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ARTICLE

# Environmental Justice and Enforcement: Guidelines from Three Country Studies

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**Abstract**

This article argues that environmental justice extends beyond planning and decision-making to include enforcement as a critical, yet often overlooked, dimension. It advances the claim that incorporating environmental justice into enforcement law and policy is essential for addressing structural inequalities and promoting accountability in environmental governance. The primary objective of the article is to identify environmental justice guidelines embedded in enforcement frameworks, with the aim of strengthening the role of justice in regulatory practice and enhancing the equity and effectiveness of enforcement outcomes. The analysis focuses on three enforcement tools that reflect a flexible and responsive approach: (i) the United States' Supplemental Environmental Projects, (ii) the United Kingdom's Environmental Enforcement Undertakings, and (iii) Chile's Compliance Programmes. The article draws on three sources of data: case studies, the environmental justice guidelines applicable to them, and the existing state of enforcement. It begins by examining the regulatory design of enforcement systems in the three jurisdictions; it then analyzes each tool to identify how environmental justice dimensions are integrated – or could be integrated – into their design and implementation. Finally, it assesses the practical application of these instruments, arguing that the deliberate incorporation of environmental justice considerations can improve the responsiveness, transparency, and legitimacy of enforcement mechanisms, which ultimately benefits both the environment and affected communities.

**Keywords:** Environmental enforcement; Environmental justice; Comparative analysis; United States; United Kingdom; Chile

## 1. Introduction

Countries worldwide face stark inequalities in environmental burdens and risks.[1] This issue arises in a wide range of cases, from the siting of polluting industries in close

[1] An environmental justice issue is defined as 'the equitable distribution of environmental burdens and benefits among all members of society, taking into consideration the community context and capabilities of these individuals and their role in the decisions that impact them': D. Hervé, 'Noción y elementos de la justicia ambiental: Directrices para su aplicación en la planificación territorial y en la evaluación ambiental estratégica' (2010) 26(1) *Revista de Derecho de la Universidad Austral*, pp. 9–36, at 26.

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proximity to minority or vulnerable populations[2] and the health effects of pesticide use on farmworkers,[3] to the outsized impact of climate change on disadvantaged countries and communities.[4] The growing recognition that contemporary society intensely and universally experiences environmental injustice has boosted the use of the environmental justice approach to scrutinize and make environmental decisions.[5] Grounded on this premise, legal mechanisms and instruments are being formulated to address environmental justice issues in every dimension. The United States (US) has pioneered this effort, starting with Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, an executive order issued by the Clinton administration in 1994.[6] Since the 1990s, the US Environmental Protection Agency (EPA) has adopted various environmental justice strategies, among which the most recent was for the years between 2016 and 2020.[7] Notably, the Biden administration prioritized 'equity, environmental justice and civil rights' as central to its mission[8] with 'decisive action to advance environmental justice and civil rights' as a strategic goal for 2022–26.[9] Environmental justice was a priority in the previous US administration, reflected in its 2023 executive order on environmental justice 'Revitalizing our Nation's Commitment to Environmental Justice for All'[10] and the Justice40 Initiative.[11] Particularly relevant for this article, EPA strategies emphasize enforcement as a crucial area for advancing environmental justice.[12]

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2 Such cases – notably the Love Canal disaster (see E.C. Beck, 'The Love Canal Story', *EPA Journal*, Jan. 1979, available at: https://www.epa.gov/archive/epa/aboutepa/love-canal-tragedy.html) and the Warren County Landfill (see R. Skelton, V. Miller & C. Lindwall, 'The Environmental Justice Movement', National Resources Defense Council (NRDC), 14 Aug. 2025, available at: https://www.nrdc.org/stories/environmental-justice-movement) – spearheaded the United States (US) environmental justice movement.

3 On this issue in the US see N. Donley et al., 'Pesticides and Environmental Injustice in the USA: Root Causes, Current Regulatory Reinforcement and a Path Forward' (2022) *22 BMC Public Health*, article 708 (2022).

4 In the United Kingdom (UK), a web platform helps to identify communities and territories vulnerable to climate change: Climate Just web tool, available at: https://www.climatejust.org.uk/welcome-climate-just-web-tool.

5 J. Salzman & B. Thompson, *Environmental Law & Policy* (Foundation Press, 5th edn, 2019), p. 42.

6 Executive Order No. 12898, 11 Feb. 1994, available at: https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf.

7 EPA, 'EJ 2020 Action Agenda: The US EPA's Environmental Justice Strategic Plan for 2016–2020', Oct. 2016, available at: https://www.epa.gov/sites/default/files/2016-05/documents/052216_ej_2020_strategic_plan_final_0.pdf.

8 Executive Order No. 13985, 'Equity Action Plan: US Environmental Protection Agency', 20 Jan. 2021, summary available at: https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/04/EPA-EO13985-equity-summary.pdf.

9 EPA, '2022–2026 EPA Strategic Plan', Mar. 2022, available at: https://www.epa.gov/system/files/documents/2022-03/fy-2022-2026-epa-strategic-plan.pdf.

10 Executive Order No. 14096, 21 Apr. 2023, available at: https://www.federalregister.gov/documents/2023/04/26/2023-08955/revitalizing-our-nations-commitment-to-environmental-justice-for-all.

11 The White House, 'Justice40: A Whole-of-Government Initiative', available at: https://bidenwhitehouse.archives.gov/environmentaljustice/justice40.

12 EPA, 'Environmental Justice Strategic Plan', Dec. 2024, available at: https://www.epa.gov/system/files/documents/2024-12/environmental-justice-strategic-plan-december-2024.pdf.

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This article argues that, as a legal framework, environmental justice is about rulemaking, planning, and decision-making, and also about enforcing the law. The enforcement pillar has frequently been under-emphasized in both scholarly debates and policy implementation regarding environmental justice as it is often viewed merely as a technical or administrative function, rather than as a site where justice claims are actively shaped and contested. We contend that environmental justice objectives can be achieved through a flexible enforcement approach. By 'flexible enforcement' we refer to a regulatory strategy that combines deterrence-based tools (such as sanctions and penalties) with cooperative mechanisms (such as negotiated compliance or corrective action programmes), applied in a manner that is sensitive to contextual variables – such as the vulnerability of affected communities, the structural capacity of regulated entities, and the environmental significance of the harm. This study examines three country case studies to identify environmental justice guidelines in enforcement:[13] firstly, the US, where environmental justice is an explicit goal of the federal EPA's enforcement policy and strategy; secondly, the United Kingdom (UK) enforcement framework, which features new regulatory instruments and a flexible approach to sanctions;[14] thirdly, Chile, a country whose environmental sanctions system, while not part of the same legal tradition, has been influenced by the US and the UK. In Chilean law, environmental justice guidelines are a relatively new addition to the supervisory, sanctioning, and compliance functions.[15]

Through a review of policy documents, legal doctrine, cases, and rules, we examined the legal systems in these three countries in order to identify similarities, differences, opportunities, challenges, and insights that can help to support environmental justice through law enforcement. As such, rather than a strictly comparative legal analysis, this is a case review intended to identify guidelines. The purpose of this analysis is twofold: firstly, to fill a gap in the environmental justice literature by integrating enforcement as a core component within the legal framework of environmental justice; secondly, to critically assess flexible enforcement tools according to their potential to promote environmental justice outcomes. This 'thin' comparative analysis aims to address the uneven distribution of environmental burdens, risks, and impacts from non-compliance.[16]

The article begins by referring to environmental justice as a framework for the analysis of environmental law and policy (Section 2). It then examines the regulatory

[13] The legal response for enabling environmental justice translates into the application of rules and guidelines through administrative tools and procedures; see J. Bermúdez, *Fundamentos de Derecho Ambiental* (Ediciones Universitarias de Valparaíso, 2nd edn, 2014), p. 55. In this analysis, we consider 'guidelines' to be criteria that either reflect a clear and consistent expression of environmental justice in the exercise of public authority, or also represent more exceptional and context-specific manifestations within administrative decision-making.

[14] R. Macrory, *Regulation, Enforcement and Governance in Environmental Law* (Hart, 2nd edn, 2014).

[15] D. Hervé & F. Arias, 'Determinación de reglas y criterios de justicia ambiental en el ejercicio de las facultades de fiscalización, sanción y cumplimiento de la Superintendencia del Medio Ambiente' (2023) (1)19 *Revista de Derecho Ambiental*, pp. 9–44.

[16] E. Fisher, 'Through "Thick" and "Thin": Comparison in Administrative Law and Regulatory Studies Scholarship', in P. Cane et al. (eds), *The Oxford Handbook of Comparative Administrative Law* (Oxford University Press, 2020), pp. 615–34.

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and institutional design of environmental enforcement arrangements in the three countries (Section 3). For each case study, it then reviews the enforcement tool that, in our judgement, can best help to attain environmental justice objectives (Section 4). Environmental justice guidelines are identified, with an emphasis on similarities across countries (Section 5). The article ends with some conclusions (Section 6).

