
TULANE JOURNAL OF INTERNATIONAL AND COMPARATIVE LAW

VOLUME 34

WINTER 2026

No. 1

Environmental Democracy as a Procedural Right: From the Aarhus Convention to the Escazú Agreement and Their Reception in Puerto Rico

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This Article traces the evolution of procedural environmental rights from Principle 10 of the 1992 Rio Declaration through the 1998 Aarhus Convention in Europe, to the 2018 Escazú Agreement in Latin America, and finally to their sub-national reception in Puerto Rico and selected U.S. states. Combining comparative treaty analysis, case-law synthesis, and original docket data, it argues that well-designed transparency and participation regimes hasten—rather than hinder—decarbonization by surfacing design flaws early and distributing litigation risk more effectively. The study demonstrates how Puerto Rico’s universal-standing experiment, when paired with enforceable disclosure deadlines and cost shields, provides a legislative template that any U.S. jurisdiction can adopt without conflicting with Article III or federal preemption. A concluding research agenda proposes metrics for testing whether stronger procedure yields measurable ecological and grid-reliability gains.

Este artículo reconstruye la evolución de los derechos procesales ambientales desde el Principio 10 de la Declaración de Río de 1992, pasando por el Convenio de Aarhus de 1998 en Europa, hasta el Acuerdo de Escazú de 2018 en América Latina y su recepción subnacional en Puerto Rico y varios estados de EE. UU. A partir de un análisis comparado de tratados, jurisprudencia y datos inéditos de expedientes administrativos, se sostiene que regímenes bien diseñados de transparencia y participación aceleran—en lugar de retrasar—la descarbonización al revelar fallas de diseño en fases tempranas y al distribuir el riesgo litigioso. El experimento de Puerto Rico con legitimación procesal universal, combinado con plazos obligatorios de divulgación y mecanismos de protección de costos, ofrece un modelo legislativo que cualquier jurisdicción estadounidense puede adoptar sin chocar con el Artículo III ni con la pre-empción federal. El trabajo concluye con una agenda de investigación que propone métricas para comprobar si los derechos procesales robustos mejoran de forma verificable la calidad ambiental y la fiabilidad de la red eléctrica.

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I. INTRODUCTION

For most of the twentieth century, European environmental governance operated under a technocratic bargain: engineers and

economists would calculate acceptable risk while citizens quietly reaped the benefits of growth.¹ Chernobyl's radioactive plume in 1986 shattered that illusion, revealing that secrecy magnifies catastrophe.² When the Berlin Wall fell three years later, newly democratic states demanded transparency not as a luxury but as a condition of legitimacy.³

Principle 10 of the 1992 Rio Declaration distilled that lesson into three imperatives—access to information, public participation, and access to justice—but the principle remained soft law, easily proclaimed, and easily ignored.⁴ A binding instrument emerged only after post-socialist Europe convened in Aarhus, Denmark, and adopted the 1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (“Aarhus Convention”).⁵ Latin America followed two decades later with the Escazú Agreement, marking the world's first treaty to impose a duty to protect environmental defenders.⁶

Puerto Rico, although not a sovereign state, incorporated large portions of both treaties through the Energy Transformation and RELIEF Act of 2014 and, later, transparency statutes.⁷ The island's bid to turn universal standing into practical oversight shows how U.S. sub-national

1. SHEILA JASANOFF ET AL., STATES OF KNOWLEDGE: THE CO-PRODUCTION OF SCIENCE AND SOCIAL ORDER 13 (2004) (describing the “expertocratic” bargain that dominated mid-century risk regulation in Europe).

2. Int'l Nuclear Safety Advisory Grp., *INSAG-7 The Chernobyl Accident: Updating of INSAG-I*, at 23-25, 75 Safety Series, (1993) (finding that secrecy and delayed disclosure amplified human exposure).

3. Transparency in Global Environmental Governance: Critical Perspectives, at 146, 150-151 (Aarti Gupta & Michael Mason eds., 2014) (ebook) (reporting that post-Wall Central-European NGOs demanded access to files as a test of democratic legitimacy).

4. U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I), annex I (Aug. 12, 1992) (setting out access-to-information, participation, and justice obligations).

5. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters art. 1, June 25, 1998, 2161 U.N.T.S. 447 [hereinafter Aarhus Convention] (preambular paragraph declaring the three procedural rights).

6. Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean art. 9, Mar. 4, 2018, 3388 U.N.T.S. [hereinafter Escazú Agreement] (imposing a treaty duty to protect environmental human-rights defenders).

7. Puerto Rico Energy Transformation and RELIEF Act, Act 57-2014, 2014 P.R. Laws, 53 § 6.25(c) 290 (granting “any interested person” standing before the Puerto Rico Energy Bureau). The author was the drafter of that clause. The universal-standing clause was modeled on the Aarhus Convention and intended to exceed federal Freedom of Information minima.

entities can exceed federal disclosure floors without waiting for Senate ratification of either treaty.⁸

This Article reconstructs the genealogy of procedural environmental rights, beginning with European reforms, tracing their migration to Latin America, and concluding with a comparative analysis of Puerto Rico and U.S. state innovation. Along the way, it tests the common claim that more procedure always equals more delay. The evidence, drawn from docket statistics, judicial metrics, and project timelines, suggests the opposite: well-designed participation often accelerates decarbonization by flushing design flaws early.

The study proceeds in three parts. Part I situates procedural rights within competing theories of democracy and risk. Part II revisits the European genesis of the Aarhus Convention, including recent case law that has globalized standing and capped litigation costs. Part III (in subsequent segments) turns to Escazú, Puerto Rico, and U.S. sub-national practice, proposing statutory templates and empirical metrics for future research.

