Lessons learnt from two decades of international environmental agreements: law

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Abstract
As Patricia Birnie cautiously and prophetically put it in the inaugural issue of this journal (INEA 1, January 2001, p. 74), “we do not know whether States and the tentative regimes they have so far established can withstand the pressures of globalization of trade and degradation and over-exploitation generated by advances in technologies for locating, fertilizing, harvesting, processing and modifying natural resources and biodiversity. This is truly terra incognita in which such seeds of destruction may already be implanted.” Among the 600 or so papers and reviews published in INEA from 2001 to 2020, more than 70 deal wholly or partly with legal aspects of environmental problems and the international dimensions of environmental justice. While the main focus of INEA has been on issues of public international (inter-state) law, there have also been important inputs drawn from comparative legal analysis (of national legislation and judicial decisions) and from “transnational administrative law” that influence the effectiveness of multilateral treaties and their associated international institutions. Novel concepts and practices emerging from the environmental field (such as recourse to a range of “soft law” principles; flexible delegated standard-setting in the face of global change; and equitable differentiation of compliance duties) have inspired developments in related areas of contemporary international law-making and law-applying. At the same time, the very proliferation of multilateral and bilateral environmental instruments raised new questions and expressions of alarm over “treaty congestion” and “fragmentation” within the international law system. It is not the intention of this paper to explore the general interaction of international environmental law with neighboring disciplines such as international economic law or human rights law, but simply to record the “seismographic” impact of INEA on legal-intellectual discourse over these past two decades. To some extent, the role of the Journal in identifying both new prospects and new risks in this field could indeed be likened to that of a “canary in the coal-mine.” The lessons so learnt may thus offer new insights to help in averting the destruction which Birnie visualized, and to advance inter-generationally and intra-generationally shared values of environmental justice.

Keywords Environmental justice · Fiduciary accountability · International environmental law · Inter-regime learning · Post-treaty lawmaking · Synergies
1 Evolution

In 2001, when the journal *International Environmental Agreements: Politics, Law and Economics* (INEA) was first published; international environmental law was considered to be "a relatively new field" (Bodansky et al., 2007), even though the history of transnational environmental dispute resolution and treaty-making can be shown to go back to antiquity (Sand, 2021). The 1972 UN Stockholm Conference on the Human Environment is usually identified as the starting date of modern global environmental law; by the 1990s, the topic had “emerged as a distinct academic discipline” (Obama et al., 1991; Schachter, 1991), and in a 1996 advisory opinion was confirmed by the International Court of Justice as part of the *corpus* of customary international law (ICJ, 1996).

From its beginnings, INEA closely followed the growth of legal regulation in this field which is not confined to the so-called public international law between states (*droit international public, Völkerrecht*), but also encompasses the borderland of national and transnational regulation referred to as *international administrative law* (Hey, INEA, 2001; Kingsbury et al., 2005), private international law (so-called conflict of laws, typically involving non-state actors) and comparative law (comparison of different national legislation and judge-made case law, e.g., see Jaspers, INEA, 2001; Faure and Heine, 2005, reviewed by Driesen, INEA, 2006; Mehling, 2015). In fact, the continuous impact of domestic environmental law, public and private, on international law-making in this field as well as the related “problem of scale” (Young, 2002)—that is, the transferability of empiric generalizations and theoretical models from one level to another—makes comparative information and analysis indispensable (see generally Rajamani & Peel, 2021). The “watching brief” kept by INEA on the cutting edge of the relevant contemporary legal literature in these perspectives is illustrated by a number of reviews of key books published over the past twenty years: Birnie & Boyle, 2002 (reviewed by DiMento, INEA, 2003); Nanda & Pring, 2003 (reviewed by Morgan, INEA, 2005); Yamin & Depledge, 2004 (reviewed by van Asselt, INEA, 2005); Wolfrum & Matz, 2003 (reviewed by van Asselt, INEA, 2007);
Faure & Niessen, 2006 (reviewed by Carr, INEA, 2009); Faure & Ying, 2008 (reviewed by Hickman, INEA, 2011); Woods, 2010 (reviewed by Gellers, INEA, 2012); Andresen et al., 2012 (reviewed by Afionis, INEA, 2013); and Gupta, 2014 (reviewed by Andresen, INEA, 2015). These reviews show that INEA has been a “broad church” in terms of showing a plurality of interests across various legal perspectives on international environmental problems.

