# Chapter 19
# Reflections on International Environmental Adjudication: International Adjudication vs. Compliance Mechanisms in Multilateral Environmental Agreements

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**Abstract:** This chapter describes the general trend in Multilateral Environmental Agreements (MEA) towards the establishment of managerial compliance mechanisms, and discusses their main institutional and procedural features, before assessing their overall performance. This overview of compliance mechanisms in global MEA, will in turn provide the backdrop for reflecting on some of the recent developments in the case law of the ICJ. It argues that *Whaling in the Antarctic* sheds light on some of the issues that may have kept States from bringing claims based on multilateral treaties before international courts – yet challenges remain for adjudicating international environmental disputes through international courts and tribunals. The chapter concludes with some reflections about the distinctive roles and potential complementarities between international environmental adjudication and regime-internal managerial compliance control in the broader picture of global environmental governance.

**Keywords** International Environmental Law, multilateral environmental agreements, international courts and tribunals, compliance mechanisms, adjudicative dispute settlement, managerialism, interlegality

## 19.1 Introduction: the intrinsic complexity of 'environmental disputes'

The emergence of international environmental law is intimately linked to international adjudication. Indeed, the origins of international environmental law, understood as the gradual adaptation of general principles of law and international customary law to regulate the legal consequences of environmental harms in transboundary contexts,[1] are a construct of jurisprudence. Standard textbooks on international environmental law will open with a historical reference to the landmark *Trail Smelter* Arbitral Award,[2] in which the arbiters relied on *sic utere tuo ut alienum non laedas* in order to formulate what has now become the bedrock principle of prevention of public international law relating to environmental

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[1] Boyle and Harrison (2013), p. 247.
[2] *Trail Smelter Arbitration*, Award, 11 March 1941, 3 RIAA 1905.

protection.[3] After further consolidation in the case law of international courts and arbitral tribunals,[4] the principle of prevention was eventually enshrined in Principle 21 of the Stockholm Declaration[5] and Principle 2 of the Rio Declaration.[6] Moreover, international regimes that have grown out of key multilateral environmental treaties and have come to shape present-day 'global environmental law',[7] such as the UN Framework Convention on Climate Change,[8] the Convention on Biological Diversity,[9] or the UN Convention to Combat Desertification,[10] to name a few, rely in their construction on this principle.

International courts and arbitral panels have thus been instrumental to adapting the existing general principles to emerging societal demands in international relations concerning the exploitation of common or shared natural resources. Over the past decades, however, growing scientific understanding about human impacts on global ecosystems has triggered a more profound change in public international law. In this process, international legal responses to transboundary environmental issues have been displaced gradually from the confined political and legal contexts of good neighbourliness, towards multilateral forums of cooperation. The pre-existing layer of general principles of law and reciprocal customary obligations between States has thus been complemented by an impressive amount of regional and universal multilateral treaties based on 'common concern' and 'common but differentiated responsibilities' in preserving ecosystems for present and future generations under the paradigm of 'sustainable development'.[11] While certainly not the only area of public international law to undergo such developments, international 'environmental' law is indeed one of the prominent examples of the trend that Bruno Simma famously coined as the evolution from bilateralism towards the protection of community interests in international law.[12]

Intuitively, considering the catalysing role of international courts and tribunals in the origins of international environmental law, one may expect this process of expansion of multilateral environmental treaty law to have led to a parallel increase in international (i.e., inter-state) environmental litigation. In the aftermath of the 1992 UN Conference on the Environment and Development, for instance, the International Court of Justice (ICJ) decided to set up a Chamber for Environmental Matters under article 26(1) of its Statute. Yet, after more than a decade without a single referral of a dispute to the Chamber, the ICJ eventually decided to discontinue it in 2006. This latter example, however, should not convey the false impression that there has not been any increase. Contentious cases, such as the case concerning the *Gabčíkovo-Nagymaros Dam Project*,[13] the *Pulp Mills on the River Uruguay*,[14] the *Aerial Herbicide*

[3] Bodansky (2010).
[4] *Corfu Channel (Albania v United Kingdom)*, Merits, Judgment, 9 April 1949, ICJ Reports 1949; *Lac Lanoux (France/Spain)*, Award, 16 November 1957, 12 RIAA 281.
[5] Declaration of the United Nations Conference on the Human Environment. In Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972, UN Doc A/CONF.48/14/Rev.1, p. 3.
[6] Rio Declaration on Environment and Development. In Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, UN Doc A/CONF.151/26, Vol.I, Annex I.
[7] Yang and Percival (2009); Kulovesi et al. (2019).
[8] UN Framework Convention on Climate Change, 9 May 1992 (1992), 1771 UNTS 107, entered into force 21 March 1994. See Preamble, recital 8.
[9] Convention on Biological Diversity, 5 June 1992, 1760 UNTS 79, entered into force, 29 December 1993. See article 3.
[10] UN Convention to Combat Desertification, 10 October 1994, 1954 UNTS 3, entered into force 26 December 1996. See Preamble, recital 15.
[11] See Chapter 1 in this volume.
[12] Simma (1994).
[13] *Gabčíkovo-Nagymaros Project (Hungary v Slovakia),* Judgment, 25 September 1997, ICJ Reports 1997, p 7.
[14] *Pulp Mills on the River Uruguay (Argentina v Uruguay),* Judgment, 20 April 2010, ICJ Reports 2010, p 14.

*Sprayings* case,[15] *Whaling in the Antarctic*,[16] the case concerning *Certain Activities Carried Out by Nicaragua in the Border Area*,[17] or the *Dispute over the Status and Use of the Waters of the Silala*[18] stand for the handful of more or less clear-cut 'environmental' disputes dealt with by the ICJ alone. In addition to these contentious, inter-state cases, the ICJ also famously delved into public international law relating to environmental protection in the exercise of its advisory function in *Legality of the Threat or Use of Nuclear Weapons*.[19] Notwithstanding inter-state 'environmental' disputes brought before other international courts such as the International Tribunal of the Law of the Sea,[20] the WTO Dispute Settlement Body,[21] or arbitral tribunals,[22] what these latter cases brought before the ICJ suggest is that the adjudication of environmental disputes[23] has increased at a perhaps lower rate than expected some time ago, especially if compared with the general quantitative increase in international litigation. More importantly, however, it suggests some degree of uneasiness by States to engage in this type of litigation, as its complexity and unpredictable outcome makes it a high-risk endeavour.

To some extent, this complexity has to do with structural features derived from the somewhat blurry epistemological boundaries of 'environmental law' itself, which also apply to 'environmental disputes'. There is indeed some merit to the argument that there is no such thing as a clear-cut, distinct body of law that deals with environmental protection.[24] In this perspective, international environmental law cannot be reduced to the *sic utere* principle, the customary due diligence obligation not to cause significant transboundary harm, and a number of treaties that are generally recognised as multilateral environmental agreements (MEA), without incurring into over-simplification. For the same reasons, international environmental disputes cannot possibly be conceived as disputes that can or ought to be solved in accordance with international environmental law only. In the early 2000s, Cesare Romano provided a handy academic concept of 'international environmental dispute', by reliance on the classical concept of 'dispute' in *The Mavrommatis Palestine Concessions* case.[25] He defined them as 'conflict[s] of views or of interests between two or more States, taking the form of specific opposing claims and relating to an anthropogenic alteration of an ecosystem, having detrimental effect on human society and leading to environmental scarcity of natural resources'.[26] In real-world scenarios, however, environmental disputes are far from involving only States, but are much more complex and may involve other subjects of public international law, such as international organisations, as well as private persons, whether these are enterprises, or members of the public (NGO), or indigenous peoples and local communities. Moreover, as already implied in the quoted definition, the environmental dimension to the claims of the

[15] *Aerial Herbicide Spraying (Ecuador* v *Colombia)*, Removal from list, Order, 13 September 2013, ICJ Reports 2013, p 278.
[16] *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)* Judgment, 31 March 2014, ICJ Reports 2014, p 226.
[17] See, in particular, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua),* Compensation, Judgment, 2 February 2018, ICJ Reports 2018, p 15.
[18] See Application Instituting Proceedings filed in the Registry of the Court on 6 June 2016. Dispute over the Status and Use of the Waters of the Silala (Chile v Bolivia).
[19] Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 8 July 1996, ICJ Reports 1996, p 266.
[20] See Chapter 3 in this volume.
[21] See Chapter 5 in this volume.
[22] See Chapters 11 and 12 in this volume.
[23] Stephens (2009); Romano (2000).
[24] Boyle and Harrison (2013), p. 247. See also *Case Concerning Aerial Herbicide Spraying (Ecuador v Colombia),* Memorial of Ecuador (Vol I), 29 April 2009.
[25] *Mavrommatis Palestine Concessions, Greece v United Kingdom*, Objection to the Jurisdiction of the Court, Judgment, 30 August 1924, PCIJ Ser. A, No 2. League of Nations (historical) [LoN]; Permanent Court of International Justice (historical) [PCIJ], at p. 11.
[26] Romano (2000).