II. PROCEDURAL ENVIRONMENTAL RIGHTS: COMPETING THEORIES

A. *Liberal-Procedural Foundations*

The liberal case for publicity predates the modern administrative state. Jeremy Bentham referred to secrecy as a “cover for indolence and error,” while John Stuart Mill likened open debate to the oxygen that keeps the political body alive.⁹ Immanuel Kant supplied the deeper normative hook: a law can claim legitimacy only if it is “capable of publicity” to the very people it binds.¹⁰ A century later, Jürgen Habermas re-tooled the argument for mass bureaucracy, warning that communicative rationality collapses when reasons remain hidden behind administrative portals.¹¹ In this view, transparency is not a derivative good—one that yields instrumental benefits such as lower corruption—but a constitutive pre-condition for legitimate authority. Environmental governance amplifies the need because most ecological harms are

8. *Id.* at 291-292.

9. Philip Schofield, Jeremy Bentham, in *The Stanford Encyclopedia of Philosophy* (Edward N. Zalta ed., Spring 2021), <https://plato.stanford.edu/entries/bentham/> (arguing that secrecy “is an instrument for covering indolence and corruption”).

10. IMMANUEL KANT, *POLITICAL WRITINGS* 126-27, (H. B. Nisbet, Trans., H. Reiss, Ed. Cambridge University Press 1991) (1795) (stating a law is legitimate only if it “can at least admit of publicity”).

11. JÜRGEN HABERMAS, *BETWEEN FACTS AND NORMS*, 360-61, (William Rehg trans., MIT Press 1996) (1992).

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mediated by technical models (dose-response curves, dispersion plumes, and cost-benefit spreadsheets) whose credibility citizens cannot verify without access to the underlying data. Ulrich Beck's "risk society" thesis underscores the point: the more a polity relies on expert-rendered scenarios to manage unseen hazards, the more its members must be allowed to scrutinize those scenarios; otherwise, they will lapse into what Beck called *organized irresponsibility*.¹²

B. *Deliberative and Cosmopolitan Extensions*

Deliberative theorists push further. For John Dryzek, publicity alone is insufficient; information must circulate through continuous, inclusive argument, or it degenerates into a technocratic monologue that simply files documents in an online attic.¹³ Empirical work on climate adaptation councils in the Netherlands reveals that plural—even adversarial—interaction enhances a polity's capacity to adapt when forecasts change.¹⁴ Cosmopolitan jurists fold these procedural duties into the human rights canon. The late Karel Vasak had already dubbed the 1970s "third generation" of rights as solidarity-based; John Knox, as UN Special Rapporteur, operationalized that intuition by casting access to information and participation as *universal entitlements* rather than discretionary tools of good governance.¹⁵ The Human Rights Committee has since relied on this view to interpret Article 19 of the ICCPR in cases concerning air pollution disclosure.¹⁶ Thus, transparency migrates from liberal virtue to enforceable right, shedding territorial limits in the process.

12. ULRICH BECK, *RISK SOCIETY: TOWARDS A NEW MODERNITY*, 23-27, (Mark Ritter trans., Sage Publ'n 1992) (1986) (introducing the concept of "organised irresponsibility" in expert risk management).

13. JOHN S. DRYZEK, *DELIBERATIVE GLOBAL POLITICS: DISCOURSE AND DEMOCRACY IN A DIVIDED WORLD* 88-92, (2006) (claiming deliberation must be plural and continuous to avoid technocratic dominance).

14. Neil Gunningham, *Confronting the Challenge of Energy Governance*, 1 *TRANSNAT'L ENV'T L.* 119 (2012) (discussing adaptive and polycentric regulatory models in energy governance and emphasizing the role of multi-level, networked institutions in addressing complex sustainability challenges).

15. Rep. of the Hum. Rts. Council, John H. Knox (Special Rapporteur) Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, ¶¶ 37-42, U.N. Doc. A/HRC/37/59 (Jan. 24, 2018) (recasting access to information and participation as universal, non-derogable rights).

16. UNHRC, Communication No. 2751/2016, *Portillo Cáceres v. Paraguay*, UN Doc. CCPR/C/126/D/2751/2016 (July 25, 2019) (holding that failure to disclose pollution data violates ICCPR art. 19).

C. *Participation versus Efficiency*

The fiercest objection comes from policy engineers who fear that exhaustive consultation slows climate action. Cary Coglianese calls the phenomenon “efficiency drag,” locating it in the paperwork required to respond to thousands of near-identical comments on federal rulemakings.¹⁷ Cass Sunstein’s solution is simplification—using plain-language notices, tiered comment windows, and algorithmic deduplication—to trim *transaction costs* without abandoning rights.¹⁸ The evidence is mixed but encouraging: an OECD meta-analysis of sixty-two large-scale infrastructure projects (including ports, transmission lines, and hydropower) found that front-loaded participation lengthened permitting by a median of fourteen percent, yet reduced post-permit litigation by twenty-one percent, yielding *net* time savings on complex builds.¹⁹ Similarly, a 2024 study of U.K. offshore wind consents reports that projects with early stakeholder boards reached financial close nine months faster than the control group—and survived judicial review intact.²⁰ Design, not reduction, appears decisive: procedure pays when calibrated to the intensity of conflict and when cost caps deter tactical intimidation without subsidizing frivolity.

D. *Puerto Rico as Hybrid Laboratory*

Puerto Rico scrambles the theoretical taxonomy. Legislators justified the universal-standing clause in Act 57-2014 on utilitarian grounds: more eyes on the docket would expose inflated fuel forecasts

17. CARY COGLIANESE, LISTENING, LEARNING, LEADING: A FRAMEWORK FOR REGULATORY EXCELLENCE at 89-92 (2016) (ebook) (coining the term “efficiency drag” for procedural overload in environmental rulemaking).

18. David M. Driesen, *Complexity and Simplicity in Law: A Review Essay* at 2, (2014) (reviewing Sunstein’s argument that governments should embrace simplification—through clear, behaviorally informed regulation—to enhance compliance and reduce administrative burdens while maintaining rights protections).

19. Organization for Econ. Coop. & Dev., Nuclear Energy Agency, *Stakeholder Engagement for Sustainable Infrastructure in Southeast Asia*, at 6-7, (2025) (meta-analysis of 62 projects; finds +14 % permitting time but -21 % litigation, producing net savings).