If the last quarter of the twentieth century (post-Stockholm-Conference) arguably ranks as the pioneering time of the new branch of international environmental law (see Sand, INEA, 2001), the period from 2001 to 2020 may in turn be characterized as one of regulatory consolidation—from theory to practice. Significantly, the Preparatory Committee of the 1992 Rio Conference on Environment and Development (UNCED) had entrusted its working group on legal and institutional matters with the task of preparing:

an annotated list of existing international agreements and international legal instruments in the environmental field, describing their purpose and scope, evaluating their effectiveness, and examining possible areas for the further development of international environmental law, in the light of the need to integrate environment and development, especially taking into account the special needs and concerns of the developing countries.1

The ambitious programmatic “principles” then advocated by a growing transnational “epistemic community” (Haas, 1992) of environmental lawyers (e.g., see de Sadeleer, 2002, reviewed in INEA by van Calster, 2004; Atapattu, 2006, reviewed in INEA by Nespor, 2008; Sands et al., 2019)—and at least partly reflected in the 1992 Rio Declaration—thus had to be evaluated and put to the test of practice. This occurred both in the context of national law-making and jurisprudence (where most of the principles originated) and at the international level into which they were either “vertically” transplanted (Wiener, 2001; Young, 2006), or to which they spread by way of “horizontal diffusion” as legal models or memes (transcultural mimesis, in the terms of historian Toynbee, 1961; see also Twining, 2004).

A number of INEA comparative legal studies illustrate and analyze this process of horizontal norm diffusion during the post-Rio period, e.g., regarding the “precautionary principle” in India (Chowdhuri & Sabhapandit, INEA, 2007); the principle of “no significant harm” in international water law (Schmeier & Gupta, INEA, 2020; Tanzi, INEA, 2020); human rights to water and sanitation in international agreements and national legislation (Hurlbert, INEA, 2020; Spijkers, INEA, 2020), and in judge-made case law worldwide (Boussard, 2014, reviewed by Obani in INEA, 2015); Tignino & Bréthaut, INEA, 2020); labeling of genetically modified foods (Zainol et al., INEA, 2015); risk-sharing agreements between risk operators to cover environmental damage (Liu & Faure, INEA, 2018); transparency and access-to-information laws as a means to enhance environmental accountability (Zaharchenko & Goldenman, INEA, 2004; Alcaraz-Quiles et al., INEA, 2020); or the broader use of state liability to prevent and compensate damage from transboundary air pollution (advocated by Hu, INEA, 2020). INEA contributions have also provided valuable lessons on the development of “soft law” (i.e., non-binding norms) as an alternative

1 UN Doc. A/CONF.151/PC/193; see the summary report of the group, in Sand, (1992, pp. 8–18).
266 P. H. Sand, J. McGee

2 Synergy between legal arrangements

In the face of dire warnings of “treaty congestion” (Brown Weiss, 1993; Anton, 2013) and “institutional overload” (Young & Stokke, INEA, 2020), modern environmental agreements have developed innovative “adaptive” techniques (Kim & Mackey, INEA, 2014), to cope with the risk of normative ‘fragmentation’ of international law highlighted by the UN International Law Commission (Benvenisti & Downs, 2007; Hafner, 2004; Koskenniemi, 2006; Scott, 2013) and to ensure more effective implementation (Andresen & Hey, INEA, 2005; Vollenweider, INEA, 2013, Sand, 2016). Short of a (possibly utopian) “world environment organization” (Gehring & Oberthür 2006, Biermann & Bauer 2005; Vijge, INEA, 2013), there now are numerous “synergetic” legal arrangements for sectoral coordination (such as “treaty orchestration”; Sugiyama & Sinton, INEA, 2005), usually in the form of “memoranda of understanding” (MoUs) entered into between different treaty secretariats (Desai, 2010; Böhringer, 2014; Hickmann & Elsässer, INEA, 2020), to facilitate horizontal and vertical “interplay” between different treaties (and their related institutions) in environmental policy areas of common interest (Young, 2002; Oberthür, INEA, 2009; Hoch et al., INEA, 2019; Elsässer et al., INEA, 2021, this issue).