parties in dispute is never the sole legal issue at stake. Rather, the centrality that environmental legal issues may take in a given dispute depends very much on the way in which parties decide to shape the dispute itself, a decision which in turn is more often than not inspired by complex political motivations that do not primarily relate to the preservation of ecosystems' integrity.[27]

When assessed in the context of inter-state disputes in which either part invokes 'environmental rules', different layers of general principles, customary rules and treaty regimes relating for example to the abatement of climate change, the conservation and sustainable management of biological diversity, sustainable land management and the prevention of desertification, or the international regulation of wildlife trade, will indeed be relevant to the case. However, these latter more or less clear-cut treaty-based 'environmental' rules often have to be balanced against other general principles, customary and/or treaty-based rules concerning (by way of mere example) the prevention of corruption and transnational organised crime, the fair and non-discriminatory conduct of international trade, the reciprocal furtherance of international investments, or the protection of human rights. In the *Aerial Herbicide Sprayings* case, for instance, Ecuador construed its claims not merely on the breach of territorial sovereignty and due diligence customary obligations arising out of the principle of prevention, but based aspects of its claims also on treaty-based international human rights obligations and the 1988 Narcotics Convention.[28] This is what Andreas Philippopoulos-Mihalopoulos refers to as the 'paradox of environmental law', an area of law which he qualifies as 'hazy yet urgent, undefinable yet omnipresent'.[29]

In elevating these reflections on the conceptualisation of 'environmental law' and that of 'environmental disputes' to another level altogether, it becomes clear that this slipperiness and omnipresence of legal rules relating in one way or another to environmental protection transcends the strict confines of public international law, hence reaching deep into the realm of transnational law,[30] or – to use a more provoking term – global law.[31] Legal disputes which have some kind of environmental dimension to it rarely rely on legal rules from only one legal system or jurisdiction, and require legal operators to engage in 'inter-legality', that is to say, seeking the solution to a dispute 'not by taking the one-jurisdiction-at-a-time perspective – the perspective of mutual alternative or exclusion – but by showing the relevance of – and the caring for – all the relevant normativities actually controlling the case'.[32] Emerging trends in public interest litigation to further locally global environmental policy agendas, such as climate litigation,[33] enhance these calls for overcoming the fragmentation of rationalities and boundaries between international legal regimes, and between these and domestic legal systems, through convergence-promotion and divergence-accommodation even more compelling for (global) environmental law scholarship.[34]

Against the background of these introductory reflections on the intrinsic complexity of 'environmental disputes', this chapter will first describe the general move in MEA towards the establishment of managerial compliance mechanisms, which are bureaucratically led mechanisms aimed at supporting governments and facilitating the implementation of complex multilateral treaty regimes through bespoke assistance measures. I will argue that the structural legal features of international obligations arising out of MEA have furthered this shift towards managerialism, with the deliberate aim of 'avoiding disputes',

[27] See among many others Boyle and Harrison (2013), pp. 247–250.
[28] Ibid., p. 253. See also
[29] Philippopoulos-Mihalopoulos (2011), p. 19.
[30] Mai (2020).
[31] Cardesa-Salzmann and Cocciolo (2019). See chapter [22 in this book.
[32] Klabbers and Palombella (2019), p. 3.
[33] Sindico et al. (2021).
[34] Kulovesi et al. (2019).

as the international law of the treaties, the law governing state responsibility for internationally wrongful acts, and not least, international adjudication have shown only limited capacity to adapt to emerging regulatory trends in global environmental governance. I will then discuss the main institutional and procedural features of compliance mechanisms, before assessing their overall performance. This overview of compliance mechanisms in global MEA, will in turn provide the backdrop for reflecting on some of the recent developments in the case law of the ICJ, which especially after the *Whaling in the Antarctic* case, sheds light on some of the issues that may have kept States from bringing claims based on multilateral treaties before international courts. The chapter concludes with some reflections about the distinctive roles and potential complementarities between international environmental adjudication and regime-internal managerial compliance control in the broader picture of global environmental governance.

## 19.2 The shift towards managerialism: compliance mechanisms in multilateral environmental agreements

One of the most repeated but still relevant citations within international legal scholarship is Louis Henkin's statement that 'almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time.'[35] However, it is also well-known that environmental regulations suffer from structural implementation and compliance deficits, which are complex and multicausal in nature. Unfortunately, without fundamentally questioning the validity of Henkin's statement from a general perspective, international environmental law is not an exception to that structural deficit. It is well known that multilateral environmental treaties have developed over time a *sui generis* type of compliance mechanisms, specifically designed in order to address structural compliance issues within the confines of international treaty law relating to multilateral conventions from a managerial, non-confrontational and dispute-avoidance perspective. In this section I will discuss the scholarly debates, involving both academics and practitioners, which preceded and provided the intellectual breeding ground for the emergence and development of these characteristic mechanisms. I will then describe the main institutional and procedural features of these mechanisms, before appraising how they have performed, from a general perspective.

### 19.2.1 The emergence of endogenous compliance mechanisms in multilateral environmental treaties

Academic literature interrogating the 'effectiveness' of multilateral regulatory treaties has been questioning for some time whether traditional approaches to international law enforcement under state responsibility, the international law of the treaties, and adjudicative dispute settlement suit the specific regulatory features and implementation needs of MEA.[36] Indeed, public international law analysts highlight the relevance of structural features of multilateral treaty obligations arising out of many MEA.[37] The collective, non-reciprocal nature of *erga omnes partes* obligations in some MEA, according to this strand of scholarly analysis, makes it hard to identify any injured or specially affected state as a consequence of their breach or non-compliance.[38] This latter feature of collective obligations begs the question about the purpose of traditional means of public international law to react to the breach of obligations arising out of multilateral treaties, such as the suspension or termination of the MEAs by any Party

[35] Henkin (1979), p. 47.
[36] The most representative scholarly work is Chayes and Handler Chayes (1995); see also Ulfstein et al. (2007).
[37] Ehrmann (2000).
[38] Ibid.; Cardesa-Salzmann (2012).

individually,[39] or the invocation of state responsibility.[40] Until the judgment rendered in 2012 in *Questions Relating to the Obligation to Prosecute or extradite (Belgium v Senegal)*,[41] as we shall see, the adjudication of claims based on the breach of *erga omnes partes* obligations brought before international courts and tribunals by non-injured States, was also contested in the academic literature.[42]

Given these difficulties of traditional enforcement mechanisms in public international law to cope with emerging structural features of environmental treaty regimes, scholars like Abram Chayes and Antonia Handler Chayes advocated for a pragmatic, pro-active approach to compliance with multilateral regulatory treaties.[43] Translating this strand of thought specifically to MEA, they argued that the complexity and dynamism of environmental problems addressed in environmental regimes, as well as their interwoven nature, demanded a holistic, proactive approach in their 'management,' rather than ex-post adjudication.[44] In so doing, advocates of managerialism distinguish themselves from narrower, economistic lines of thought, which regard States as 'rational utility maximisers' that will only comply with international treaty obligations if strong enforcement mechanisms provide for sanctions that outweigh the potential benefit of non-compliance.[45] According to managerialists, however, the parties to any MEA engage in complex, open-ended processes of cooperation based on the principle of common but differentiated responsibilities, in the context of which non-compliance cannot be reduced to economistic paradigms of rational utility maximisation without incurring into over-simplification. Rather, the accommodation of such heterogenous realities in MEA, especially in global MEA, signals a high degree of commitment by the ratifying parties, hence requiring a more subtle and nuanced approach to compliance-promotion through mutual consultation and deliberation for the sake of preserving the integrity of the treaty regime, rather than through hard enforcement.[46]

In particular, authors following this line of thought often emphasise structural complexities of adjudicative disputes settlement to cope with the multidimensionality or polycentricity of environmental disputes, given the eminently bilateralist structure of the adjudicative process.[47] On the other hand, they also emphasise how the complexity of international adjudication of environmental disputes is also conducive to fragmentation, as States engage in forum shopping, submitting the various aspects of the dispute to different available dispute settlement mechanisms that they deem most favourable to their claims. Most importantly, however, according to the standard managerialist discourse, adjudicative dispute settlement is by definition *ex-post* and too slow and cumbersome to deal appropriately with the issues at stake in environmental disputes.[48] Finally, as also implied in the Joint Dissenting Opinion of Judges Al-Khasawneh and Simma in the *Pulp Mills* case,[49] the reactive approach underlying adjudication in ascertaining breaches of or non-compliance with international environmental standards is also

[39] Article 60 (2) and (3) VCLT. See Fitzmaurice and Redgwell (2000), pp. 59–62; See also Koskenniemi (1992), p. 138.
[40] ILC Draft Articles on Responsibility of States for Internationally Wrongful Acts (2001), UN Doc A/56/10, arts 42 and 48.
[41] *Questions relating to the Obligation to Prosecute or Extradite (Belgium v Senegal)*, Judgment, 20 July 2012, ICJ Reports 2012, p 422.
[42] Boyle and Harrison (2013), p. 256.
[43] Chayes and Handler Chayes (1995); for a critique of managerialism, however, see also Koskenniemi (2007).
[44] Chayes et al. (1998).
[45] See e.g. Downs et al. (2000); for a concise summary of this theoretical discussion, see Bodansky (2010), p. 236.
[46] Bodansky (2010), p. 236.
[47] Ohlhoff (2003), pp. 8–14; This assertion is critically discussed in Stephens (2009), pp. 95–102.
[48] Chayes et al. (1998), p. 54.
[49] *Pulp Mills,* above n 14, p. 117.

