

ARTICLE

Can Domestic Environmental Courts Implement International Environmental Law? A Framework for Institutional Analysis

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Abstract

The rapid and widespread establishment of domestic environmental courts and tribunals raises important questions regarding their implications for international environmental law and global environmental governance. I use an interdisciplinary, multi-method approach to consider the capacity of domestic environmental courts to identify and apply norms and principles of international environmental law in domestic opinions. I first review existing literature, identifying jurisdiction, judicial discretion, and a court's position in a legal system as key institutional determinants of this capacity. I then develop a typology of domestic environmental courts and tribunals, which suggests that, all else being equal, a court with national geographic jurisdiction that also enjoys attributes of broad subject-matter jurisdiction and discretion may be expected to be best equipped to implement norms and principles of international environmental law. Next, I integrate existing assessments of environmental court presence with original outreach and web research to identify all countries which possess environmental courts, and assess a subset of eight existing national-level institutions. The analysis of this subset highlights the diversity of institutional models that can incorporate theorized best practices. Based on these findings, I draw several theoretical conclusions: specifically (i) the relevance of environmental court research to individual- and institutional-level analysis in transnational and international environmental law, (ii) the need for further legal-institutional analysis in global environmental governance scholarship, and (iii) the opportunity for further interdisciplinary analysis of the role of domestic courts in environmental governance.

Keywords: International environmental law, Global environmental politics, Environmental courts and tribunals, Global environmental governance, Specialist courts, Norm dynamics

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1. INTRODUCTION

As environmental courts and tribunals have proliferated across the globe, interest in these institutions continues to increase. Environmental courts are now found in diverse domestic contexts,¹ and varied actor classes are promoting their establishment,² including intergovernmental organizations,³ regional organizations,⁴ legal scholars,⁵ and judges.⁶ The diversity of forms and functions assumed by environmental courts across legal cultures and political settings complicates generalization.⁷ In the light of their widespread diffusion, it is nonetheless valuable to consider broadly the governance implications of these specialist institutions. Environmental courts offer potential spaces for experimentation and innovation, in line with the recently highlighted contributions of domestic courts⁸ and domestic judges⁹ to the governance of complex, systemic global environmental challenges.¹⁰

At present, all environmental courts and tribunals are situated domestically,¹¹ and no international environmental court currently exists. Their diverse settings, coupled with the wide range of their jurisdictional, procedural, and functional characteristics, raise compelling questions about the capacity of individual environmental courts to support global environmental governance (GEG). In particular, the specialist attributes of such courts and the complex environmental issues they encounter suggest that they may be uniquely positioned to facilitate the domestic interpretation and application of international environmental law (IEL) norms, including polluter pays, sustainable development, intergenerational equity, and precaution.¹² Nevertheless, individual

¹ G. Pring & C. Pring, *Environmental Courts & Tribunals: A Guide for Policy Makers* (United Nations Environment Programme (UNEP), 2016), p. iii, available at: <https://wedocs.unep.org/handle/20.500.11822/10001>.

² J.M. Angstadt, 'Environmental Norm Diffusion and Domestic Legal Innovation: The Case of Specialized Environmental Courts and Tribunals' (2022) 31(2) *Review of European, Comparative & International Environmental Law*, pp. 222–32.

³ Pring & Pring, n. 1 above.

⁴ See, e.g., T. Lin et al., *Green Benches: What Can the People's Republic of China Learn from Environment Courts of Other Countries?* (Asian Development Bank, 2009).

⁵ S. Abed de Zavala et al., 'An Institute for Enhancing Effective Environmental Adjudication' (2010) 3(1) *Journal of Court Innovation*, pp. 1–10, at 2.

⁶ See, e.g., S. Okong'o, 'Environmental Adjudication in Kenya: A Reflection on the Early Years of the Environment and Land Court of Kenya' (2017) 29(2–3) *Environmental Law & Management*, pp. 103–9.

⁷ Frequently, however, environmental courts and tribunals are staffed by specialist judges and scientific experts, and they regularly offer litigants special procedures and evidentiary rules that are tailored to environmental disputes.

⁸ D. Bertram, 'Judicializing Environmental Governance? The Case of Transnational Corporate Accountability' (2022) 22(2) *Global Environmental Politics*, pp. 117–35. E.g., M. Zhu, 'The Rule of Climate Policy: How Do Chinese Judges Contribute to Climate Governance without Climate Law?' (2021) 11(1) *Transnational Environmental Law*, pp. 119–39.

⁹ Bertram, *ibid.*

¹⁰ F. Aletta et al., *Frontiers 2022: Noise, Blazes and Mismatches* (UNEP, 2022), available at: <https://www.unep.org/resources/frontiers-2022-noise-blazes-and-mismatches>.

¹¹ S.D. Murphy, 'Does the World Need a New International Environmental Court?' (2000) 32(3) *George Washington Journal of International Law and Economics*, pp. 333–50.

¹² G.N. Gill, 'The National Green Tribunal of India: A Sustainable Future through the Principles of International Environmental Law' (2014) 16(3) *Environmental Law Review*, pp. 183–202.

court capacity to support such application of IEL norms, and IEL principles more broadly, may vary considerably.

This article explores the implications of environmental courts' institutional features for judicial contributions to GEG and the application of IEL norms and principles.¹³ In so doing, it offers initial answers to three questions:

- (1) Which institutional factors may influence an environmental court's capacity to identify and apply norms of IEL in its decisions?
- (2) How can these institutional factors be conceptualized to assess the capacity of environmental courts to identify and apply IEL norms?
- (3) To what extent do existing domestic environmental courts exhibit the institutional capacity to identify and apply IEL norms in decision making?

In answering these questions, this article couples theoretical analysis with a census and subset analysis of eight existing environmental courts. It integrates existing environmental court knowledge with insights from multiple subdisciplines (notably, environmental law and global environmental politics (GEP)), and qualitative institutional analysis. Researchers have demonstrated that the environmental court model has been promoted by diverse authors, each bearing diverse motivations,¹⁴ and they have posited that individual institutions are likely to vary in form and capacity.¹⁵

Earlier studies have explored environmental courts through in-depth single-case studies¹⁶ and examinations of decision-level attributes.¹⁷ Others explore their diversity through analyses,¹⁸ including theoretical and comparative examinations,¹⁹ which seek to identify environmental court outcomes.²⁰ Most existing scholarship highlights desirable environmental court attributes and emphasizes outcomes resulting from courts incorporating these best-practices elements.²¹ Notwithstanding some notable

¹³ This article examines dynamics that influence the domestic incorporation of both IEL norms and principles. Both concepts are relevant to this analysis, yet the distinctions between norms and principles are dynamic and frequently contested, both collectively and with regard to the status of individual precepts. Unless explicitly noted, reference to 'norms' throughout should be read to include both norms and principles, as they are understood within IEL. For further consideration of the status of individual IEL norms and principles; see P.M. Dupuy & J. Viñuales, *International Environmental Law*, 2nd edn (Cambridge University Press, 2018), pp. 58–104.

¹⁴ Angstadt, n. 2 above.

¹⁵ Pring & Pring, n. 1 above, p. 12.

¹⁶ G.N. Gill, *Environmental Justice in India: The National Green Tribunal* (Routledge, 2017).

¹⁷ B.J. Preston, 'Benefits of Judicial Specialization in Environmental Law: The Land and Environment Court of New South Wales as a Case Study' (2012) 29(2) *Pace Environmental Law Review*, pp. 396–440.

¹⁸ See, e.g., R. Guidone & H. Jonas, 'A Review of Environmental Courts and Tribunals for Civil Society Organisations and the Judiciary', in C. Voigt & Z. Makuch (eds), *Courts and the Environment* (Edward Elgar, 2018), pp. 369–88.

¹⁹ C. Warnock, *Environmental Courts and Tribunals: Powers, Integrity, and the Search for Legitimacy* (Bloomsbury, 2020).

²⁰ A. Rosencranz & G. Sahu, 'Assessing the National Green Tribunal after Four Years' (2014) 5(Monsoon) *Journal of Indian Law & Society*, pp. 191–200.

²¹ Preston, n. 17 above.

exceptions,²² researchers generally laud environmental courts' potential contributions to access to justice and environmental outcomes,²³ particularly when compared with generalist courts.²⁴ However, how exactly institutional design factors relate to desirable outcomes remains poorly understood.

The institutional embeddedness of environmental courts renders a comparative lens valuable to support richer understanding of norm interpretation,²⁵ entrepreneurship,²⁶ and contestation.²⁷ The importance of comparative analysis to reflect and support a broader understanding and reimagination of IEL has been stressed repeatedly by environmental law researchers,²⁸ as well as governance scholars.²⁹

This article represents an initial, theoretically and methodologically explicit analysis of how environmental courts and tribunals may support domestic application of IEL norms. Firstly, I review how structural factors influence the domestic application of IEL norms. I expand this discussion beyond pure IEL scholarship, referencing (i) GEP and GEG literature exploring norm dynamics and circulation, and (ii) legal research examining structural determinants of court capacity.

Secondly, I use these insights to identify structural attributes that, in theory, might equip a court to interpret and apply IEL norms in its domestic opinions. I note that courts situated at any level of a country's judiciary, and bearing any combination of structural attributes, can interpret and apply IEL. However, by constructing a theoretical typology, I suggest that the likelihood of an individual court applying IEL will vary according to these structural factors. I hypothesize that, all else being equal, a court with national geographic jurisdiction that also enjoys attributes of broad subject-matter jurisdiction and discretion may be expected to be best equipped to perform this function.

Thirdly, I couple theory with empirical analysis. I integrate existing assessments of environmental court presence with original outreach and web research to identify all countries that possess environmental courts. Among these, I note eight environmental

²² See critiques of inequity in China's environmental court system in R.E. Stern, 'Poor Rural Residents in China Seen as Easy Target for Environmental Lawsuits' (2013) April *China Dialogue*, pp. 11–4; see also R.E. Stern, 'The Political Logic of China's New Environmental Courts' (2014) 72 *The China Journal*, pp. 53–74, at 69.