The historical forerunner of such synergetic legal arrangements in the field of marine environment law in particular was the International Council for the Exploration of the Sea (ICES) established in 1902 (Rozwadoski, 2002), which presently performs scientific advisory services for twelve different multilateral agreements. As part of the ongoing “themati
cic clustering” between contemporary environmental treaties (von Moltke, 2001), three of the Geneva-based chemical and waste trade conventions have merged their secretariats and since 2010 hold parallel meetings of their respective conferences of parties back-to-back (i.e., “Triple-CoPs”: Liu & Middleton, INEA, 2017; Allan et al., INEA, 2018). Seven biodiversity-related conventions now harmonize their programs through a Biodiversity Liaison Group (BLG; Velázquez Gomar, INEA, 2016); and the three Rio conventions on biodiversity, climate change and desertification have set up yet another Joint Liaison Group (JLG) for topics of mutual concern such as forest conservation (van Asselt, 2014; Rodríguez Fernández-Blanco et al., INEA, 2019).

3 Dynamization

Environmental problems are subject to incessant—and often unforeseeable—change, owing to the Earth’s dynamic biophysical systems on the one hand (the “non-equilibrium paradigm”; Tarlock, 1994) and in light of human advancement due to growing scientific knowledge and technological progress on the other. This dynamism in both biophysical and human systems highlights the need to make legal instruments (including international regulation) sufficiently flexible and adaptable to change (Boockmann & Thurner, INEA, 2006; Helfer, 2013).

2 See https://www.ices.dk/explore-us/how-we-work/Pages/Cooperation-agreements.aspx.
Accordingly, a focus of the inter-regime learning process observed by INEA concerns the “dynamics” of international environmental law-making (Gehring, 2007; Romanin Jacur, 2013). To cope with the notorious delays of traditional treaty negotiation, adoption and ratification procedures (Schachter et al. 1971), the “regional seas” agreements developed under the auspices of the UN Environment Program after the 1972 Stockholm Conference (the ‘UNEP template’; Lejano, INEA, 2006) thus introduced an important distinction between the general rules and principles contained in “framework conventions”—binding for all parties—from the more specific rules and obligations in supplementary “protocols,” which are accepted by like-minded parties only, in a subsequent step-by-step process moving the treaty forward in normative development. The framework convention-cum-protocol technique has subsequently been successfully applied in the formation of over thirty ocean protection agreements and extended to a range of other environmental topics, including transboundary air pollution, ozone layer depletion, climate change and biodiversity (Nijar et al., INEA, 2017; Nijar, INEA, 2013; Sand, 2019).

At the same time, several multilateral environmental treaties fell back on a standard-setting technique originally developed in the nineteenth century by two of the oldest international organizations: The Universal Postal Union (UPU) and the International Telegraphic Union (forerunner of today’s International Telecommunication Union, ITU) still adopt technical rules by way of “regulations” which are periodically revised by expert meetings (rather than by plenipotentiary conferences), and which can then be “accepted” by the national administrations of member states without having to go through a cumbersome ratification process to enter into force (Lyall, 2011). This approach provided a faster and more efficient manner of updating technical rules. The method was emulated in the twentieth century by a number of international and regional fisheries organizations and by the “technical annexes” of the International Civil Aviation Organization (ICAO) and of the International Maritime Organization (IMO), both of which now use it for their current air pollution standards (Ahmad, 2017; Kopela, 2017; Zhang, INEA, 2016).

