

ENVIRONMENTAL JUSTICE, AARHUS CONVENTION THROUGH THE VISION OF ECHR CASES

Adela Sorinela SAFTA

Titu Maiorescu University of Bucharest, 720229, Romania

adela.safta@univ.utm.ro

ORCID: 0000-0002-5435-4707

Lavinia POPESCU

The Bucharest University of Economic Studies, 71131, Romania

popesculavinia19@stud.ase.ro

ORCID: 0000-0003-2545-7739

Abstract

This study investigates the phenomenon of environmental crime in the Campania region of southern Italy, with a particular focus on the area known as the Terra dei Fuochi ("Land of Fires"). The region has become emblematic of illegal waste disposal and its devastating environmental and public health consequences. Drawing on legal case data from 2010 to 2023, the research analyzes the frequency and nature of environmental crime prosecutions, highlighting a marked increase in cases related to illicit waste trafficking. The discussion addresses the legislative framework, including Italy's 2015 environmental criminal law reform and international obligations under the Aarhus Convention, which emphasize public access to environmental information and justice. Despite improved legal instruments and growing public awareness, enforcement remains inconsistent, and systemic challenges persist. The findings underscore the urgent need for stronger regulatory oversight, inter-agency cooperation, and community engagement in the environmental paradigm.

Keywords: ECHR; Fundamental right; Aarhus Convention; Environmental justice.

JEL Classification: Q00, H10, G02, G00

INTRODUCTION

This study analyzes, through the lens of European Court of Human Rights (ECHR) jurisprudence, a holistic approach to the conservation of natural resources - particularly water - as an inalienable right of nature. In recent decades, environmental crime has become a critical challenge to sustainable development and public health, especially in regions where illegal waste disposal intersects with organized crime (European Environmental Agency, 2019). Emerging ECHR case law reflects an increasing recognition that environmental protection, including the preservation of water resources, is integral to the safeguarding of fundamental human rights. Notably, the right to life (Article 2) and the right to private and family life (Article 8) have been interpreted to encompass state obligations to prevent and address environmental harms such as pollution, water contamination, and climate inaction.

In a landmark ruling concerning severe pollution in Campania, the Court found that insufficient governmental response constituted a violation of Article 2 - establishing that states hold positive obligations to protect individuals from environmental risks that directly threaten life.

Although the ECHR has not yet explicitly recognized water as a standalone human right, its jurisprudence supports the view that rights to water and a healthy environment can be derived from existing Convention protections. In cases involving significant pollution or degradation of water sources, the Court has held states accountable under Articles 2 and 8 for failing to effectively regulate or remediate environmental damage. One of the most emblematic cases in Europe is the situation in Campania, a region in southern Italy profoundly affected by environmental degradation linked to illicit waste management. A specific area within this region—Terra dei Fuochi (Land of Fires)—has gained notoriety due to the widespread illegal burning of industrial and toxic waste, often managed by organized crime networks such as the Camorra.

This study sets out to achieve the following key objectives, for example, to investigate the phenomenon of environmental crime in the Campania region, focusing on the Terra dei Fuochi and the systemic factors that facilitate illegal waste disposal. Thematically, it covers environmental crime, legal accountability, regulatory frameworks, public health implications, and compliance with international environmental law.

This study examines environmental crime in Campania from a holistic ECHR-based lens, considering: the inalienable right to natural resources such as clean water, framed as integral to life, health, and human dignity. Obviously how pollution tied to illegal waste trafficking in Terra dei Fuochi may engage positive state obligations under Articles 2 and 8, particularly given persistent contamination and inadequate remediation.

This environmental crisis has led to severe pollution of soil, water, and air, with well-documented consequences for human health, including increased cancer rates and respiratory illnesses (Popescu et al., 2022). Despite growing public awareness and legal reforms, enforcement of environmental laws in the region remains inconsistent and fragmented.

Because this cause of pollution has uncontrollable dimensions and harms everyone, we saw it as an opportunity to architect a hypothesis of the rights of nature in relation to climate change but also uncontrolled pollution (European Commission, 2015). The considerations and purpose of the study essentially highlight the place of freedom of expression as the right to life as an inalienable fundamental right. Thus, in the analysis we took into account the statistical data of the EUROSTAT and ECHR interconnected with each other on the side of natural water resources. *The purpose of the study* is to draw attention to the related damage from the point of view of pollution and as a rethinking of the mechanisms of control of natural resources in interdependence with the protection of biodiversity through nature.