²³ N.A. Robinson, 'Introduction: Ensuring Access to Justice through Environmental Courts and Tribunals' (2012) 29(2) *Pace Environmental Law Review*, pp. 363–95, at 379.

²⁴ B.O. Giupponi, 'Fostering Environmental Democracy in Latin America and the Caribbean: An Analysis of the Regional Agreement on Environmental Access Rights' (2019) 28(2) *Review of European, Comparative and International Environmental Law*, pp. 136–51, at 144.

²⁵ J. Clapp & L. Swanston, 'Doing Away with Plastic Shopping Bags: International Patterns of Norm Emergence and Policy Implementation' (2009) 18(3) *Environmental Politics*, pp. 315–32.

²⁶ P.M. Haas, 'Introduction: Epistemic Communities and International Policy Coordination' (1992) 46(1) *International Organization*, pp. 1–35.

²⁷ A. Acharya, 'The R2P and Norm Diffusion: Towards a Framework of Norm Circulation' (2013) 5(4) *Global Responsibility to Protect*, pp. 466–79.

²⁸ A.-J. Saiger, 'Domestic Courts and the Paris Agreement's Climate Goals: The Need for a Comparative Approach' (2020) 9(1) *Transnational Environmental Law*, pp. 37–54, at 38–9.

²⁹ For exemplar references, see G. Auld, M. Betsill & S.D. Vandever, 'Transnational Governance for Mining and the Mineral Lifecycle' (2018) 43(1) *Annual Review of Environment & Resources*, pp. 425–53.

courts that enjoy national geographic jurisdiction and then consider their attributes as relevant to jurisdiction, discretion, and theoretical capacity to interpret and apply IEL.

Fourthly, I consider how these findings might inform our understanding of environmental court contributions to environmental governance. I urge that (i) the IEL interpretation and implementation capacity of existing environmental courts and tribunals offers cause for both caution and optimism; (ii) environmental courts offer a useful case study to examine how domestic institutional capacity affects international norm circulation and contestation; and (iii) domestic environmental courts merit further recognition and analysis for their contributions to GEG.

This analysis makes three key contributions. Firstly, researchers have long highlighted the centrality of judicial agency and discretion in IEL.³⁰ This study emphasizes the simultaneous importance of evaluating the institutional characteristics and preconditions that can influence the extent and effectiveness of judicial discretion and judges' incorporation of IEL norms in their work. Secondly, as GEP scholars have long recognized, domestic institutions contribute directly to the architecture of global governance in climate and other regimes.³¹ This study emphasizes domestic courts, and specifically specialist environmental courts, as an important but as-yet understudied component of GEG architecture. Thirdly, the project underscores the value of IEL's detailed decisional insights,³² especially when coupled with the formalized, comparative analysis commonly employed in GEP.³³ Therefore, it demonstrates the benefit of additional interdisciplinary work at the nexus of IEL, GEP, and earth system governance (ESG).

2. ENVIRONMENTAL COURTS AND IEL NORMS

Numerous publications have described environmental courts in developed countries,³⁴ as well as within developing jurisdictions;³⁵ noted individual courts' attributes,³⁶ outcomes,³⁷

³⁰ L. Carnwath, 'Judges and the Common Laws of the Environment – At Home and Abroad' (2014) 26(2) *Journal of Environmental Law*, pp. 177–87.

³¹ See, e.g., L. Andonova & R. Mitchell, 'The Rescaling of Global Environmental Politics' (2010) 35 *Annual Review of Environment and Resources*, pp. 255–82.

³² L. Parks & E. Morgera, 'The Need for an Interdisciplinary Approach to Norm Diffusion: The Case of Fair and Equitable Benefit-Sharing' (2015) 24(3) *Review of European, Comparative and International Environmental Law*, pp. 353–67, at 353–4.

³³ J. Abrams et al., 'How Do States Benefit from Nonstate Governance? Evidence from Forest Sustainability Certification' (2018) 18(3) *Global Environmental Politics*, pp. 66–85.

³⁴ A. Bengtsson, 'Green Courts as the Providers of Environmental Rights? The Case of the Swedish Land and Environment Courts', in S. Bogojević & R. Reyfuse (eds), *Environmental Rights in Europe and Beyond* (Hart, 2018), pp. 177–200.

³⁵ D. Kaniaru, 'Environmental Tribunals as a Mechanism for Settling Disputes' (2007) 37(4) *Environmental Policy and Law*, pp. 459–63; R. Asenjo, 'Environmental Justice in Chile: Three Years after the Establishment of the Environmental Court of Santiago' (2017) 29 *Environmental Law & Management*, pp. 110–4.

³⁶ See, e.g., B.J. Preston, 'Characteristics of Successful Environmental Courts and Tribunals' (2014) 26(3) *Journal of Environmental Law*, pp. 365–93.

³⁷ J. Liu, 'China's Procuratorate in Environmental Civil Enforcement: Practice, Challenges & Implications for China's Environmental Governance' (2011) 13(1) *Vermont Journal of Environmental Law*, pp. 41–68; S. Tripathi, 'Report Card of the NGT at the End of Seven Years since Establishment: The Present and Future Ahead' (2018) 30(3) *Environmental Claims Journal*, pp. 228–36; Q. Zhang, Z. Yu & D. Kong,

and procedures,³⁸ and considered the implications of their emergence.³⁹ More generally, interest in environmental courts and tribunals aligns with growing attention to how domestic courts and judges address systemic environmental challenges, including climate change.⁴⁰ It also complements broad interest in understanding how courts at international and domestic levels apply IEL norms and principles,⁴¹ including the principles of polluter pays,⁴² common but differentiated responsibilities,⁴³ and sustainable development,⁴⁴ and the precautionary principle.⁴⁵

2.1. *Environmental Courts and Tribunals as Agents and Sites of IEL Norm Application*

The engagement of environmental courts and judges with global norms and transboundary issues is highly relevant to IEL and GEP considerations of structures and agents.⁴⁶ In turn, both IEL and GEP advance research in international law and international relations which examines the relationship between domestic legal structures and global processes. Though the two disciplines conceive of ‘norms’ somewhat differently,⁴⁷ both explore how shared conceptions of collective expectations evolve, gain acceptance, and diffuse.⁴⁸ For instance, comparative law scholars examine

‘The Real Effect of Legal Institutions: Environmental Courts and Firm Environmental Protection Expenditure’ (2019) 98 *Journal of Environmental Economics and Management*, article 102254; R. Walters & D. Solomon Westerhuis, ‘Green Crime and the Role of Environmental Courts’ (2013) 59(3) *Crime, Law and Social Change*, pp. 279–90.

³⁸ A. Dilay, A.P. Diduck & K. Patel, ‘Environmental Justice in India: A Case Study of Environmental Impact Assessment, Community Engagement and Public Interest Litigation’ (2020) 38(1) *Impact Assessment & Project Appraisal*, pp. 16–27; G.N. Gill, ‘Environmental Justice in India: The National Green Tribunal and Expert Members’ (2016) 5(1) *Transnational Environmental Law*, pp. 175–205; M. Stubbs, ‘Environmental Mediation in Planning Appeals: Lessons from the Land and Environment Court of New South Wales’ (1996) 39(2) *Journal of Environmental Planning and Management*, pp. 273–84.

³⁹ Warnock, n. 19 above.

⁴⁰ E.g., L. Wegener, ‘Can the Paris Agreement Help Climate Change Litigation and Vice Versa?’ (2020) 9(1) *Transnational Environmental Law*, pp. 17–36.

⁴¹ M.-C. Cordonier Segger & H.E. Judge C.G. Weeramantry (eds), *Sustainable Development Principles in the Decisions of International Courts and Tribunals 1992–2012* (Oxford University Press, 2017); C. Bruch, ‘Is International Environmental Law Really Law? An Analysis of Application in Domestic Courts’ (2006) 23(2) *Pace Environmental Law Review*, pp. 423–64.

⁴² M. Shinde, ‘The Polluter Pays Principle in Effect at the National Green Tribunal in India’ (2017) 9 *The Journal of Health, Environment, & Education*, pp. 10–18.

⁴³ E.g., P.G. Ferreira, ‘“Common but Differentiated Responsibilities” in the National Courts: Lessons from *Urgenda v. The Netherlands*’ (2016) 5(2) *Transnational Environmental Law*, pp. 329–51.

⁴⁴ M.R. Anderson, ‘International Environmental Law in Indian Courts’ (1998) 7(1) *Review of European, Comparative, and International Environmental Law*, pp. 21–30.

⁴⁵ C. Tollefson & J. Thornback, ‘Litigating the Precautionary Principle in Domestic Courts’ (2008) 19(1) *Journal of Environmental Law and Practice*, pp. 33–58; J. Peel & H.M. Osofsky, ‘A Rights Turn in Climate Change Litigation?’ (2018) 7(1) *Transnational Environmental Law*, pp. 37–67.

⁴⁶ Saiger, n. 28 above; C.M. Kauffman & P.L. Martin, ‘Constructing Rights of Nature Norms in the US, Ecuador, and New Zealand’ (2018) 18(4) *Global Environmental Politics*, pp. 43–62.

⁴⁷ For a thoughtful overview of the synergies and distinctions between disciplinary conceptions of norms, with specific reference to IEL and GEP, see Parks & Morgera, n. 32 above, p. 356.