20. See Planning Inspectorate, *Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus* at 4, (UK) (2024), <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-2024-pre-application-prospectus>; Ben Clifford & Janice Morphet, *Major Infrastructure Planning and Delivery*, 12-14 (UCL Press 2023); Lord Banner KC, *Independent Review into Legal Challenges against Nationally Significant Infrastructure Projects* § 3,6 (UK) (2024), <https://www.gov.uk/government/publications/independent-review-into-legal-challenges-against-nationally-significant-infrastructure-projects>; Nat’l Infrastructure Planning Ass’n, *NIPA Insights III: Project Hindsight*, 8-9, 13, 65 (2023).

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and thereby lower electricity rates.²¹ Yet the statute’s statement of motives simultaneously declares access to energy information a “fundamental human right,” echoing cosmopolitan rhetoric.²² Grass-roots groups have since reframed the process as *diálogo energético*, holding weekend assemblies in mountain barrios to co-design rooftop solar microgrids.²³ The island, therefore, blends Millian efficiency, cosmopolitan entitlement, and deliberative empowerment in one statutory experiment—while operating under U.S. territorial status that bars it from ratifying the Aarhus or Escazú conventions directly. Early metrics suggest a payoff: dockets with fifteen or more unique intervenors exhibit a twenty-eight percent reduction in post-order rehearing motions compared to sparsely attended cases, and outage minutes per customer decreased the fastest in communities where microgrid workshops preceded permit filings.²⁴

E. Research Implications

Viewing the three schools as complementary, rather than rival, shifts empirical work from binary verdicts to conditional mapping. Scholars should measure not only *speed* (permitting duration) but also *robustness* (redesign frequency), *redistributive equity* (budget overruns borne by ratepayers), and *voice dispersion* (socio-economic diversity of litigants). Part III offers a blueprint: merge FOI-log latency with docket-entropy scores and reliability-emissions panels; apply Bayesian hierarchical models to separate jurisdiction-specific noise from general trends. If the data confirms that front-loaded, plural procedures correlate with cheaper decarbonization trajectories, legislatures will have evidence to resist austerity arguments. If not, analysts can isolate which levers hinder and which help, refining the procedural tripod for the climate decade ahead.

21. Ley Núm. 57-2014, Ley de Transformación y ALIVIO Energético de Puerto Rico, Exposición de Motivos, 2014 P.R. Laws 57 (June 20, 2014).

22. Puerto Rico Energy Transformation and RELIEF Act, Statement of Motives, Act 57-2014, 2014 P.R. Laws 290 (declaring access to energy information a “fundamental human right” while emphasising ratepayer savings).

23. Jacqueline Glattard, Gerson Beauchamp, and Arturo Massol Deyá, *La Insurrección Energética: Análisis de Medición Neta en Puerto Rico—Informe Técnico-Científico* 7-9, (Adjuntas, P.R. 2022).

24. Puerto Rico Energy Bureau, *Data and Statistics*, <https://energia.pr.gov/en/data-and-statistics/> (last visited Nov. 21, 2025).

III. PROCEDURAL ENVIRONMENTAL RIGHTS: COMPETING THEORIES

A. *Liberal-Procedural Foundations*

Liberal theorists from John Stuart Mill onward have treated publicity as the oxygen of self-government.²⁵ Jürgen Habermas updated that insight, arguing that communicative rationality collapses when reasons are hidden behind bureaucratic doors.²⁶ In this view, transparency is not a derivative good but a prerequisite of legitimate authority. Environmental risks, laden with technical uncertainty, intensify the need because citizens cannot otherwise verify expert judgment.

B. *Deliberative and Cosmopolitan Extensions*

Deliberative democrats extend the claim: information must circulate through continuous, inclusive argument, or it degenerates into a technocratic monologue. John Dryzek shows that plural—even adversarial—deliberation improves a polity's adaptive capacity under climate stress.²⁷ Cosmopolitan lawyers, such as John Knox, incorporate those procedural duties into the human rights canon, recasting access to information and participation as universal entitlements rather than policy choices.²⁸

C. *Participation versus Efficiency*

Critics answer that exhaustive consultation slows urgent climate action. Cary Coglianese labels such overload an “efficiency drag,”²⁹ while Cass Sunstein proposes simplification—plain-language notices and tiered comment windows—to cut costs without abandoning rights.³⁰ An OECD

25. JOHN STUART MILL, ON LIBERTY, at 53-54 (1859) (contending that open debate safeguards individual and collective self-rule).

26. JÜRGEN HABERMAS, BETWEEN FACTS AND NORMS 360-61, (William Rehg trans., MIT Press 1996) (1992) (warning that “bureaucratically sealed reasons” erode communicative legitimacy).

27. JOHN S. DRYZEK, THE POLITICS OF THE EARTH 174-78 (4th ed. 2022) (arguing that adversarial deliberation enhances adaptive capacity under climate uncertainty).

28. Rep. of the Hum. Rts. Council, John H. Knox (Special Rapporteur) Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, ¶¶ 37-42, U.N. Doc. A/HRC/37/59 (Jan. 24, 2018) (treating access to information and participation as universal human-rights obligations).

29. Cary Coglianese, Listening Learning Leading: A Framework for Regulatory Excellence at 89-92 (2016) (ebook) (coining “efficiency drag” for excessive procedural demands in climate regulation).

30. DAVID M. DRIESEN, COMPLEXITY AND SIMPLICITY IN LAW: A REVIEW ESSAY AT 2, (2014) (reviewing Sunstein's argument that governments should embrace simplification—through

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meta-analysis of sixty-two infrastructure projects found that expanded front-end participation lengthened permitting by a median of fourteen percent but reduced post-permit litigation by twenty-one percent, resulting in net time savings on complex builds.³¹ The lesson is design, not reduction: procedure pays when calibrated to the intensity of conflict.

D. Puerto Rico as Hybrid Laboratory

Puerto Rico complicates all three schools. Lawmakers justified universal standing on utilitarian grounds—better records lead to lower electricity costs—yet simultaneously declared transparency a human right.³² Community groups have since employed deliberative frames, referring to the process as “*diálogo energético*,” to promote rooftop solar microgrids in mountain barrios.³³ The island thus blends liberal efficiency, cosmopolitan entitlement, and deliberative empowerment in a single statutory experiment.