Along these lines, delegated international law-making (droit dérivé; Dupuy & Viñuales, 2015) by Conferences of the Parties (CoPs) became a standard feature for the implementation and updating of multilateral environmental agreements, often in the form of subsequently agreed adjustments by majority decision-making and consensual “interpretations” (i.e., “post-treaty rules”; Staal, 2019) that deliberately avoid formal amendment of a treaty, mainly in order to dispense with the dreaded time-consuming requirement of multiple national (i.e., usually parliamentary) ratifications to bring an amendment into force. Observers have not hesitated to characterize this process as a subtle transition from a quasi-contractual to quasi-legislative form of norm-making (Brunnée, 2005; Meyer, 2014), raising questions of normative legitimacy and potentially eroding the stability of treaty relations (Fuchs, 2010). The dilemma of course is not solely confined to environmental agreements, and affects the general approach of treaty interpretation, including recourse to subsequent agreement and practice as an aid to interpretation, under article 31(3) of the 1969 Vienna Convention on the Law of Treaties (Koremenos, 2001; Wang, 2019). The UN International Law Commission (ILC) in turn has since 2008 grappled with the issue under the heading “treaties over time” (Boisson de Chazournes, 2009); and in 2018 its Study Group (re-titled in 2012 “Subsequent agreements and subsequent practice in relation to the interpretation of treaties”; Nolte, 2013) reached the following conclusion:

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3 The concept goes back to a proposal by Spain submitted during the drafting of the Barcelona Convention for the Protection of the Mediterranean Sea; de Yturriaga, (1974), at 521.
A decision adopted within the framework of a Conference of States Parties embodies a subsequent agreement or subsequent practice under article 31, paragraph 3, in so far as it expresses agreement in substance between the parties regarding the interpretation of a treaty, regardless of the form and the procedure by which the decision was adopted, including adoption by consensus.4

Yet, the ILC’s commentary then qualifies the binding force of COP “post-treaty rules,” by recognizing the right of dissenting parties to “opt out” of consensual decisions, specifically citing legal opinions by the UN Legal Counsel’s Office regarding an interpretative COP decision under the Biodiversity Convention in 2002, and by the IMO Sub-Division for Legal Affairs regarding an interpretative COP decision under the London Dumping Convention in 2011.5 While it remains difficult to reconcile the need for legal equality and certainty (ensured by pre-established treaty rules) with the need for flexibility in the face of changing circumstances (ensured by post-treaty interpretation of rules), there may indeed be lessons to be learnt from inter-regime comparison of practice, such as the toleration of “asymmetric compliance” (i.e., preferential treatment for disadvantaged treaty partners, under the banner of “common but differentiated responsibilities”; e.g. see Craig, 2017), and possibly including equitable correctives based on third-party review (Dieperink, INEA, 2011; Handl, 2005).

4 The prospect of international environmental justice

The title of INEA speaks directly to the interdisciplinary scope of the journal. While INEA focuses upon analysis of the role international environmental agreements play in responding to environmental problems, it explicitly draws on perspectives from the disciplines of Politics, Law and Economics. In providing an account of the contribution of Law to INEA it is therefore necessary to address related concepts such as “Justice,” which sit at the intersection between Law and the disciplines of Philosophy and Politics.

For the purposes of conceptual simplicity in the following analysis, we focus upon the well-established meta-categories of justice in the literature: procedural justice (i.e., the process by which decisions are made) (e.g., see Shue, 1992), substantive justice (i.e., the distributive outcomes of decisions) (Rawls, 1971) and corrective justice (i.e., responsibility of actors for harm) (Grasso, INEA, 2011). The distinction between procedural and substantive justice has been well articulated in international legal scholarship (e.g., see Franck, 1995); and the notion of corrective justice is ubiquitous in the criminal and civil jurisdictions of domestic legal systems and in international law relating to transboundary environmental harm (e.g., the classic 1941 Trail Smelter Arbitration). As Ebbesson and Okowa (2009) have noted (see also Gupta et al., INEA, 2021, this issue), environmental law scholarship has seen the emergence of a plethora of justice claims including: participative justice, criminal justice, retributive justice, restorative justice, social justice, cooperative justice and cosmopolitan justice. To these might be added more recent claims to interspecies justice (Matevia, 2016) and intergenerational justice, often expressed in synonymous terms

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4 Report of the ILC on its 70th Session, UN Doc. A/73/10 (2018), p. 82, conclusion 11(3). The commentary to the conclusion (pp. 82–93) refers to several multilateral environmental agreements in particular.

