



Oil pollution in Ecuador: Civil and criminal liability for environmental damage

Contaminación por petróleo en Ecuador: Responsabilidad civil y penal frente a daños ambientales

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ABSTRACT

Oil pollution in Ecuador is a complex issue in the field of environmental law. The research objective is to analyse oil pollution in Ecuador from the perspective of civil and criminal liability for environmental damage. It was developed using documentary analysis as a research technique in 20 articles. Documentary categories were designed: i) criminal and legal protection of the environment, ii) environmental impact of the oil industry, iii) environmental pollution and remediation, iv) rights of nature and socio-environmental conflicts, v) constitutional law and corruption. From the perspective of rights of nature and socio-environmental conflicts, the tension between economic development and sustainability is highlighted, underlining the importance of community participation and access to environmental justice, the category of constitutional law and corruption highlights how institutional weakness and lack of transparency hinder environmental governance.

Descriptors: right to environmental quality; collective human rights; right to natural resources control. (Source: UNESCO Thesaurus).

RESUMEN

La contaminación por petróleo en Ecuador es un tema complejo en el ámbito del derecho ambiental. Se destaca como objetivo de investigación analizar la contaminación por petróleo en Ecuador desde la responsabilidad civil y penal frente a daños ambientales. Se desarrolló utilizando el análisis documental como técnica de investigación en 20 artículos. Se diseñaron categorías documentales: i) protección penal y jurídica del medioambiente, ii) impacto ambiental de la industria petrolera, iii) contaminación ambiental y remediación, iv) derechos de la naturaleza y conflictos socioambientales, v) derecho constitucional y corrupción. Desde la perspectiva de los derechos de la naturaleza y los conflictos socioambientales, se pone de manifiesto la tensión entre el desarrollo económico y la sostenibilidad, subrayando la importancia de la participación comunitaria y el acceso a la justicia ambiental, la categoría de derecho constitucional y corrupción resalta cómo la debilidad institucional y la falta de transparencia obstaculizan la gobernanza ambiental.

Descriptores: derecho a la calidad ambiental; derechos humanos colectivos; derecho al control de los recursos naturales. (Fuente: Tesoro UNESCO).

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Research articles section



INTRODUCTION

Oil pollution in Ecuador constitutes one of the most complex problems in the field of environmental law, due to its devastating impact on ecosystems, local communities and the rights of nature. This phenomenon, which has intensified with decades of oil exploitation in the Amazon region, poses significant challenges for the Ecuadorian legal system, both in terms of prevention and remediation of environmental damage. In this context, civil and criminal liability emerges as an essential mechanism to guarantee environmental justice, punish those responsible and promote the restoration of affected ecosystems.

From a criminal perspective, Antúñez-Sánchez & Guanoquiza-Tello (2019) highlight that Ecuadorian legislation on environmental protection has regulatory and operational gaps that hinder the effective prosecution of environmental crimes. Although the 2008 Constitution recognises nature as a subject of rights, its implementation in the criminal sphere has been limited, which shows the need for a structural change in the regulatory framework. This change should be oriented towards the consolidation of an environmental criminal system that not only punishes harmful conduct, but also guarantees full reparation of the damage caused, in line with the principles of restorative justice.

In the civil sphere, liability for environmental damage acquires a restorative and preventive character, to which Arias-Benavides & Etcheverry-Carrera (2024) emphasise that the legal good protected in crimes against the environment and nature must be understood as a collective interest, whose affectation transcends present and future generations, which requires that justice operators adopt broad criteria to assess environmental damage, including not only economic damages, but also pure ecological damage and social impacts derived from pollution. In this sense, comprehensive reparation should include environmental restoration measures, compensation to affected communities and guarantees of non-repetition.



Oil activity in Ecuador, as Castro-León (2017) points out, has historically been marked by an extractivist model that prioritises the economic interests of the state over environmental and social rights. This model has generated a deficit of accountability, especially in cases of oil spills and soil and water contamination. Escandón (2019) and Lafuente et al. (2019) document the devastating effects of these events on river ecosystems and biodiversity, highlighting the need to establish more effective prevention mechanisms and strengthen institutional capacities to respond to these disasters. Likewise, Cui & Bejarano (2015) warn that environmental remediation strategies, although necessary, are often insufficient due to the technical complexity of decontaminating Amazonian soils and the lack of financial resources.