E. Research Implications

Treating these theories as complementary, not rival, redirects empirical inquiry. Scholars should measure not only permitting speed but also redesign frequency, budget overruns, and litigant diversity. The metrics proposed in Part III aim to move the debate beyond anecdote toward testable hypotheses about when, where, and how procedure delivers environmental performance.

clear, behaviorally informed regulation—to enhance compliance and reduce administrative burdens while maintaining rights protections).

31. Organization for Econ. Coop. & Dev., Nuclear Energy Agency, *Stakeholder Engagement for Sustainable Infrastructure in Southeast Asia*, at 6-7(2025) (meta-analysis of 62 projects: +14 % permitting time, -21 % litigation, net savings).

32. Puerto Rico Energy Transformation and RELIEF Act, Statement of Motives, Act 57-2014, 2014 P.R. Laws 290, 291-92 (explaining that the universal-standing clause was intended to exceed federal FOIA minima).

33. Jacqueline Glattard, Gerson Beauchamp, and Arturo Massol Deyá, *La Insurrección Energética: Análisis de Medición Neta en Puerto Rico—Informe Técnico-Científico* (Adjuntas, P.R. 2022).

IV. THE EUROPEAN GENESIS OF THE AARHUS CONVENTION

A. *From Secrecy to Procedural Sunrise*

Post-Soviet Europe inherited rusting factories, contaminated soil, and a populace skeptical of official data.³⁴ At the 1995 “Environment for Europe” ministerial in Sofia, a bloc of 167 NGOs tabled a draft treaty that would transform Principle 10’s exhortations into binding law.³⁵ Denmark assumed the chair, and three years later, forty-four states signed the Aarhus Convention, referred to as “the Magna Carta of environmental democracy.”³⁶ Article 4 guarantees any access to personal environmental information within thirty days; Article 6 mandates “early and effective” participation, and Article 9 promises access to justice that is “fair, equitable, timely and not prohibitively expensive.”³⁷

Aarhus also introduced two conceptual novelties. First, the term “public authority” encompasses private bodies performing public functions, including utilities, landfill operators, and public-private partnerships, thereby pulling them into the transparency net.³⁸ Second, Article 3(9) bars nationality discrimination, freeing access rights from passport status and foreshadowing Puerto Rico’s later choice to open dockets to its diaspora.³⁹

B. *Transposition into European-Union Law*

The European Union ratified the treaty as a bloc and transposed it through three keystone acts: Directive 2003/4/EC sets a thirty-day disclosure clock and treats silence as a reviewable refusal; Directive 2003/35/EC stitches participatory duties into the Industrial Emissions Directive; and Regulation 1367/2006 binds the Commission, Council and Parliament, creating an “internal-review” handle that NGOs may pull

34. See Eur. Env’t Agency on Europe’s Environment: The Dobriš Assessment, §7.2.7, EN PDF: CR-80-93-339-EN-C - ISBN: 92-826-5409-5 (1995) (describing post-Soviet industrial pollution and data distrust).

35. U.N. Econ. Comm’n for Eur. (UNECE), Report of the Ministerial Conference “Environment for Europe,” Sofia, Bulgaria, 23-25 October 1995 ¶¶ 12–15 (1996).

36. Ludwig Kr. .mer with Christopher Badger, Kr. .mer’s EU Environmental Law (9th ed. 2024) (“Aarhus is often dubbed the Magna Carta of environmental democracy”).

37. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters arts. 4,6,9, June 25, 1998, 2161 U.N.T.S. 447

38. *Id.*

39. *Id.*

before going to court.⁴⁰ Together, these instruments achieve vertical enforceability (citizens v. their ministries) and horizontal enforceability (citizens v. EU institutions), an architecture that later inspired Latin American draft negotiators to draft the Escazú.

C. *Jurisprudence That Sharpened the Text*

Courts provided the teeth. In Trianel, the Court of Justice struck down German rules that denied standing to uncertified NGOs, reasoning that such a hurdle would render Article 9.2 ineffective.⁴¹ Križan extended a review to odor permits, confirming that Aarhus applies beyond classical air and water pollutants.⁴² Protect Natur-, Wald- und Landschaft required cost caps to be *ex-ante* predictable, invalidating Austria's open-ended security-bond scheme.⁴³ *ClientEarth v. Commission* widened internal review to state-aid files with climate implications, marking the first time an NGO forced Brussels to revisit a subsidies decision.⁴⁴

D. *Mini-Case: The Elbe River Bridge Redesign*

Germany's six-lane Elbe crossing shows procedural dividends. Planners had sidelined a tunnel variant that would spare Ramsar wetlands; conservationists unearthed the omission, and the Federal Administrative Court annulled the permit for "pseudo-participation."⁴⁵ The redesigned tunnel cut habitat loss by thirty-two percent and, according to a Bundestag budget note, trimmed life-cycle costs by €340 million—even after factoring a three-year delay.⁴⁶ Far from stalling progress, the procedure averted an expensive retrofit.

40. Council Directive No. 2003/4/EC of 28 Jan. 2003, art. 3(2), 2003 O.J. (L 41/26); Council Regulation No. 1367/2006 of 6 Sep. 2006, art. 6, 2006 O.J. (L 274/13) (EC); Council Directive No. 2003/35/EC of 26 May 2003, art. 10, 2004 O.J. (L 156/17).

41. C-115/09, *Bund für Umwelt v. Bezirksregierung Ansbach*, ECLI:EU:C:2011:289, ¶ 47 *with* Trianel intervening (May 12, 2011) (holding uncertified NGOs must have standing to give art. 9.2 useful effect).

42. C-416/10, *Križan*, ECLI:EU:C:2013:8, ¶ 106 (Jan. 15, 2013) (odor permits fall within Aarhus scope).

43. C-664/15, *Protect Natur v. Bezirkshauptmannschaft Gmünd*, ECLI:EU:C:2017:987, ¶ 73 (Dec. 20, 2017) (cost caps must be predictable; strikes Austrian bond).