seen as a disadvantage, as environmental damage is frequently irreparable and remedial obligations arising out of state responsibility or liability regimes hardly provide for restitution or compensation.[50]

The previous paragraphs thus summarise the views of scholars and practitioners in favour of a managerialist approach to addressing the challenge of implementing the ever-growing number of MEA in the mid-1990s, towards making these treaties work effectively towards the achievement of their overarching objectives.[51] These views provided the intellectual breeding ground for creative approaches under already existing MEA, such as the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),[52] where the Secretariat of the Convention scrutinised the Parties' compliance with treaty obligations, allowing the Standing Committee and Conference of the Parties (COP) of the treaty to devise either facilitative strategies to support non-compliant parties to fully implement the treaty, or enforce it through the suspension of commercial trade in CITES species with non-compliant parties under article XIV CITES.[53] Most importantly, however, the aforementioned debates also influenced the adoption of novel, endogenous mechanisms in newly adopted MEA, such as the non-compliance procedure contemplated in article 8 of the 1987 Montreal Protocol on Ozone Depleting Substances.[54] As expressed by the leader of the US delegation in the negotiations of the Protocol, this provision was agreed upon in the closing stages of the *travaux préparatoires* given the broadly shared perception that monitoring and enforcement of the Protocol's commitments was absolutely essential, while lengthy negotiations over legalistic arguments regarding a dispute settlement clause, as had happened during the negotiations of article 11 of the 1985 Vienna Convention on the Ozone Layer,[55] would only delay urgently required action.[56] After some initial learning curves,[57] the Montreal Protocol's non-compliance procedure was able to quickly gain institutional experience and build a successful track-record of eliciting compliance of the Parties that required some kind of technical and/or financial support to fully implement its commitments.

As I have argued elsewhere,[58] this much-praised success led to the replication of compliance mechanisms in most of the subsequently negotiated MEA. Indeed, since its inception, the Montreal Protocol's compliance mechanisms has served as a model of inspiration for similar managerial procedures in other global and regional MEA. Global MEA featuring such mechanisms include:

- the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal;[59]

[50] Scovazzi (2001), p. 51; See also Brunnée (2004), p. 364.
[51] Ulfstein et al. (2007), pp. 9–11.
[52] Convention on International Trade in Endangered Species of Wild Fauna and Flora 3 March 1973, 993 UNTS 243, entered into force 1 July 1975.
[53] Sand (2013), pp. 251–252; Wettestad (2007); even if less successful than in CITES, managerial compliance-promoting strategies were also developed under the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, 2 February 1971, 996 UNTS 245, entered into force 21 December 1975. See Ferrajolo (2011).
[54] Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 3, entered into force 1 January 1989. MOP Decision IV/5 and Annexes IV and V. UN Doc UNEP/OzL.Pro.4/15 (1992) (hereinafter, Montreal Protocol NCP). However, managerial approaches were already developed in the context of CITES. See Sand (2013); Wettestad (2007).
[55] Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, 1513 UNTS 293, entered into force 22 September 1988.
[56] Benedick (1998), p. 270.
[57] Werksman (1996); see also Benedick (1998), pp. 276–286.
[58] Cardesa-Salzmann (2012).
[59] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, opened for signature 22 March 1989, 1673 UNTS 57, entered into force 5 May 1992. COP Decision VI/12, Appendix. UN Doc UNEP/CHW.6/40 (2003). Hereinafter, Basel Convention NCP.

- the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;[60]
- the Cartagena Protocol on Biosafety,[61] and the Nagoya Protocol on Access and Benefit-Sharing;[62]
- the Paris Agreement,[63] which is still in its very early stages and will come to substitute the one operating in the Kyoto Protocol;[64]
- the International Treaty on Plant Genetic Resources for Food and Agriculture;[65] and
- the Minamata Convention on Mercury.[66]

However, consensus to adopt such a mechanism remains elusive for some time now in the Stockholm Convention on Persistent Organic Pollutants.[67]

Regional MEA have also furthered the proliferation of compliance mechanisms, especially under the aegis of the UN Economic Commission for Europe (UNECE), where the compliance mechanism of the 1998 Aarhus Convention on the Rights of Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters,[68] has set unprecedented standards, allowing environmental civil society organisations to trigger proceedings against States Parties.[69] The 2018 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement) adopted under the aegis of the UN Economic Commission for Latin America and the Caribbean (ECLAC), also foresees an equivalent compliance

[60] Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 10 September 1998, 2244 UNTSS 337, entered into force 24 February 2004. COP Decision RC-9/7, Annex VII, UN Doc UNEP/FAO/RC/COP.9/23 (2019), Hereinafter, Rotterdam Convention NCP.

[61] Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 29 January 2001, 2226 UNTS 208, entered into force 11 September 2003. COP-MOP Decision BS-I/7, Annex. UN Doc UNEP/CBD/BS/COP-MOP/1/15 (2004). Hereinafter, Cartagena Protocol NCP.

[62] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilization to the Convention on Biological Diversity, 29 October 2010, 3008 UNTS, entered into force 12 October 2014. UN Doc UNEP/CBD/NP/COP-MOP/DEC/1/4 (2014) Annex (hereinafter, Nagoya Protocol NCP), para B.2.

Further managerial compliance mechanisms have also been established in other sectoral or issue specific biodiversity and nature protection regimes. See Cardesa-Salzmann (2017), sec. III.33.6 Annex.

[63] Decision 10/CMA.1. UN Doc FCCC/PA/CMA/2018/3/Add.2 (19 March 2019). Hereinafter, Paris Agreement NCP.

[64] Kyoto Protocol to the United Nations Framework Convention on Climate Change, 11 December 1997, 2303 UNTS 162, entered into force 16 February 2005. Decision 27/CMP.1, Annex. UN Doc FCCC/KP/CMP/2005/8/Add.3. Hereinafter, Kyoto Protocol NCP.

[65] GB Resolution 2/2011, Annex. See <http://www.fao.org/3/be452e/be452e.pdf> (last accessed 7 June 2021).

[66] Minamata Convention on Mercury, 10 October 2013, entered into force 16 August 2017, article 15. Decision MC-3/9, Annex, UN Doc UNEP/MC/COP.3/Dec.9 (7 January 2020). Hereinafter, Minamata Convention NCP.

[67] Stockholm Convention on Persistent Organic Pollutants, 22 May 2001, 2256 UNTS 119, entered into force 17 May 2004. Draft negotiation text in COP Decision SC-7/26, Annex. UN Doc UNEP/POPS/COP.10/19 (2021). Hereinafter, Stockholm Convention Draft NCP.

[68] Convention on Access to Information, Public Participation in Decision Making and Access to justice in Environmental matters (Aarhus Convention), 25 June 1998, 2161 UNTS 447, entered into force 30 October 2001.

[69] Art 2(4) Aarhus Convention, and MOP Decision I/7, Annex, para.18. UN Doc ECE/MP.PP/2/Add.8 (2004). Similar compliance mechanisms have been established in the following UNECE treaties: Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 21 May 2003, 2626 UNTS 119, entered into force 8 October 2009. Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 June 1999, 2331 UNTS 202, entered into force 4 August 2005. Convention on Environmental Impact Assessment in a Transboundary Context (UNECE), 25 February 1991, 1989 UNTS 309, entered into force19 September 1997.

mechanism, 'ensuring the significant participation of the public'.[70] The main focus of my discussions in this chapter, however, will focus on compliance mechanisms in global MEA.

### 19.2.2 Institutional and procedural features of compliance mechanisms in MEA

Compliance mechanisms in MEA typically rely on standing treaty bodies, which depending on the treaty are called either the Implementation Committee, or Compliance Committee, and are designed as small-sized, specialised subsidiary bodies to the MEA's plenary decision-making body, the Conference of the Parties (COP). [71] The concrete institutional design of these committees, as well as the procedural features of the mechanism are carefully adapted and made bespoke to the specific regulatory features of the treaty regime in each MEA. Each compliance mechanism is therefore unique, and generalisations should be taken with a grain of salt.[72] With this caveat in mind, however, this section will try to distil some general institutional and procedural features of compliance mechanisms in MEA with the aim of showcasing their distinct rationale vis-à-vis adjudicative dispute settlement of environmental disputes.

As anticipated above, taking the model of the Implementation Committee and the non-compliance procedure developed in the Montreal Protocol on Ozone Depleting Substances as a source of inspiration, the vast majority of MEA adopted over the past four decades have developed their own compliance mechanism. From a general perspective, these mechanisms follow a managerial approach and are conceived of as non-confrontational, non-adversarial procedures that do not aim to brand a Party as defaulting on its obligations or providing for remedies. Rather, their aim is to elicit Parties experiencing 'problems' back into compliance through bespoke assistance.[73] Thus designed to induce and promote compliance with the treaty obligations, their aim is to avoid the emergence of disputes and the resort to adjudicative settlement. As procedures that are collectively operated through the MEA's treaty bodies, they eschew the tricky question of the invocation of state responsibility.[74] This latter aspect is of particular relevance in the context of collective regimes, such as those of the Montreal Protocol, the Stockholm Convention, the Minamata Convention, the Nagoya Protocol, the Kyoto Protocol and, more recently, also the Paris Agreement, the central obligations of which are not owed vis-à-vis any specific Party, but *erga omnes partes*.