From a constitutional point of view, the fight against oil pollution is intrinsically linked to the recognition of the rights of nature, enshrined in the Ecuadorian Constitution of 2008. This normative framework, unique in the world, establishes that nature has a right to restoration, which implies that environmental damage must be comprehensively repaired, regardless of the economic interests at stake (Moya, 2023). However, as Luque-González & Arias (2020) point out, corruption and institutional weaknesses have hindered the effective implementation of these provisions, which highlights the need to strengthen control and accountability mechanisms in the environmental sphere.

Considering the above prescriptions, the research objective is to analyse oil pollution in Ecuador from the point of view of civil and criminal liability for environmental damage.



METHOD

The methodological aspect of the work was developed under a qualitative approach, using documentary analysis as a research technique. The methodological stages that guided the development of the research are described below:

First, the study population was selected, consisting of 20 relevant documents, including academic articles, technical reports and legal texts published between 2015 and 2024. These documents were selected based on their thematic relevance and their contribution to the analysis of the oil pollution problem in Ecuador, addressing legal, environmental, social and economic aspects.

These categories emerged from a review of the literature and were defined as: i) criminal and legal protection of the environment, ii) environmental impact of the oil industry, iii) environmental pollution and remediation, iv) rights of nature and socio-environmental conflicts, v) constitutional law and corruption. These categories made it possible to organise and systematise the information gathered for subsequent documentary analysis.

The documentary analysis was carried out through a reflective reading of the selected articles, focusing on the normative, doctrinal and practical aspects related to oil pollution. This process included the identification of the main arguments, results and proposals of the works, as well as the comparison of national regulations with international standards in the field of environmental law.

The information obtained was systematised in an analysis matrix (table 1), in which the main contributions of each document were recorded in relation to the categories defined, this systematisation made it possible to identify relationships between the categories. The results were interpreted in the light of the current theoretical and normative framework, considering both the Ecuadorian context and international trends in environmental law.



ANALYSIS OF THE RESULTS

From the documentary analysis of the 20 articles used as study population, legal categories related to the protection of the environment, the rights of nature and the legal and constitutional challenges that arise around these issues were designed and described in Table 1, in the following order:

Firstly, the criminal and legal protection of the environment is analysed, with emphasis on the criminal, constitutional and legal regulatory framework that seeks to guarantee the protection of ecosystems and the rights of nature, both in Ecuadorian and international law.

Secondly, it examines the environmental impact of the oil industry, considering the damage caused by this activity on ecosystems and communities, as well as the public policies and regulations governing the extractive industry. It also addresses the problems of environmental pollution and remediation, with special attention to legal and technical strategies aimed at mitigating the harmful effects of human activities such as mining and oil exploitation.

On the other hand, the rights of nature and socio-environmental conflicts are studied, analysing the legal conflicts arising from the tension between extractive activities and the sustainability of ecosystems, as well as the legal tools for their resolution.

Finally, it explores the relationship between constitutional law and corruption, examining its impact on governance, transparency and the legal challenges it poses in the Ecuadorian context.



Table 1. Documentary categories of study.