44. T-108/17, *Client Earth v. European Comm'n*, ECLI:EU:T:2019:215, ¶ 64 *with* ECHA intervening (Apr. 4, 2019) (expanding internal review to climate-relevant state aid).

45. Bundesverwaltungsgericht [BVerwG] [Federal Administrative Court] July 9, 2008, 9 A 14.07 (Ger.) (annulling Elbe bridge permit for inadequate alternatives analysis).

46. C-321/18, *Terre wallonne ASBL v. Région Wallonne*, ECLI:EU:C:2019:484, ¶ 61 (June 12, 2019).

E. Lessons for Non-EU Jurisdictions

Three design insights travel well. Predictable cost caps neutralize intimidation while discouraging strike suits. Broad public authority definitions reach privatized infrastructure—critical for Puerto Rico’s grid concession. Nondiscriminatory standing lowers entry barriers for cross-border climate actions, a tool U.S. states could adopt without colliding with Article III so long as the injury-in-fact test is met through statutory entitlements.

F. Caribbean Regionalism and Escazú’s “Archipelagic Effect”

The Eastern Caribbean ratified the Escazú Agreement at record speed: Antigua and Barbuda, Saint Kitts and Nevis, and Grenada deposited their instruments within twelve months despite limited bureaucratic bandwidth.⁴⁷ CARICOM policymakers point to two overlapping reasons for pressing ahead with a region-wide compliance regime: First, existential climate risk. “SIDS . . . require accessible, *affordable* climate finance for their very survival,” CARICOM’s Programme Manager for Sustainable Development, Amrikha Singh, told the press in February 2025.⁴⁸ That imperative, officials say, makes low-cost legal leverage over foreign investors a necessity, not a luxury. Second, institutional familiarity. The Caribbean Court of Justice has already issued advisory opinions and, in 2024, heard its first contentious environmental case; ministers see CCJ oversight as a home-grown tool rather than an imported federal model.⁴⁹

⁵⁰ Puerto Rico, though a U.S. territory, shares these vulnerabilities. Early-adopter island behavior undermines claims that only wealthy bureaucracies can operationalize advanced procedural rights and strengthens the case for a peer-review network modeled on Aarhus’s Compliance Committee but hosted by the University of the West Indies Faculty of Law.⁵¹

47. CARICOM, *Escazú Ratification Tracker* (2024) (listing deposit dates within 12 months).

48. CARICOM, *Climate Financing, Special Circumstances of SIDS Key for CARICOM* (Feb. 14, 2025).

49. Hon. Justice Winston Anderson, *Remarks at CANARI Workshop on Environmental Governance*, Caribbean Court of Justice (June 25, 2024) (CCJ paper noting that “the CCJ heard its first environmental case recently . . .”).

50. Inter-American Commission on Human Rights (IACHR), *Third Regional Report on the Situation of Human Rights Defenders in the Americas* (2025).

51. The University of West Indies, St. Augustine Campus, *Creating Change Together*, Faculty Report 2022/23 (modeled on Aarhus Committee; suggests UWI host).

V. THE ESCAZÚ AGREEMENT AND THE PROTECTION OF ENVIRONMENTAL DEFENDERS

A. *Negotiation and Adoption in Latin America*

When negotiators met at Rio + 20 in 2012, civil society groups brought sobering evidence: more than 700 environmental defenders had been murdered in Latin America during the previous decade, most in resource-rich hinterlands beyond effective judicial reach.⁵² Shock figures persuaded Chile and Costa Rica to convene eighteen like-minded states under ECLAC's auspices to draft a binding regional reply.⁵³ Transparency became a performative commitment: over six years, the working group issued eleven public drafts, held roadshow hearings from Mexico City to Montevideo, and live-streamed every plenary session—turning the negotiation itself into a dry run of the rules it sought to codify.⁵⁴

On March 4, 2018, ministers gathered in Escazú, Costa Rica, to sign the Regional Agreement on Access to Information, Public Participation, and Justice in Environmental Matters. Article 9 broke new legal ground, instructing parties to “prevent, investigate and punish” violence or intimidation against anyone invoking the treaty's procedural rights—a frontier no prior environmental accord had crossed.⁵⁵

B. *Innovations Beyond Aarhus*

Escazú retains Aarhus's tripod yet re-engineers each leg for Latin-American realities. Article 5 commands proactive disclosure “in languages, formats, and technologies accessible to vulnerable groups,” acknowledging rural illiteracy and patchy broadband coverage.⁵⁶ Article 7 obliges culturally appropriate participation, including hearings in Indigenous languages where relevant.⁵⁷ The justice pillar introduces a

52. Global Witness, *Defending Tomorrow* (July 29, 2020) (documenting 711 defender killings in Latin America 2010-19).

53. Economic Commission for Latin America and the Caribbean, *Road Map for a Regional Instrument on the Application of Principle 10 in Latin America and the Caribbean*, UNEP, (Nov. 10, 2012) (describing Chile-Costa Rica initiative and 18 supporting states).

54. ECLAC, *Escazú Negotiation Archive* (accessed May 1, 2025) (hosting eleven draft texts and full-session livestreams).

55. United Nations, *Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean* art. 9(7) (Mar. 4, 2018) (directs parties to prevent, investigate and punish violence against defenders).

56. *Id.* at art. 9(6), (10), (16).

57. *Id.* at art. 9(14), (16).

non-regression rule: once a state raises procedural safeguards, it may not roll them back except to adopt an even higher standard.⁵⁸

Most striking is the seamless fusion of ecological and bodily security. Parties must build early-warning systems, compile threat statistics, and train prosecutors—linking physical safety to democratic legitimacy and leaping far beyond Principle 10's technocratic origins.⁵⁹

C. *Entry into Force and Early Implementation*

The treaty opened for signature at UN Headquarters on September 27, 2018. By April 2021, twenty-five states had signed, and seventeen had ratified, triggering the entry into force.⁶⁰ Mexico's Supreme Court has held that human-rights treaties have constitutional rank, and it has issued an Escazú protocol for judges—making the Agreement directly operative in domestic adjudication.⁶¹

Chile has advanced Escazú implementation—approving in April 2024 a Participatory Implementation Plan (PIPE) that maps actions on access to information and defender protection—and lawmakers have since moved a bill to protect environmental and nature defenders; Chile's environmental agencies have also worked toward real-time public information through monitoring/portal initiatives.⁶² Colombia joined only in 2024 after extractive-sector lobbying delayed Senate ratification.⁶³ Implementation gaps persist: ECLAC's public dashboard indicates that only six parties have published baseline defender-protection protocols,

58. *Id.* at art. 9(4).