5 Ibid., at 91–92; but see Churchill & Ulfstein, (2000), at 638.
of equity and fairness (Brown Weiss, 2020). However, in our view these various notions of justice mentioned above within the environmental law literature are essentially different contextual applications of the broad categories of procedural, substantive and corrective justice. We therefore proceed by adopting these three meta-categories of justice as a typology for considering international environmental justice within the INEA corpus.

Justice arguments are used in two primary ways within legal scholarship. First, justice claims have a long history as a normative standard by which to critique the operation and performance of various laws and legal institutions. Even positivist lawyers, who argue that the existence and content of law is simply a matter of social fact, rather than being informed by any minimum normative content, have long accepted a role for principles of Justice as an external standard, i.e., outside of law for critique and argument about reform of existing law. Second, a particular conception of procedural, substantive, or corrective justice may be included within specific legal sources or instruments (such as a treaty, domestic legislation and/or case law) as a part of the positive law of a particular jurisdiction. For instance, the passing reference to “climate justice” in the preamble of the 2015 Paris Agreement is a recent example of this use of justice concepts. Such inclusion of a conception of justice within a positive legal source gives rise to the possible implementation of justice as a legal standard to be achieved within a given context. Legal articles in INEA over the last 20 years have used the concept of Justice both as a position of external critique and also as a standard for inclusion within positive sources of law.

The issue of climate change will illustrate this use of justice claims. The corpus of INEA contains several articles drawing on “international environmental justice” principles, including the sub-category of “climate justice” (e.g., see Lahn, INEA, 2018), in assessing the UN climate change regime. Grasso (INEA, 2011) analyzes the role of Justice arguments between developed and developing countries during the negotiation of the Adaptation Fund formed under the Kyoto Protocol. His analysis provides a normative critique, using both procedural and substantive justice principles, of institutional development of the Adaptation Fund during the UNFCCC Subsidiary Body on Implementation meetings on governance of the Adaptation Fund held in Bonn and Nairobi during 2006. The article also highlights the emphasis upon procedural justice in these negotiations, particularly problems at the Bonn meeting in not meeting the procedural justice concerns of developing countries regarding use of the Global Environment Facility to distribute adaptation funding. As Grasso (INEA, 2011: 367) comments “many developing countries, especially the poorest and most vulnerable, have considered the GEF and its management procedures to be extremely inefficient and awkward.” However, these procedural justice concerns were later recognized and rectified during the Nairobi meeting, with Adaptation Fund distribution decisions being brought within the UN climate regime.

Whilst this assuaged developing country concerns, Grasso deplores that there was still little room given for discussion of substantive justice concerns at these meetings. In his view, procedural justice concerns have been more prominent in the legal-institutional outcomes of global climate negotiations than the more politically contentious issues of substantive justice (i.e., “who should get what and why”). Even so, the article also serves as a useful case study on implementation of the substantive justice standard of “common but differentiated responsibilities” within the context of adaptation funding under the UN climate regime.

Another prominent analysis of international climate justice is provided by Audet (INEA, 2013), in turn using discourse analytic methods, more commonly used within the interpretative social sciences, but a useful method to understand how justice standards have been implemented within international negotiations. He illustrates the discursive contestation
over claims to “climate justice” between developed and developing country negotiating blocks that occurred during the 16th Conference of the UNFCCC Parties meeting at Cancun, Mexico in 2010. Audet identifies three key discourses relating to climate justice: (i) a developed-developing world contestation over responsibility for past greenhouse gas emissions and restrictions on future development (i.e., corrective justice); (ii) a transition to a low-carbon economy to mitigate climate change and reduce climate injustice; and (iii) the vulnerability of developing countries to climate change impacts which demands urgent action. He concludes that the current notion of climate justice was moving into a more complex stage of discursive development, with the transition discourse likely requiring significant further guidance on how to implement both substantive and procedural climate justice principles.