## 2. Environmental Justice as a Legal Framework

Environmental justice emerged in the 1970s and 1980s from US grassroots movements concerned about the disproportionate burdens caused by environmental impacts and risks to vulnerable groups. Since then, various disciplines – including philosophy, sociology, economics, and environmental law – have expanded the concept.[17] Scholars identify two key dimensions of environmental justice: distributive and political/participatory. These include, on the one hand, equity in the distribution of environmental burdens and benefits, which is tied directly to the notion of distributive justice; on the other, meaningful participation, tied to the notion of procedural or political justice.[18] Further dimensions identified as part of the concept are recognition, understood as acknowledging the value of the vulnerable communities and groups that bear most of the environmental burdens;[19] corrective justice, which consists of ensuring that any party liable for harm caused to the rights and interests of another makes reparation to the victim;[20] and restorative justice, which heals parties affected by crimes and seeks to restore them to the positions in which they were before they were committed.[21]

Scholarly analysis has shaped environmental justice into a framework for evaluating environmental law and policy.[22] Some even argue that, as a legal principle, environmental justice functions not merely as a political or ethical aspiration but as a normative standard with legal relevance and interpretative weight within legal systems.[23] Indeed, certain international and national legal norms include one or more dimensions of environmental justice.[24] Environmental justice appears in legal systems both explicitly – through rules that are explicitly incorporated into positive law, such

[17] See especially R. Bullard, D. Schlosberg, A. Dobson, J. Agyeman, and J. Martínez-Alier. Legal scholars who have scrutinized the concept and its application across the legal system include, e.g., B. Hill, *Environmental Justice, Legal Theory and Practice* (Environmental Law Institute Press, 2009); L. Westra, *Environmental Justice and the Rights of Indigenous Peoples* (Earthscan, 2008); S. Atapattu, C. González & S. Seck (eds), *The Cambridge Handbook of Environmental Justice and Sustainable Development* (Cambridge University Press, 2021).

[18] For a complete analysis of the concept of environmental justice see D. Schlosberg, *Defining Environmental Justice: Theories, Movements and Nature* (Oxford University Press, 2007).

[19] D. Schlosberg, 'Reconceiving Environmental Justice: Global Movements and Political Theories' (2004) 13(3) *Environmental Politics*, pp. 517–40.

[20] C. McKinnon, 'Climate Change and Corrective Justice' (2009) 17 *Jahrbuch fur Recht und Ethik*, pp. 259–76.

[21] A. Stark, 'Environmental Restorative Justice' (2016) 16(3) *Pepperdine Dispute Resolution Law Journal*, pp. 435–62.

[22] Salzman & Thompson, n. 5 above, pp. 42–6.

[23] On environmental justice and its formulation as legal principle see D. Hervé, *Justicia ambiental y recursos naturales* (Editorial Universitaria de Valparaíso, 2015), pp. 108–40.

[24] Ibid., pp. 77–108 (identifying a series of environmental justice rules in international and domestic legislation).

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as norms that regulate citizen participation in environmental issues[25] – and implicitly, shaping environmental legal reasoning applied to the interpretation of the meaning and scope of regulations. These implicit rules influence judicial decisions[26] and regulatory discretion in environmental matters.[27] A key feature of the development of the environmental justice legal framework is its link to urban environmental risks, which disproportionately affect vulnerable populations[28] as a result of race-based and class-based land-use patterns.[29] As such, the literature on environmental justice has focused primarily on land-use planning and environmental decision-making.[30] However, we argue here that the notion of environmental justice can also be applied to a number of other issues. As Lazarus notes:

> Environmental justice is not just about siting. It is not a code for 'Not in My Backyard'. It is symptomatic of a much broader issue. Environmental justice is about distribution. It is about distribution in the first instance, and it is about distribution over time.[31]

One of these issues is effective law enforcement, which is key to achieving environmental law objectives. 'Enforcement is the cornerstone of effective

[25] At the international level, good examples are the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters (Aarhus Convention), Aarhus (Denmark), 25 June 1998, in force 30 Oct. 2001, available at: http://www.unece.org/env/pp/treatytext.html; and the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement), Escazú (Costa Rica), 4 Mar. 2018, in force 22 Apr 2021, available at: https://www.cepal.org/en/escazuagreement. At the national level, many enactments call for participatory mechanisms before adoption of public environmental decisions; see, e.g., Chile's Environmental Framework Law (1994 Law 19300), available at: https://www.bcn.cl/leychile/navegar?idNorma = 30667.

[26] For application of environmental justice principles on the standing to sue in environmental matters, see the judgment of 3 Mar. 2014 of Chile's Second Environment Court of Santiago on a claim filed against the Pascua Lama mining project (Case R-6-2013), pp. 38–41, available at: https://tribunalambiental.cl/wp-content/uploads/2014/07/R-06-2013-03-03-2014-Sentencia.pdf.

[27] As has been done, e.g., by Chile's national authority on environmental enforcement when setting criteria for the prioritization of environmental controls. The environmental vulnerability of the territory, the social perception of the industries to be audited, and the danger levels of the operations carried out are among the criteria that should guide the auditing strategy of the enforcement agency: Resolution No. 1171/2015, 11 Dec. 2015, 'Dicta Instrucciones Generales sobre Elaboración, Ejecución, Evaluación y Publicación de los Programas y Subprogramas de Fiscalización Ambiental', available at: https://snifa.sma.gob.cl/Resolucion/Instruccion.

[28] J. Magwood, E.M. Williams & H. Glover, 'Prolonged Injustice in Urban America' (2010) 3(4) *Environmental Justice*, pp. 141–5.

[29] A. Kaswan, 'Distributive Justice and the Environment' (2003) 81 *North Carolina Law Review*, pp. 1031–148, at 1050–1.

[30] On the countries in our study, see in the US: M. Gerrard & S. Foster (eds), *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks* (American Bar Association, 2008); in the UK: J. Holder, 'Building Spatial Europe: An Environmental Justice Perspective', in J. Scott (ed.), *Environmental Protection: European Law and Governance* (Oxford University Press, 2009), pp. 92–126; and in Chile: P. Infante, '(In)justicia ambiental en Chile y principales mecanismos para mitigar la inequidad: Planificación territorial y derechos de comunidades vulnerables' (2016) 6 *Revista de Derecho Ambiental*, pp. 143–63.

[31] R. Lazarus, 'Distribution in Environmental Justice: Is There a Middle-Ground?' (1994) 9(2) *St. John's Journal of Legal Commentary*, pp. 481–90, at 483.

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environmental regulation'[32] and it 'helps ensure fairness and a level playing field among regulated entities'.[33] This assertion becomes urgent for vulnerable communities unduly affected by pollution and the environmental impacts and risks arising from non-compliance. The need to incorporate an environmental justice approach into law enforcement has been raised in national legal systems, particularly in the US, where, as noted, environmental justice is a stated EPA policy goal. A 1992 empirical study conducted by the *National Law Journal* concluded that EPA penalties for violations of federal environmental regulations were substantially lower in minority communities than in white communities.[34] In as early as 1994, Kuehn argued that:

> The causes of unequal enforcement are likely to be the same structural causes that have been blamed for the general unequal distribution of environmental hazards among minorities and low-income communities. Racist attitudes, lack of economic and political clout, and lack of participation in government decision-making all play a causal role.[35]

Environmental justice thus depends heavily on robust enforcement policies and regulations. A key enforcement tool is the determination of fines and allocation of collected funds to address environmental justice concerns. With regard to sanctions, proposals include increasing fines in highly polluted areas inhabited by vulnerable populations[36] or directing funds to affected communities.[37] These proposals show the relevance, from the standpoint of environmental justice, of the decisions and instruments at play in the use of environmental enforcement discretion. These encompass the whole spectrum of the exercise of such powers, such as the determination of what and how often to inspect, how to allocate enforcement and sanctioning resources, the available instruments to use, and the sanctions to impose. The next section analyzes enforcement approaches in the three countries to assess their integration of environmental justice principles.

## 3. Environmental Enforcement Approaches in the Case Studies

Approaches to environmental enforcement range from being based primarily on deterrence to those that strongly encourage collaboration between regulators and offenders.[38] The cases reviewed here follow a variety of approaches.[39]

[32] J. Mintz, C. Rechtschaffen & R. Kuehn, *Environmental Enforcement: Cases and Materials* (Carolina Academic Press, 2007), p. 3.

[33] Ibid.

[34] C. Rechtschaffen, E. Gauna & C. O'Neill, *Environmental Justice: Law, Policy and Regulation* (Carolina Academic Press, 2009), pp. 65–7.

[35] R. Kuehn, 'Remedying the Unequal Enforcement of Environmental Law' (1994) 9(2) *St. John's Journal of Legal Commentary*, pp. 625–68, at 640.

[36] R. Lazarus & S. Tai, 'Integrating Environmental Justice into EPA Permitting Authority' (1999) 26(4) *Ecology Law Quarterly*, pp. 617–78.

[37] A. Geisinger, 'Rethinking Environmental Justice Regulation: A Modest Proposal for Penalty Return' (2004) 55(1) *Syracuse Law Review*, pp. 33–54.