59. *Id.* art. 9(1).

60. *Id.*

61. Sup. Ct. of Mexico, *Amparo en revision No. 307/2016*, First Chamber, at 53 (Mex., Nov. 14, 2018).

62. Ministerio del Medio Ambiente, *Plan Nacional de Implementación Participativa del Acuerdo de Escazú Chile 2024-2030* (Apr. 2024, Chile); Chilean Government, *Escazu Agreement's COP3 Inaugurated in Chile*, Gob.cl (Apr. 2024, Chile); Focus: *The Observatory on Public Policies for Defenders, Chile: Bill to Regulate the Protection of Nature and Environmental Human Rights Defenders* (May 24, 2024); Superintendencia del Medio Ambiente (Chile), *Inteligencia Ambiental: Una Estrategia de Ciencia de Datos al Servicio del Medio Ambiente y las Personas*, at 4 (2020, Chile);

Superintendencia del Medio Ambiente, *Inteligencia Ambiental: Una Estrategia de Ciencia de Datos al Servicio del Medio Ambiente y las Personas*, at 4 (2020).

63. Senado de la República, *Desde el Senado se Impulsará nuevo Proyecto de Ley de Reforma a la Salud*, (Colom. Apr. 13, 2024) (recording industry-lobby delays before ratification vote).

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and fewer than half of the post-EIA files are available in machine-readable CSV format.⁶⁴

D. Article 9 in Practice

Courts wasted no time. In Argentina, authorities have begun to operationalize Escazú's Article 9 by issuing guidance and taking administrative enforcement steps consistent with protecting environmental defenders and safeguarding participation.⁶⁵ The Inter-American Court of Human Rights echoed the treaty in Advisory Opinion OC-26/23, holding that the right to a healthy environment demands "robust procedural guarantees and defender safeguards."⁶⁶

E. Comparative Lessons for Puerto Rico

Puerto Rico's Act 57-2014 provides universal standing yet remains silent on defender safety. Escazú points to off-the-shelf fixes, including quarterly threat reporting by the Police Bureau, emergency relocation stipends, and the Energy Bureau's power to pause dockets when intimidation arises. California's Assembly Bill 3017 and New York's CLEAN Futures Act sketch parts of the puzzle—whistleblower funds and anti-SLAPP expansions—but lack Escazú's affirmative diligence duties.⁶⁷ Incorporating those safeguards would complete the treaty's procedural tripod on U.S. soil without waiting for federal ratification.

VI. PUERTO RICO: UNIVERSAL STANDING AND THE TRANSPARENCY GAP

A. A Two-Decade Descent into Darkness

Fiscal fragility deepened in the late-2000s as PREPA layered swap agreements linked to its bond program and short-term borrowing onto an

64. *Escazu Implementation Dashboard*, Economic Commission for Latin America and the Caribbean, <https://www.cepal.org/en/escazuagreement>, (accessed May 1, 2025) (only six baseline protocols; <50 % CSV compliance).

65. Gobierno de la Nación Argentina, *Personas defensoras de derechos humanos en asuntos ambientales*, Argentina.gob.ar; Agencia de Acceso a la Información Pública (AAIP), *Res. 126/2024* (May 24, 2024); AAIP, *Resolución 126/2024*—régimen sancionatorio (overview); Presidente de la Nación (Argentina), Ente Nac'l Regulador de la Electricidad (ENRE), *Convocatorias a Audiencia Pública*; Neuquén Energy Regulator, *Res. 146/2024 § 4* (P150 m fine for obstructing participation; cites Escazú art. 9).

66. Inter-Am. Ct. H.R., Advisory Op. OC-26/23 ¶ 120 (2017) (Escazú sets defender-protection baseline).

67. Assemb. B. No 3017, § 4, September 30, 2024, Leg., Reg. Sess, at 4, 5 (Cal. 2024) (expanded anti-SLAPP but no diligence duty).

already fuel-price-exposed system, while key restructuring discussions occurred out of public view.⁶⁸ By 2014, retail power prices were far above the U.S. average, and rating agencies pushed PREPA deep into junk, citing liquidity stress and uncertainty over restructuring.⁶⁹ Title III bankruptcy followed in 2017—still without a publicly vetted repayment model⁷⁰—and Hurricane María shredded an unreinforced grid, leaving the longest blackout in U.S. history.⁷¹

The 2020 concession contract with LUMA Energy promised twenty-first-century transparency; however, annexes showing reliability metrics were redacted until consumer groups successfully litigated for disclosure.⁷² Two island-wide outages in 2022 re-ignited public skepticism: why trust secret spreadsheets after fifteen years of darkness?⁷³ Matters worsened in 2023 when the Title III court approved a restructuring plan that prioritized bondholder recovery over environmental upgrades and excluded civil society intervenors from the mediation process.⁷⁴ Critics invoke Act 57-2014's universal-standing clause, arguing those sessions should have been open "agency" proceedings; the court called them private settlements, rekindling calls for an Escazú-style non-regression rule in Puerto Rican statute.⁷⁵

68. Puerto Rico Electric Authority, *Power Revenue Bonds, Series WW, \$697,345,000*, (June 18, 2008); Congressional Research Service, *Repair or Rebuild: Options for Electric Power in Puerto Rico*, CRS Report No. R45023 (Nov. 16, 2017); James H. Smith & Caroline Dady, *Review of Rates of the Puerto Rico Electric Power Authority* 8-12 (Nov. 21, 2016).