⁴⁸ S. Gill, ‘Globalisation, Market Civilisation, and Disciplinary Neoliberalism’ (1995) 24(3) *Millennium – Journal of International Studies*, pp. 399–423.

legal transfer and transplantation,⁴⁹ while international relations scholars examine norms and the dynamics driving their diffusion and adoption.⁵⁰

Additionally, it is essential to understand how IEL norms are operationalized and given domestic effect,⁵¹ as it can clarify the role of norm agents and entrepreneurs,⁵² norm diffusion,⁵³ and norm circulation.⁵⁴ Researchers regularly highlight the iterative relationship between domestic structures and global norms.⁵⁵ They also emphasize how domestic institutions, including courts,⁵⁶ can be equipped to identify and implement⁵⁷ international norms.⁵⁸ Collectively, domestic courts contribute substantially to the application of, and compliance with, international law.⁵⁹ Understanding these domestic implementation dynamics is urgent,⁶⁰ given the ongoing fragmentation,⁶¹ decentralization,⁶² and bottom-up character of GEG,⁶³ especially in recent international environmental conventions.⁶⁴

Under what conditions can environmental courts and tribunals support domestic applications of IEL norms? Researchers have explored this question both implicitly

⁴⁹ T.S. Goldbach, 'Why Legal Transplants?' (2019) 15 *Annual Review of Law and Social Science*, pp. 583–601.

⁵⁰ E.g., M. Finnemore & K. Sikkink, 'International Norm Dynamics and Political Change' (1998) 52(4) *International Organization*, pp. 887–917.

⁵¹ Dupuy & Viñuales, n. 13 above.

⁵² L. Vanhala, 'Shaping the Structure of Legal Opportunities: Environmental NGOs Bringing International Environmental Procedural Rights Back Home' (2018) 40(1) *Law and Policy*, pp. 110–27; M. Schroeder, 'The Construction of China's Climate Politics: Transnational NGOs and the Spiral Model of International Relations' (2008) 21(4) *Cambridge Review of International Affairs*, pp. 505–25.

⁵³ Clapp & Swanston, n. 25 above.

⁵⁴ I. Alogna, 'The Circulation of the Model of Sustainable Development: Tracing the Path in a Comparative Law Perspective', in V. Mauerhofer (ed.), *Legal Aspects of Sustainable Development: Horizontal and Sectorial Policy Issues* (Springer International, 2015), pp. 13–33.

⁵⁵ E.g., Y. Lupu, 'Best Evidence: The Role of Information in Domestic Judicial Enforcement of International Human Rights Agreements' (2013) 67(3) *International Organization*, pp. 469–503; B.A. Simmons, 'Compliance with International Agreements' (1998) 1(1) *Annual Review of Political Science*, pp. 75–93.

⁵⁶ T. Risse & K. Sikkink, 'The Socialization of International Human Rights Norms into Domestic Practices: Introduction', in T. Risse, S. Ropp & K. Sikkink (eds), *The Power of Human Rights: International Norms and Domestic Change* (Taylor & Francis, 1999), pp. 117–49.

⁵⁷ W.W. Burke-White & A.-M. Slaughter, 'The Future of International Law Is Domestic (or, the European Way of Law)' (2006) 47(2) *Harvard International Law Journal*, pp. 327–52, at 336–7.

⁵⁸ A. Tzanakopoulos & C. Tams, 'Domestic Courts as Agents of Development of International Law' (2013) 26(3) *Leiden Journal of International Law*, pp. 531–40 (noting domestic courts' ability to leverage 'powerful state enforcement mechanisms to traditionally weakly enforced international legal regulation').

⁵⁹ A. Tzanakopoulos, 'Domestic Courts in International Law: The International Judicial Function of National Courts' (2011) 34(1) *Loyola of Los Angeles International and Comparative Law Review*, pp. 133–68.

⁶⁰ Burke-White & Slaughter, n. 57 above, pp. 336–7.

⁶¹ See, e.g., D.G. Victor, K. Raustiala & E.B. Skolnikoff, *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (The MIT Press, 1998).

⁶² F. Zelli & H. van Asselt, 'Introduction – The Institutional Fragmentation of Global Environmental Governance: Causes, Consequences, and Responses' (2013) 13(3) *Global Environmental Politics*, pp. 1–13; F. Biermann et al., 'The Fragmentation of Global Governance Architectures: A Framework for Analysis' (2009) 9(4) *Global Environmental Politics*, pp. 14–40; Victor, Raustiala & Skolnikoff, n. 61 above.

⁶³ See, e.g., Victor, Raustiala & Skolnikoff, n. 61 above.

⁶⁴ J. McGee & J. Steffek, 'The Copenhagen Turn in Global Climate Governance and the Contentious History of Differentiation in International Law' (2016) 28(1) *Journal of Environmental Law*, pp. 37–63.

and explicitly.⁶⁵ Studies suggest that environmental courts and tribunals may advance environmental law principles and rights,⁶⁶ promote access to justice,⁶⁷ redress a perceived lack of ‘visionary decisions’ that ‘meet national and international norms’,⁶⁸ and ‘help in advancing the cause of environmental justice’.⁶⁹ Individual environmental courts may choose, or even be obligated, to apply norms of IEL when issuing judgments.⁷⁰ Despite widespread excitement about their potential to strengthen the international environmental rule of law,⁷¹ environmental courts are incredibly diverse. Their individual and collective capacity to apply IEL norms depends on several factors that require careful analysis.

2.2. Factors Influencing Environmental Court Implementation of IEL

Among environmental courts, many facets can shape the effectiveness⁷² and application of IEL norms. These may include contextual factors, such as whether a court is located in a common law or civil law jurisdiction, or individual-level factors, such as the training of an individual environmental court panellist. At the institutional level, I single out three attributes that are drawn from the existing literature and input gathered from environmental court scholars and practitioners through an original expert survey:⁷³ (i) an environmental court’s substantive jurisdiction, (ii) the discretion afforded to environmental court jurists, and (iii) an environmental court’s geographic reach and position within domestic legal contexts.

The first attribute, jurisdiction, broadly represents ‘the power of a court to adjudicate cases and issue orders’.⁷⁴ This power stretches across multiple dimensions, including the subject matter a court may review, statutory grants of authority, and whether a court can hear a case involving a given defendant,⁷⁵ with each presenting potential ‘*jurisdictional obstacles to litigation*’ that constrain the application of IEL.⁷⁶ Researchers, therefore, largely advocate environmental court jurisdiction that is ‘as

⁶⁵ E. Fisher & B. Preston (eds), *An Environmental Court in Practice: Function, Doctrine, and Process* (Hart, 2022).

⁶⁶ Warnock, n. 19 above, p. 28; E. Scotford, *Environmental Principles and the Evolution of Environmental Law* (Bloomsbury, 2017).

⁶⁷ Robinson, n. 23 above.

⁶⁸ Pring & Pring, n.1 above.

⁶⁹ Giupponi, n. 24 above.

⁷⁰ Gill, n. 12 above; J. Darpö, ‘Environmental Justice through Environmental Courts? Lessons Learned from the Swedish Experience’, in J. Ebbesson & P. Okowa (eds), *Environmental Law and Justice in Context* (Cambridge University Press, 2009), pp. 176–99.

⁷¹ As Warnock rightly cautions, ‘[t]hese bodies are overwhelmingly seen as a “good thing”. In the main, the scholarship does not acknowledge that they are highly vulnerable institutions, susceptible to changing political climates’: Warnock, n. 19 above, p. 4.

⁷² Preston, n. 36 above.

⁷³ For fuller elaboration of expert survey methodology and substantiation, see Angstadt, n. 2 above, pp. 226–7.

⁷⁴ Cornell Law School Legal Information Institute, Wex Legal Dictionary, ‘Jurisdiction’, available at: <https://www.law.cornell.edu/wex/jurisdiction>.

⁷⁵ *Ibid.*

⁷⁶ K.W. Abbott & D. Snidal, ‘Hard and Soft Law in International Governance’ (2000) 54(3) *International Organization*, pp. 421–56, at 432 (emphasis added).

comprehensive as possible'.⁷⁷ They identify 'lack of jurisdiction'⁷⁸ as a key bar to a court's ability to implement IEL effectively, and they note that practices such as separating criminal and civil jurisdiction can impair 'the effective administration and understanding of environmental issues'.⁷⁹ Therefore, existing insights suggest that, all else being equal, environmental courts with broad jurisdiction would be better able to incorporate IEL norms in domestic judgments.⁸⁰

Secondly, the application of IEL norms can be influenced by the discretion, or flexibility, granted to environmental court panellists. Judicial discretion is a relative concept, representing the latitude afforded to jurists by various structural attributes.⁸¹ Discretion describes a type of bounded freedom, allowing judges flexibility within the scope of statutory and procedural mandates when applying the law and seeking justice in a given case.⁸² Judges with greater discretion can 'exercise ... judgment based on what is fair under the circumstances and guided by the rules and principles of law'.⁸³ Some existing environmental courts have granted panellists flexibility to employ innovative practices,⁸⁴ or to deviate from procedural requirements that bind generalist courts.⁸⁵ Scholars note that a 'lack of flexibility in court rules and procedures [makes] it impossible to respond to international environmental laws and standards'⁸⁶ and advocate 'the authority to impose a variety of civil, administrative and criminal penalties'.⁸⁷ Elsewhere, researchers and practitioners advocate 'creativity in designing remedies'⁸⁸ and a 'willingness and *capacity* to incorporate IEL and associated norms and principles into their judgments'.⁸⁹ Therefore, a domestic environmental court which grants its panellists broad discretion may be expected, all else equal, to be better-equipped to interpret and apply IEL norms in decision making.

⁷⁷ Ibid.

⁷⁸ Expert survey response of Respondent 2.

⁷⁹ E. Hamman, R. Walterst & R. Maguire, 'Environmental Crime and Specialist Courts: The Case for a "One-Stop (Judicial) Shop" in Queensland' (2016) 27(1) *Current Issues in Criminal Justice*, pp. 59–77, at 60.

⁸⁰ However, as other analysts note, broad jurisdictional grants (including the capacity to initiate reviews and engage in prospective review) raise important normative questions that demand consideration. For thoughtful treatment, see Warnock, n. 19 above, p. 28.

