of human rights in the near future.

The growing environmental degradation makes ecological security one of the key components of public security strategies. The term 'ecological safety' generally refers to actions taken to minimise or eliminate "risks to human health and life arising from the natural environment" (MICHAJŁOW, quoted after: POKRUSZYŃSKI, 2017). In relation to ecocide, this is a narrowed definition, because the analysed phenomenon has a genesis derived from anthropogenic activity. It should be noted that there are natural processes that can cause depletion in natural resources, e.g. an earthquakes with tsunamis, tornadoes, droughts. Unlike human actions, these are not acts undertaken intentionally and with deliberation. On the other hand, ecocide is a blatant unlawful human activity aimed at causing extensive and serious damage to the environment. Damage to nature may also be caused by nonfeasance, e.g. exceeding the powers of persons supervising environmental protection, carrying out construction works without permission and assessment of the impact of the investment on the environment, not taking preventive measures when having knowledge of a threat of failure of industrial plants that may cause contamination of the environment.

Industrial development, acceleration of urbanization results in the acquisition of ever larger areas for cultivation and construction investments. According to the Food and Agriculture Organization of the United Nations, between 2012 and 2050, an additional 100 million ha of land will be needed for agricultural production (FAO, 2020b). The demand for agricultural land is associated with increasing interference with the natural environment. Many natural resources are non-renewable. Anthropogenic activity means that more and more species of flora and fauna are in a state of immediate threat of extinction. In this respect, one mustn't tarry given that the development of the economy and the expansion of industry "often exhibits cannibalistic characteristics: it devours the environment" (UNMÜßIG, SACHS, FATHEUER, 2012). Ecocidal crimes create a danger of causing serious damage to nature and pose a real risk of disturbing the biological balance in ecosystems.

However, pinning the genesis of eco-crime on industrialisation does not offer a complete picture of the phenomenon. Consideration should also be given to the transformations taking place in the structure and functioning of the international community. There are more and more entities that are characterized by an increasing capacity of influencing the law-making process in the field of environmental protection, e.g. biotechnology conglomerates, energy companies, economic

lobbies. Among the emerging challenges, it is worth noting the increasingly close links between producers of plant-based foods and food concerns. As a result, the globalisation of agribusiness creates a network of connections, increasing the risk of falsifying products, reducing their quality or concealing the content of chemical preservatives. S. Prakasa writes about international corporations that, ignoring ecological principles, participate in activities causing environmental degradation under the cover of improving “the investment climate” (PRAKASA, 2021). Investment liberalisation leads to the development of transnational trade and the establishment of subsidiaries of fuel and energy concerns beyond the countries where their headquarters are located. The investments are directed at obtaining areas rich in natural resources. These endeavours cause the degradation of phytosphere, and the decimation of flora and fauna species. For example in Ecuador as a result of anthropopression on the environment and the extraction of oil, there was an ecological catastrophe dubbed “Rainforest Chernobyl” or “Amazon Chernobyl” (more: DONZIGER, 2004). Deposits of oil had been discovered in Yasuni National Park, one of the most biodiverse areas of the world (KIMERLING, 1990; MYERS, 1988; PASTOR, DONATI, WELLS, 2008; WARNARS, 2010). The vast destruction of the flora simultaneously impacted the functioning of the society.

The rise of ecocide is caused also by the domination of economic factors and social inequalities. The devastation of the natural environment causes climate change, arable land deficit, and as a consequence, food shortages. Droughts, desertification, weather anomalies, greenhouse effect cause negative transformations in the functioning of nature and societies. There are approximately 800 million people experiencing chronic hunger, and 2 billion suffer micronutrient deficiency (FAO FOOD AND AGRICULTURE, 2017). As a result, poverty, malnutrition, social exclusion and discrimination are exacerbated. The decomposition of the international order makes security increasingly fluid and complex. Hence, the conclusion that safety should be considered from a broader perspective taking into account the environment of human life. Therefore, the establishment and application of environmental safety standards also requires an appropriate legislative environment.

2 Intergenerational obligations

Another important element of the definition of ecological safety is the intergenerational nature of protective measures. This claim is substantiated in the first

principle of the Stockholm Declaration: “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations” (DECLARATION STOCKHOLM, 1972). The thesis about the intergenerational component of public safety strategy is justified by the meaning of the Convention on Environmental Impact Assessment in a Transboundary Context, in which the role of “develop anticipatory policies” is emphasized (CONVENTION ESPOO, 1991). A clean environment is both a common heritage and a multi-stakeholder obligation. This obligation is therefore not limited to states as the basic subjects of international law, but it encompasses the entirety of the society.