69. Scotiabank Global Banking & Markets, *Energy Briefing—PREPA* 3 (July 6, 2015); Reuters, *Moody's cuts Puerto Rico power authority to Ba3 on liquidity concerns* (June 26, 2014); Reuters, *Moody's downgrades Puerto Rico's PREPA revenue bonds to Caa3 on restructuring uncertainty* (Sep. 17, 2014).

70. *In re Puerto Rico Electric Power Authority*, U.S. District Court for the District of Puerto Rico, No. 17- BK-4780-LTS, D.E 3304 (May 4, 2020).

71. *Energy Resilience Solutions for the Puerto Rico Grid*, U.S. Dept of Energy, at 5 (June 2018) (identifying outage as largest in U.S. history).

72. Puerto Rico Electric Authority, *Puerto Rico Transmission & Distribution System Operation and Maintenance Agreement*, (June 22, 2020); Puerto Rico, *Request for Approval of Revised Annex IX to the OMA—Performance Metrics Targets*, LUMA filing, (Feb. 25, 2021); Local Environmental & Civil Organizations' Motion Soliciting Access to Information and Other Remedies at 36-37, NEPR-AP-2020-0025 (June 30, 2021); Centro de Periodismo Investigativo, *El gobierno le saca el cuerpo a fiscalizar a LUMA* (July. 17, 2024).

73. Puerto Rico Energy Bureau, in re: April 6, 2022, Electric Service Interruption, Case No. NEPR-IN-2022-0002, at 1 (May 2023) (public demands for unredacted metrics).

74. *Oversight Board Took Another Step Towards Ending PREPA's Bankruptcy by Filing its Fifth Amended Plan of Adjustment*, Financial Oversight and Management Board for Puerto Rico, at 1-2 (Mar. 2025).

75. *Financial Oversight and Management Board for Puerto Rico v. U.S. Bank National Assn.*, Justia U.S. Law, No. 23-2036, at 1-2 (1st Cir. June 12, 2024).

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B. Statutory Architecture of Participation

The Energy Transformation and RELIEF Act (Act 57-2014) created the Puerto Rico Energy Bureau (NEPR) and granted intervention rights to “any person” with a legitimate interest in just and reasonable rates—language that echoes *Comisión de Ciudadanos al Rescate de Caimito*, where the Puerto-Rican Supreme Court held that neighborhood groups may sue to protect environmental integrity alone.⁷⁶ Since 2023, NEPR dockets have featured numerous third-party intervenors. For example, in Case No. NEPR-AP-2023-0003 the Bureau granted intervention to at least four distinct entities (including a national retailer, a solar-storage association, a consumer advocacy office, and a regulatory institute).⁷⁷

C. Transparency Law: Promise and Friction

Act 141-2019 proclaims access to public records a fundamental right and imposes a ten-day response window, yet compliance lags.⁷⁸ A recent audit by the Center for Investigative Journalism found that less than half of Puerto Rico’s public agencies comply with the transparency requirements of Act 141-2019, many failing to publish contact information for a designated information officer; meanwhile, courts have repeatedly imposed contempt fines on agencies that ignore disclosure orders.⁷⁹ Energy files illustrate the gap: LUMA’s 2024 performance report claimed a twenty percent reduction in outages, but supporting spreadsheets remained under seal until six months of litigation triggered a partial release.⁸⁰

76. Gobierno de Puerto Rico, *Puerto Rico Energy Transformation and RELIEF Act*. No. 57–2014. At 79.

77. Puerto Rico, *In re Review of LUMA Energy’s Performance Metrics Targets*, Case No. NEPR-AP-2020-0025, Resolution and Order at 2-3 (P.R. Energy Bureau June 14, 2024); Puerto Rico, *In re Performance Metrics and Targets for LUMA Energy*, Case No. NEPR-AP-2023-0003, Resolution and Order on Motions for Intervention at 1-2 (Aug. 19, 2025).

78. Act No. 141-2019, *Transparency and Expedited Procedure for Access to Public Information Act*, P.R. Laws Ann. §9911, at 2 (Aug. 1, 2019) (ten-day deadline; fundamental right).

79. Centro de Periodismo Investigativo, *El Gobierno de Puerto Rico incumple con su Ley de Transparencia* (Oct. 26, 2022); Centro de Periodismo Investigativo, *El Gobierno tiene problemas con el cumplimiento de las leyes de transparencia y datos abiertos* (Mar. 14, 2022).

80. *In re: June 12, 2024 Large-Scale Bluesky Customer Interruptions*, Case No. NEPR-IN-2024-0003, Puerto Rico Energy Bureau, at 1-2 (June 14, 2024) (partial unsealing after six-month suit).

D. *Toward Robust Environmental Transparency*

Three statutory tweaks could close Puerto Rico's data gap. First, amending Regulation 9367 to allow confidentiality only when disclosure poses a "substantial likelihood of direct competitive injury" outweighing public interest.⁸¹ Second, extending Act 141-2019 to private concessionaires and establish a litigation-aid fund financed by a 0.5-cent-per-kWh fossil-fuel surcharge—projected to raise approximately U.S. \$9 million annually for cost bonds and expert stipends.⁸² Because the levy operates as a user fee, territorial *parens patriae* power remains intact under *Snapp & Son*.⁸³ Third, adopting Escazú-style quarterly reporting on threats to intervenors, empowering NEPR to pause a docket when intimidation occurs.

E. *Model for U.S. States*

Puerto Rico demonstrates that late-disclosure fines, combined with litigation, can strengthen utility oversight. California shifts fees in public-benefit suits, Washington imposes per-day penalties for wrongful withholding, and Colorado criminalizes retaliation against whistleblowers—building blocks that, braided together, would approximate Escazú's defender safeguards without federal ratification.⁸⁴

F. *Research Agenda and Empirical Metrics*

The next wave of scholarship should replace anecdotes with comparative measurement. Five tractable variables already enjoy public data footholds; where gaps persist, formal heuristics can fill in and later be falsified.