⁸¹ For fuller elaboration, see M. Klatt, 'Taking Rights Less Seriously: A Structural Analysis of Judicial Discretion' (2007) 20(4) *Ratio Juris*, pp. 506–29.

⁸² "Ibid.

⁸³ C. Pring & R. Pring, 'Specialized Environmental Courts and Tribunals at the Confluence of Human Rights and the Environment' (2009) 11 *Oregon Review of International Law* pp. 301–29, at 311.

⁸⁴ E. Fisher, "'Jurisdictional" Facts and "Hot" Facts: Legal Formalism, Legal, Pluralism, and the Nature of Australian Administrative Law' (2015) 38(3) *Melbourne University Law Review*, pp. 968–95, at 985.

⁸⁵ N. Jannu, 'India's National Green Tribunal: Human Rights and the Merits of an Environmental Court' (2016) 46 *Environmental Law Reports: News & Analysis*, pp. 10474–7.

⁸⁶ Pring & Pring, n. 1 above, p. x; Cornell Law School Legal Information Institute, *Wex Legal Dictionary*, 'Discretion', available at: <https://www.law.cornell.edu/wex/discretion>; D. Oran, *Oran's Dictionary of the Law*, 3rd edn (West Legal Studies, 2000), p. 150.

⁸⁷ Preston, n. 36 above, p. 375.

⁸⁸ Expert survey response of Respondent 9.

⁸⁹ Expert survey response of Respondent 27 (emphasis added).

Thirdly, a court's geographic reach and position within a domestic legal system can influence its awareness or receptiveness to IEL norms and the types of question that it addresses. While judicial specialization may be well suited to localized, first-instance courts,⁹⁰ where technical fact finding occurs, dialogue and exchange among national-level appellate judges is widely advocated as key to international law development.⁹¹ Climate jurisprudence, for instance, is increasingly moulded by judicial borrowing, influence, and transplantation among apex court judges.⁹² Exchanges among domestic institutions can advance environmental justice by promoting 'access to effective, transparent, accountable and democratic institutions',⁹³ yet these efforts and exchanges may not be a focus of trial for more localized courts.⁹⁴ While subnational and trial-level environmental courts certainly influence and apply IEL,⁹⁵ those at the national level may be viewed as most likely, all else equal, to identify and apply IEL norms.

2.3. *Environmental Court and Tribunal Typology*

I constructed a 3×3 typology (Figure 1) to theorize the effect of substantive jurisdiction, discretion, and placement on the application and adoption of IEL norms. The resulting categories emphasize (i) the potential for variation among environmental courts across a judicial hierarchy, and (ii) that, at a given governmental level, a single institution may possess attributes of broad jurisdiction and discretion, narrow jurisdiction and discretion, or a combination. The typology does not permit fine-grained analysis of single environmental courts or of individual socio-political factors that may influence IEL interpretation capacity, such as a country's civil or common law legal system, its monist or dualist disposition to international law, or its unitary or federal legal system. However, it does support comparative analysis of norm dynamics.

The typology allows for the formulation of some initial hypotheses (Figure 2). Firstly, it predicts that local or municipal environmental courts, with their comparatively limited geographic scope, are least likely to interpret or apply IEL

⁹⁰ R. Revesz, 'Specialized Courts and the Administrative Lawmaking System' (1990) 138(4) *University of Pennsylvania Law Review*, pp. 1111–74.

⁹¹ Pring & Pring, n. 1 above; Asian Development Bank, 'Strengthening Judicial Capacity Towards Sustainable Economic Development in Asia and the Pacific', Dec. 2020.

⁹² E.g., G. Ganguly, 'Judicial Transnationalization', in V. Heyvaert & L.A. Duvic-Paoli (eds), *Research Handbook on Transnational Environmental Law* (Edward Elgar, 2020), pp. 301–17.

⁹³ Pring & Pring, n. 1 above, p. iii; see also M.A. Waters, 'Mediating Norms and Identity: The Role of Transnational Judicial Dialogue in Creating and Enforcing International Law' (2005) 93(2) *Georgetown Law Journal*, pp. 487–574, at 491; A.-M. Slaughter, 'The Real New World Order' (1997) 76 *Foreign Affairs*, pp. 183–97, at 186; M. Claes & M. de Visser, 'Are You Networked Yet? On Dialogues in European Judicial Networks' (2012) 8(2) *Utrecht Law Review*, pp. 100–14, at 105.

⁹⁴ Expert survey response of Respondent 28.

⁹⁵ E.g., panellists of the Vermont Environment Court (US) have been sensitive to its role in the global adjudication of environmental issues; see M. Wright, 'The Vermont Environmental Court' (2010) 3(1) *Journal of Court Innovation*, pp. 201–14. The Land and Environment Court of New South Wales (Australia) has also applied IEL; see J. Peel, 'The Land and Environment Court of New South Wales and the Transnationalisation of Climate Law: The Case of Gloucester Resources v. Minister for Planning', in Fisher & Preston, n. 65 above, pp. 73–91; and B. Boer, 'Transnational Dimensions of the Land and Environment Court of New South Wales', in Fisher & Preston, n. 65 above, pp. 93–111.

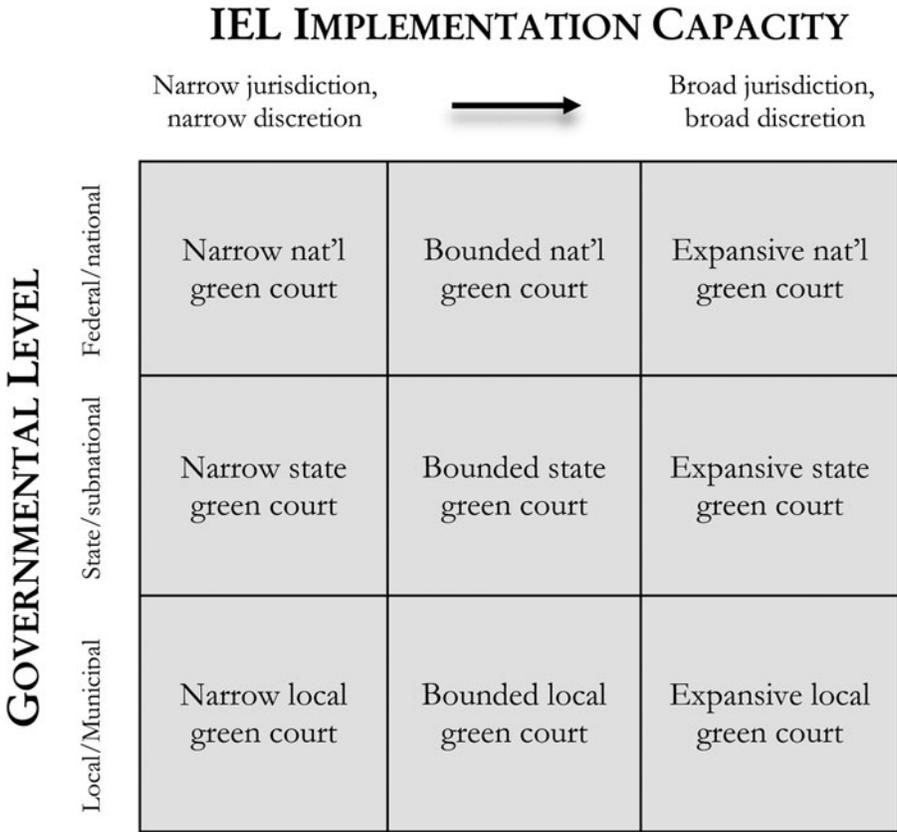


Figure 1 Typology of Environmental Court Forms

norms in their decision making. In contrast, environmental courts located at intermediate (e.g., state or regional) judicial levels are comparatively more likely to invoke IEL norms in their decision making, given their greater geographic remit and the capacity of some to engage in appellate decision making. Yet, institutions at this level vary widely in terms of institutional attributes and orientation, suggesting that this capacity is likely to be uneven.

Therefore, absent the establishment of a dedicated international environmental court,⁹⁶ it appears most likely, all else being equal, that those existing environmental courts with national geographic jurisdiction would be best positioned to interpret and apply IEL norms in decisions (Figure 2). The comparatively broad territorial jurisdiction of such institutions renders them most likely to engage with systemic environmental issues that may invoke IEL norms. Similarly, existing scholarship

⁹⁶ S. Hockman, 'The Case for an International Court for the Environment' (2010) 3(1) *Journal of Court Innovation*, pp. 215–30; A. Postiglione, 'A More Efficient International Law on the Environment and Setting Up an International Court for the Environment within the United States' (1990) 20(2) *Environmental Law*, pp. 321–8; O.W. Pedersen, 'An International Environmental Court and International Legalism' (2012) 24(3) *Journal of Environmental Law*, pp. 547–58.