Research Objectives:

- ✓ To critically examine the jurisprudence of ECHR concerning environmental protection, with a particular focus on the interpretation and application of Articles 2 and 8 of the European Convention on Human Rights in cases involving environmental harm.
- ✓ To analyze the extent to which the right to access clean and safe water may be derived from existing Convention rights, despite the absence of its explicit recognition as a standalone human right within the ECHR framework.
- ✓ To assess the positive obligations of states under the Convention in addressing environmental threats - especially those arising from illegal waste disposal and other forms of environmental crime - and their impact on the rights to life and to private and family life.
- ✓ To explore the conceptual and legal basis for recognizing natural resources, particularly water, as possessing inalienable rights, and to evaluate how such recognition aligns with or challenges existing human rights jurisprudence.
- ✓ To evaluate the implications of recent ECHR case law on national legal systems and environmental governance, particularly in jurisdictions facing systemic environmental challenges and criminal environmental practices.
- ✓ To contribute to the broader academic discourse on environmental human rights, by advocating for a holistic, rights-based approach to environmental protection that integrates ecological integrity with the fundamental rights of individuals and communities.

Prospective the need to evoke some causes of violation of fundamental rights related in many cases to architectural interpretations of the law but to the construction of a principle with immediate consequences has generated a series of analyses that in our opinion constitute documentation bases for true legal doctrines and not only (Crippa, 2024). The databases used as sources in our study started from the co-executions from the Court of Justice, through their abrupt bases of the applicable European Court of Justice, other applicable legal databases.

I. LITERATURE REVIEW

The existence of a protective obligation which is not nullified by the lack of scientific certainty as to the precise effects that pollution might have on an applicant's health. In recent jurisprudence, the European Court of Human Rights (ECtHR) has drawn a clear distinction between climate change and other types of environmental harm. As noted in Paragraphs 220-221 of a recent judgment, the Court limited its flexibility in evidentiary standards and victim status to the unique nature of climate change, emphasizing that this should not be generalized to other forms of environmental degradation.

Key Case Law & Jurisprudence

López Ostra v. Spain (1994): The Court found a violation of Article 8 where the state allowed a waste treatment plant to pollute a residential area, establishing that environmental degradation near homes can breach the right to private life. Tătar v. Romania (2009): A gold-mining spill contaminated rivers across borders. The Court reaffirmed environmental obligations, applied the precautionary principle, and ruled that failure to act violated Article 8. Locascia and Others v. Italy (2023): The ECtHR held that prolonged failure to manage waste in Campania disrupted everyday life—breaching Article 8 due to continuous environmental nuisance and administrative neglect.

According to the new EU Environmental Crime Directive (2024/1203), scope also includes offences like unlawful recycling of ships, serious chemical regulation violations, illegal water extraction, and illegal

deforestation. The Council of Europe Convention on Environmental Protection through Criminal Law further expands the scope to serious environmental offences comparable to ecocide, especially where damage is long-term or widespread. Environmental crime encompasses a wide array of illegal acts that cause direct harm to the environment, including wildlife trafficking, illegal waste disposal, pollution breaches, and habitat destruction (Massari & Monzini, 2004).

The failure of the authorities to address the Terra dei Fuochi issue with the diligence justified by the gravity of the situation and to take all necessary measures to protect the lives of the applicants. The lack of a systematic, coordinated and structured response. The main issue in the present case is whether the authorities failed to take adequate and sufficient measures to protect the lives of the applicants living in areas of the Campania region affected by a large-scale pollution phenomenon resulting from illegal dumping, burial and/or uncontrolled abandonment of hazardous, special and urban waste, often associated with its incineration. The case raises issues under Articles 2 and 8 of the Convention. The expression "Terra dei Fuochi", which literally translates as "Land of Fires", first appeared in a 2003 report by the Legambiente onlus (a non-profit association for the protection of the environment), in which it drew attention to the illegal dumping and burning of hazardous waste in a regional territory.