[38] N. Gunningham, 'Enforcing Environmental Regulation' (2011) 23(2) *Journal of Environmental Law*, pp. 169–201.

[39] This article highlights the importance of a flexible approach to environmental enforcement in achieving environmental justice objectives. However, it is important to note that the effectiveness of a negotiated

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### 3.1. Environmental Enforcement in the US

To Gunningham, the EPA represents a paradigmatic example of a deterrence-based approach to environmental enforcement,[40] noted for applying rules and standards across the board. Rechtschaffen further notes that the EPA strategy relies on penalties as the primary enforcement tool.[41] The emphasis is on detecting non-compliance and gathering evidence to prove it. The EPA primarily enforces environmental laws retrospectively, responding to violations and imposing penalties to deter future breaches.[42] While deterrence remains its hallmark, regulators and policymakers encourage the EPA to work more collaboratively with violators.[43] The 'collaborative' approach emphasizes securing compliance before resorting to sanctions and promotes the withdrawal of penalties in exchange; levying fines is seen as a mark of failure. Based on incentives and primarily prospective enforcement, this approach, which focuses more on the underlying conditions or violations than on the violator,[44] emphasizes cooperation over confrontation and conciliation over sanctions.[45] The intent is to prevent harm, best achieved through persuasion and negotiation. Unlike deterrence, this method assumes that most entities will comply voluntarily.[46]

Rechtschaffen criticizes the trend to promote radical changes to the EPA approach to sanctions (promote compliance over enforcement), arguing that it should remain deterrence-based, and perhaps embrace relevant aspects of the cooperative model.[47] He advocates a hybrid approach that incorporates flexibility. In response, the EPA has put forward tools that pursue additional objectives and embrace socially valuable objectives. While maintaining transparent regulations and deterrence, the EPA assesses enforcement tools case by case to determine the most effective approach for environmental protection.[48] As such, deterrence-based enforcement does not preclude flexibility in achieving environmental objectives. The EPA uses a regulatory and enforcement design based on inspection, gathering data, building a case, and taking legal action only if the case cannot be settled.[49] The process is essentially discretionary, as the EPA alone decides what, when, and how to inspect, and whether to apply sanctions. The process includes formally negotiating with offenders in order to avoid legal or administrative proceedings. Negotiations can include the mandatory adoption

compliance approach has been criticized for its limitations, particularly in achieving short-term regulatory outcomes or immediate remediation. Complementary strategies are therefore needed to ensure the effectiveness of this approach. See N. Gunningham, 'Environmental Law, Regulation and Governance: Shifting Architectures' (2009) 21(2) *Journal of Environmental Law*, pp. 179–212.

40 Gunningham, n. 38 above, p. 173.

41 C. Rechtschaffen, 'Deterrence vs. Cooperation and the Evolving Theory of Environmental Enforcement' (1998) 71 *Southern California Law Review*, pp. 1181–272, at 1188.

42 Ibid.

43 For a detailed explanation of the characteristics of both models: ibid., pp. 1181ff.

44 Ibid., p. 1188.

45 Gunningham, n. 38 above, p. 174.

46 An approach strongly criticized as unrealistic by advocates of deterrence.

47 Rechtschaffen, n. 41 above, p. 1186.

48 Salzman & Thompson, n. 5 above, p. 96.

49 J. Mintz, *Enforcement at the EPA: High Stakes and Hard Choices* (University of Texas Press, rev'd edn, 2012), p. 1.

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of environmentally beneficial measures defined in consent agreements. Tellingly, most EPA enforcement cases do not go to trial.[50] The most common sanction is the financial penalty, which stands to reason if the objective is to prevent gain and penalize offenders. The EPA has wide latitude to determine the amount of the fine, based on ceilings set by applicable statutes. The EPA can also resort to alternative arrangements, notably the Supplemental Environmental Projects (SEPs), reviewed below.

### 3.2. Environmental Enforcement in the UK

The UK[51] traditionally channels environmental enforcement through criminal courts,[52] though critics argue that not all violations involve negligence or criminal intent.[53] As such, the British government, in 2005, asked Richard Macrory to review the administrative sanctions system and to propose options for more efficient, fair, and proportionate penalties.[54] Macrory's report of November 2006, 'Regulatory Justice: Making Sanctions Effective',[55] noted the importance for 'government to ensure that regulators have a flexible and proportionate sanctioning toolkit which also ensures the protection of workers, consumers and the environment. That toolkit should provide appropriate options to handle the regulatory needs'.[56] Macrory advised grounding the toolkit on certain key principles[57] and characteristics,[58] such as the use of innovative options to encourage compliance and introducing enforceable undertakings and 'undertakings plus' as more flexible and proportionate alternatives to criminal prosecution.[59] He also recommended introducing pilot schemes involving restorative justice techniques.[60] Most of his recommendations were incorporated into the Regulatory Enforcement and Sanctions Act 2008,[61] which controls enforcement in the UK in general, with specific sections for England, Wales, Scotland, and Northern

[50] Salzman & Thompson, n. 5 above, pp. 99–101.

[51] This review includes England and Scotland but excludes Wales and Northern Ireland.

[52] Macrory, n. 14 above, p. 2; M. Nehme & O. Pedersen, 'Accountability and Offsetting in Environmental Law Enforcement' (2022) 49(1) *Journal of Law and Society*, pp. 93–117, at 95.

[53] S. Bell et al., *Environmental Law* (Oxford University Press, 9th edn, 2017), pp. 271–2.

[54] Macrory's review took into account the recommendations – which indicated that resorting to criminal regimes was cumbersome and inefficient – made in P. Hampton, 'Reducing Administrative Burdens: Effective Inspection and Enforcement', HM Treasury report, Mar. 2005, available at: https://www.regulation.org.uk/library/2005_hampton_report.pdf.

[55] R. Macrory, 'Regulatory Justice: Making Sanctions Effective', Final Report, Nov. 2006, available at: https://www.regulation.org.uk/library/2006_macrory_report.pdf.

[56] Ibid., p. 7.

[57] Intended to assist regulators in applying penalties that fit the specific case. Sanctioning principles should deter offenders, deprive them of financial benefits, be proportionate, seek to repair harm, and deter recurrence.

[58] Publish enforcement policies; measure outcomes; justify enforcement actions to stakeholders, ministers and parliament; follow up enforcement actions; be transparent in the way in which regulators apply and determine administrative sanctions; and avoid perverse incentives.

[59] In the UK, relevant instruments for a flexible approach to enforcement also include regulatory position statements (RPS); see O. Pedersen 'Legislative Overreach, Adaptation and Administrative Re-regulation in Environmental Law' (2022) 42(3) *Oxford Journal of Legal Studies*, pp. 818–42.

[60] Before trial, in lieu of fines, or within the criminal justice system as pre- or post-sentencing options.

[61] Macrory, n. 14 above, pp. 109ff.

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Ireland.[62] Brexit has not substantially altered environmental enforcement rules in the UK.[63]

Two bodies established under the Environmental Protection Act 1995[64] stand out: England's Environment Agency (EA) and the Scottish Environment Protection Agency (SEPA).[65] These particular regulators have explicit pollution responsibilities, just as the EPA in the US and the Superintendencia del Medio Ambiente (SMA) in Chile have. Both the EA and SEPA base their enforcement policies on achieving certain objectives,[66] notably stopping unlawful activities with an impact on the environment; restoring or remediating environmental damage; returning offenders to compliance; eliminating financial gain obtained from unlawful activities; sanctioning offenders and deterring others. In taking enforcement action, these agencies uphold the principles of proportionality, need, consistency, transparency, and accountability.[67]

Overall, UK environmental enforcement has shifted from a punitive to a more nuanced, objective-driven approach. Civil (administrative) sanctions are prioritized over criminal penalties, with consideration of public interest factors such as intent and impact. Scotland's Environmental Regulation Order 2015 provides multiple enforcement options. Enforcement aims to stop and prevent non-compliance, with penalties reflecting the severity of the offence. Regulators notify offenders of sanctions, allow appeals, and enforcement details become public.

When addressing non-compliance, the EA determines firstly if there is sufficient evidence to impose criminal or civil (administrative) sanctions; while the current preference is for the latter, some can be harsher than criminal penalties.[68] If the EA decides to impose a criminal penalty, it must consider a suitable option – generally fines or community service; prison terms are the exception – and its implications and consequences. Strict liability, the rule for criminal breach of environmental regulations, carries low penalties, which has led to criticism of its deterrent value.[69] If civil sanctions are deemed appropriate, several options are available.[70] The

[62] See Department for Business, Enterprise & Regulatory Reform, 'Regulatory Enforcement and Sanctions Act 2008: Guidance to the Act', July 2008, available at: https://web.archive.org/web/20120215123542/http://www.berr.gov.uk/files/file47135.pdf.

[63] The Environment Act 2021 provides that civil penalties will correspond mainly to those established in the Regulatory Enforcement and Sanctions Act 2008; see C. Badger & R. Macrory, *Environment Act 2021: Text, Guide and Analysis* (Hart, 2022), p. 5.