Market-based ideas have had a substantial impact upon both domestic and international climate change policy over the past two decades. This raises significant questions as to the substantive, procedural and corrective justice implications of recourse to market-based environmental and climate policy. Similar concerns over market-based policies are taken up by Shrivastava & Bhaduri (INEA, 2019) in their analysis of the procedural and substantive justice implications of the Clean Development Mechanism under the Kyoto Protocol, and the lessons that might be drawn for designing market mechanisms under the Paris Agreement. The authors lay out a useful typology of “institutional spheres” (ambition, obligations and entitlements, mechanisms and deliberation) which they use to map differing conceptions of justice in the Clean Development Mechanism. This paper illustrates well the point long made by economic historians (Polanyi, 1944) that despite recent claims of neoliberal advocates, markets (including carbon markets) are not a spontaneous created order, but are always deliberately created and designed by politically chosen assumptions and objectives driven by the State. These assumptions and objectives have often unrecognized substantive, procedural and corrective justice implications. Importantly, this paper points out the extent to which climate justice principles will be realized in international climate institutions depends upon the underlying assumptions and objectives that inform the construction and performance of carbon markets, such as those created under the Clean Development Mechanism. This message should be salutary for current policymakers engaged in negotiating the institutional and legal development of market mechanisms under the Paris Agreement.

The INEA articles reviewed above focus upon international negotiations and the procedural, substantive and corrective justice implications of the institutions they have created in responding to climate change. In doing so, these papers adopt a traditional state-centered approach to international law and institutional analysis that regards states as the primary actors in responding to the problem of climate change. By contrast, Harris et al. (INEA, 2013) make an innovative intervention into this literature with a climate justice piece that seeks to move beyond consideration of the state as the primary actor in global emission reduction. This paper focuses on the claims for corrective justice made by China and other developing countries against the developed countries in the UNFCCC, based on a claimed developed-world responsibility for the large volume of historic greenhouse gas emissions that have largely driven anthropogenic climate change to date. The paper links historical responsibility of developed countries to the polluter-pays principle as a form of corrective justice and also points out the political difficulties that the UNFCCC negotiations have had in allocating historical responsibility through concepts such as “common but differentiated responsibilities” between developed and developing countries.

Harris et al. make the argument for a shift from a “statist” justice analysis to instead focusing upon the class of domestic high emitters within specific countries (in their example, within
Lessons learnt from two decades of international environmental…

China). They argue that the wealthy and growing middle-class within large developing states, such as China, have greenhouse gas emissions comparable to those of the West. However, due to China’s status as a developing country within the UNFCCC, these emitting persons have not been required to contribute to global emission reduction burdens. The authors therefore explore how a focus upon the emissions of affluent individuals within specific countries might be a source of emission reduction obligations for these people that could avoid some of the significant difficulties in inter-state justice arguments experienced to date.

Finally, in moving beyond climate change discussion, the INEA corpus contains an important review of environmental justice and its links to the broader environmental policy concept of the “green economy” which has been prominent since the 2012 UN Rio+20 Conference. Ehresman & Okereke (INEA, 2015) provide a systemized analysis of key interpretations of the notion of the “green economy” which are then mapped upon a synthesis of typologies of social and environmental justice. Ehresman & Okereke show that the roots of the green economy concept lie deep in the environmental policy discourse in Northern Europe of the late 1960s and early 1970s, in particular in attempts to ameliorate the tension between economic growth and environmental protection, which later manifest in environmental policy discourses such as ecological modernization. They highlight that interpretations of the green economy offer very different prescriptions for the future political economy of production: At one end of the spectrum lies a radical transformation to a steady-state, zero-growth economy; and at the other end only minimal social-economic transformations, via token green business initiatives. As with the Shrivastava & Bhaduri paper above, Ehresman & Okereke explore the different conceptions of “justice” that markets, and the alternative of politically based redistribution, can provide when applied to the green economy. In doing so, they identify and contrast a “thin” green economy perspective that largely defaults to market-based distributive justice outcomes, and a “thick” green economy perspective with heavy redistributive outcomes, which is aimed at an environmentally sustainable and socially more equitable future. This thick green economy approach also seeks to deliver more radical substantive justice outcomes through procedural justice reforms designed to give greater democracy to marginalized groups and international collaboration on global and social problems. The thick green economy approach is therefore open to market challenging concepts such as economic de-growth and increased recognition of the importance of non-market activities in human life.