As opposed to international courts and tribunals, compliance mechanisms are praised for their flexibility and their capacity to address a broad range of issues of compliance, transcending the strict language of law.[75] In so doing, compliance mechanisms are instrumental to regime effectiveness, while preserving regime integrity. Accordingly, they are conceived and designed as bespoke procedures capable of 'managing' effectively compliance with and the implementation of dynamic environmental regimes, in which the basic legally binding treaty-based principles and standards are fleshed out through COP decisions, the legal nature of which is not always easily determined.[76] Endogenous, regime-specific compliance mechanisms are thus portrayed as better-suited to cope with underlying political tensions and delicate compromises among the Parties to an MEA, than international courts and tribunals. The latter

[70] Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, 4 March 2018, entered into force 22 April 2021 (Escazú Agreement), article 18.
[71] Churchill and Ulfstein (2000), pp. 644–647.
[72] Fodella (2009).
[73] Handl (1997), p. 34.
[74] Nègre (2010), p. 810.
[75] This, in turn, is encountered with strong objections in scholarship. See, e.g. Koskenniemi (2007), p. 13.
[76] Klabbers (2007), p. 1008; On the legal nature of COP decisions, see Brunnée (2002); Brunnée (2005).

focus primarily on the legal dimension of an environmental dispute between the contending parties only. As seen in *Whaling in the Antarctic*, moreover, the bilateralist approach of adjudicative dispute settlement, is perceived as a hindrance to accommodating the complex and delicate balance of interests in the adjudicative process that underlie global multilateral treaties, unless third-party intervention mechanisms are articulated. I shall return to this issue further below.

Given this collective and managerial rationale of compliance mechanisms, the institutional design of Committees is fine-tuned to reflect not just an equitable geographical balance between the Parties to the MEA, but also other political compromises for the balancing of competing interests between them.[77] In specific MEA, for instance, such as the Kyoto Protocol[78] and the Paris Agreement,[79] the membership of the Committee must also feature representatives of small island developing States and the least developed countries. The Committee of the Nagoya Protocol, in turn, requires the representation of indigenous and local communities, either among the members of the Committee, or in any case with the appointment of observers entitled to participate in the deliberations, but not in the taking of decisions.[80] Accordingly, the size of Committees varies significantly. The Montreal Protocol and the Paris Agreement feature the smallest compositions, with ten and twelve members, respectively, while the vast majority of Committees has fifteen members. The Kyoto Protocol's Compliance Committee can be singled out as featuring the so far most elaborate institutional design, with two branches – the Facilitative Branch and the Enforcement Branch – and twenty members. Decisions must be taken by consensus or, should this not be possible, by as a last resort by qualified majority.

A further significant distinctive feature of compliance committees comes with the mandate of its members. It is possible to distinguish between neatly political and managerial mechanisms, such as in the Montreal Protocol where Committee members are experts acting in a capacity of representatives of a Party,[81] from most of the other mechanisms, in which Committee members are mandated to act in their personal capacity as independent experts 'with recognised competence in relevant scientific, technical, socioeconomic or legal fields'.[82] This independent, expertise-based mandate, together with more elaborate procedural safeguards of due process and a mandate – not just to facilitate – but also to recommend enforcing measures, has led to qualify the compliance mechanisms under the Kyoto Protocol as quasi-judicial.[83] At the same time, the broad-based, interdisciplinary expertise built into the institutional design also allows these Committees to address compliance issues from a comprehensive perspective, capable of assessing complex factual and scientific-technical issues from different perspectives, rather than only from the legal perspective. This is a further institutional difference with respect to international courts and tribunals, especially the ICJ, where the conduct of evidence in complex environmental disputes has spurred internal debates, as epitomised in the Joint Dissenting Opinion of Judges Al-Khasawneh and Simma in *Pulp Mills*.

In addition to outlining the institutional design of the Committee in charge of the compliance mechanism, the terms of reference also set out the procedures to carry out their mandate, as well as an indicative list of measures that can be forwarded to the COP for adoption in order to deal with situations of non-compliance by a Party. As with the institutional design, procedures and measures are tailored to

[77] Montreal Protocol NCP, para. 5; Basel Convention NCP, paras. 3-8; Rotterdam Convention NCP, paras. 3-8; Cartagena Protocol NCP, para. II.2; Minamata Convention, article 15(3).
[78] Kyoto Protocol NCP, paras. IV.1 and V.1.
[79] Paris Agreement NCP, para. 5.
[80] Nagoya Protocol NCP, para. B.2.
[81] Montreal Protocol NCP, para. 5.
[82] Taken, by way of example, from the Paris Agreement NCP, para. 5.
[83] Fodella (2009), pp. 359–362; see also Boisson de Chazournes and Mbengue (2007); Montini (2009).

the specific needs of each treaty regime. There are, however, some common features that are shared by the vast majority of compliance procedures. There are typically three different ways to trigger the mechanism and bring specific issues of non-compliance by a Party to the attention of the Committee.[84] In this sense, proceedings may be initiated on a Party-to-Party basis.[85] However, this way of triggering the procedure is only rarely used in practice, given the non-adversarial nature of the compliance mechanism. In the Paris Agreement, for instance, where the managerial and non-adversarial nature of the compliance mechanism was deliberately emphasised throughout the negotiation process, this way of initiating the compliance procedure was entirely left out of the terms of reference.[86]

Further, the terms of reference of all compliance mechanisms allow any Party that is not in compliance with its commitments, despite its best efforts to do, to refer itself to the Committee, especially where bespoke financial or technical assistance measures are required to comply with its commitments under the MEA.[87] In addition, the Secretariat (or other entitled treaty bodies) have the capacity to trigger the procedure when made aware of any compliance issues with respect to a Party.[88] It has to be said, however, that this latter trigger mechanism is only fully developed in the context of collective regimes based on *erga omnes partes* obligations.[89] However, the terms of reference of compliance mechanisms in MEA such as the Basel Convention and the Cartagena Protocol limit this triggering capacity of the Secretariat *ratione materiae* to general reporting obligations. In these treaties, the central treaty obligations concern the prior informed consent procedures to transboundary movements of controlled goods, which are of a bilateral nature.[90] Under the terms of reference of the Rotterdam Convention, finally, the Secretariat or any other treaty body, lack any capacity to trigger the compliance procedure.[91]

Regional MEA, especially in the UNECE region, additionally allow for the initiation of compliance procedures by non-governmental organisations. As mentioned above, this relatively successful trend started with the Aarhus Convention under the aegis of the UNECE[92] has now been replicated in the Escazú Agreement in the region of Latin America and the Caribbean, where this innovation has still to be tested in practice. Global MEA, however, do not allow non-governmental organisations to trigger the compliance mechanism. The role of NGO in compliance mechanisms is generally very limited in global MEA, in which some compliance mechanisms allow them to attend hearings that have been declared open to the public.[93] This is not to say, however, that NGO are deprived of any kind of influence in compliance mechanisms. Even in mechanisms such as the one under the Montreal Protocol, in which the protection of the confidentiality of the technical information for the production of ozone

[84] Romanin Jacur (2009).
[85] See, e.g., Montreal Protocol NCP, para. 1.
[86] Paris Agreement NCP, paras. 20 and 22. Article 15 of the Minamata Convention on Mercury also omits this Party-to-Party mechanism.
[87] See for all, Montreal Protocol NCP, para. 4.
[88] See, e.g., Montreal Protocol NCP, para. 3. Under the Kyoto Protocol NCP, the triggering capacity is allocated to the expert review teams under article 8 of the Protocol (see Kyoto Protocol NCP, para VIII.3(a)), whereas in the Minamata Convention NCP, the Secretariat only plays a role channelling the information of national implementation reports, while the triggering function is left to the political discretion of the COP (see article 15(4) (b) and (c)). This is also the case for the Nagoya Protocl NCP (see para. D.1(c)).
[89] Montreal Protocol NCP, para. 3; Kyoto Protocol NCP, para. VI.1; Minamata Convention, article 15(4); Paris Agreement NCP, para. 20. In the Stockholm Convention Draft NCP, this issue is still controversial and subject to negotiation (see paras. 17 and 17 (c) between brackets).
[90] Basel Convention NCP, para. 9(c); For the Cartagena Protocol NCP, see COP-MOP Decision BS-V/1, para. 1(b).
[91] Rotterdam Convention NCP, para. 12.
[92] For a nuanced appraisal, see Samvel (2020).
[93] See, for instance, the Rules of Procedure of the Compliance Committee of the Kyoto Protocol, in Decision 4/CMP.2, Annex, Rule 9. UN Doc FCCC/KP/CMP/2006/10/Add.1.

depleting substances and its substitutes is emphasised, and where NGO are formally excluded from the works of the Committee, the negotiators of the compliance mechanism already foresaw that civil society organisations would have indirect leverage through the Secretariat, for instance, by providing additional information relevant to the compliance record of a Party.[94] In MEA like the Nagoya Protocol, where the protection of the interests and rights of indigenous and local communities is at the very heart of the access and benefit-sharing regime, the Secretariat is explicitly mandated to channel relevant information to the Committee 'provided by a directly affected indigenous or local community, related to provisions of the Protocol',[95] hence allowing for an indirect triggering capacity.