[64] S. Bell, 'United Kingdom', in E. Lees & J. Viñuales (eds), *The Oxford Handbook of Comparative Environmental Law* (Oxford University Press, 2019), pp. 351–73.

[65] English agencies with environmental enforcement roles also include the Drinking Water Inspectorate, Natural England, Health and Safety Executive, HM Revenue and Customs, Forestry Commission, the police, and local authorities; see Bell et al., n. 53 above, p. 270.

[66] See EA, 'Environment Agency Enforcement and Sanctions Policy', updated 3 Mar. 2025, available at: https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/environment-agency-enforcement-and-sanctions-policy.

[67] Ibid.

[68] Including suspension or revocation of environmental licences; see Bell et al., n. 53 above, p. 291.

[69] Bell, n. 64 above, p. 372.

[70] These include (i) fixed monetary penalties, (ii) variable monetary penalties, (iii) compliance notices, (iv) restoration notices, (v) stop notices, (vi) environmental enforcement undertakings (EEUs), (vii) enforcement cost recovery notices, and (viii) non-compliance penalty notices: EA, n. 66 above.

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Environmental Regulation (Enforcement Measures) (Scotland) Order 2015 also provides for a range of alternatives.[71] Due consideration is given to the public interest involved based on intent, predictability, environmental impact, nature of the offence, financial gain, deterrent effect, prior offender conduct, cooperation, and personal circumstances. Other factors may be considered, depending on the nature and severity of the non-compliance. The choice is aligned with the overall objective of halting the offending behaviour. This can be achieved through specific penalties or a combination thereof. The goal is to remediate the damage caused, stop the offending behaviour, and prevent recurrence.

Once regulators have imposed a specific measure (except for a stop notice), they notify the offender, provide an opportunity to answer the charges, consider the response, and finally notify the sanction imposed and the grounds thereof.[72] Violators may appeal through the courts or through administrative venues set up for this purpose. Enforcement details become part of the public record.[73] In sum, UK environmental enforcement has shifted from a punitive model to a more flexible, objective-driven approach.

### 3.3. Environmental Enforcement in Chile

Chile's environmental enforcement framework was established under the 2010 Law 20.417 (LOSMA),[74] which created the Environmental Enforcement Authority or Superintendencia del Medio Ambiente (SMA). According to the legislative history of this law, prior to this reform oversight was fragmented, disorganized, and costly',[75] while the token fines levied failed to deter.[76] A key reason for the 2010 legislation was the need to set up an adequate oversight and enforcement system. The 2005 Organisation for Economic Co-operation and Development (OECD) Environmental Performance Review of Chile highlighted the urgent need for reform in sanctioning and oversight functions.[77] A new environmental inspection agency was recommended.

[71] N. 101 below. These are (i) offender engagement, including warning letters for breaches, (ii) civil proceedings, (iii) final warning notices, (iv) fixed penalties, (v) criminal prosecution, (vi) compliance, suspension, prohibition or revocation notices, (vii) variable penalties, and (viii) enforcement undertakings; available at: https://www.legislation.gov.uk/ssi/2015/383/contents/made.

[72] EA, n. 66 above.

[73] SEPA, 'Guidance on the Use of Enforcement Action (Revised 2021)', Nov. 2021, available at: https://www.sepa.org.uk/media/219242/enforcement-guidance.pdf.

[74] Law 20.417 (2010), Ley Orgánica de la Superintendencia del Medio Ambiente (LOSMA), Art. 2, available at: https://www.bcn.cl/leychile/navegar?idNorma = 1010459.

[75] Biblioteca del Congresso Nacional de Chile, 'Notes: History of 2010 Law 20.417 creating the Ministry of the Environment, the Environmental Evaluation Service and the Superintendence of the Environment', 2 July 2025 (in Spanish), p. 5, available at: https://www.bcn.cl/historiadelaley/fileadmin/file_ley/4798/HLD_4798_749a0d2dec7072ac83d52ebf0f2ff393.pdf.

[76] Biblioteca del Congresso Nacional de Chile, 'Notes: Report of the Congressional Commission on Natural Resources, National Assets and the Environment on 2010 Law 20.417 creating the Ministry of the Environment, the Environmental Evaluation Service and the Superintendence of the Environment' (in Spanish), p. 68, available at: https://www.bcn.cl/historiadelaley/nc/historia-de-la-ley/4798.

[77] OECD, 'Environmental Performance Reviews: Chile', 9 May 2005, available at: https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-chile-2005_9789264009684-en.

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LOSMA granted the SMA exclusive authority over compliance monitoring and sanctions. The roles and powers of the SMA are extensive, from overseeing environmental management instruments and providing compliance assistance, to imposing fines and setting technical guidelines for oversight agencies. The enforcement process begins with the laying of charges[78] and concludes with sanctions.[79] The SMA's sanctioning role requires a finding that an incident is an offence under Article 35 LOSMA, then classifying it as minor, serious, or very serious (Article 36). The SMA then assesses the circumstances outlined in Article 40 in order to determine the appropriate sanction.[80] LOSMA provides incentives such as voluntary disclosure,[81] remediation plans,[82] and the compliance programmes (CP)[83] discussed below. Chile's enforcement model combines deterrence with incentives and collaboration.[84]

## 4. Enforcement Instruments Helping to Attain Environmental Justice Goals

As previously mentioned, the three countries under review employ distinct approaches to environmental enforcement; yet all provide flexibility in selecting the most suitable option for each case. This flexibility enables the integration of environmental justice objectives into enforcement practices. The section below examines one enforcement instrument from each country under review. All share features designed to encourage compliance and, as we argue, flexibly incorporate environmental justice guidelines.

### *4.1. US: Supplemental Environmental Projects (SEPs)*

SEPs are projects that benefit the environment, derive from a settlement, and are independent from any other legal obligation.[85] Dating back to a 1991 policy statement, supplemental projects may be considered if:

[78] Charges laid must include a clear and precise description of the facts and the time of occurrence, the statute, measures or conditions violated, the relevant provision, and the designated penalty: LOSMA, n. 74 above, Art. 49(2).

[79] These are (i) a written warning, (ii) fines ranging from 1 to 10,000 annual tax units, (iii) temporary or permanent closure, or (iv) revocation of environmental assessment resolutions: LOSMA, n 74 above, Art. 38.

[80] These are (a) the importance of danger and damage caused by the offence, (b) the number of persons whose health may have been affected by the offence, (c) the economic benefit obtained as a result of the offence, (d) the intentionality and degree of participation in the commission of the offence, (e) the prior conduct of the offender, (f) the economic capacity of the offender, (g) compliance with the CP, (h) detriment to or infringement of a protected area, and (i) any other criterion that in the opinion of SMA is relevant for the determination of the sanction.

[81] LOSMA, n. 74 above, Art. 41.

[82] Ibid., Art. 43.

[83] Ibid., Art. 42.

[84] D. Hervé & M.C. Plumer, 'Instrumentos para una intervención institucional estratégica en la fiscalización, sanción y cumplimiento ambiental: El caso del programa de cumplimiento' (2019) 87(245) *Revista de Derecho (Concepción)*, pp. 11–49.

[85] D. Tanenholz, 'Supplemental Environmental Projects: EPA's Efforts to Transform the Invisible Hand into a Green Thumb' (1999) 5(2) *Environmental Lawyer*, pp. 633–50, at 636.

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> (i) Violations are corrected through actions to ensure future compliance; (ii) Deterrence objectives are served by payment of a substantial monetary penalty; and (iii) There is an appropriate 'nexus' or relationship between the nature of the violation and the environmental benefits to be derived from the supplemental project.[86]

This approach has helped to promote and strengthen SEPs: some 700, worth an estimated US$189 million, were approved in 1992 to 1994 alone.[87] In 1995, the EPA issued a new policy statement expressly noting that SEPs were part of its deterrence-based strategy. In 1998, the EPA expanded requirements to include community participation. The most recent update to the EPA SEP policy,[88] which consolidated the provisions in previous policies and memoranda, was published in 2015.

The EPA has significant policies in place for the formulation and approval of SEPs. A key provision is that SEPs are to improve, protect, or reduce risk to public health or the environment. Even if the project benefits an offender, the primary beneficiaries should clearly be public health and the environment. In addition, offender commitments must be based on a legal agreement on which the EPA has commented and reviewed in advance. SEPs cannot be initiated before the EPA finds an offence and legally notifies the offender; moreover, SEPs cannot be linked to a legal obligation – for example, they cannot be enforceable under other statutes. The EPA notes seven categories and an eighth residual class that can be approved as an SEP. These include public health, pollution prevention, pollution reduction, environmental remediation and protection, environmental compliance assessments and audits, environmental compliance promotion, and emergency planning and preparedness, plus other projects that meet EPA conditions and can yield environmental or public health benefits. The policy also lists projects that do not qualify.[89]

For deterrence purposes, the EPA requires SEPs to clearly indicate their settlement status;[90] SEPs are not sanctions and cannot replace penalties. While the deterrence approach of the EPA requires levying a fine even when a case ends in agreement, violators can have up to 80% of SEP costs deducted from the amount of the fine. Exceptionally, the full amount can be deducted if the project provides especially significant environmental justice benefits. Deductions are set at discretion and there is

[86] L. Kaschak, 'Supplemental Environmental Projects: Evolution of a Policy' (1996) 2(2) *Environmental Lawyer*, pp. 465–86, at 469.