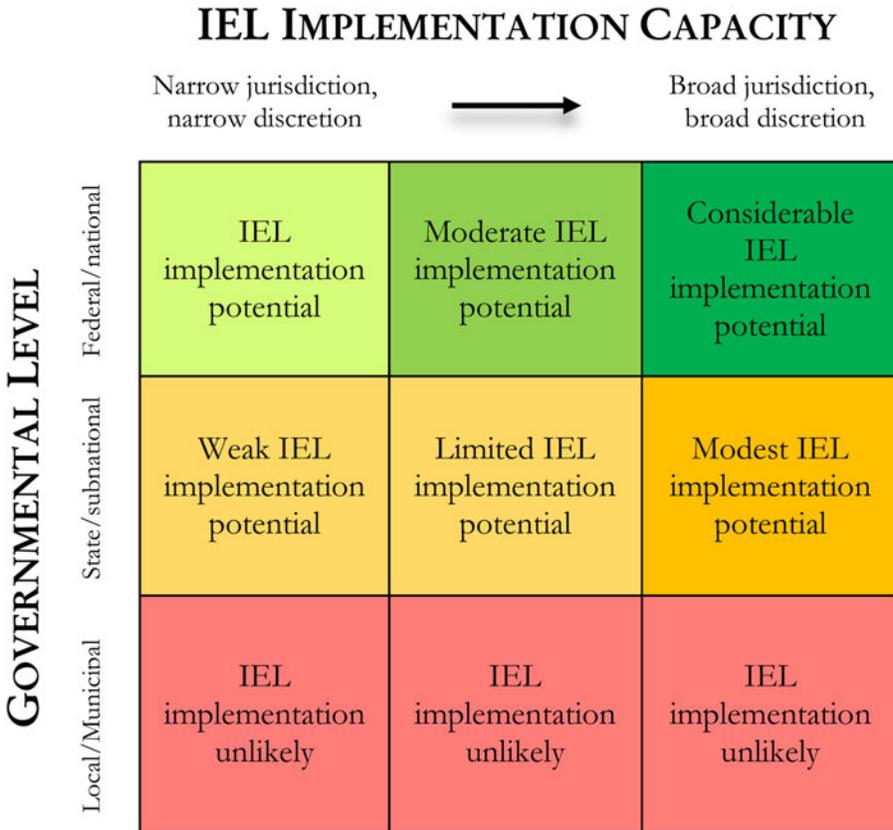


Figure 2 Environmental Court and Tribunal IEL Norm Implementation Potential

emphasizes the contributions of apex courts and judges of national high courts to environmental norm dialogue,⁹⁷ innovation, and learning.⁹⁸

Given these hypotheses, I conduct a detailed census of those environmental courts and tribunals that enjoy national geographic jurisdiction. Nevertheless, I again emphasize the potential for environmental courts at any level within a legal system to contribute to the application of IEL norms.

3. METHODS

3.1. Data Collection

I used a subsampling approach, informed by a point-in-time census, to identify national-level environmental courts and evaluate their capacity to engage with IEL

⁹⁷ E.g., C.A. Whytock, ‘Domestic Courts and Global Governance’ (2009) 84(1) *Tulane Law Review*, pp. 67–123.

⁹⁸ K. Sikkink & H.J. Kim, ‘The Justice Cascade: The Origins and Effectiveness of Prosecutions of Human Rights Violations’ (2013) 9 *Annual Review of Law and Social Science*, pp. 269–85.

norms. I used three approaches to seek all countries with documented environmental courts or tribunals:

- (1) review of a 2016 United Nations Environment Programme (UNEP) report,⁹⁹ regularly used to quantify environmental court establishment ('list approach');¹⁰⁰
- (2) a web search of each United Nations (UN) member state's judicial system to identify environmental courts and tribunals ('web approach');¹⁰¹ and
- (3) direct outreach to each UN member state's (a) UN mission and (b) embassy to the United States ('contact approach').¹⁰²

To detect courts that one approach might overlook, while omitting erroneously identified courts or those falling beyond the scope of this project, I included only countries identified by at least two approaches (list, web, and contact). Finally, after identifying countries with environmental courts at any level, I used detailed web-based research and personal contacts to identify those with national-level courts meeting the project criteria.

Furthermore, I bounded the scope of institutions that this project seeks to identify in two ways, recognizing the variability of specialist courts.¹⁰³ Firstly, many institutional models can be characterized as environmental courts and tribunals, including quasi-judicial tribunals established within administrative agencies. However, this project seeks to examine institutions that may possess an outward orientation to norms of IEL. Therefore, I limit my sample effort to identifying formal, freestanding judicial institutions, though these may be termed 'environmental courts',¹⁰⁴ 'environmental tribunals',¹⁰⁵ 'green courts',¹⁰⁶ or otherwise, depending on the jurisdiction. Moreover, many jurisdictions have established specialist institutions with competence in anthropocentric domains that affect environmental quality, including water,¹⁰⁷ agriculture,¹⁰⁸ and sanitation.¹⁰⁹ Yet, given the objective of examining

⁹⁹ Pring & Pring, n. 1 above, Appendix A.

¹⁰⁰ e.g., Stern, n. 22 above, p. 55; Robinson, n. 23 above, p. 368.

¹⁰¹ I systematized this effort by limiting search time to five minutes per UN member state and employing common search terms and phrases (including 'Country name AND green court,' 'Country name AND environment court,' 'Country name AND environmental law,' 'Country name AND judicial system,' and 'Country name AND judiciary').

¹⁰² Where such contact information could be identified, this approach was followed. Where only consular, mission, and/or embassy contacts could be identified, the approach was modified. However, for each country except the US and Democratic People's Republic of Korea, two efforts were made to establish contact. Additionally, I followed all suggested avenues for follow-up engagement.

¹⁰³ L. Baum, *Specializing the Courts* (University of Chicago Press, 2010).

¹⁰⁴ U. Bjällås, 'Experiences of Sweden's Environmental Courts' (2010) 3(1) *Journal of Court Innovation*, pp. 177–84.

¹⁰⁵ Jannu, n. 85 above.

¹⁰⁶ Bengtsson, n. 34 above.

¹⁰⁷ V.C. Perez, 'Specialization Trend: Water Courts' (2019) 49(2) *Environmental Law*, pp. 587–629.

¹⁰⁸ E. Syarief, 'Land Dispute Resolution through the Special Land Courts as a Transformative Step in Agrarian Reform in Indonesia' (2021) 7(2) *International Journal of Law*, pp. 123–6.

¹⁰⁹ M.T. Ladan, 'Sanitation and Waste Management – Part 2: The Role of Environmental Courts' (2016) 46 (3–4) *Environmental Policy & Law*, pp. 263–70.

Table 1 Attributes Evaluated in Environmental Court Analysis

Characteristic	Factors evaluated
	Spatial and temporal attributes
Environmental court location	Placement by UN regional grouping (UN Stats)
Authorization date	When court codified in national legislation
Establishment date	When court could hear disputes
	Jurisdictional attributes
Competence of court	Civil cases, criminal cases, or a combination
Position of court	Trial, appellate, mixed, or ultimate jurisdiction
	Discretionary/flexibility attributes
Number of judges	Total number judges available to hear disputes
Composition of bench	Law-trained judges, panellists with non-legal training, or a combination
Appointment/retention requirements	Environmental judicial training/education requirements
Nomination, appointment, and confirmation procedure	Independent or subject to oversight from other governmental branches
Appointment term of panellists	Life appointment, term appointment, or other
IEL in enabling legislation	Statutory encouragement or obligation to consider IEL norms and principles

attributes that may shape engagement with systemic environmental challenges and norms, I focused here on courts which present themselves as centrally addressing environmental issues across issue domains and regimes.

3.2. *National Environmental Court and Tribunal Characterization*

Next, I collected data about each identified national-level environmental court or tribunal (Table 1). I coupled internet research with outreach to sitting judges (Kenya, Sweden), court registrars (New Zealand), local professors (China, India, Thailand, Trinidad and Tobago), and attorneys (Bolivia).¹¹⁰ I evaluated these data qualitatively to determine each court's jurisdiction and discretion/flexibility – and, in turn, its capacity to identify and apply IEL norms in decisions.

4. FINDINGS

4.1. *Extent and Distribution*

My point-in-time census, completed by 2018, identified clear evidence of stand-alone environmental courts or tribunals in 36 countries (Figure 3) and institutions with national geographic jurisdiction in eight (ibid.; Table 2). Those eight national-level courts are widely distributed geographically and in terms of longevity, with authorization and establishment spanning from 1991 to 2014 (Table 2).

¹¹⁰ Records on file with author.

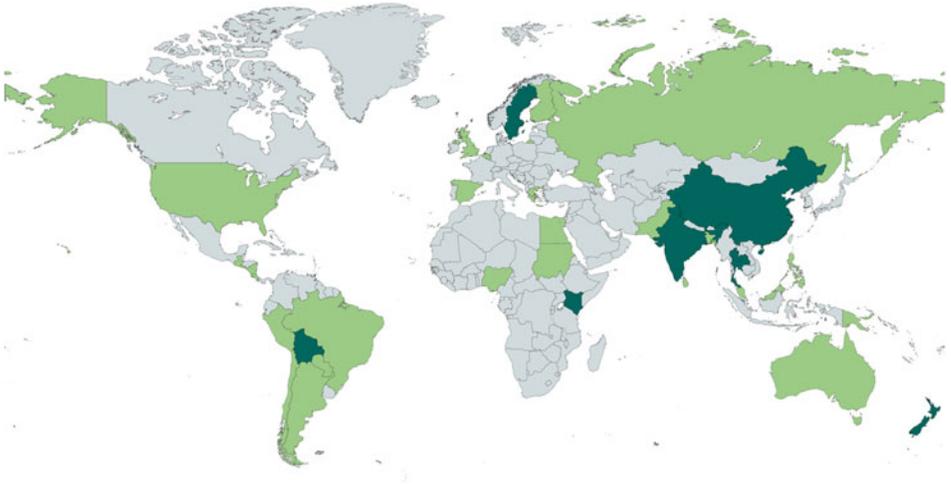


Figure 3 Countries Identified with Environmental Courts and Tribunals at National Level (dark green) or Other Judicial Level (light green)

4.2. Jurisdictional Elements

I observed wide variation among the eight institutions on attributes relevant to their jurisdiction. Four environmental courts (China, India, Kenya, Trinidad and Tobago) have civil jurisdiction, while the other four (Bolivia, New Zealand, Sweden, Thailand) appear to integrate both civil and criminal jurisdictional elements.

Similarly, institutional architecture exhibits variability (Table 3): two courts (China, Thailand) exist as components of broader supreme courts; two (Trinidad and Tobago, India) exist as institutions that interlink executive and judicial authority; one (Sweden) functions as an administrative court of appeal; and three (Bolivia, Kenya, New Zealand) operate as freestanding judicial courts with environmental jurisdiction.