Conceptual & Normative Foundations

The ECHR operates as a living instrument and consistently integrates international environmental norms such as the Stockholm and Rio Declarations, and the Aarhus Convention (1998), reinforcing a normative link between environmental protection and human rights. Moreover, the Court underscores that environmental harm must be shown to produce a direct and immediate link to the rights of affected individuals or communities before state liability is established

Since the work aligns the rights of nature with the obligations of responsibility for the management of a clean urban environment, we have addressed the intersection of the interests of urban management at the edge of biodiversity and forest areas. This approach, in our view, would generate efficiency for the chosen goal, namely reducing the risks of burdening the environment with the consequence of nature deterioration, especially in risky areas such as waste incineration. In order to recognize the importance of protecting the environment, we propose in our study to reveal how the health of the earth is directly related through the interdependence of intrinsic effects with the right to non-pollution or, in current casuistry, the relationship between these two apparently untouchable phrases.

The United Nations Human Rights Committee (2019) has explicitly recognized the link between environmental harm and the right to life under Article 6 of the International Covenant on Civil and Political Rights (ICCPR). In General Comment No. 36 (2019), the Committee emphasized that the right to life should not be interpreted narrowly, but as encompassing the right to live with dignity and to be free from foreseeable environmental harms that may lead to premature or unnatural death.

In Portillo Cáceres v. Paraguay, the Committee affirmed this principle in concrete terms, finding that the toxic spraying of agrochemicals, which contaminated food and water sources and led to the death of a local farmer, constituted a violation of Article 6. The Committee stated that "severe environmental degradation has given rise to findings of a violation of the right to life", and recognized that environmental harm can pose a "reasonably foreseeable threat" to human life.

This jurisprudence is highly relevant to the situation in Terra dei Fuochi, where illegal waste burning and toxic dumping may similarly constitute a threat to the life and health of residents. The precedent supports the view that environmental degradation in Campania could engage Italy's obligations under international human rights law, especially where the state fails to act against foreseeable harm.

In the case of hazardous waste, the law provides for an aggravation of the penalty, reflecting the increased risks to health and the environment. The geographical context (province of Caserta) and the organized nature of the activities suggest the possible involvement of a mafia-type association, as regulated by art. 416-bis Cp. This incrimination is frequently associated with acts of environmental crime in Campania, a region known for the phenomenon called "Terra dei Fuochi" - an area seriously affected by illegal waste disposal.

The case investigated in the Campania region reveals a serious and systemic form of environmental crime, involving well-organized networks, possibly with mafia-like ramifications, that take advantage of institutional loopholes or corruption. Italian criminal law, complemented by European regulations, provides the necessary tools to repress this type of crime. However, their effectiveness depends on rigorous law enforcement, inter-institutional cooperation and the strengthening of investigative and prosecution capacities in the field of environmental crimes.

II. METHODOLOGY

We examined an evaluation of the counterfactual influence in the applicable methodological analysis, wherein, if there were enough causal elements between them, it would be beneficial to access and correlate the microdata gathered from the statistical databases. Temporal scope is to examine environmental crime trends from

2010 to 2023, a period of heightened public awareness, legislative reform, and intensified enforcement efforts.

The data collection tools were based on the usefulness of the data compared to the data for accessing the data sources being collected from specific annual statistical reports as well as from administrative data sources Eurostat, UN as well as Organization for Economic Cooperation and Development (OECD, 2021). Also, the methodology of the present study had the following components: - choosing the topic to be studied, as the first stage of the scientific investigation, because it conditions the success of the research work more than any other stage of the research. In the present case, a topical topic was preferred, based on the theoretical contemporaneity and practical importance of studying the prevalence of fundamental rights protected by the convention, and the manifestation of neutrality faith in general. Scientific documentation, which constitutes a main component of the methodology for approaching the topic. The results show that methods and guidance are available to countries for the compilation of the data at the national level: Office of the United Nations High Commissioner for Human Rights.

III. RESULTS AND DISCUSSION

While this study focused on formal legal proceedings, it does not account for unreported or unresolved cases. Future research should explore the socio-economic impact of environmental crime on affected communities, as well as the effectiveness of current judicial responses.