The normativisation of values with an ecological component is facilitated by the norms of “soft” law. In the resolution on the protection of the natural environment in areas affected by military conflict adopted in 2016 by the United Nations Environment Assembly the role of continuous environmental protection was highlighted (UNEP, 2016). The resolution supports the thesis on intergenerationality of commitments in the area of ensuring ecological security. The document may generate with time legally binding regulations.

3 **Ecocide genesis and evolution**

The phenomenon of ecocide has been an element of military strategy for centuries. The scorched earth tactic, which had been implemented already by the Egyptians (MATIĆ, 2017), may serve as an example. This tactic involved the instigation or deepening of local agricultural crises, the destruction of food and shelter of the local inhabitants. The Egyptian army destroyed fruit trees and crops. People and animals would lose the source of food and their escape routes. The scorched earth tactic also had a symbolic dimension, by stripping people of cultural attributes and the signifiers of social identity. The invaders left a permanent mark of destruction in the social landscape and the natural environment. Over time, the tactics of the scorched earth have evolved, causing more and more severe damage to the environment. Activities were extended to the destruction of infrastructure and devices that were of strategic importance to the enemy. Scorched earth tactics have been banned under the Geneva Conventions, which currently constitute a part of international humanitarian law. Over time, military structures have been expanded and an arsenal of weapons has been modernized. With the change in the perception of the battlefield, the strategy of military operations also changed.

As a consequence, the degradation of the natural environment, instead of being “have at most collateral character”, began to be “excessive in relation to the military benefit obtained” (ŻELIGOWSKI, 2014). The the war in Vietnam is considered to be the symbolic date of the emergence of ecological weapons. During the operation under the code name “Ranch Hand” approximately 19 million gallons of herbicides were dropped (MARTIN, 2012; cf. STELLMAN, 2018). Strong phytotoxic agents and defoliants caused far-reaching transformations of the biological structure and the destruction of the phytosphere. According to research, the dioxin content in soil and aquifers may persist for more than 100 years (CUSATO, 2018). The events in Vietnam intensified legislative work to ban the use of defoliants for military purposes. Nevertheless, the normativisation of ecocide has not been carried out in international law so far.

In public discourse, the term “ecocide” was first used by A. Galston in 1970 during a conference on war and national responsibility (CUSATO, 2018). Galston argued that these were unlawful, extensive activities aimed at nature (GAUGER *et al.*, 2012). In the light of the above, it can be concluded that ecocide should also be considered taking into account the processes that determine the functioning of ecosystems. Over time, ecocide began to take on more and more insidious and destructive forms.

The scale of the threat in this respect is made clear by the practice of mass destruction of natural areas during the Gulf War in the 1990s. Intentional destruction of the natural environment was a planned element of the war tactics. Military activity spanned over 7500 km², destroyed was 5458,7 km² of land along with animate and inanimate elements of the natural world (PTACH, MITRASZEWSKA, 2005). 700 oil wells were blown up and part of the oil spills were set on fire (PTACH, MITRASZEWSKA, 2005). In the light of the above, nature can be considered as one of the main “victims” of the conflict in the Persian Gulf. The rehabilitation of damaged natural areas and the removal of the effects of the ecological disaster will take many years to come.

The armed conflict that has now rocked the world is Russia’s unlawful and bandit attack on Ukraine. In March 2022, the Main Intelligence Board of the Ministry of Defence of Ukraine announced that the Russian troops were planning to destroy natural areas and execute mass logging of forests. The trees are to be cutting regardless of age and biological values. The actions for which the Russian troops are preparing have been described as “ecocide” (STARR, 2022). The scale of the threat to people and the environment is increased by the fact that during the invasion of Ukraine, Russian troops use weapons prohibited by international

law, including cluster munitions and phosphorus bombs, which destroy all living tissue of nature within their reach.

The Espoo Convention indicates on the physical causes of environmental damage when defining the term “transboundary impacts” (CONVENTION ESPOO, 1991). However, it should be emphasized that the devastation of natural areas may also be caused by the impact of intangible factors, e.g. toxic chemicals containing carcinogens. The penetration of harmful chemicals poses a particular threat to fragile and vulnerable ecosystem elements. Against this background, the question arises as to the effectiveness and coherence of international environmental standards to date.

Over time, international treaties have been drawn up which prohibit actions against the environment. However, they concerned only a specific element of nature, situational context (e.g. during armed conflicts), prohibition of the use of a specific tactic or type of weapon. For example, the Convention on the Prohibition of Military or any other Hostile use of Environmental Modification Techniques does not prohibit the use of techniques of environmental modification for peaceful purposes if they comply with the generally recognized principles and rules of international law [article III(1)] (ENMOD 1977). However, it has not been specified which objectives of nature modification can be considered peaceful, nor has the limit for potentially permissible activities been set. These techniques of environmental modification can be classified as geophysical weapons. However, it should be noted that in the case of ecocide, damage may be caused not only to animate elements of nature, but also inanimate ones. In the light of the analyzed agreement, each state – party in accordance with its own constitutional principles is obliged to counteract violations of the Convention (article IV). However, the above wording may result in the lack of uniform criteria and practice under national laws.