The subject-matter jurisdiction of nearly all institutions is broad (Table 3). Thailand's Supreme Court Green Bench enjoys jurisdiction over 'about 24 Acts related to Environment';¹¹¹ New Zealand's Environment Court can hear appeals under the country's Resource Management Act and ancillary statutes; Trinidad and Tobago's Environmental Commission may hear environmental appeals on numerous specified matters (Table 3). Likewise, at least three courts possess enabling legislation which explicitly affirms jurisdictional breadth. Kenya's Environmental and Land Court enjoys jurisdiction over '[a]ll disputes concerning the environment, title, use and occupation of land';¹¹² India's National Green Tribunal enjoys 'jurisdiction over all civil cases where a substantial question relating to environment ... is involved';¹¹³ Bolivia's Constitution

¹¹¹ Personal communication with Prof. S. Pongboonjun.

¹¹² Personal communication with Justice S. Okong'o.

¹¹³ National Green Tribunal Act, 2010, s. III(14)(1).

Table 2 National Environmental Court Geographical and Temporal Attributes

Country	Court name	UN regional grouping	Authorization date	Establishment date
Bolivia	National Agroambiental Court ('Tribunal Agroambiental')	Latin American and Caribbean	1999*	2000*
China	Environmental Resources Tribunal	Asia-Pacific	2014*	2014*
India	National Green Tribunal	Asia-Pacific	2010	2011
Kenya	Land and Environment Court	Africa	2011	2012
New Zealand	Environment Court	Western European and Others	1991	1991
Sweden	Environmental Court of Appeal (Mark-och miljööverdomstolen)	Western European and Others	1998	1999
Thailand	Supreme Court, Green Bench	Asia-Pacific	2005	2005
Trinidad and Tobago	Environmental Commission	Latin American and Caribbean	2000	2000

Note * Asterisk indicates uncertainty

Table 3 National Environmental Court Geographical and Temporal Attributes

Country	Court name	Civil/criminal competence	Type of institution	Position in judiciary	Breadth of competence
Bolivia	National Agroambiental Court ('Tribunal Agroambiental')	Civil and criminal	Stand-alone court	Court of last resort*	Broadly defined by Bolivian Constitution
China	Environmental Resources Tribunal	Civil	Chamber within Supreme Court	Court of last resort	Somewhat broadly defined
India	National Green Tribunal	Civil	Stand-alone court	Appellate (subject to final appeal)	Broadly defined by statute
Kenya	Land and Environment Court	Civil	Stand-alone court	Appellate (subject to final appeal)	Broadly defined by statute
New Zealand	Environment Court	Civil and criminal	Stand-alone court	Appellate (subject to final appeal)	Broadly defined by statute
Sweden	Environmental Court of Appeal (Mark-och miljööverdomstolen)	Civil and criminal	Stand-alone court	Appellate (subject to final appeal)	*
Thailand	Supreme Court, Green Bench	Civil and criminal	Chamber in Supreme Court	Court of last resort	Issue areas defined by statute
Trinidad & Tobago	Environmental Commission	Civil*	Stand-alone commission	Appellate (subject to final appeal)	Broadly defined by statute

Note * Asterisk indicates uncertainty

grants the Tribunal Agroambiental jurisdiction in a number of environmental issue areas ‘in addition to those [areas] indicated by law’.¹¹⁴

4.3. *Discretion and Flexibility*

I observed substantial variation among elements that may affect judicial discretion or flexibility in rendering judgments (Table 4). Firstly, the panellists available to hear disputes in each court range from as few as two full-time and four part-time (Trinidad and Tobago) to as many as 41 (India) or even 150 (Thailand). Secondly, half of the courts (Bolivia, China, Kenya, Thailand) exclusively seat law-trained judges, while four others (India, New Zealand, Sweden, Trinidad and Tobago) have mixed benches of both law-trained judges and environmental experts. Thirdly, while most institutions seek jurists with considerable environmental expertise, there is substantial variation in the formalization of these training requirements. New Zealand’s Environment Court imposes no formalized environmental training requirements upon its panellists;¹¹⁵ Sweden expects judges to regularly attend training sessions on environmental issues;¹¹⁶ Kenya’s Land and Environment Court requires prospective judges to have at least ten years’ experience and annually attend at least two relevant continuing judicial education sessions.¹¹⁷

I observed similar variation in dimensions relevant to judicial independence. In India, Kenya, New Zealand, Sweden, and Trinidad and Tobago, judges are appointed by the executive with judicial input, while Bolivian judges are nominated by the executive and then selected by popular vote. Panellists’ terms of appointment also vary widely across institutions, from limited (e.g., Trinidad and Tobago, minimum three years; Bolivia, maximum six) to lengthy (‘life’ appointments until age 67 in Sweden; 70 in Kenya and New Zealand).

Finally, I found considerable variation in whether and how courts’ enabling legislation formalized references to IEL norms. My analysis indicates that courts generally exhibit one of three main approaches. Firstly, in some jurisdictions, including China, environmental court-enabling legislation makes no apparent reference to IEL norms. Therefore, any incorporation of these elements in decisions would be accomplished voluntarily by panellists.

The second approach indirectly promotes formalized incorporation of IEL norms in opinions. Here, an environmental court’s enabling legislation does not itself directly reference principles or norms of IEL, but instead obligates or empowers the court to implement or adjudicate statutes that do. For example, the Thailand Supreme Court Green Bench enjoys jurisdiction over at least two statutes that engage with IEL norms, including an environmental quality enactment which seeks ‘to protect the

¹¹⁴ Bolivia Constitution, Art. 189.

¹¹⁵ Personal communication with Registrar H. Johnson.

¹¹⁶ Personal communication with Judge M. Wik.

¹¹⁷ Personal communication with Justice S. Okong’o.

Table 4 National Environmental Court Discretion and Flexibility Attributes

Country	Court name	Size of panel	Training before appointment	Training during appointment	Appointment mechanism	Term length
Bolivia 🇸🇰	National Agroambiental Court ('Tribunal Agroambiental')	10 (5 reg. judges, 5 alternates)	*	*	Nominated by other branches; elected by public	Single six-year term
China	Environmental Resources Tribunal	*	*	*	*	*
India 🇸🇰	National Green Tribunal	Max 41 (1 chairperson, 20 judicial members, 20 expert members)	*	*	Executive (with advice of judiciary)	*
Kenya 🇸🇰	Land and Environment Court	34	Ten years' experience with the environment	Minimum two continuing judicial education sessions/year	Executive (with advice of judiciary)	'Life' appointment (max age 70)
New Zealand	Environment Court	26	No formal environmental training requirement	No formal environmental training requirement	Executive (with participation of judiciary and other stakeholders)	'Life' appointment for judges (max age 70); five-year terms for commissioners
Sweden	Environmental Court of Appeal (Mark-och miljööverdomstolen)	33 (20 law-trained, 13 technical)	No formal environmental training requirement	Variety of relevant in-service training	Nominated by judiciary; appointed 'by the Government'	'Life' appointment (max age 67)
Thailand 🇸🇰	Supreme Court, Green Bench	8 at a time; ~150 total	*	*	*	*
Trinidad & Tobago 🇸🇰	Environmental Commission	6 (full-time chair and deputy chair, 4 part-time members)	*	*	Selected by the Executive	Minimum term three years

Notes

* Asterisk indicates uncertainty.

🇸🇰 Enabling legislation directly or indirectly references IEL norms or principles.

natural resources and environment, to remedy the effected [*sic*] areas, and the Polluter Pays Principle'.¹¹⁸

In a third approach – the direct approach – legislation may explicitly obligate environmental courts to engage with IEL norms in rendering opinions. Bolivia's Tribunal Agroambiental must operate with regard to principles that include sustainability.¹¹⁹ India's National Green Tribunal must, 'while passing any order or decision or award, apply the principles of sustainable development, the precautionary principle and the polluter pays principle'.¹²⁰ Actions under Kenya's Environment and Land Court Act must reflect:

the principles of sustainable development, including the principle of public participation ... the principle of international co-operation in the management of environmental resources shared by two or more states; the principles of intergenerational and intragenerational equity; the polluter-pays principle; and the pre-cautionary principle.¹²¹

The Trinidad and Tobago legislation makes an apparent oblique reference to the principle of sustainable development: 'The Environmental Commission shall ... protect the rights of citizens while being cognizant of the need for the balancing of economic growth with environmentally sound practices'.¹²² Collectively, these institutions demonstrate a promising, direct mechanism for mediating the incorporation of IEL norms.

4.4. *IEL Application Capacity*

By integrating the foregoing findings regarding individual court attributes, I develop a qualitative and relative placement of each court's theorized IEL implementation capacity (Figure 4). Doing so emphasizes the heterogeneity of existing environmental courts with regard to attributes that may be expected to affect their capacity to interpret and apply IEL norms in decision making.

5. DISCUSSION

This article underscores the complexity and diversity of an emergent institutional model. It similarly emphasizes the need to further examine the capacity of environmental courts to interpret and apply IEL norms in decision making, both individually and collectively. These findings advance existing scholarship by nuancing assessments of environmental courts as venues to implement IEL (5.1); contributing to individual- and institutional-level debates in TEL and IEL scholarship (5.2); supporting norm circulation/

¹¹⁸ W. Ruangsri, 'Environmental Law in the Thai Supreme Court Green Bench', address to the Roundtable for ASEAN Chief Justices and Senior Judiciary on Environmental Law and Enforcement, 'Judicial Reforms to Respond to Environmental Challenges: Institutionalizing Environmental Expertise through Specialization and Environmental Courts', Jakarta (Indonesia), 5–7 Dec. 2011, pp. 2–3.

¹¹⁹ Bolivia Constitution, Art. 186.

¹²⁰ India National Green Tribunal Act, s. 20.