### 19.2.3 Compliance mechanisms as compliance promoters and dispute avoiders: an appraisal

Once triggered, compliance procedures are conducive to the adoption of reactive measures seeking to gently elicit a non-compliant Party back into full or, at least, acceptable levels of compliance with its treaty obligations. Given the managerial, non-adversarial rationale that is common to these mechanisms, the measures devised by Committees are primarily of a facilitative nature. Only the compliance mechanisms of a few global MEA, such as the Montreal Protocol and the Kyoto Protocol, expressly foresee 'harder' enforcement measures. So, for instance, the indicative list of measures included in the terms of reference of the Montreal Protocol non-compliance procedure foresees:

> A. Appropriate assistance, including assistance for the collection and reporting of data, technical assistance, technology transfer and financial assistance, information transfer and training.
>
> B. Issuance of cautions.
>
> C. Suspension, in accordance with the applicable rules of international law concerning the suspension of the operation of a treaty, of specific rights and privileges under the Protocol.[96]

The terms of reference under the Kyoto Protocol feature a much more detailed gradient of consequences that the Facilitative and the Enforcement Branches can adopt respectively. Facilitative measures may include the following measures:

> (a) Provision of advice and facilitation of assistance to individual Parties regarding the implementation of the Protocol;
>
> (b) Facilitation of financial and technical assistance to any Party concerned, including technology transfer and capacity building from sources other than those established under the Convention and the Protocol for the developing countries;
>
> (c) Facilitation of financial and technical assistance, including technology transfer and capacity building […]; and
>
> (d) Formulation of recommendations to the Party concerned […].[97]

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[94] Széll (1995), p. 100.
[95] Nagoya Protocol NCP, para. 9.
[96] See MOP Decision IV/5, Annex V. UN Doc UNEP/OzL.Pro.4/15 (1992)
[97] See Kyoto Protocol NCP, para. XIV.

Enforcement measures, in turn, may involve the suspension of the eligibility of a Party to participate in the emission trading schemes developed under article 17 of the Protocol, as well as the joint implementation mechanism under article 6 and the clean development mechanism under article 12, if the Branch determines that a Party does not meet one or more of the eligibility requirements.[98] Most spectacularly, where the Enforcement Branch has determined that a Party has exceeded its assigned amount of anthropogenic greenhouse gas emissions under the Protocol, the enforcement measures that can be adopted also may involve the:

> deduction from the Party's assigned amount for the second commitment period of a number of tonnes equal to 1.3 times the amount in tonnes of excess emissions.[99]

With the exception of the prior two examples, however, the terms of reference of compliance mechanisms in other global MEA expressly limit the mandate of Committees to the adoption of facilitative measures only, and leave the adoption of harder enforcement measure to the political discretion of the COP.[100] In this sense, the strong emphasis in the Paris Agreement's compliance mechanism on 'facilitating implementation and promoting compliance',[101] its deliberate avoidance of any enforcement language[102] and, in general, all the quasi-judicial features of its predecessor in the Kyoto Protocol, is quite remarkable. It is consistent, though, with the overall softer regulatory features of the Paris Agreement.[103]

The managerial and dispute-avoiding rationale of these mechanisms begs the question about their performance, in order to put them in context against adjudicative dispute settlement. In this context, it is important to remind that compliance mechanisms indeed seek 'securing an amicable solution of the matter on the basis of respect for the provisions' of the underlying MEA,[104] but apply themselves 'without prejudice to the operation of the settlement of disputes procedure' foreseen in the treaty.[105] Indeed, the operation and performance of these treaty-specific mechanisms varies greatly from one MEA to the other, given the bespoke nature of the procedures. A detailed account of their respective performance would exceed the scope of this chapter. In the remainder of this section, I will outline general patterns of performance of the above listed compliance mechanisms in global MEA. To that end, I will focus on those compliance mechanisms which have gathered the most significant institutional practice, like those under the Montreal Protocol, the Kyoto Protocol, the Basel Convention and the Cartagena Protocol, trying to illustrate general trends with specific examples from the operation of compliance mechanisms in other MEA. As highlighted by Klabbers, a general overview of this practice suggests that the majority of cases submitted to compliance mechanisms in global MEA concern issues of non-compliance by developing States.[106] Cases concerning countries with economies in transition to a market economy or developed countries have been less frequent, even though the practice of the Enforcement Branch of the Kyoto Protocol's Compliance Committee has precisely focused on this latter group of Parties.

In consistency with its managerial rationale, the average outcome of the non-compliance procedure in the Montreal Protocol is bespoke technical and financial assistance to the Parties under scrutiny.

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[98] Ibid, para. XV.4.
[99] Ibid, para XV.5.
[100] See e.g., Nagoya Protocol NCP, para F.3 (d).
[101] Paris Agreement NCP, para. 30.
[102] Ibid, paras. 28 and 30.
[103] Voigt (2016).
[104] Wording taken from the Montreal Protocol NCP, para. 8.
[105] Wording taken by way of illustrative example from the preamble of the Montreal Protocol NCP. For a discussion of the relationship between compliance mechanisms and dispute settlement, see Fitzmaurice and Redgwell (2000); Treves (2009).
[106] Klabbers (2007).

Whenever assistance measures are agreed, the Multilateral Fund of the Montreal Protocol and the executing agencies that are responsible for the implementation of *ex ante* technical and financial assistance to developing countries[107] (UNIDO, UNEP and UNDP) have to adapt their policies with respect to the non-compliant Party in accordance with the recommendations of the Implementation Committee, as endorsed by the Meeting of the Parties (MOP).[108] The Committee and the MOP keep the evolution of non-compliant Parties under review until they are satisfied that no further action is required. Stronger measures, such as the issuance of cautions, are only applied if the situation extends in time and the Party under scrutiny fails to provide evidence of sufficient commitment in regaining compliance.

On the other hand, the Bureau of the Kyoto Protocol's Compliance Committee has never allocated any compliance issues raised by Expert Review Teams to its Facilitative Branch, nor have there been any self-referrals to this branch. Over the years, there has only been one instance Party-to-Party submission, effectuated in 2006 by South Africa (as chair of the G77 and China) with respect to 15 developed countries and countries with economies in transition. However, this submission did not substantiate, allegedly due to the lack of the required majority in the Branch in order to agree on its acceptance. These problems of infancy left aside, the Facilitative Branch has nevertheless been quite active, focussing its efforts on general functions of implementation review, providing parties with advice and support in the implementation of the protocol.[109] However, as I will develop in short, the main activity of the Kyoto Protocol's Compliance Committee has been undertaken by its Enforcement Branch.

Facilitative measures have now also been taken consistently by the compliance mechanisms of the Basel Convention and the Cartagena Protocol. The activity of the Committees in these latter MEA has been limited for some time to the general assessment of the respective MEA's implementation by all the Parties, but no specific cases of non-compliance had been submitted with respect to particular countries until relatively recently. Established in 2003, the Committee for Administering the Mechanism for Promoting Implementation and Compliance of the Basel Convention only received its first specific submissions by the Secretariat and self-referrals of Parties for their own non-compliance after 2009. These cases mainly concern structural difficulties of developing countries in complying with their reporting requirements.[110] As for the Compliance Committee of the Cartagena Protocol, an amendment of the terms of reference under COP-MOP's decision BS-V/1 has eventually allowed for referrals of issues of non-compliance with reporting obligations by the Secretariat, allowing the Committee to discharge its facilitative role in that regard. It is important to stress, however, that the specific cases of non-compliance submitted to the compliance mechanisms of these two MEA is materially limited to the fulfilment of periodical reporting obligations by the Parties. Accordingly, the financial and technical assistance agreed in these cases aims at developing national capacities in that regard.