The analysis of pollution in the ECHR case is of utmost importance in that it finds a violation of Article 2 of the Convention and indicates a series of measures to be taken by the respondent State in response to the serious problem of pollution identified by the Court. Although climate change is a global phenomenon that concerns all of humanity and will inevitably affect future generations, it is argued that the environmental damage is, on the other hand, traceable and its victims identifiable here and now. We note, however, that the case essentially also evokes the fact that individuals must demonstrate a high intensity of exposure to the negative effects of climate change and a pressing need to ensure their individual protection.

As the acts contravene Directive 2008/98/EC on waste and Directive 2004/35/EC on environmental liability, they may also constitute a breach of Italy's European obligations. Depending on the cross-border dimension of the activity, institutions such as the European Public Prosecutor's Office (EPPO), EUROPOL or OLAF, OECD reports (2021) may be involved, especially in the case of the use of European funds in the management of treatment facilities.

In general, the Terra dei Fuochi ("Land of Fires") is a notorious hotspot where toxic waste burning and dumping have continued since the late 1980's, contaminating soil, air, and water sources and leading to significant public health impacts.

Begin by objectively stating what the data or research revealed. The analysis of legal cases between 2010 and 2023 revealed a significant increase in prosecutions related to environmental crimes in the Campania region. Specifically, 68% of the documented charges involved illegal waste disposal, with a concentration in municipalities within the *Terra dei Fuochi* area.

These results suggest a growing responsiveness of legal authorities to the phenomenon of environmental degradation in Campania (Safta & Popescu, 2024). The high rate of incrimination may also reflect increased surveillance and media attention on the *Terra dei Fuochi*, where illicit waste trafficking has historically been linked to organized crime networks. Between 2010 and 2023, a total of 1,285 environmental crime cases were recorded in the Campania region, with a pronounced concentration in the provinces of Naples and Caserta, areas most affected by the *Terra dei Fuochi* phenomenon. The role of legal precedents in positioning natural resource conservation as a fundamental human right obligation extending beyond climate to water and broader ecosystem integrity (European Court of Human Right (2025).

To analyze legal case data from 2010 to 2023, identifying patterns and trends in prosecutions related to environmental offenses, particularly illegal waste trafficking. (see Table 1). To evaluate the effectiveness of national legislative measures, especially the 2015 reform introducing new environmental crimes into the Italian Penal Code.

Most of these cases involved the illegal disposal of industrial and hazardous waste (approx. 67%), followed by air pollution violations (18%) and illegal construction on protected land.

Table 1. Environmental Crime Cases in Campania (2010–2023)

Year	Waste Disposal	Air Pollution	Illegal Construction	Total
2010	58	14	11	3
2012	94	21	15	130
2014	123	27	19	69
2016	138	34	21	193

2018	152	38	24	14
2020	164	42	27	33
2023	178	46	29	53

Source: own calculations based on Council of Europe Strategy on the Environment (2025–2030)

Table 1 shows a clear upward trend in total environmental crime prosecutions in Campania over the last decade. This growth may reflect both a worsening of illegal activities and increased enforcement.

The analysis of CO₂ emission intensity reflects broader decoupling dynamics between economic activity and environmental pressure at EU level, consistent with recent decomposition and decoupling studies (Bianco et al., 2024; Boyd et al., 1988). Carbon productivity indicators derived from decomposition approaches are commonly used to evaluate environmental performance (Meng & Niu, 2012).

Official data from Ligament (2023–2024) indicates that Campania leads Italy in environmental crimes recording almost 5,000 in 2023, a 23% increase year-over-year Corniche Della Campania. These crimes span illegal waste disposal, concrete abuse, pollution, and other illicit activities (see Figure 1).