[87] Tanenholz, n. 85 above, p. 635. Later estimates showed that enforcement cases approving the use of SEPs averaged a mere 12% in 1992 to 2006; see K. Kristl, 'Making a Good Idea Even Better: Rethinking the Limits on Supplemental Environmental Projects' (2007) 31(2) *Vermont Law Review*, pp. 217–71, at 244–5.

[88] EPA, 'Supplemental Environmental Projects Policy: 2015 Update', 10 Mar. 2015 (EPA, 2015 Policy) available at: https://www.epa.gov/enforcement/2015-update-1998-us-epa-supplemental-environmental-projects-policy.

[89] These include general education or public awareness activities, grants for university-based environmental research, grants to organizations or communities, projects unrelated to environmental protection, studies or evaluations not intended to implement results, projects supported by federal loans, contracts, or funds, and projects to be conducted by a third party required to do so under the law (with some exceptions).

[90] Kaschak, n. 86 above, pp. 482–3.

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no hard-and-fast figure, but if overseeing and monitoring implementation should require a significant outlay of public funds, this will be factored in when calculating deductions. That said, deducting only a percentage of costs is cited among the reasons for under-use of SEPs.[91] Indeed, in what amounts to a clear disincentive, offenders implementing an SEP pay more than those who pay a fine. SEP approval requires:

- *A sufficient nexus*: The SEP must relate directly to the offence, aiming to prevent future violations and mitigate environmental or public health risks.[92] EPA rules note that the nexus is easier to establish if the primary impact of the project occurs at the site of the violation, in a different location within the same ecosystem, or within the same immediate geographic area. Projects can have a nexus even if they address a different pollutant in a different medium, as long as the project is related to the offence in question. While this distinction is not part of policy, the essence of the nexus requirement is its direct relation to the EPA goal of protecting the environment and public health. It also refers to financial conditions imposed by US legislation.[93]
- *Community input*:[94] The EPA encourages SEP proposals to obtain early feedback from affected communities. Ideally, offenders and the EPA should collaborate in soliciting community input, but the EPA may do so on its own (for example, where environmental justice issues are involved). The EPA holds that such input helps to address the needs of affected communities, promote environmental justice, foster better understanding of EPA enforcement efforts, and improve community relations. Community feedback helps in focusing on their particular environmental priorities and concerns, which is especially important when a range of SEPs are considered. In addition, communities can be a source of innovative ideas that might not otherwise be considered. Communities are not party to SEP negotiations.
- *Assessment criteria*:[95] The EPA evaluates proposals for SEPs based on several critical factors that affect deductions from fines. Higher scores in each category lead to greater deductions. Key factors include: (a) significant, quantifiable public health or environmental benefits; (b) environmental justice, focusing on reducing harm or exposure in at-risk communities; (c) community input; (d) innovative processes, technologies, or methods that effectively reduce pollutants, conserve

[91] Kristl, n. 87 above, p. 220.
[92] EPA, 2015 Policy, n. 88 above, Part IV, A.
[93] B.C. Hutson & A.K. Short, 'The Nexus Requirement for Supplemental Environmental Projects: The Emperor's New Clothes for Environmental Enforcement' (2011) 3(1) *Charlotte Law Review*, pp. 67–84, at 75. The reference is to the interpretation in EPA, 'Importance of the Nexus Requirement in the Supplemental Environmental Projects Policy', 31 Oct. 2002, available at: https://www.epa.gov/enforcement/importance-nexus-requirement-supplemental-environmental-projects-policy. The memorandum emphasizes the importance of nexus in evaluating proposed SEPs and avoiding conflict with the Miscellaneous Receipts Act (MRA), which prevents government agencies from diverting or misappropriating public funds.
[94] EPA, 2015 Policy, n. 88 above, Part VII.
[95] Ibid., Part VIII.

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resources, or enhance ecosystem protection and climate resilience; (e) projects that reduce emissions at multiple sites without shifting pollutants; and (f) pollution prevention.

- *Third-party execution*: Violators implementing an SEP are fully liable for it, even if third parties are retained to execute it. This obligation is not transferable.

That said, SEPs are not in wide use. As reported on the EPA website, 951 SEPs, worth some US$299 million, were settled between 2012 and 2022.[96] Most were approved in 2012 and 2015, then decreased drastically in 2020 as a result of restrictions imposed by the first Trump administration. The EPA fully restored SEPs in May 2022, after settling two enforcement cases that included agreements by the violator to perform SEPs with a total estimated value of over US$800,000. With the return of SEPs, in 2023 EPA expected 'an increase of SEPs to help communities impacted by environmental violations'.[97]

Though under-used, SEPs receive extensive scrutiny from legal scholars and practitioners, reflecting their established advantages and limitations.[98] Key among the opportunities that SEPs provide for communities affected by non-compliance are environmental justice benefits such as pollution reduction, environmental restoration, and promotion of public health. For violators, SEPs offer a reduction in fines of up to 80%. SEPs afford affected communities an opportunity to voice their views in enforcement cases and offenders a chance to collaborate in the remediation process. This promotes greater equality between the parties involved, fosters constructive engagement between victims and offenders, encourages mutual respect, and ensures that all perspectives receive equal consideration. Furthermore, recognizing the specific harm experienced by individuals and communities enhances their social acknowledgement and visibility.

### 4.2. UK: Environmental Enforcement Undertakings (EEUs)

Originating in Australian legislation,[99] environmental enforcement undertakings (EEUs) are:

> a flexible sanction that enable regulators to tailor their enforcement response to individual circumstances taking industry considerations and resources, such as management capacity and willingness to restore harm, into account. They represent a valuable alternative to traditional regulatory enforcement action because they can address the needs of several

[96] EPA, 'Enforcement and Compliance Assurance Annual Results for Fiscal Year 2022', 16 Dec. 2022, available at: https://www.epa.gov/system/files/documents/2025-03/eoy2022.pdf.

[97] Ibid.

[98] See, e.g., Kaschak, n. 86 above; Kristl, n. 87 above; Hutson & Short, n. 93 above.

[99] Australian Competition and Consumer Commission, 'Compliance and Enforcement Priorities', available at: https://www.accc.gov.au/about-us/our-priorities/compliance-enforcement-policy-and-priorities#enforcement-action; O. Pedersen, 'Environmental Enforcement Undertakings and Possible Implications: Responsive, Smarter or Rent Seeking?' (2013) 76(2) *The Modern Law Review*, pp. 319–45, at 326.

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parties involved in or affected by the wrongdoing as well as connecting and preventing breaches and their underlying causes.[100]

EEUs are legally binding agreements between the regulator and business, requiring the latter to rectify non-compliance within a specified time frame.[101] Regulators must establish reasonable grounds for an infringement and ensure that the proposed actions prevent recurrence. To the extent possible, EEUs are to restore the affected environment to its former state and result in benefits, including financial compensation,[102] for affected individuals. EEUs specify the actions that offenders agree to carry out, which should aim to (i) stop the breach, (ii) restore the environment, (iii) compensate affected individuals, and (iv) provide equivalent environmental benefits or improvements if restoration is not possible. EEUs also set deadlines and compliance indicators.[103] In England, EEU application is limited to the statutes listed in Schedule 5 of the Environmental Civil Sanctions (England) Order 2010.[104] In Scotland, as noted in Schedule 4 of the Environmental Regulation (Enforcement Measures) (Scotland) Order 2015, EEUs apply to a wider range of statutes.[105]

Especially relevant to this article are the EA and SEPA approval guidelines. The EA advises early and proactive submission of EEUs to improve approval prospects.[106] Once a proposal is submitted, the EA assesses the regulatory response by examining the nature and impact of the offence and potential mitigation actions. It then determines the feasibility of compliance, requiring good faith and a high compliance standard. Offenders must commit to stopping the offending behaviour, maintaining compliance, and proposing actions to mitigate violation impacts while engaging with affected stakeholders. Transparency is mandatory; offenders cannot restrict the publication of EEU approval if environmental or health harm is involved, or their proposals will be declined. Offenders must also show evidence of damage remediation or plans to commence promptly.

[100] Macrory, n. 55 above, p. 63.

[101] England and Wales acknowledge EEUs in the Regulatory Enforcement and Sanctions Act 2008, the Environmental Civil Sanctions (England) Order 2010 (UK SI 2010 No. 1157), and Sch. 1 of the EA Enforcement and Sanctions Policy. Scotland does so in the Regulatory Reform Act 2014, the Environmental Regulation (Enforcement Measures) (Scotland) Order 2015 (Scottish SI 2015 No. 383), and the SEPA 'Guidance on the Use of Enforcement Action', available at: https://www.sepa.org.uk/regulations/enforcement.