Among the four compliance mechanisms selected for this performance overview, only those of the Montreal Protocol and the Kyoto Protocol are mandated for the adoption of enforcement measures of a harder edge. An analysis of the of the practice regarding the adoption of 'sanctions' or enforcement measures in these two mechanisms reveals a mixed picture. The unique decisions adopted in the mid-1990s by the Montreal Protocol's MOP with respect to the non-compliance of certain countries with economies in transition, especially that concerning the Russian Federation in 1995,[111] were quite

[107] In the jargon of the Montreal Protocol, these are the Parties operating under article 5 of the Protocol.
[108] Financial and technical assistance to countries with economies in transition has been provided mainly through the Global Environment Fund. See Boisson de Chazournes (2006), pp. 284-286.
[109] UN Doc CC/FB/20/2017/2, 1 August 2017.
[110] UN Doc UNEP/CHW/CC/8/25 (2011).
[111] Montreal Protocol, MOP Decision VII/18, para. 8. UN Doc UNEP/OzL.Pro.7/12 (1995).

controversial, due to the severeness of the trade restrictions imposed.[112] In hindsight, such a strong and controversial reaction addressed what was perceived at the time as an existential challenge to the integrity of the ozone regime, but has also led to a process of regulatory and institutional development of the Montreal Protocol which has avoided so far resorting again to this type of measures.[113]

However, in accordance with the quasi-judicial features of the Kyoto Protocol's compliance mechanism, the suspension of rights and privileges has been a somewhat more frequent outcome of the decisions of the Compliance Committee's Enforcement Branch. It has so far transitorily suspended Greece,[114] Croatia[115], Bulgaria[116], Romania,[117] Lithuania,[118] Ukraine,[119] and currently also twice Kazakhstan,[120] from participation in the joint implementation mechanism, the clean development mechanism and the emission trading scheme under articles 6, 12 and 17 of the Protocol, respectively.[121] While such hard enforcement measures are consistent with the legally binding quantified emission limitation or reduction commitments under the Kyoto Protocol, the completely revamped treaty regime under the Paris Agreement has made such an approach redundant.[122]

In conclusion, this overview of the rationale, the institutional and procedural features, and the operation of compliance mechanisms in practice does provide some insight into the reasons why States have found refuge in treaty-specific, non-adversarial procedures before carefully balanced international bureaucratic bodies in order to address the implementation and compliance deficit in global environmental governance, rather than allowing disputes to escalate and refer contending parties to international courts. While the compliance mechanisms discussed in this appraisal show a varying degree of effectiveness, their underlying managerial approach promotes compliance with key treaty obligations and, in this way, does contribute to the avoidance of disputes. This begs the question whether there is a role for adjudicative dispute settlement of claims based on MEA, and whether international courts and tribunals should play a more prominent role in the principled development of the law, also in the context of global environmental governance.

## 19.3 Developments in the international adjudication of claims based on *erga omnes partes* obligations

In this section, I will address the prior question by pointing to the structural issues that academic writing had identified as traditional shortcomings in international adjudicative dispute settlement for disputes of claims based on MEA. In so doing, I will highlight developments of the last decade in international adjudication, especially those regarding standing for collective claims, and third-party intervention (as

[112] Fitzmaurice (2009), p. 473.
[113] Benedick (1998), pp. 276–286.
[114] UN Doc CC-2007-1-8/Greece/EB, 17 April 2008. Greece was reinstated in its eligibility to participate in the flexible mechanisms later that year (doc. CC-2007-1-13/Greece/EB, 13 November 2008).
[115] UN Doc CC-2009-1-8/Croatia/EB, 26 November 2009. Croatia has announced that it intends to appeal the final decision of the Enforcement Branch under §XI.1 Kyoto Protocol NCP (doc. CC-2009-1-9/Croatia/EB, 4 January 2010).
[116] UN Doc CC-2010-1-8/Bulgaria/EB, 28 June 2010.
[117] UN Doc CC-2011-1-8/Romania/EB, 27 August 2011.
[118] CC-2011-3-8/Lithuania/EB, 21 December 2011.
[119] UN Doc CC-2016-1-6/Ukraine/EB, 7 September 2016.
[120] CC-2019-1-6/Kazakhstan/EB, and Corr.1, 26 June 2019. See also CC-2020-1-4/Kazakhstan/EB, 13 January 2021.
[121] Less intense enforcement measures were also enacted vis-à-vis Slovakia and Monaco.
[122] Voigt (2016), p. 166.

of right), which remedy to some extent those traditional shortcomings. These considerations will pave the way for my final reflections about the distinctive roles and potential complementarities between international environmental adjudication and regime-internal managerial compliance control in the broader picture of global environmental governance.

When looking at the larger picture of international adjudicative dispute settlement in the last few decades, international environmental adjudication before the ICJ has been relatively scarce, even with the increase of 'environmental' cases seen after 2010. The environmental disputes that the ICJ has dealt (and is dealing) with are mostly bilateral, transboundary disputes concerning shared water resources. This is certainly so in the *Gabčíkovo-Nagymaros Dam* case, [123] the *Pulp Mills* case,[124] the *Silala* case,[125] and even the compensation of environmental harms in *Certain Activities Carried out by Nicaragua in the Border Area*[126] falls within this category. Equally, the *Aerial Herbicide Sprayings* case had a bilateral, transboundary environmental dispute at its core, albeit with much broader international legal implications.[127] While the parties' claims in the *Gabčíkovo-Nagymaros Dam* and the *Pulp Mills* cases were mainly (but not exclusively) based on bilateral treaties, the compensation claims by Costa Rica against Nicaragua in *Certain Activities*, as well as the respective 'environmental' claims of Ecuador and Colombia in *Aerial Herbicide Sprayings*, as well as chose of Chile and Bolivia in *Silala*, are based on customary rules of international law.

As discussed in the previous sections, international cooperation aimed at addressing more comprehensively world-wide environmental problems is nowadays articulated through MEA. In the five decades after the UN Conference on the Human Environment, held in Stockholm in June 1972,[128] there has been an exponential increase in multilateral treaties relating to the environment. Until the *Whaling in the Antarctic* case, however, there was a striking absence of adjudication of claims articulated on the basis of multilateral treaties. This is what makes this latter case particularly interesting for our purposes. As anticipated in the prior section, before the judgment rendered by the ICJ in March 2014,[129] most of the academic writings would highlight a number of structural features that made the ICJ an elusive forum to adjudicate environmental disputes involving claims based on the interpretation or implementation of multilateral treaty obligations undertaken not merely on the basis of reciprocal interests, but in order to protect common interests.[130]

Jurisdiction of international courts and tribunals in order to adjudicate disputes between sovereign States is consent-based. Under article 36 of the ICJ Statute, the Court's jurisdiction requires evidence of the acceptance of the States involved in the dispute, either on an ad hoc basis (a prior special agreement or a subsequent acceptance on the basis of *forum prorrogatum*) or a compromissory clause in a treaty, the interpretation or application of which gives rise to the dispute. Considering the blurry boundaries of international 'environmental' law vis-à-vis other branches of public international law, and consequently the inter-woven nature of 'environmental' legal issues with other concurring legal issues in international disputes, jurisdiction *ratione materiae* often proves tricky in international environmental adjudication.[131] The basic rules governing the jurisdiction of the ICJ in contentious cases mean that the

[123] *Gabčíkovo-Nagymaros Project*, above no 13.
[124] *Pulp Mills,* above no 14.
[125] *Dispute over the Status and Use of the Waters of the Silala,* above no 18.
[126] *Certain Activities Carried Out by Nicaragua in the Border Area*, above no 17.
[127] Case Concerning Aerial Herbicide Spraying, above no 15.
[128] See above no 5.
[129] *Whaling in the Antarctic,* above no. 16.
[130] Ohlhoff (2003), pp. 204–209.
[131] On the ICJ's jurisdiction *ratione materiae*, see Chapter 13 in this volume.

adjudication of 'environmental' elements of an inter-state dispute against the backdrop of other relevant elements or dimensions of that same dispute are possible only when the contending States have either recognised the compulsory jurisdiction under article 36(2) ICJ Statute, as was the case of Australia and Japan in *Whaling in the Antarctic* (and would have been in *Aerical Herbicide Sprayings*), or in the hypothetical case of a *compromis* (or through *forum prorrogatum*) attributing wider ranging jurisdiction *ratione materiae*. In the absence of such far reaching jurisdictional bases, which is the most common real-world scenario, jurisdiction over environmental disputes most commonly emanates from compromissory clauses in environmental treaties, whether these are bilateral or multilateral. However, as Boyle and Harrison have argued, another factor adding further complexity to the jurisdictional basis of international courts and tribunals in environmental disputes lies in the fact that, with the noticeable exception of the 'partly environmental'[132] UNCLOS, which sets up compulsory dispute settlement by ITLOS or arbitral tribunals, the vast majority of MEA do not provide for compulsory adjudicative dispute settlement.[133]

One may conclude, therefore, that the jurisdictional basis of the ICJ and other international courts and tribunals for the adjudication of environmental disputes largely derives from compromissory clauses of scattered and overlapping MEA, which limit its material scope to the interpretation and application of underlying treaties only, giving rise to a 'picture of jurisdictional incoherence and complexity.'[134] As a result, cluster litigation and forum shopping are frequent phenomena associated to international environmental adjudication. This sees parties to a dispute bringing their respective claims to whichever international court or tribunal they deem most favourable to their interests, as paradigmatically exemplified by the *Swordfish* dispute between Chile and the European Union, which was brought simultaneously before ITLOS and the WTO Dispute Settlement Body. As a result, disputes are frequently apportioned into different 'clusters' of claims,[135] which are submitted to and litigated before different courts – like in the famous *MOX Plant* case between Ireland and the United Kingdom – with the subsequent risk of inconsistent outcome and fragmentation.