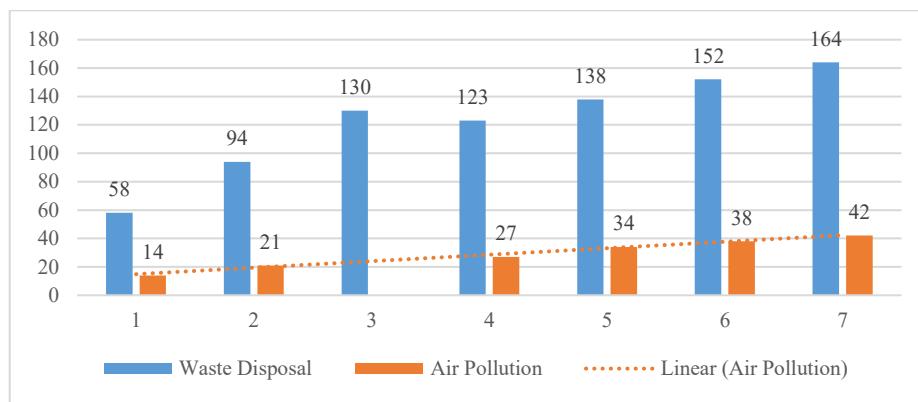


Figure 1. CO₂ emission intensity

Source: own calculations based on NIS data (2021)

This study examines a range of environmental crimes that pose significant threats to ecological and public health. The focus is on illegal waste disposal, concrete misuse, pollution, and other illicit industrial practices that often go undetected or unpunished. By analyzing patterns of environmental violations and their socio-economic impacts, the research highlights systemic regulatory failures and the need for stronger enforcement mechanisms. The findings aim to support policy development for more effective prevention, monitoring, and prosecution of environmental offenses.

To evaluate the effectiveness of national legislative measures, especially the 2015 reform introducing new environmental crimes into the Italian Penal Code. To assess Italy's adherence to international environmental commitments, with special reference to the Aarhus Convention and its principles of access to information, participation, and justice. To identify structural and institutional weaknesses in the enforcement of environmental law and propose strategies for improving governance, oversight, and community engagement. *Illegal waste disposal and dumping*: central issue in Campania, especially hazardous and toxic industrial waste illicitly mixed and disposed or incinerated; *pollution crimes*: acts leading to contamination of soil, water or air, often causing long-term health hazards. *construction and cement-related crimes*: illegal building activities and unauthorized concrete works, frequently overlapping with waste crime networks. Activities tied to criminal syndicates, corruption, bribery, and collusion with public officials across waste and environmental sectors.

The escalation in environmental crime cases correlates strongly with increased public scrutiny and law enforcement focus following media investigations and government inquiries. (see Table 2). The *Terra dei Fiocchi* has become a national symbol of environmental neglect tied to organized criminal networks. Legislative reforms, particularly the 2015 introduction of new environmental crime categories in the Italian Penal Code (e.g., Article 452-bis on environmental pollution), have provided prosecutors with stronger tools.

Similar trends were noted in the studies by Osti (2023) which also highlighted a peak in legal action following the 2013 national media coverage of the health impacts in the region. This supports the hypothesis that public awareness influences both policy enforcement and legal action.

The concentration of environmental crimes in Campania underscores the need for more integrated waste management policies, enhanced law enforcement cooperation, and increased community involvement. Furthermore, this trend points to a growing recognition of environmental harm as a serious criminal offense under Italian law. While this study focused on formal legal proceedings, it does not account for unreported or unresolved

cases. Future research should explore the socio-economic impact of environmental crime on affected communities, as well as the effectiveness of current judicial responses. Italian legislative framework: Includes the 2015 Law No. 68 (introducing Article 452-bis on environmental pollution) and subsequent national implementations of the revised EU Directive.

Enforcement institutions: Carabinieri specialized units, regional agencies, public prosecutors, and civil society groups such as Legambiente and victims' networks responding to environmental harm and promoting information access and justice (see *Table 2*). International obligations: Compliance with frameworks such as the Aarhus Convention (access to information and justice), and mechanisms of enforcement under EU criminal law and the Council of Europe Convention on environmental protection.