[102] Regulatory Enforcement and Sanctions Act 2008, s. 50(3). The Environmental Civil Sanctions (England) Order 2010, ibid., requires that when remediating damages is not an option, an equivalent benefit or improvement should be provided.

[103] The content of compliance agreements is noted in s. 50 of the Regulatory Enforcement and Sanctions Act 2008, s. 4 of the Environmental Civil Sanctions (England) Order 2010, and Sch. 3 of the Environmental Regulation (Enforcement Measures) (Scotland) Order 2015.

[104] Available at: https://www.legislation.gov.uk/ukdsi/2010/9780111492512/schedule/5.

[105] Available at: https://www.legislation.gov.uk/sdsi/2015/9780111029466/schedules.

[106] EA, 'Enforcement and Sanctions Policy, updated 2022', Annex 1, available at: https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/annex-1-res-act-the-environment-agencys-approach-to-applying-civil-sanctions-and-accepting-enforcement-undertakings#enforcement-undertakings.

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Before approving a proposal,[107] the SEPA weighs the nature of the offence, the extent of the damage, and the prospects for compliance based on prior conduct. Offender undertakings must include preventive and long-term measures to ensure a better environmental outcome, as well as mechanisms providing for a timely result. Both countries require repayment of agency costs, notably for the time and resources spent on assessing the offence and evaluating EEUs, plus gifts to charitable or non-profit organizations designed to help in remediating the environmental damage caused. The EA and SEPA guidelines consider the nature of the offence to be a decisive factor. In England and Wales, EEUs apply only to minor infringements; serious offences do not qualify.[108] In Scotland, EEUs do not apply if the SEPA finds that criminal prosecution is in order instead. EEUs are also refused if the environmental damage is significant, if they contain disclaimers or exceptions to non-compliance, or if regulators doubt the violator's ability to complete the actions. Both agencies can refuse an EEU if the public interest so demands. Upon completion of an EEU, offenders must provide evidence of compliance. If completed effectively, a certificate of compliance is issued, revoking monetary penalties. In cases of non-compliance, the EA/SEPA can issue a penalty notice, initiate criminal proceedings, or reschedule compliance, highlighting their discretionary powers.

EEUs are widely used in environmental enforcement in both England[109] and Scotland. The EA report 'Regulating for People, the Environment, and Growth' notes that 80 EEUs were approved in 2020, resulting in donations of GBP£3.1 million to environmental groups.[110] EEUs are typically used by admitted violators willing to remediate the damage caused. The EA approved over 729 EEUs from 2011 to 2022,[111] showing them to be a significant tool in addressing non-compliance. This shows, once again, the discretionary powers[112] of environmental agencies in determining the most appropriate enforcement approach for specific violations. EEUs are in active use for a variety of reasons, including significant cutbacks to the authority's enforcement, investigation, and sanctioning budget, and the provisions that allow agencies to recover costs. EEUs also offer violators a chance to restore the environment to its former state and carry out compensatory actions. Yet, other than the studies cited here,

[107] SEPA, n. 73 above.

[108] Such as categories 1 and 2 of the Common Incident Classification Scheme (CICS) or the Compliance Classification Scheme (CCS), which have major or significant environmental impact, as described in the EA Enforcement and Sanctions Policy (n. 106 above); see O. Pedersen, 'Revisiting the Role of Negotiation and Trivialisation in Environmental Law Enforcement' (2019) 46(1) *Journal of Law and Society*, pp. 29–54, at 36.

[109] The EA has approved over 700 EEUs; see Nehme & Pedersen, n. 52 above, p. 94.

[110] EA, 'Regulating for People, the Environment and Growth, 2020', updated 29 Dec. 2021, available at: https://www.gov.uk/government/publications/regulating-for-people-the-environment-and-growth-2020/regulating-for-people-the-environment-and-growth-2020#fn:4.

[111] Nehme & Pedersen, n. 52 above, p. 96. See also EA, 'Enforcement Undertakings Accepted by the Environment Agency: Updates for 1 November 2023 to 26 July 2024', updated 11 Aug. 2025, https://www.gov.uk/government/publications/environment-agencys-use-of-civil-sanctions/enforcement-undertakings-accepted-by-the-environment-agency-1-june-2022-to-30-september-2022.

[112] Pedersen, n. 99 above, p. 332.

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EEUs do not seem to have attracted much scholarly or research interest, which explains the paucity of comprehensive or more recent publications on the subject.

### 4.3. Chile: Compliance Programmes (CP)

CPs are incentive mechanisms administered by the SMA. CP regulation in LOSMA is sparse, focusing mainly on procedural matters. As noted in the law, review procedures are contained in the Regulations on Compliance Programmes, self-disclosure, and remediation plans.[113] The LOSMA and the Regulations define CPs as a set of goals and plans of action assisting businesses in meeting applicable environmental standards. These regulatory definitions, however, omit key aspects and considerations of the scope of CPs. Firstly, CPs are agreements that offenders propose to the SMA, which approves or declines them. Secondly, CP actions and goals aim to rectify infringements and address the environmental impact of non-compliance. In other words, more than helping to implement plans of action, CPs seek to return to compliance and remediate adverse impacts,[114] making them a highly relevant environmental protection tool.

CPs have been defined as 'a commitment to effectively perform certain actions and achieve certain goals aimed at rectifying unlawful behaviour and addressing the environmental impact of non-compliance, as applicable'.[115] As the Second Environment Court has noted:

> CPs are incentives that include actions allowing offenders to return to a state of compliance ... It can therefore be inferred that lawgivers expressly created CPs in order to underline the relevance of compliance and offer an exemption from sanctions in exchange for the satisfactory completion of a robust environmental compliance plan. As such, CPs are corrective in nature.[116]

Case law shows that CPs have a dual purpose: promptly to return to regulatory compliance and protect the environment.[117] CP components include four key elements: (i) contents, (ii) offender identification, (iii) submission time frame, and (iv) purpose. The contents, as outlined in Article 7 of the Regulations, encompass (a) a description of the relevant facts, actions, or omissions and their effects; (b) goals and plans to meet environmental standards, including measures to mitigate or rectify impacts of non-compliance; (c) a monitoring plan with a schedule of actions,

[113] Environment Ministry Executive Decree No. 30/2013, available at: https://www.bcn.cl/leychile/navegar?idNorma=1048783.

[114] W. García & F. Soto, 'Los programas de cumplimiento en materia ambiental y el problema del impacto del cambio de circunstancias en su eficacia' (2021) 33 *Revista de Derecho Administrativo Económico*, pp. 195–226, at 199.

[115] Ibid., p. 198.

[116] Case R-277-2021, Final Judgment, 30 Dec. 2021, Second Environment Court, p. 28 (c.16), available at: https://tribunalambiental.cl/wp-content/uploads/2023/05/R-277-2021_30-12-2022_Sentencia-4.pdf.

[117] Cases R-183-2018, R-184-2018 and R-185-2018, Final Judgment, 3 Nov. 2021, Second Environment Court, p. 309 (c.347), available at: https://tribunalambiental.cl/wp-content/uploads/2023/06/R-183-2018_03-11-2021_Sentencia.pdf.

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compliance indicators, and implementation reports; and (d) technical data and estimated compliance costs to demonstrate effectiveness and credibility. In July 2018, the SMA published a guide providing assistance and support for the CP submission process.[118] Under LOSMA and the Regulations, the SMA will not consider proposals from violators who have previously opted for a programme of gradual compliance, who have been penalized for serious offences, or who have proposed a prior CP unless it involves minor infringements.[119] Approval is contingent on the proposal meeting the following three requirements noted in Article 9 of the Regulations:

- *Completeness*: The CP should address every violation and its environmental impacts comprehensively.[120]
- *Effectiveness*: Actions and goals must ensure compliance with the relevant statutes and effectively check, mitigate or remove the impact of the offence,[121] a condition that poses a major challenge for offenders.
- *Verifiability*: CPs must include mechanisms to verify completion of action plans and attainment of goals.[122]

Article 9 of the Regulations further notes: 'Under no circumstances will the authority approve Compliance Programmes through which an offender attempts to evade liability or benefit from the offence, or which are openly dilatory'. Once an enforcement action starts, offenders have 10 days in which to propose a CP, which the SMA reviews and either approves or rejects. If approved, enforcement is paused and the SMA oversees implementation of the CP. The enforcement action concludes once the CP is certified as complete. If the CP is declined, the opportunity to respond to charges reopens. Successful CP implementation results in the SMA certifying completion and ending the enforcement without sanctions. However, failure to meet the CP requirements may lead to resumed enforcement and the potential doubling of fines.

CPs are the most widely used compliance incentive tool in Chile. Over 1,000 have been submitted to the SMA to date[123] – significantly more than the other compliance incentive mechanisms, such as self-disclosure[124] and remediation plans.[125] This is

[118] Available at: https://portal.sma.gob.cl/index.php/guias-sma.

[119] LOSMA, n. 74 above, Art. 42(3); Regulations, n. 113 above, Art. 6(2).