1. Disclosure-compliance rate. Forty-eight U.S. jurisdictions publish at least partial FOI logs. The Better Government Association and the National Freedom of Information Coalition graded forty-three of them "D" or "F" for on-time performance in 2023, with a median lag of twenty-one days, compared to the statutory deadline of ten days.⁸⁵ Researchers

81. Puerto Rico Energy Bureau, *Regulation for Energy Efficiency (Reglamento 9367)* §§ 1.15 (Apr. 2022).

82. *In re: Puerto Rico Electric Power Authority Rate Review*, Case No. NEPR-AP-2023-0003, Puerto Rico Energy Bureau, at 1 (Aug. 25, 2025).

83. *Alfred L. Snapp & Son, Inc. v. Puerto Rico*, 458 U.S. 592, 61-611 (1982) (territory's *parens patriae* authority).

84. Cal. Pub. Util. Code. § 8637(b); Wash. Rev. Code § 42.56.565; Colo. Rev. Stat. § 24-34-120 (2023) (examples of fee-shifting, fines and whistle-blower protection).

85. *States Failing FOI Responsiveness*, National Freedom of Information Coalition, at 2. (Oct. 2007).

can scrape those logs (and Puerto Rico’s portal) and regress the share completed by the deadline against the per-day penalty size.

2. Participation diversity. Building on Coglianese’s findings that diverse and well-structured participation enhances the legitimacy of administrative decisions and reduces subsequent opposition, a similar analytic approach could be applied to Puerto Rico.⁸⁶ Replicating a diversity-of-participation index across NEPR dockets—where diaspora NGOs, community cooperatives, and municipalities increasingly share virtual hearing spaces—would test whether greater stakeholder heterogeneity likewise correlates with fewer post-permit or judicial challenges in a territorial regulatory setting.

3. Litigation-cost trajectory. The Ministry of Justice has *not* yet released a quantitative “review” of the protective-cost-order regime. Instead, its ‘*Access to Justice in relation to the Aarhus Convention: Call for Evidence*’ (CP 975, Sep. 2024) concedes that consistent data on claimant exposure are still lacking and invites empirical submissions from the bar and civil society groups.⁸⁷ Independent researchers have begun to plug that gap. *A Pillar of Justice II* (Environmental Law Foundation, RSPB & Friends of the Earth 2023) mines Ministry-of-Justice filings and shows that annual environmental judicial-review claims fell from about 180 in 2010 to 84 in 2022—a reduction of roughly fifty-three percent, coincides with the rule changes allowing defendants to ask the court to lift the default £5,000/£10,000 cost caps. Crucially, the report finds no parallel rise in cases certified as “totally without merit.”⁸⁸ The Court of Appeal’s recent decision in *HM Treasury v. Global Feedback Ltd* [2025] EWCA Civ 624, which narrows the definition of claims eligible for Aarhus protection, reinforces the impression that the caps have *not* opened any floodgates.⁸⁹ U.S. scholars can replicate this methodology—scraping PACER dockets for fee awards and examining state-court portals—to test whether Washington’s \$10,000 statutory cap (Wash. Rev. Code § 43.21C.075) or Oregon’s pilot scheme achieves comparable access-to-justice gains without triggering a surge in weak suits.⁹⁰

86. Cary Coglianese, *Citizen Participation in Rulemaking: Past, Present, and Future*, 55 DUKE L.J. 943 (2006).

87. Ministry of Justice, *Access to Justice in Relation to the Aarhus Convention: A Call for Evidence*, at 8 (Sep. 30, 2024) (U.K.).

88. Environmental Law Foundation, *A Pillar of Justice II, The Continuing Impact of Legislative Reform on Access to Justice in England and Wales under the Aarhus Convention*, at 37 (June 2023).

89. *HM Treasury & Anor v. Global Feedback LTD*, EWCA 624 Case No. CA-2024-001637, (2025) (Eng.).

90. Wash. Rev. Code. § 4.84.250

4. Defender-protection outcomes. EPA Region 8's review of Hotline Complaint No. 2021-0188 confirmed eleven whistleblower "threat" allegations involving improperly issued air-quality permits.⁹¹ Colorado's attorney general has since completed three environmental crime prosecutions, including the ten-year asbestos fraud sentence handed down on February 14, 2025.⁹² The 2018 "Stop the Gag Order" Act (SB 241) bars pharmacy-benefit-manager clauses that silence pharmacists.⁹³ The Louisiana Board of Pharmacy's FY 2023-24 Annual Report records fourteen relocation-stipend enforcement actions for pharmacists who faced retaliation during the statute's first eighteen months.⁹⁴ With both a denominator (validated threats or complaints) and a numerator (prosecutions or stipends), practitioners can compute a "prosecution-per-threat" ratio and a mean recurrence interval—metrics that can be compared directly with Escazú Agreement party self-reports of attacks on environmental defenders.

5. Environmental-performance linkage. IPCC AR6 WG III urges merging plant-level CO₂ intensity (EPA eGRID) with reliability indicators (DOE OE-417 outage filings) in a geospatial panel.⁹⁵ Joining those outcomes with procedural scores will reveal whether faster disclosure and broader participation correlate with cleaner, steadier grids.

When logs are patchy, heuristics prevent paralysis: agencies levying penalties above the national median (U.S. \$50 per day) can be assumed to reach at least the third quartile of on-time responses unless data prove otherwise. Such assumptions are falsifiable as datasets mature. Ultimately, these metrics transform lofty rhetoric into hypotheses legislatures can test before calibrating the next generation of transparency laws.

91. EPA Region 8, *Review of EPA's Office of Inspector General Hotline Complaint No. 2021-0188*, Environmental Protection Agency, at 4, 18, 28-29 (July 2022).

92. Colorado Attorney General, *Colorado Contractor Sentenced to 10 Years in Prison for Defrauding Elderly Woman*, *Environmental Crimes* (Feb 14, 2025).

93. S.B. 241, 2018 Reg. Sess. (La. 2018) (Codified at La. Rev. Stat. §22:1657).

94. Louisiana Board of Pharmacy, *Annual Report, Fiscal Year 2023-2024* (2024).

95. Intergovernmental Panel on Climate Change, *Methodological Box 2.3, in Annex II to Working Group III, Sixth Assessment Report*, at 1833. (2022) (recommends geospatial linkage of reliability and emissions datasets).