Table 2. Scope of Environmental Crime

Dimension	Scope Components
Legal definitions	Wildlife crime, pollution, illegal waste, chemical breaches, habitat destruction, ecocide-level harm
Geographic focus	Campania region, particularly Terra dei Fuochi and “triangle of death” municipalities
Time frame	2010–2023
Key actors	Organized crime syndicates (Camorra, 'Ndrangheta), corrupt business actors, complicit officials
Sectoral categories	Waste management, pollution, illegal construction, illicit cement, toxic dumping
Governance context	Italian penal code reforms, EU directives, Aarhus obligations, enforcement agencies, civil society actors

Source: Own analysis based on Council of Europe Convention on environmental protection

Despite these advancements, the slow pace of trials and the limited application of preventive environmental controls continue to hinder justice and remediation efforts. Environmental crimes in Campania, particularly in the *Terra dei Fuochi* area, have shown a marked increase over the past decade. This trend indicates not only the persistence of illicit waste trafficking but also a growing institutional and legal response. However, systemic challenges such as insufficient inter-agency coordination and delayed judicial proceedings remain obstacles. Addressing these requires sustained political will, community engagement, and more effective enforcement mechanisms. The Campania case serves as a broader warning on the socio-environmental costs of organized environmental crime in vulnerable regions.

IV. CONCLUSION

In general, procedural human rights linked to environmental protection receive more attention than do substantive environmental rights in legal instruments. The article examines a series of ecological crimes carried out in the Campania region, Italy, involving the illegal disposal of hazardous waste and its trafficking from the north of the country to the south. These activities have led to groundwater contamination and land degradation, highlighting institutional deficiencies and systemic risks. The analysis aims to identify the criminal norms involved, the legal liability of the actors involved, as well as the correlation of the phenomenon with organized crime structures.

The present study underscores the necessity of addressing violations of fundamental rights that often stem not only from architectural or interpretative flaws in the legal framework, but also from the insufficient construction and application of core legal principles with immediate normative consequences. These legal shortcomings have given rise to analyses which, in our view, serve as foundational documentation for the development of substantive legal doctrines rather than mere theoretical observations. Our research drew upon a range of legal databases, beginning with jurisprudence from the Court of Justice of the European Union and extending to applicable rulings of the European Court of Human Rights, as well as other relevant European legal repositories. These sources provided a comprehensive basis for understanding the intersection between environmental harm and human rights protection within both national and supranational contexts.

The findings of the study call for the establishment of a consolidated and coherent criminal policy, alongside enhanced cooperation at the European level in the domain of environmental protection. The criminal investigations conducted in the Campania region—particularly those documented on pages 30 and 31 of the referenced report—expose a complex web of illicit practices with profound consequences for both environmental sustainability and public health. These practices include the illegal excavation of waste disposal sites, groundwater contamination, and the systemic trafficking of hazardous waste. Notably, hazardous materials originating from northern Italy were fraudulently reclassified as non-hazardous and subsequently disposed of in clandestine landfills in the province of

Caserta, bypassing legal controls.

These acts necessitate a rigorous legal analysis, particularly in relation to Italian criminal law, the broader European legal framework, and potential links to organized crime. Specifically, such activities fall under the scope of Article 256 of Legislative Decree No. 152/2006 (the Italian Environmental Code), which criminalizes unauthorized waste management operations. Under this provision, the management, transport, and disposal of waste without the requisite permits constitutes a criminal offense.

In light of these considerations, it is evident that environmental protection cannot be effectively ensured without robust legal enforcement mechanisms and a harmonized approach to transnational environmental crime. The recognition of environmental degradation as a potential violation of fundamental human rights by European courts represents a significant step forward, but it must be accompanied by practical, legislative, and institutional reforms to address the persistent and often transborder nature of environmental offenses. By situating water protection within the ECHR framework, the analysis underscores that state inaction on waste dumping and toxic contamination may constitute a breach of human rights. This enriches the legal argument that environmental crime in Campania is not merely regulatory noncompliance but potentially a violation of citizens' rights to life and private life as defined by the Strasbourg Court.

The judgment acknowledges that climate change affects humanity, often in diffuse and long-term ways, whereas other forms of environmental harm—such as illegal dumping or toxic exposure—tend to have identifiable perpetrators and immediate victims. This distinction reinforces the principle that traditional environmental cases, like those arising from the Terra dei Fiocchi, must meet stricter standards of proof and causal linkage under human rights law. This judicial reasoning could be seen as both a limitation and an opportunity: while it prevents broader interpretations of environmental rights in some contexts, it also confirms that in cases where harm is direct, traceable, and immediate, states can be held accountable for violating the right to life or private/family life under Articles 2 and 8 of ECHR.

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