Ehresman & Okereke also outline a moderate green economy perspective which seeks more incremental reform of the existing social and political order so as to make it more environmentally sustainable. The thick and moderate versions of the green economy rely on this increasingly heavier application of state-based reforms of procedural justice through greater democratization and delivery of substantive justice outcomes consistent with greater social and environmental sustainability. The Ehresman & Okereke paper therefore illustrates the importance of carefully considering the connections between substantive and procedural justice concepts in creating the law and institutions created to respond to international environmental problems.

5 Conclusions

The focus of this paper has been on the impact (or potential impact) of INEA on the legal-intellectual discourse regarding the effectiveness of international environmental agreements and their performance in and between member countries, both in a spatial (North–South) perspective (Mickelson, 2000) and in the temporal perspective of “intergenerational
responsibility” (see the review of Page, 2006, by Grasso in INEA, 2008)), often articulated in fiduciary terms as public environmental trusteeship (Bosselmann, 2015; Brown Weiss, 2020; Goldrick, 2012; Sand, INEA, 2001; Wood, 2013).

The trusteeship or “stewardship” concept for common natural resources in particular—first invoked (albeit unsuccessfully) by the USA in the 1893 Bering Sea Fur Seal Arbitration (see Romano, 2000, at 133)—and later codified not only in the “common heritage” language of Article 136 under the UN Law of the Sea Convention (Sand, 2007), but also in the “in-trust agreements” under the 2001 FAO International Treaty on Plant Genetic Resources (Gotor et al., 2010; Halewood et al., 2012; Sand, 2014), has since re-emerged in the climate law debate as reference to the “common concern of humankind” under the 2015 Paris Agreement, and most recently in the UN International Law Commission’s draft guidelines on “protection of the atmosphere,” still under discussion (Murase, 2020). The challenge remains to come up with legal and institutional mechanisms that will effectively monitor the performance of States as “trustees” so as to hold them accountable for their fiduciary duties (Benvenisti, 2015).

With regard to legal aspects in particular, three distinct advantages of INEA have been (a) its broad geographical coverage, highlighting the practical implementation of the agreements concerned not only in Europe and North America, but also in national legal systems in Africa, Latin America, the Asia-Pacific and the polar regions; (b) the interdisciplinary orientation of the Journal, connecting legal regulation to related developments in economics, domestic politics and international relations; and (c) the combination of academic analysis and empirical findings and research, based on existing global, regional and national monitoring and reporting systems, providing continuous data input on the operation of the agreements on the ground, including information from scientific and non-governmental networks. One of the lessons from this “diagnostic” experience has been the paramount importance of interaction and mutual learning between multilateral environmental regimes (Chambers, 2008; Gehring & Oberthür, 2006), often linking agreements and institutions from different subject areas—such as regional seas, endangered species, transboundary air pollution and climate change (Raustiala, 2001).

Advances in international environmental law do not happen by accident, but typically by a process of diffusion of innovations (Tews, 2006), frequently by transnational “borrowing” or “transplants” of more successful legal models (Alogna, 2014; Twining, 2004). As a result, for example, according to two recent judgments of the International Court of Justice (ICJ), the undertaking of transboundary environmental impact assessments’ may now be considered a requirement under general international law. What still ranked as non-binding “soft law” a generation ago has thus “hardened” into a new customary rule effectively binding on all States (Sand, 2016). While it would be difficult to pinpoint these developments to the influence of comparative knowledge from specific sources in the academic literature, there is no doubt that the first twenty volumes of INEA have made major ideational contributions to this global process of international mutual learning.

6 Under Art. 3, host States and institutions (as trustees) agree “to hold the designated germplasms in trust for the benefit of the international community, in particular the developing countries” (Gotor et al., 2010).

7 Pulp Mills on the River Uruguay, ICJ Reports (2010) 83, para. 204; and Certain Activities Carried Out by Nicaragua in the Border Area, ICJ Reports (2015) 45, para. 104.

8 See Principle 17 of the 1992 Rio Declaration on Environment and Development, UN Doc. A/CONF.151/5/Rev.1.
Lessons learnt from two decades of international environmental...
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