In addition to the consent-based nature of the ICJ's contentious jurisdiction and the relativity of the *res judicata* of its judgments, the traditional interpretation of provisions in the Statute of the ICJ governing the standing of parties to a multilateral treaty were seen as a hindrance to the construction of such cases before the ICJ.[136] As we shall see, this latter aspect has been addressed in the *Whaling* case. In the remainder of this section, I will therefore explore the extent to which this latter case may have provided solutions to some of those hurdles, most notably the standing for claims based on *erga omnes partes* obligations, as well as third-party intervention under article 63 ICJ Statute.

### 19.3.1 Standing for claims based on multilateral treaties

In the past, academic writings have extensively discussed the legal question of standing of a state party to a multilateral environmental treaty to institute proceedings against another state party for the breach of a treaty obligation which is not owed on a reciprocal basis, but *erga omnes partes*.[137] As discussed above, a wide range of treaty obligations undertaken in MEA addressing global environmental issues, such as climate change or the loss of biodiversity as a matter of common concern for humankind, often

[132] Boyle and Harrison (2013), p. 261.
[133] Ibid., pp. 250–251.
[134] Ibid., p. 251.
[135] Harrison (2013), p. 505; Nollkaemper (2008).
[136] See below no 160.
[137] See above no 47.

fall within this category.[138] In particular, two sorts of issues arise with respect to the litigation of claims based on *erga omnes partes* obligations before international courts and tribunals: standing and the effect of *res judicata inter partes* for the integrity of multilateral treaty-regime integrity.

The question whether a single state can arrogate itself the legal interest for claiming the fulfilment of obligations, which are not owed to it on the basis of reciprocity, and from the breach of which it has not suffered significant harms, was very much at the heart of the work carried out by Rapporteur James Crawford.[139] It led to article 48 of the 2001 Draft Articles on State Responsibility for Internationally Wrongful Acts.[140] In the commentary to article 48, the recognition of the capacity to invoke state responsibility 'by a state other than an injured state' for the breach of an obligation established for the protection of a collective interest of a group of the international community as a whole, was expressly portrayed as a measure of progressive development of international law,[141] thus hinting at the controversial nature of this matter.

Translating this legal question from the domain of state responsibility to that of adjudicative dispute settlement, means asking whether – counter to what the ICJ established in 1966 in its judgment of the merits of the *South Western Africa* case[142] – public interest litigation[143] is possible under international law. Until the judgment rendered in 2012 in *Questions Relating to the Obligation to Prosecute or extradite (Belgium v Senegal)*,[144] standing to institute proceedings before the ICJ on the basis of an alleged breach of *erga omnes partes* obligations was very much unclear. Academic writings would often highlight the ambiguities of paragraphs 33 and 34 of the ICJ's 1970 judgment in the *Barcelona Traction* case and the ensuing interpretative discrepancies in scholarship as to their ultimate implications.[145] In addition, the problematic relationship of the legal interest of any State in the fulfilment of obligations *erga omnes* with the consent-based nature of the jurisdiction of international courts was also regarded as a significant hurdle to public interest litigation before the ICJ,[146] as seen in the dismissal of Portugal's claims against Australia in the *East Timor* case. This case was dismissed on the basis of the indispensable third party principle, which would have required the intervention of Indonesia, over which the ICJ however did not have jurisdiction.[147]

While the indispensable third party rule indeed poses a jurisdictional limitation to public interest litigation before international courts and tribunals, the issue of standing before the ICJ for instituting proceedings on the basis of *erga omnes partes* obligations was explicitly recognised in *Belgium v Senegal*, when the Court established that:

> [t]he common interest in compliance with the relevant obligations under the Convention against Torture implies the entitlement of each State party to the Convention to make a claim concerning the cessation of an alleged breach by another State party. If a special interest were required for that

[138] Cardesa-Salzmann (2012), pp. 108–111.
[139] Third Report on State Responsibility by Mr. James Crawford, Special Rapporteur, UN Doc A/CN.4/507 (2000).
[140] ILC Draft Articles on Responsibility of States for Internationally Wrongful Acts, UN Doc A/56/10 (2001).
[141] Ibid., p. 127.
[142] *South West Africa (Ethiopia and Liberia v South Africa)*, Judgment, 18 July 1966, ICJ Reports 1966, p 6.
[143] This terminology is used in Boyle and Harrison (2013), p. 256.
[144] *Questions relating to the Obligation to Prosecute or Extradite (Belgium v Senegal)*, Judgment, 20 July 2012, ICJ Reports 2012, p 422.
[145] Tams (2005), chap. 5.
[146] Ibid., chap. 5; Ohlhoff (2003), pp. 167–176.
[147] *East Timor (Portugal v Australia)*, Judgment, 30 June 1995, ICJ Reports 1995, p 90. The indispensable third party principle, however, was first established in Case of the Monetary Gold Removed from Rome in 1943 (Preliminary Question), Judgment of 15 June 1954: I.C.J. Reports 1954, p. 19.

> purpose, in many cases no State would be in the position to make such a claim. It follows that any State Party to the Convention may invoke the responsibility of another State party with a view to ascertaining the alleged failure to comply with its obligations *erga omnes partes* […] and to bring that failure to an end.[148]

*Whaling in the Antarctic* confirmed this trend, as Australia did not have to prove any special interest in Japan's compliance with its obligations under article VIII of the 1946 International Convention for the Regulation of Whaling (ICRW),[149] other than being itself a party to the Convention. Being the first environmental dispute of claims based on *erga omnes partes* obligations adjudicated by the ICJ, this case clearly provides a precedent to draw from in future environmental public interest litigation before the Court. At the same time, for the purpose of contextualising the respective remits of international adjudication and compliance mechanisms in MEA, it is important to bear in mind that this landmark case would most certainly not have reached the ICJ, had there been a compliance mechanism in place in the ICRW.[150] Indeed, designed and negotiated as a fisheries treaty with for the time quite advanced language about 'safeguarding for future generations the great natural resources represented by the whale stocks' and the 'common interest to achieve the optimum level' of such stocks, the ICRW is nowadays seen as a multilateral treaty concerned with the conservation and sustainable exploitation of whales. Despite the objections lodged amongst others by Japan, the moratorium of all commercial whaling enacted in early 1980s and the establishment of the Indian Ocean Sanctuary and the Southern Ocean Sanctuary,[151] the vast majority of States Parties to the ICRW has shifted its focus towards conservation, rather than sustainable exploitation.

Given the original object and purpose of the ICRW and the historical context in which it was adopted, the institutional design of the International Whaling Commission (IWC)[152] and the decision-making procedures for the adoption of amendments the ICRW's schedule allows any State Party to opt out of proposed amendments through the issuance of objections.[153] However, these institutional and procedural features are quite different from present day MEA, where for the sake of the preservation of regime integrity the leeway for regimes *à la carte* is avoided to the extent possible within the framework of international treaty law relating to multilateral conventions.[154] In this sense, present-day MEA typically feature clauses disallowing the formulation of reservations to the treaty. At the same time, procedures for the adoption of technical adjustments, amendments or additional protocols seek to ensure widest-possible adhesion and ratification by the Parties to the foundational treaty.[155] As opposed to current MEA, whose compliance mechanisms – as discussed above – are carefully designed for a proactive approach to support and encourage compliance by the parties, the IWC clearly lacks such a mandate. Enforcement is entirely left to national authorities and courts.[156]

These important institutional and regulatory differences between the ICRW and present-day MEA notwithstanding, *Whaling in the Antarctic* also addresses important legal questions regarding the relevance of *inter-partes* litigation regarding the interpretation and application of a multilateral treaty for other States Parties to the treaty. In this regard, scholarly writings focussing on the compliance with and

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[148] *Questions relating to the Obligation to Prosecute or Extradite*, above no. 145, para. 69.
[149] International Convention for the Regulation of Whaling, 2 December 1946, 161 UNTS 72, entered into force 10 November 1948 (hereinafter, ICRW).
[150] Boyle and Harrison (2013), p. 260.
[151] ICRW, Schedule, paras. 6 and 7.
[152] ICRW, article III.
[153] ICRW, article V.
[154] Churchill and Ulfstein (2000); Röben (2000); Brunnée (2002); Brunnée (2005); Wiersema (2009).
[155] Röben (2000); Brunnée (2005).
[156] ICRW, article IX.

effectiveness of multilateral environmental treaty-regimes have discussed the potential risk for regime integrity deriving from the *inter partes* effect of judgments of international courts and tribunals.[157] In this sense, as famously pointed out by Vice-President Weeramantry in his Separate Opinion to the judgment in the *Gabčíkovo-Nagymaros Dam* case,[158] the bilateralist approach underlying inter-state litigation is perceived as a hindrance to the adjudication of environmental disputes concerning common interests of humankind.

### 19.3.2 Third-party intervention on the basis of article 63 ICJ Statute

The discussions of the previous section show that compliance mechanisms allow for an institutionalised, cooperative approach towards compliance issues, the solution of which is agreed collectively through the Compliance Committee and the Conference of the Parties. Such a cooperative approach ensures the preservation of the often complex and sensitive balance of interests agreed upon in the negotiation of global MEA. On the other hand, the submission of such compliance issues to dispute settlement through adjudication can lead to an outcome which is legally binding for the contending Parties, given the *inter partes* effects of *res judicata*. Such an outcome, however, risks unravelling the wider, more complex balances enshrined in large multilateral treaties if the international court confronted with the dispute does not have the means to allow the other Parties in the treaty to make their respective representations in the proceedings.