[120] García & Soto, n. 114 above; Hervé & Plumer, n. 84 above; Case R-277-2021, n. 116 above, Judgment, p. 31 (c. 25).

[121] Case R-277-2021, n. 116 above, Judgment, pp. 61–2 (c. 80); Case R-160-2017, Final Judgment, 21 Aug. 2018, Second Environment Court, p. 35 (c.8), available at: https://tribunalambiental.cl/wp-content/uploads/2018/08/R-160-2017-21-08-2018-Sentencia.pdf.

[122] Case R-160-2017, ibid., Judgment, p. 35 (c. 9).

[123] SMA, as reported at the Third Environmental Justice Conference hosted by the Third Environment Court on 11 Aug. 2023, available at: https://www.youtube.com/watch?v=35UkhEqz5js.

[124] The SMA National Environmental Information System reports over 50 voluntary disclosures submitted to date, available (in Spanish) at: https://snifa.sma.gob.cl/DatosAbiertos and https://drive.google.com/drive/u/0/folders/1O7o60LzQ-qH8xiK_-Ofqw_mZzti_gbEr.

[125] Three remediation plans have been submitted to date, only one voluntarily and two required by Environment Court sentences, available (in Spanish) at: https://snifa.sma.gob.cl/PlanReparacion/Resultado.

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primarily the result of the LOSMA regulatory design, which benefits offenders who successfully implement a CP. As noted elsewhere, 'CP incentives can be represented as a scale holding the public interest on one arm and the interest of offenders in avoiding a fine on the other. To violators, CPs offer direct financial benefits, and above all, reputational benefits'.[126] That said, the thin regulatory density[127] of Chilean law gives the SMA significant latitude in using CPs, provided it stays within the law and the Regulations.[128] For instance, the Regulations note the purpose of CPs but do not state explicitly that their primary goal is to protect the environment.

## 5. Environmental Justice Guidelines

This section examines whether SEPs, EEUs, and CPs incorporate environmental justice rules and guidelines, both in their formal regulatory frameworks and in their practical implementation. All three countries have adopted the environmental justice approach in different ways. The US has a well-established theoretical framework for environmental justice within its laws, policies, and regulations.[129] While the UK has debated environmental justice and its potential legal recognition, its use as a theoretical focus has been driven primarily by civil society, non-profits, and academia.[130] Although the British government does have environmental justice strategies and policies in place,[131] these are rather abstract initiatives short on implementation specifics. As Mitchell notes, '[t]he UK has developed credible evidence of environmental inequality, but no comparable [to the US] response has been made, and progress towards environmental justice has been slower than many hoped for given the political support of the early 2000s'.[132] On 18 February 2002, Scottish First Minister Jack McConnell stated that social and environmental justice were fundamental for his administration, noting that:

[126] Hervé & Plumer, n. 84 above, pp. 28–9.
[127] Ibid., p. 27.
[128] On 10 Jan. 2024, the Chilean government tabled Bill 16553-12 amending the SMA law. The bill regulates CPs in greater detail and incorporates the guidelines contained in the Regulations into law to provide greater regulatory density to CP approval.
[129] On environmental justice as an objective of US environmental policy and regulations see C. Rechtschaffen, E. Gauna & C. O'Neill, *Environmental Justice: Law, Policy & Regulation* (Carolina Academic Press, 2nd edn, 2009); and Hill, n. 17 above.
[130] O. Pedersen, 'Environmental Justice in the UK: Uncertainty, Ambiguity and the Law' (2011) 31(2) *Legal Studies*, pp. 279–304; A.-M. Slater & O. Pedersen, 'Environmental Justice: Lessons on Definition and Delivery from Scotland' (2009) 52(6) *Journal of Environmental Planning and Management*, pp. 797–812; G. Mitchell, 'The Messy Challenge of Environmental Justice in the UK: Evolution, Status and Prospects', 17 July 2019, *Natural England Commissioned Reports 273*, p. 5, available at: https://publications.naturalengland.org.uk/publication/6558423485513728; J. Agyeman, 'Environmental Justice: From the Margins to the Mainstream?' (2000) *Town and Country Planning Association Tomorrow Series*, Paper 7, p. 11; J. Agyeman & B. Evans, '"Just Sustainability": The Emerging Discourse of Environmental Justice in Britain?' (2004) 170(2) *The Geographical Journal*, pp. 155–64, at 157.
[131] See Pedersen, n. 130 above, pp. 292–3, 'A Better Quality of Life', 'One Future – Different Paths', and 'Securing the Future'.
[132] Mitchell, n. 130 above, p. 7.

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> The reality is that the people who have the most urgent environmental concerns in Scotland are those who daily cope with the consequences of a poor quality of life and live in a rotten environment – close to industrial pollution, plagued by vehicle emissions, streets filled by litter and walls covered in graffiti. This is true for Scotland and also true elsewhere in the world. These are circumstances which would not be acceptable to better off communities in our society, and those who have to endure such environments in which to bring up a family or grow old themselves are being denied environmental justice.[133]

In 2018, the British government published 'A Green Future: Our 25 Year Plan to Improve the Environment', a blueprint[134] that explicitly sought to advance social and environmental justice and the equal distribution of environmental benefits, resources, and opportunities. The Plan noted that 'a healthier environment also helps deliver social justice and a country that works for everyone. ... Through this Plan we want to ensure an equal distribution of environmental benefits, resources and opportunities'.[135] The Plan cited environmental justice as a goal of British policy.[136]

Chile is progressively incorporating environmental justice into its legal and policy framework[137] and various interpretations of its value as a legal principle have been made.[138] In the recent constitutional debates, environmental justice was embraced in the drafts prepared by both the Constitutional Convention of 2022[139] and the Expert Commission of 2023.[140]

Therefore, the enforcement tools we have analyzed operate within legal frameworks that incorporate environmental justice to varying extents. While SEPs remain the only enforcement tool with express environmental justice objectives, EEUs and CPs share with them certain features that offer the potential for applying in practice some or all of the components of environmental justice. That said, no research was found that explicitly ties the contents and application of EEUs and CPs to environmental justice

[133] M. Poustie, 'Environmental Justice in SEPA's Environmental Protection Activities: A Report for the Scottish Environment Protection Agency', 2004, p. 17, available at: https://strathprints.strath.ac.uk/1047/1/strathprints001047.pdf.

[134] HM Government, *A Green Future: Our 25 Year Plan To Improve the Environment* (2018) p. 9, available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf.

[135] Ibid., p. 16.

[136] Mitchell, n. 130 above, p. 8 (arguing that the broad scope of 'environmental burdens and benefits' in the UK makes it challenging to institutionally address environmental inequity. Notably, when the Plan was reissued as the 'Environmental Improvement Plan 2023: First Revision of the 25 Year Environment Plan', it made no mention of environmental justice and equal distribution of environmental burdens and benefits, available at: https://www.gov.uk/government/publications/environmental-improvement-plan.

[137] See Article 2(d) of Law 21.455, the Climate Change Framework Act, setting out the principles of equity and climate justice, available at: https://www.bcn.cl/leychile/navegar?idNorma = 1177286.

[138] See Bermúdez, n. 13 above, p. 55; Hervé, n. 1 above; Hervé, n. 23 above; L. Cordero et al., 'Derribando mitos: propuestas para mejorar el acceso a la justicia ambiental en Chile. Informe de Políticas Públicas', Espacio Público, Dec. 2017, available at: https://espaciopublico.cl/wp-content/uploads/2021/05/2018-MAYO-IPP-Acceso-a-la-justicia-ambiental-digital-FINAL.pdf.

[139] Art. 128(1), available at: https://www.chileconvencion.cl/wp-content/uploads/2022/08/Texto-CPR-2022-entregado-al-Pdte-y-publicado-en-la-web-el-4-de-julio.pdf.

[140] Art. 203, available at: https://www.procesoconstitucional.cl/wp-content/uploads/2023/06/anteproyecto-WEB-1.pdf.

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objectives.[141] The standards set forth in this section are derived primarily from interpretive connections that are more implicit than explicitly articulated within the enforcement frameworks. This analysis explores whether the regulatory instruments adopted by the EPA (SEPs), the EA/SEPA (EEUs), and the SMA (CPs) reflect environmental justice rules or guidelines. The following sections identify and examine elements of environmental justice embedded within these enforcement mechanisms. For the purposes of this analysis, we must recall that environmental justice is understood to encompass several key dimensions: the equitable distribution of environmental harm and benefits; meaningful participation in environmental decision-making; the recognition of vulnerable communities disproportionately exposed to environmental risks; the reparation of harm caused to others; and the restoration or healing of those affected by environmental wrongdoing.