¹²¹ Kenya Environment and Land Court Act, Part IV(18)(a)(i), (iii), (iv), (v), (vi)

¹²² The Environmental Commission of Trinidad & Tobago, 'Vision and Mission', available at: <http://www.ec.gov.tt/index.php/about-us/vision-and-mission>.

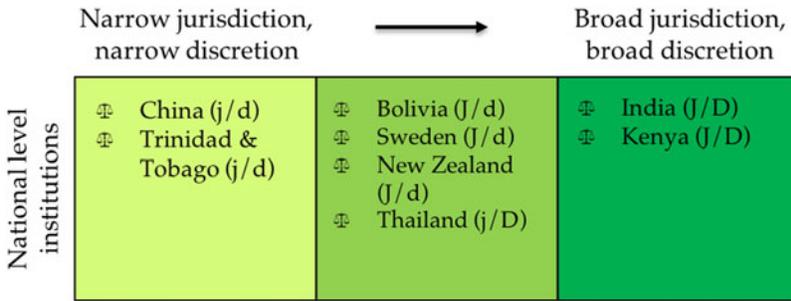


Figure 4 Qualitative Evaluation of National-level Environmental Court/Tribunal Capacity to Implement IEL.

Note Qualitative assessments of court's jurisdiction (J) and discretion (D) are indicated by upper-case (broad) or lower-case (narrow) letters.

contestation scholarship in GEG and GEP (5.3); and highlighting clear benefits of additional interdisciplinary scholarship at the nexus of IEL, GEP, and earth system governance (5.4).

5.1. Cause for Caution and Optimism in IEL Implementation Capacity

Despite widespread advocacy for,¹²³ and the rapid establishment of domestic environmental courts and tribunals, few currently exist with national geographic jurisdiction at higher appellate levels of judicial systems. Further, this project suggests that even fewer possess attributes that would best equip panellists to incorporate IEL norms in their decision making. While this project underscores challenges in generalizing across contexts, some trends may account for the comparatively limited establishment of environmental courts with broad geographic or appellate jurisdiction. Firstly, while many jurisdictions have considered specialist environmental courts,¹²⁴ some have intentionally chosen not to establish them,¹²⁵ based on a belief that environmental matters may be resolved effectively through generalist institutions.¹²⁶ Secondly, many jurisdictions that do establish environmental courts may view the courts as better suited to lower judicial levels, or to regional, provincial, or other subnational settings, where most technical fact finding occurs.¹²⁷ Thirdly, the establishment of environmental courts may still be constrained by their relative novelty and the complexity of importing the

¹²³ Preston, n. 17 above.

¹²⁴ R. Macrory, 'The Long and Winding Road: Towards an Environmental Court in England and Wales' (2013) 25(3) *Journal of Environmental Law*, pp. 371–81.

¹²⁵ US Department of Justice, Land and Natural Resources Division, *Report of the President, Acting through the Attorney General, on the Feasibility of Establishing an Environmental Court System* (1973).

¹²⁶ A distillation of these claims is outlined in S.C. Whitney, 'The Case for Creating a Special Environmental Court System: A Further Comment' (1973) 15 *William and Mary Law Review*, pp. 33–56, at 42–4.

¹²⁷ See, e.g., Revesz, n. 90 above, p. 1166 ('to the extent that the argument for specialization is the technical complexity of the underlying facts, a specialized court should be given fact-finding, rather than appellate, capability').

institutional form into complex domestic politics.¹²⁸ Regardless of cause, this study's finding of national environmental court diversity emphasizes that structural factors must be considered alongside the discretionary actions taken within individual cases or by individual judges.

However, the diversity observed among existing national environmental courts also offers cause for optimism. Firstly, the findings underscore the malleability of the environmental court model, implying its further potential to support domestic application of IEL in the Anthropocene. The eight institutions surveyed in detail illustrate diverse applications of practices which may facilitate the domestic application of IEL. For instance, while five of eight jurisdictions with national-level environmental courts or tribunals mandate the incorporation of IEL in their operations and decision making, they employ diverse statutory mechanisms to do so. Two institutions (Thailand, Trinidad and Tobago) use permissive or expansive language, and three (Bolivia, India, Kenya) specify the incorporation of certain IEL norms. Likewise, many of the eight institutions enjoy broad jurisdiction, yet this is operationalized in various ways: some enjoy permissive jurisdictional grants to broadly oversee environmental matters, while others are permitted to review numerous specified statutes and acts.

Finally, the eight identified institutions demonstrate diverse pathways for broadening discretion and flexibility in ways that might empower panellists to introduce IEL into domestic jurisprudence. Some invest panellists with life tenure, affording greater judicial independence; others employ 'mixed benches' of both scientific and legal experts who diversify the experiential and educational make-up of court personnel; and still others permit panellists to deviate from generalist procedure or evidentiary rules, offering space to innovate in resolving environmental disputes.

Ultimately, these findings underscore the potential of domestic environmental courts to support innovation in the face of complex environmental challenges. More broadly, domestic courts are recognized as key environmental governance institutions,¹²⁹ and judges are widely recognized,¹³⁰ in turn, for their potential to support innovation, particularly in the global south.¹³¹ This project demonstrates that environmental courts can be particularly well adapted to situate domestic environmental disputes in their systemic, global context.¹³² Furthermore, the eight national environmental courts

¹²⁸ B. Christman, '(Non)-Developments in Environmental Justice in Scotland' (2018) 20(2) *Environmental Law Review*, pp. 69–73.

¹²⁹ E. Colombo, 'Enforcing International Climate Law in Domestic Courts: A New Trend of Cases for Boosting Principle 10 of the Rio Declaration?' (2017) 35(1) *UCLA Journal of Environmental Law and Policy*, pp. 98–144.

¹³⁰ L. Burgers, 'Should Judges Make Climate Change Law?' (2020) 9(1) *Transnational Environmental Law*, pp. 55–75.

¹³¹ J. Peel & J. Lin, 'Transnational Climate Litigation: The Contribution of the Global South' (2019) 113(4) *American Journal of International Law*, pp. 679–726.

¹³² E.g., when considering the capacity of domestic courts to address scientific and technical complexity in *Urgenda*, analysts lauded the introduction of experts into the legal sphere, highlighting their capacity to interpret complexity alongside judges' capacity to interpret legal precepts, including precaution: S. Roy & E. Woerdman, 'Situating *Urgenda v The Netherlands* within Comparative Climate Change Litigation' (2016) 34(2) *Journal of Energy and Natural Resources Law*, pp. 165–89.

demonstrate the malleability of the institutional model to varied settings. Thus, the foregoing assessment paints a nuanced portrait of IEL implementation capacity in individual courts, while also offering hope regarding the potential of environmental courts to support domestic judges in contributing to international judicial function.¹³³

5.2. *Insights regarding Individual and Institutional Interplay*

This study highlights the interplay between individual and institutional dynamics when examining how environmental courts influence IEL. Firstly, it shows that institutional attributes can influence the discretion enjoyed by judges. The differences in the approaches of environmental courts to panellist selection, training, and review highlight the need to understand how institutions condition judicial and expert engagement with global normative adoption, diffusion, and transfer. Existing research documents the importance of networked interactions among domestic environmental court judges¹³⁴ and even suggests their collective status as an epistemic community which collaboratively advances responses to environmental challenges.¹³⁵ The study provides a necessary complement by underscoring that institutional attributes can affect judicial-level attributes and engagement, including judges' familiarity with the existence of international law¹³⁶ and their ability to apply international principles in domestic contexts.¹³⁷

Similarly, paying attention to the institutional attributes of domestic environmental courts helps to elucidate the interplay between domestic factors and IEL development. While most existing national-level environmental courts either enable or obligate panellists to incorporate IEL, their judicial training, selection, and oversight processes vary dramatically across courts. This finding echoes conclusions in the broader literature that domestic court engagement with international law frequently reflects institutional attributes, including whether a court has internalized international law and whether its jurisdiction explicitly directs it to address international law.¹³⁸ Research across legal issue areas,¹³⁹ including intellectual property and human rights,¹⁴⁰ already emphasizes that domestic statutes and contexts can affect a court's ability to employ international norms,¹⁴¹ in some cases expanding the

¹³³ E.g., Tzanakopoulos, n. 59 above.

¹³⁴ Angstadt, n. 2, above; see also, more broadly, N. Affolder, 'Contagious Environmental Lawmaking' (2019) 31(2) *Journal of Environmental Law*, pp. 187–212.

¹³⁵ Gill, n. 38 above.

¹³⁶ L. Fidler Damrosch & J. Claydon, 'Application of Customary International Law by U.S. Domestic Tribunals' (1982) 76 *American Society of International Law Proceedings*, pp. 251–8, at 253.

¹³⁷ S. Fatima, 'Using International Law in Domestic Courts – Part III: Customary International Law' (2003) 8(4) *Judicial Review*, pp. 235–40, at 240.

¹³⁸ W. Sandholtz, 'How Domestic Courts Use International Law' (2015) 38(2) *Fordham International Law Journal*, pp. 595–637.

¹³⁹ See, e.g., M. Tawfik, 'No Longer Living in Splendid Isolation: The Globalization of National Courts and the Internationalization of Intellectual Property Law' (2007) 32(2) *Queen's Law Journal*, pp. 573–601, at 584.

¹⁴⁰ Sandholtz, n. 138, above, p. 617 (e.g., whether a court has chosen to employ 'a law clerk specifically to research foreign and international law').