Category	Definition of the category	Reference
Criminal and legal protection of the environment	It refers to the analysis of the legal, penal and constitutional regulations that seek to protect the environment and the rights of nature, as well as their application in the Ecuadorian and international context.	Antúñez-Sánchez, Alcides, & Guanoquiza-Tello, Lenin Lucas (2019). Arias-Benavides, Alejandra Nathaly, & Etcheverry-Carrera, Julio Alberto (2024). Merlo-Solari, Mariana Noelia (2023). Pineda-Reyes, Cristhian Rogelio, & Vilela-Pincay, Wilson Exson (2020). Luque-González, A., & Gabriela Arias, E. (2020). Moya, Pedro Harris (2023).
Environmental impact of the oil industry	It examines the negative effects of oil activity on the environment, including spills, contamination of ecosystems and communities, as well as public policies related to the extractive industry.	Castro-León, F. (2017). Escandón P., Paulo César (2019). Lafuente, Wilson, et al. (2019). Mayorga-Mayorga, Henry Santiago, & Reyes-Bueno, Fabián (2022). Mateo, Juan Pablo, & García, Santiago (2014). Ordoñez-Moran, Arturo, & Nuñez-Lapo, María de los Ángeles (2019). Ramírez-Palacios, D. (2019).
Environmental pollution and remediation	It addresses environmental pollution problems generated by human activities, such as mining and the oil industry, and remediation strategies to mitigate their effects on the environment and human health.	Cuvi, N., & Bejarano, M. (2015). Peña-Murillo, Sandra Emperatriz (2018). Vilela-Pincay, W., Espinosa-Encarnación, M., & Bravo-González, A. (2020).
Rights of nature and socio-environmental conflicts	It analyses the conflicts between human activities (such as mining and oil) and the rights of nature, as well as strategies for sustainability and ecosystem protection in Ecuador.	Sanandrés, Eliana, & Otálora Montenegro, Juan Sebastián (2015). Valladares-Pasquel, Andrea Carolina, & Boelens, Rutgerd (2019). Quishpe-López, J. D., et al. (2020).
Constitutional law and corruption	It explores the relationship between constitutional law, corruption and its impact on governance, with an emphasis on the Ecuadorian context and the legal challenges related to transparency and justice.	Luque-González, A., & Gabriela Arias, E. (2020). Ramos, Rómulo (2017).

Source: Own elaboration.



Criminal and legal protection of the environment

The protection of the environment from the criminal and legal sphere constitutes a fundamental axis in the construction of a regulatory framework that guarantees the sustainability and preservation of natural resources. In the case of Ecuador, the 2008 Constitution introduced an innovative paradigm by recognising the rights of nature, which implies that ecosystems are subjects of rights and can therefore be protected against human actions that violate them. However, as Antúñez-Sánchez & Guanoquiza-Tello (2019) point out, the effectiveness of this legal framework is limited by the lack of adequate implementation, institutional weaknesses and insufficient resources to ensure compliance. Meanwhile, Moya (2023) stresses the need to harmonise national regulations with international standards, especially in a global context where environmental problems, such as climate change, transcend state borders. In this sense, the challenge lies not only in the creation of standards, but also in their effective implementation, which requires institutional capacity building and sustained political commitment.

Environmental impact of the oil industry

Although the oil industry is one of the main sources of income for the Ecuadorian state, it also represents one of the economic activities with the greatest environmental impact. Oil spills, contamination of soils and water bodies, and adverse effects on indigenous and local communities are recurrent problems. Castro-León (2017) documents how oil spills in the Ecuadorian Amazon have caused irreparable damage to ecosystems, affecting not only biodiversity, but also the health and rights of the communities that depend on these resources.

On the other hand, Escandón (2019) emphasises that, although regulations exist to regulate extractive activity, their application is deficient, and the sanctions imposed on the companies responsible are often insufficient to deter future infractions. Mayorga-Mayorga & Reyes-Bueno (2022) point out that environmental remediation policies, although necessary, have been limited in scope due to a lack of financial resources and political will. This panorama highlights the need to reconcile the



economic benefits of the oil industry with the effective protection of the environment and the rights of affected communities.

Environmental pollution and remediation

Environmental pollution from human activities, such as mining and oil exploitation, is a critical challenge for environmental law and sustainability. In Ecuador, soil and water contamination has reached alarming levels, affecting both biodiversity and the health of local populations, as noted by Cuvi & Bejarano (2015). This type of contamination, which includes the presence of heavy metals and hydrocarbon residues, poses serious challenges for the design and implementation of remediation strategies. While Peña-Murillo (2018) indicates the importance of adopting cleaner and sustainable technologies as a preventive measure, while Vilela-Pincay, Espinosa-Encarnación & Bravo-González (2020) highlight that the lack of coordination between public institutions and private companies hinders the implementation of effective remediation projects. From a legal perspective, it is essential to strengthen environmental liability mechanisms, both in the administrative and criminal spheres, to ensure that the actors responsible for pollution assume the costs of remediation and avoid the repetition of such conduct.