### 5.1. Remediation of Environmental Damage

Remediation, traditionally not an enforcement priority, is now increasingly integrated into policy.[142] To ensure that environmental impacts are rectified, remediation is built into the EPA regulatory design.[143] In the UK,[144] offenders must propose measures to address environmental damage or public health impact.[145] In Chile, CP approval is contingent on rectifying violation impacts.[146] A key reason for the extensive use of these tools is that, under certain circumstances, remediation is a better option than a fine.[147] Requiring violators to propose tailored remediation enhances environmental justice by addressing community impacts more efficiently than regulatory intervention. Moreover, when these processes incorporate public participation in the selection and design of remedial measures – as is the case with SEPS, analyzed below – they enhance environmental justice by ensuring that the responses reflect local priorities, restore community trust, and provide a degree of recognition and procedural inclusion often absent from traditional sanctioning approaches.

[141] Poustie, n. 133 above (reviewing environmental justice and enforcement in Scotland but does not mention EEUs, as the report predates their adoption into law). Only one study in Chile has recently linked CPs to environmental justice; see Hervé & Arias, n. 15 above.

[142] M. Nehme, 'Enforceable Undertaking: A Restorative Sanction?' (2010) 36(2) *Monash University Law Review*, pp. 108–35.

[143] S. Kakade, 'Remedial Payments in Agency Enforcement' (2020) 44(1) *Harvard Environmental Law Review*, pp. 117–68.

[144] Environmental Civil Sanctions (England) Order 2010, n. 101 above, Sch. 4, para. 2(b); Environmental Regulation (Enforcement Measures) (Scotland) Order 2015, n. 101 above, Sch. 3, para. 1(4)(c).

[145] The impact of using these criteria for EEUs may not be as expected. Under the relevant regulations and policies, EEUs do not apply to serious offences or significant environmental damage.

[146] In Chilean law, 'environmental damage' has a specific meaning that differs in relevance from 'environmental effects' or 'environmental impacts'. In CP-related legislation, offenders must propose a CP that includes 'measures adopted to reduce or eliminate the negative effects of non-compliance'. In contrast, the SMA rules out CPs when the breach has caused environmental damage; see Hervé & Plumer, n. 84 above.

[147] As noted in SEPA, n. 73 above, p. 35. The English EA similarly states that it will approve an EEU if it remediates the environmental damage caused and achieves an equivalent environmental benefit, or if it provides compensation when damage cannot be remediated: Environmental Civil Sanctions (England) Order 2010, n. 101 above, Sch. 4, para. 2.

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### 5.2. Additionality

Environmental additionality, a key SEP feature, aligns with environmental justice by generating otherwise unattainable benefits.[148] As analyzed above, the EPA policies on SEPs require that such projects serve to improve, protect, or reduce risks to public health or the environment. Importantly, SEPs must not be actions that the regulated entity is already legally obligated to perform; as a result, they are intended to generate additional environmental or public health benefits beyond those required by law. As has been noted,[149] these benefits help to address both the specific violations targeted by enforcement and historical pollution burdens. EEUs, for example, can require offenders to provide long-term environmental and community benefits and adopt more sustainable business practices.[150] Offenders are expressly expected to go beyond the minimum required to restore the environment or, failing that, to provide compensation.[151] These conditions are part of the requirements for approval of EEU components.[152] Similar to SEPs, EEUs keep the focus on deterrence but generate additional benefits, including the option of donating to charitable or non-profit groups for the specific purpose of remediating damage caused. Violators must contribute to organizations that are directly involved in environmental restoration, ideally related to the specific infraction. Although CP regulations do not mandate additionality,[153] at least two cases have been identified in which the SMA used its prerogatives to do so.[154] In both cases, the violators agreed to actions that went beyond merely returning to compliance. These criteria enhance the tools' potential to support distributive environmental justice by addressing both immediate harm and historical pollution burdens. It also helps to target activities affecting the communities that bear the largest environmental burdens and risks.

### 5.3. Community Involvement

Public participation has been integral to SEPs since 1998, but EEUs lack formal inclusion, drawing legal criticism. Pedersen notes that non-transparent EEU negotiations may undermine legitimacy:[155]

[148] M.L. Flax & B.F. Wilson, 'Use of Supplemental Environmental Projects to Address Environmental Justice', Law Firm of Beveridge & Diamond, P.C., Washington, DC (US), 2022, available at: https://www.bdlaw.com/content/uploads/2018/06/use-of-supplemental-projects-to-address-ben-wilson.pdf.

[149] D. Hervé, 'Más allá del cumplimiento: La justicia como un objetivo de la fiscalización y sanción ambiental' (2024) 58 *Revista Derecho del Estado* (Universidad Externado de Colombia), pp. 361–88.

[150] SEPA, n. 73 above, p. 36.

[151] Ibid., p. 37.

[152] Consistent with the SEPA's stated enforcement principles: 'Targeting: We will use different types of enforcement action, as part of an evidence-based and intelligence-led approach to regulation, to achieve positive outcomes related to the protection and improvement of the environment and the wellbeing of Scottish communities': SEPA, 'The SEPA's Enforcement Policy', available at: https://www.sepa.org.uk/media/219244/enforcement-policy.pdf.

[153] Notably, the recent Bill 16553-12 to amend the SMA law incorporates the additionality requirement for approving CPs.

[154] Hervé & Arias, n. 15 above. These involve CPs that required additional compensation from a thermal plant that exceeded emission standards, and an undertaking from a chemical company to progressively cut down on brine extraction from a salt flat.

[155] Pedersen, n. 99 above, p. 332.

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> One problem is that the information which the Environment Agency makes available in relation to the undertakings it has accepted is sparse and allows for little public engagement. There is no information indicating what the specific negotiations prior to the undertaking being accepted might have been and what the terms for the specific undertaking might be, nor is there any information indicating what type of harm the offence has resulted in.[156]

The absence of explicit community involvement or participatory environmental justice requirements can impair EEUs as a tool. To date, no rules or practices exist that suggest that EEU design and implementation could involve affected groups in approval decisions. Moreover, questions of transparency can extend to donation recipients. As EEUs are not binding on them, regulators are powerless to ensure that donations are actually used to remediate environmental damage – an issue of some concern considering that during the period 2011 to 2019 the average gift rose from GBP£7,600 to £18,000.[157] While Chilean law is also not explicit on issues of community involvement, the SMA has been known to allow some room for stakeholders to provide input on proposals.[158] This weakest of enforcement links should be toughened if EEUs and CPs are to effectively achieve environmental justice goals.

## 6. Conclusions

This article has argued that law enforcement is crucial for the achievement of environmental justice objectives. It plays a determining role in addressing the unequal distribution of environmental burdens and in challenging entrenched power asymmetries. Moreover, it has shown that using environmental justice as a framework for analyzing enforcement tools offers concrete guidance for the design of enforcement systems that are not only legally effective but are also responsive to justice dimensions such as equity, participation, and recognition. By linking enforcement practices with environmental justice-oriented criteria, the article contributes to strengthening environmental justice as a normative standard within legal systems.

Our review of SEPs, EEUs, and CPs as comparable tools created under dissimilar environmental enforcement legislation aimed to ascertain whether environmental enforcement agencies in the countries in question use environmental justice guidelines. While these tools being added to the regulator toolkit are relatively new and have different origins, they all seek to streamline the punitive system and improve regulatory outcomes.

This article shows that, while SEPs have explicit links to the elements and goals of environmental justice, EEU and CP connections are more implicit than explicit. Still, the characteristics and requirements of all three appear to be compatible with the elements and goals of environmental justice. In particular, the presence of the guideline to remediate environmental impacts across all three tools shows that all have the

[156] Ibid., p. 338.
[157] Nehme & Pedersen, n. 52 above, p. 105.
[158] Hervé & Arias, n. 15 above, pp. 39–40.

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potential to achieve environmental justice goals, especially in their distributive dimensions. This is further strengthened by the environmental additionality requirements that define SEPs, also present in EEUs and, to some extent, in CPs. These requirements can certainly allow for measures that further a more equal distribution of environmental burdens. Save for SEPs, which include it as an essential element, least represented in these tools is the participatory dimension of environmental justice. The recognition and restorative justice dimensions, on the other hand, can be found in SEPs (and eventually in EEUs and CPs) that promote constructive engagement by offenders and affected communities with a view to redressing the burdens the latter disproportionately bear. These enforcement mechanisms go beyond the traditional punitive approach, which simply imposes a fine but provides no reparation for affected stakeholders.

In order to enhance the efficacy of these tools in addressing environmental justice issues, specific recommendations can be made. Firstly, the participatory dimension should be more robustly integrated across all enforcement mechanisms. This could involve mandating stakeholder consultations and community involvement in the development and implementation of EEUs and CPs. Secondly, there should be a standardized framework for assessing the environmental additionality of these tools to ensure consistency and transparency in their application. Thirdly, it is crucial to establish clear guidelines for the recognition and restorative dimensions, emphasizing the need for offender accountability and community empowerment in the enforcement process.

In conclusion, while the capacity of each instrument to address the challenges of disproportionate and historical pollution burdens must be assessed on a case-by-case basis, it is evident that all three tools have the potential to incorporate environmental justice guidelines effectively. By adopting these guidelines, environmental enforcement agencies can enhance the alignment of these mechanisms with environmental justice objectives, thereby contributing to a more equitable and sustainable regulatory landscape.

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