R.A. Falk pointed directly to the crime of ecocide by proposing the adoption of the International Convention on the Crime of Ecocide with the Protocol on Environmental Warfare (FALK, 1973). In the Convention, ecocide is included as an intentional crime that can be committed both in peacetime and during war (Article I). However, the draft Protocol emphasises the willingness to refrain from the use of weapons that could cause the weakening or destruction of ecological processes. However, the above documents did not take effect. Given that the devastation of the environment at the beginning of the 21st century occurs on an unprecedented scale, the international criminalization of unlawful ecocidal acts should be discussed.

The International Criminal Court (ICC) considers cases of individuals who have committed or incited the most flagrant violations of human rights. In public discourse, one may encounter the use of terms such as eco-crime or ecological crime (LAY *et al.*, 2015). The scale and intensity of ecocide currently goes beyond the framework of classically understood crime against the natural environment. Cross-border eco-crimes so far are considered mainly in relation to illegal trade in wild species of plants and animals, illegal hunting and logging, illegal shipment of hazardous waste (LAY *et al.*, 2015). When analysing ecocide, it should be emphasized that it is an extremely insidious and amorphous phenomenon that can disrupt not only the processes taking place in nature, but also the foundations of human existence. P. Higgins was in favour of recognising ecocide as the fifth crime against peace (HIGGINS, 2010). The inclusion of ecocide in a catalogue of internationally prosecuted crimes would require the development of objective criteria for defining a threshold that would allow to classify specific acts as a crime of ecocide.

In 1985, the B. Whitaker Report was published, which recommended extending the definition of “genocide” to include “cultural genocide” and “ecocide” (WHITAKER, 1985). The term “ecocide” was used to describe destructive changes caused by man in the natural environment. However, the amendment to the ICC Statute was not introduced. As a result, in the Rome Statute (ROME, 1998), one can find provisions that only indirectly refer to the discussed issue. However, further efforts to regulate this issue should not be abandoned. As an illustration, let’s recall that already during the war in Vietnam, ecocide reached such a scale that unlawful actions using the “Agent Orange” causing extensive and mass extinction of vegetation was referred to as an “Auschwitz for environmental values” (CUSATO, 2018). Such a strong terminological coloration was created as a result of being combined with the definition of genocide. Ecocide is spreading extensively to other natural areas every day. In view of the deepening devastation and pollution of the environment, the United Nations sounds the alarm that humanity is moving towards a ‘great planetary catastrophe’ (MALONEY, 2018). Therefore, reformulating the paradigm of the relationship between man and nature is not the need of the moment, but a necessity. Making a fundamental change should consist in recognising human dependence on nature, taking action to ensure ‘the highest level of safety and ecological health’ (MALONEY, 2018).

The inclusion of ecocide in the catalogue of offences prosecuted under national law was recently advocated in France (KUCHARCZYK, 2020). The proposal to criminalise ecocide was formulated in relation to poisoning and

destruction of the natural environment to an extent that prevents the existence of human beings and other living organisms. At the beginning of the 21st century, environmental devastation occurs on a global scale. Nevertheless, unlawful acts in this respect still do not constitute autonomously separated crimes prosecuted on the basis of the ICC Statute.

4 A paradigm shift

As shown in considerations above, originally, ecocide functioned in the sense of war tactics or non-forceful means designed to destroy the potential of the enemy. Ecocide is generally defined as activities that cause extensive damage or destruction of the natural landscape, disruption of processes occurring in ecosystems in a given area to such an extent that the biodiversity of plants and animals is threatened, and the life of residents is difficult or impossible (LAY *et al.*, 2015). Every day, unlawful acts that can be classified as ecocide are marked by more and more far-reaching consequences. It should be pointed out that these actions are taken not only during armed conflicts and crisis situations, as was so far claimed, but also during periods of relative stabilization. According to estimates, between 1990 and 2020, 420 million hectares of forest were lost globally as a result of deforestation (FAO, 2020a; 2020c). The procedure of cutting down successive layers of rainforests, the “green lungs” of the Earth, is gaining momentum. It is estimated that every minute 40.5 hectares (100 acres) of tropical forests, which perform life-giving functions for both human functioning and the entire ecosystem of our planet, are cut down (see: SANERA; SHAW, 1999). The lack of normativisation of ecocide can contribute to the transformation of the human environment into an “ecological wasteland” (BROSWIMMER, 2002). The ontological bond between man and nature is eroding. Other threats include the greenhouse effect, oil tanker disasters, nuclear power plant failures, or the “Great Pacific Garbage Patch” (NRDC, 2020). Because there is a network of interconnections, interactions and interdependencies in the environment, the degradation of the aquatic ecosystem also has a major impact on living conditions on land.