¹⁴¹ D. Zartner, *Courts, Codes, and Custom: Legal Tradition and State Policy toward International Human Rights and Environmental Law* (Oxford University Press, 2014).

ability¹⁴² and elsewhere constraining it.¹⁴³ Finally, this study underscores the potential for productive integration between environmental court institutional analyses and broader research to examine the application of IEL in domestic courts.¹⁴⁴

5.3. Insights for Norm Circulation and Implementation

This study demonstrates a connection between environmental court scholarship and broader governance analyses of environmental norm circulation and adoption. Its focused analysis indicates that individual environmental courts vary in their attributes relevant to their capacity to adopt and apply IEL norms. These insights advance existing environmental policy and governance scholarship, which emphasizes the influence of context, local actors,¹⁴⁵ fit with local or regional setting,¹⁴⁶ and domestic ideology and culture.¹⁴⁷ However, few analyses concentrate exclusively on judges, and courts and tribunals judicial venues, instead frequently highlighting the complex milieu of public-private governance in specific normative regimes, including marine plastics,¹⁴⁸ single-use plastics,¹⁴⁹ and extractives.¹⁵⁰ Likewise, many existing efforts to evaluate environmental norm diffusion and legal transfer offer valuable process-focused insights regarding mechanisms and agents.¹⁵¹ However, by centring analysis upon domestic courts and their attributes, this study highlights the importance of granting additional attention to structural institutional analysis. As formal institutions frequently provide toeholds for new environmental norms, these insights are crucial as diverse actors and institutions interpret and apply norms in context-dependent fashion, ‘particularly in the non-Western world’.¹⁵²

¹⁴² D. Sloss & M. van Alstine, ‘International Law in Domestic Courts’, *International Law in Domestic Courts* (2015), in W. Sandholtz & C. Whytock (eds), *Research Handbook on the Politics of International Law* (Edward Elgar, 2017), pp. 77–115; R. Lillich, ‘Invoking International Human Rights Law in Domestic Courts’ (1985) 54 *University of Cincinnati Law Review*, pp. 158–63; D. Klein, ‘A Theory for the Application of the Customary International Law of Human Rights by Domestic Courts’ (1988) 13 *Yale Journal of International Law*, pp. 332–65.

¹⁴³ R. Bahdi, ‘Globalization of Judgment: Transjudicialism and the Five Faces of International Law in Domestic Courts’ (2002) 34 *George Washington International Law Review*, pp. 555–93, at 582.

¹⁴⁴ Colombo, n. 129 above; Bruch, n. 41 above.

¹⁴⁵ O. Hensengerth, ‘Global Norms in Domestic Politics: Environmental Norm Contestation in Cambodia’s Hydropower Sector’ (2015) 28(4) *The Pacific Review*, pp. 505–28, at 523.

¹⁴⁶ A. Acharya, ‘How Ideas Spread: Whose Norms Matter? Norm Localization and Institutional Change in Asian Regionalism’ (2004) 58(2) *International Organization*, pp. 239–75, at 241.

¹⁴⁷ S. Bernstein & B. Cashore, ‘Complex Global Governance and Domestic Policies: Four Pathways of Influence’ (2012) 88(3) *International Affairs*, pp. 585–604, at 592.

¹⁴⁸ P. Dauvergne, ‘The Power of Environmental Norms: Marine Plastic Pollution and the Politics of Microbeads’ (2018) 27(4) *Environmental Politics*, pp. 579–97.

¹⁴⁹ Clapp & Swanston, n. 25 above.

¹⁵⁰ E. David-Barrett & K. Okamura, ‘Norm Diffusion and Reputation: The Rise of the Extractive Industries Transparency Initiative’ (2016) 29(2) *Governance*, pp. 227–46.

¹⁵¹ N. Affolder, ‘Looking for Law in Unusual Places: Cross-Border Diffusion of Environmental Norms’ (2018) 7(3) *Transnational Environmental Law*, pp. 425–49.

¹⁵² A. Acharya, *Constructing Global Order: Agency and Change in World Politics* (Cambridge University Press, 2018), p. 206.

Similarly, this study's finding of institutional diversity among national environmental courts underscores the need for continued examination of domestic engagement with global environmental norms. Contemporary GEG and IEL are increasingly conducted less formally and centrally,¹⁵³ emphasizing the relevance of domestic institutional diversity, interpretation,¹⁵⁴ and the patchwork of institutions that differ in their legal character (organization, regimes, implicit norms).¹⁵⁵ This study's finding of broad diversity, even within a single institutional model, demonstrates that factors, including jurisdiction and discretion, can condition normative uptake and the context-dependent nature of domestic application. These insights demonstrate the direct relevance of environmental court scholarship to GEG and related academic discourses.

5.4. Value and Necessity of Interdisciplinary Environmental Court Analysis

Finally, the project's integration of legal analysis with environmental governance theory and methods highlights the utility of interdisciplinary environmental scholarship. It also demonstrates the bi-directional, additive benefits of interdisciplinary analysis in evaluating governance of urgent environmental challenges.

Legal scholars examining transnational environmental law and IEL advocate greater interdisciplinary scholarship.¹⁵⁶ In particular, they note the analytical insights offered by international relations and global governance,¹⁵⁷ and comparative environmental law scholars urge consideration of systemic interactions and processes,¹⁵⁸ exchanges facilitated between jurisdictions,¹⁵⁹ and dialogue through transnational networks.¹⁶⁰ Simultaneously, GEG scholars advocate heightened interdisciplinary attention to legal process and structures,¹⁶¹ decentralized and complex environmental governance,¹⁶² and environmental norm contestation in contemporary governance.¹⁶³ Therefore, by integrating IEL and GEP, researchers seeking to examine how process influences environmental norms can emphasize 'a wider range

¹⁵³ E.g., M.C. Lemos & A. Agrawal, 'Environmental Governance' (2006) 31 *Annual Review of Environment and Resources*, pp. 297–325.

¹⁵⁴ Clapp & Swanston, n. 25 above, p. 329.

¹⁵⁵ Biermann et al., n. 62 above, p. 16.

¹⁵⁶ T.F.M. Etty et al., 'Crossing (Conceptual) Boundaries of Transnational Environmental Law' (2022) 11(1) *Transnational Environmental Law*, pp. 1–11.

¹⁵⁷ P. Lawrence, 'International Relations Theory', in L. Rajamani & J. Peel (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2021), pp. 153–68.

¹⁵⁸ E. Lees & J.E. Viñuales, *The Oxford Handbook of Comparative Environmental Law* (Oxford University Press, 2019).

¹⁵⁹ E. Scotford, 'Environmental Principles Across Jurisdictions: Legal Connectors and Catalysts,' in Lees & Viñuales, *ibid.*, pp. 651–77.

¹⁶⁰ V. Heyvaert, 'Transnational Networks' in Lees & Viñuales, n. 158 above, pp. 769–89.

¹⁶¹ L. Kotzé et al., 'Earth System Law: Exploring New Frontiers in Legal Science' (2022) 11 *Earth System Governance*, article 100126.

¹⁶² R. Kim, 'Is Global Governance Fragmented, Polycentric, or Complex? The State of the Art of the Network Approach' (2020) 22(4) *International Studies Review*, pp. 903–31.

¹⁶³ A. McGinn & C. Isenhour, 'Negotiating the Future of the Adaptation Fund: On the Politics of Defining and Defending Justice in the Post-Paris Agreement Period' (2021) 21(3) *Climate Policy*, pp. 383–95.

of actors, paths, logics, and interactions, and allow ... a much more detailed picture' of diffusion.¹⁶⁴

This study highlights the practicability and benefits of an interdisciplinary approach by integrating attention to theoretical institutional attributes, attributes of existing institutions, and implications for IEL. Understanding the implications and capacity of environmental courts is enhanced by deeper context regarding IEL norms, their diffusion, and implementation mechanisms. Conversely, theoretical insights or prescriptions at the systemic level are strengthened by attention to individual institutions. Together, these approaches help to characterize the environmental court landscape while also offering prescriptions for future institutional development and analysis.

Nevertheless, this project provides only a point-in-time snapshot of a single class of environmental courts, rather than a comprehensive, ongoing census. Further, limitations in data access and availability constrained efforts to identify comprehensively all elements of all national-level environmental courts, and some may have been inadvertently neglected. More broadly, theoretically explicit accounts of environmental court establishment and implications remain limited, as do bridge-building efforts between IEL, GEP, and related disciplines, more generally. Accordingly, additional interdisciplinary efforts could extend this initial effort in several ways.

Firstly, future studies could repeat and deepen this census, extending its detailed attention to other classes of environmental court (especially those in state, provincial, and subnational settings). Likewise, studies could explore additional dimensions of environmental courts not characterized here. Both efforts would enhance existing efforts to understand the governance contributions and character of environmental courts. Secondly, this study examines the capacity of environmental courts to apply and implement IEL norms (an institutional-level analysis). However, future research could analyze the extent to which individual environmental court opinions incorporate these norms in practice – and how (a decisional-level analysis). This work would support contemporary efforts to better understand and quantify (i) environmental court outcomes¹⁶⁵ and (ii) the application of international environmental principles in domestic courts.¹⁶⁶ Finally, this project explicitly seeks to merge GEP and IEL insights. Nevertheless, opportunities exist to further expand the disciplinary and theoretical reach of environmental court analysis, including by better integrating with efforts in earth system law¹⁶⁷ and global environmental law¹⁶⁸ to conceptualize institutional innovation in systemic environmental governance.

¹⁶⁴ Parks & Morgera, n. 32 above, p. 366.

¹⁶⁵ Zhang, Yu & Kong, n. 37 above.

¹⁶⁶ B.J. Preston, 'The Influence of the Paris Agreement on Climate Litigation: Legal Obligations and Norms (Part I)' (2021) 33(1) *Journal of Environmental Law*, pp. 1–32.

¹⁶⁷ L. du Toit & L. Kotzé, 'Reimagining International Environmental Law for the Anthropocene: An Earth System Law Perspective' (2022) 11 *Earth System Governance*, article 100132.

¹⁶⁸ K. Kulovesi, M. Mehling & E. Morgera, 'Global Environmental Law: Context and Theory, Challenge and Promise' (2019) 8(3) *Transnational Environmental Law*, pp. 405–35.