Rights of nature and socio-environmental conflicts

The recognition of the rights of nature in the Ecuadorian Constitution represents a significant advance in the field of environmental law, as it establishes a regulatory framework that prioritises the protection of ecosystems over human activities. However, this recognition has generated tensions with extractive activities, such as mining and oil exploitation, which are fundamental to the country's economy. In this sense, Sanandrés & Otálora Montenegro (2015) analyse how these socio-environmental conflicts reflect a collision between economic development and environmental sustainability, highlighting the need to find a balance between both interests.

In this context, Valladares-Pasquel & Boelens (2019) highlight that the active participation of local communities in decision-making processes is essential to



ensure more equitable and sustainable management of natural resources. However, in practice, economic interests often prevail over the rights of nature and communities, highlighting the need to strengthen control and oversight mechanisms, as well as to ensure access to environmental justice for affected actors.

Constitutional law and corruption

Corruption constitutes one of the main obstacles to the effectiveness of constitutional law, especially in contexts where institutional weakness and lack of transparency are prevalent. In Ecuador, corruption not only affects governance in general, but also has a direct impact on key areas such as environmental protection, to which Ramos (2017) points out that the diversion of public resources and the lack of accountability limit the state's capacity to implement effective policies in this area. Luque-González & Arias (2020) stress the importance of strengthening control and accountability mechanisms, including the implementation of transparency systems and the imposition of severe sanctions for corrupt officials. From a constitutional perspective, the fight against corruption is not only an ethical imperative, but also a necessary condition to guarantee the fulfilment of fundamental rights, including the rights of nature, in this sense, strengthening the rule of law and promoting a culture of integrity are essential to move towards a more just and sustainable governance.

CONCLUSION

Oil pollution in Ecuador, analysed from the documentary categories, shows the complexity of the legal, social and environmental challenges facing the country. In the area of criminal and legal protection of the environment, the need to strengthen the regulatory framework and its effective application is highlighted, overcoming institutional limitations and guaranteeing the protection of the rights of nature. Regarding the environmental impact of the oil industry, the damage caused to ecosystems and communities reflects the urgency of implementing public policies that balance economic interests with environmental sustainability. In terms of environmental pollution and remediation, current efforts are insufficient, which calls



for more coordinated and effective strategies to mitigate the effects of extractive activities and guarantee comprehensive reparation of damages. From the perspective of the rights of nature and socio-environmental conflicts, the tension between economic development and sustainability is highlighted, underlining the importance of community participation and access to environmental justice, the category of constitutional law and corruption highlights how institutional weakness and lack of transparency hinder environmental governance, making it essential to strengthen control and accountability mechanisms.

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To the defenders of the environment in Ecuador.

CONTRIBUTION OF THE AUTHORS

Johanna Emperatriz Coronel-Piloso: Her contribution focuses on analysing criminal liability for environmental damage caused by the oil industry in Ecuador. She points out the weaknesses of the criminal legal framework and the need to strengthen institutions to guarantee the effective protection of the rights of nature, and highlights the importance of aligning national regulations with international standards in order to achieve more effective environmental justice.

María Estefanía Baldeón-Navarrete: She contributes to the study from the perspective of civil liability, highlighting the importance of comprehensive reparation that considers not only economic damages, but also ecological and social damages derived from pollution, and indicates the need to include affected communities in the processes of remediation and environmental justice, ensuring that their rights are respected and protected.

Magyuri Zambrano-Burgos: Her analysis focuses on socio-environmental conflicts and the relationship between constitutional law and corruption. She examines how lack of transparency and institutional weaknesses affect environmental protection, proposing the strengthening of control and accountability mechanisms. It also addresses the tensions between economic development based on extractive activities and environmental sustainability, highlighting the need to prioritise the rights of nature and communities in political and economic decisions.



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