In expanding the argument on the intergenerality of obligations, reference should be made to the Preamble to the Convention concerning the Protection of the World Cultural and Natural Heritage, which states that: “deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world” (CONVENTION PARIS, 1972). Action to counteract and prevent ecocide requires greater

international cooperation than hitherto. The strategy in this respect should therefore be implemented in a systematic rather than incidental way. Protection not narrowed down by the differential of forms is a guarantee that both biotic and abiotic factors will be taken into account in environmental safety measures.

According to M.A. Gray, ecocide is an act committed intentionally that causes: a) serious, and extensive or lasting, ecological damage; b) international consequences; c) waste, loss of natural resources (GRAY, 1996). It shall be weighed that disrupting biological processes in the ecosystem does not always have immediate and visible effects. Because the process of degradation may take place gradually. However, the absence of risk should not lead to inaction and abandonment of the modernization of the security strategy. The actions taken should be correlated with educational programmes. It is worrying that in the face of the growth and intensity of the threat of ecocide, there is a fragmented approach to environmental protection issues, legislative gaps, lack of effective mechanisms for the exchange of information and lack of systems for alerting to imminent disasters.

5 Ecocentric component

The current environmental protection mechanism is saturated with anthropocentric criteria. This is important for human rights and freedoms, as it serves to strengthen the protection of the human beings. However, in relation to the environment, anthropocentrism shifts the ecological aspects to the background. Consequently, protection of nature is considered from the point of view of safeguarding the rights of the individual. Nature does not play a decisive role, but serves as a backdrop for the protection of human rights. Anthropocentric criteria result in the treatment of nature in terms of property rights, which results in objectification of the environment on legal grounds (JAKUBOWSKA, 2008; WIERZBOWSKI, RAKOCZY, 2018; ZAWŁOCKI, 2014). A reformulation of this reference point is necessary for the development of the new environmental ethics. In order to increase the effectiveness of counteraction and prevention of ecocide, it is necessary to deepen and learn more about phenomena and processes occurring in nature. Ecocentrism allows one to focus regulations on nature.

It bears highlighting that no human reasoning is free of mistakes, therefore ecocentrism also should not be adopted totally uncritically. However, while discussing ecocentrism in this paper one seeks to demonstrate that this view can support actions to ensure the highest achievable standards in nature conservation. In ecocentrism it is assumed that nature has an inherent, internal value

(KORTENKAMP, MOORE, 2001). Awareness of the value of nature resulting from natural order should lead to the revision of existing environmental strategies and norms. Ecocentrism helps neutralize the utilitarian understanding of the environment perpetuated by anthropocentrism.

Therefore, by changing the reference point to ecocentric one may to emphasize ecological rationale in a broader light, indicating that human beings are a part of a large living organism of nature. It should be emphasized that ecocide fulfils the premise of a crime that is aimed not only at the natural environment, but also at the natural order. In this approach, ecocentrism aims to realize that man, although distinguished from all creatures, should be the guardian of nature, not its conquistador.

Conclusions

Until recently, in public discourse, ecocide was considered mainly in the sense of military tactics. In the light of the considerations above, there is no doubt that ecocide is currently one of the greatest cross-border threats to nature conservation. Preventing and combating ecocide is hampered by the multiplication of actors who, instead of using the language of environmental law, “speak in figures” and balance the profits and losses. The actions of transnational corporations and fuel and energy companies are currently practically unpunished. Hence, there is a need to verify the catalogue of entities that may be liable in the light of international law.

In ecocide, nature is a ‘silent’ victim. The loophole in the form of the lack of a normative definition and regulation of ecocide in the international forum contributes to the creation of a legal void that weakens the protection of the environment and the possibility of the impact of legal norms in this area. Like ecocide, which deprives ecosystems of their vitality, the lack of legislative activity deepens the erosion of ecological security. The reasoning is presented in the explanatory memorandum, which shows that in order to make protection effective, ecological rationale should be considered as key, which can prevent understanding of the environment only through the prism of utilitarian usefulness for humans.

Ecocentrism will most likely not solve all crisis situations and will not neutralize threats to nature, but it may, in a broader light, draw attention to the interrelationships and dependencies of human beings on the forces of nature. This paves the way for a gradual change in the existing norms of environmental law and international jurisdiction by showing that ecocide is directed not only at the environment of human life, but all life on our planet.

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