The ICJ Statute does indeed foresee the possibility for third-party intervention as a way to accommodate claims and interest of other States which are not directly involved in the dispute. As highlighted by Judge Cançado-Trindade in his Separate Opinion to the Order granting intervention to New Zealand in the *Whaling* case,[159] even if narrowly interpreted and little applied in the past, the ICJ Statute provides in articles 62 and 63 avenues for intervention in the proceedings, not as a party in the dispute itself, but as third parties with an interest of a legal nature which may be affected by the decision in that case. Similar provisions exist with respect to arbitral tribunals and in the statute of ITLOS.[160] The 'discretionary intervention' of article 62 and the 'intervention as of right' of article 63, however, do differ quite significantly one from another.[161] Delving into the differences and respective remits of these two provisions of the ICJ Statute would outgrow the scope of this chapter, and have been discussed in some detail in the above-mentioned Separate Opinion of Judge Cançado-Trindade.[162]

However, given the structural significance of multilateral treaties present-day international environmental law, which give rise to fragmented, complex and polycentric patterns of governance[163] based on 'decentralized network of embedded, nested, clustered, and overlapping institutions',[164] third party intervention on the basis of article 63 ICJ Statute indeed opens an avenue for accommodating collective interests and environmental regime integrity more effectively in *inter-partes* adjudicative dispute settlement. Of special interest for our purpose here, is article 63(2) of the Statute. It confers the right of intervention in the proceedings to any party to a multilateral treaty other than those involved in the dispute, given their intrinsic interest not in the outcome of the case, but in the legal interpretation that the ICJ may adopt to that end. If a State decides to exercise this right of intervention under article 63(2),

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[157] Stephens (2009), pp. 93–102.
[158] *Gabčíkovo-Nagymaros Project*, above no. 13, p. 118.
[159] *Whaling in the Antarctic*, Declaration of Intervention of New Zealand, Order of 6 February 2013, ICJ Reports 2013, p. 14.
[160] Statute of the International Tribunal for the Law of the Sea, 10 December 1982, 1833 UNTS 561, article 32.
[161] See Chinkin (2012a); Chinkin (2012b) in particular pp. 1577-1578.
[162] Separate Opinion, above no. **Error! Bookmark not defined.**, pp. 23-33.
[163] Kim (2019).
[164] Kim and Mackey (2013), p. 13.

however, the interpretation of the multilateral treaty rendered by the ICJ will be binding for it. It is also important to notice that this right of intervention is purely based on the common membership in the relevant treaty and does not require any other jurisdictional basis.[165]

As New Zealand's intervention in the dispute between Australia and Japan in *Whaling in the Antarctic* shows, article 63 confers the other parties in a multilateral treaty, the provisions of which are at the core of the dispute, a suitable avenue to feed the views of the non-contending parties into the proceedings in the collective interest of regime integrity. Obligations undertaken by States through multilateral treaties, especially those of an *erga omnes partes* nature, do not belong in exclusivity to the parties in dispute, but rather to the entirety of the parties. The intervention as of right of article 63 thus provides a mechanism to protect the objective character of these obligations, as Judge Cançado-Trindade rightly pointed out, which are to be 'implemented collectively, singling out the predominance of considerations of general interest (or even *ordre public*), transcending the individual interest of States parties.'[166]

Of course, third party intervention on the basis of article 63 has implications for procedural fairness in the proceedings before the Court, as the Japanese representation highlighted in the *Whaling* case, who had to counter the arguments of the plaintiff and the intervening third party.[167] At the same time, as Judge Cançado-Trindade held, while there were valid elements to those concerns, these can be readily managed by the Court in order to ensure the procedural equality between the disputing parties on the basis or article 86 of the Rules of Court.

To conclude with this set of reflections on the standing for claims based on multilateral treaties and third-party intervention, one may hope with Cançado-Trindade that the intervention granted to New Zealand in the *Whaling in the Antarctic* case on the basis of article 63, together with prior interventions granted also on the basis of article 62,[168] signifies a shift away from narrow and excessively formalistic interpretations of the past and towards a resurrection of third-party intervention for the future.[169] Going even further, one may even hope for a more liberal interpretation also of article 34, paragraphs (2) and (3) of the Statute, which seem to provide for similar avenues of third-party intervention also to relevant public international organisations, in order to accommodate the Statute to the more complex and polycentric reality of present-day public international law.[170] Whatever the attitude of the Court may be in the future, Cançado-Trindade rightly raises the argument that a more prominent space for third-party intervention before the ICJ will be critical not only for the effective litigation of disputes based on multilateral treaties, but also for the ICJ to overcome the sole dispute-settlement dimension of its functions and the fuller realisation of its mandate under article 92 UN Charter as the main judicial organ of the United Nations.[171] In order to grasp the significance of the opportunities that the *Whaling* case opens with respect to the use of article 63 ICJ Statute for our purposes, however, one must also say that third-party intervention alone is unlikely to override the incentives provided by endogenous, treaty-specific compliance mechanisms to manage compliance issues through bespoke financial and technical assistance. However, it sets the required conditions for the adjudication of fundamental legal disputes arising out of MEAs, should the occasion arise. As the historical precedent of the challenges faced by the Montreal Protocol in the mid-1990s suggests, MEA and their institutional arrangements are resilient

[165] Chinkin (2012b), p. 1590.
[166] Separate Opinion, above no. **Error! Bookmark not defined.**, p. 34.
[167] Boyle and Harrison (2013), p. 263.
[168] See, in particular, *Jurisdictional Immunities of the State (Germany v Italy),* Application for Permission to Intervene, Order of 4 July 2011, ICJ Reports 2011, p. 494.
[169] Separate Opinion, above no. **Error! Bookmark not defined.**, p. 33.
[170] Dupuy (2012), p. 604.
[171] Separate Opinion, above no. **Error! Bookmark not defined.**, p. 37.

and adaptive bureaucracies.[172] However, they are not immune to crises, at which point third-party intervention under article 63 ICJ Statute, as resuscitated in the *Whaling* case, could make the resort to adjudicative dispute settlement before the ICJ seem like a viable option for States.

## 19.4 Concluding reflections

The discussions engaged in in this chapter reveal a complex and patchworked scenario of multiple layers of general principles, customary rules of general international law and international treaties, most of which are multilateral, which provide the normative basis of what is generally known as international environmental law. However, whilst generally recognised as a distinct branch of public international law, its ontological and epistemological boundaries with respect to other branches of international law remain blurry. Structural features of international adjudication, such as in particular the atomised jurisdictional bases of international courts and tribunals for the adjudication of environmental disputes, or the accommodation of community interests through quintessentially bilateral adjudication (e.g. through extended standing and third-party intervention), remain bottlenecks for international environmental adjudication. As some authors have put it, '[w]hat is most remarkable in these circumstances is that there are any cases at all.'[173] In a largely parallel process to the progressive superseding of general principles and customary law with an ever-tighter web of MEA, endogenous, treaty-specific compliance mechanisms have come to provide an alternative, managerial approach to the promotion of implementation and compliance of international legal rules, which have come to coexist – and to some extent, displace – adjudicative dispute settlement of environmental disputes.

In turn, the scrutiny of the performance of compliance mechanisms across MEA also reveals a nuanced picture, according to which these managerial and non-adversarial approaches to the furtherance of implementation and compliance have proven particularly effective within treaty-regimes featuring *erga omnes partes* obligations. Their degree of success is perhaps more modest in treaty-regimes with a less intense protection of collective interests, in the context of which the catalysing role of treaty bodies in triggering compliance control and supportive measures is more limited.

The resulting scenario begs the question about the distinctive roles and potential complementarities between international environmental adjudication and regime-internal managerial compliance control in the broader picture of global environmental governance. In the past, I addressed this question by hypothesising the need for exploring and enhancing synergies between both types of mechanisms[174] in the interest of the international rule of law, and in order to allow the international legal order to come to terms with its own heterarchy and pluralism, by promoting systemic integrity and the respect for structural, transversal values.[175] A decade later, significant developments have taken place. On the one side, *Whaling in the Antarctic*[176] has provided a precedent of international environmental adjudication based on a multilateral treaty featuring obligations of an *erga omnes partes* character, consolidating the trend initiated in *Belgium v Senegal*[177] regarding standing in such cases, and opening a promising, more liberal approach towards third-party intervention on the basis of article 63 ICJ Statute. After the criticism voiced against the practice of scientific fact-finding in environmental disputes in the *Pulp Mills*

[172] Werksman (1996).
[173] Boyle and Harrison (2013), p. 251.
[174] Cardesa-Salzmann (2012).
[175] Klabbers et al. (2009), pp. 43–44.
[176] See above no. 16.
[177] See above no. 59.

case, *Whaling in the Antarctic* also paved the way for fairer and methodologically more sound procedures for the uptake of complex and contingent scientific evidence. This said, and to put the significance of *Whaling in the Antarctic* in perspective, one must equally acknowledge that the substantiation of such a case before the ICJ was only possible due to the rather seldom coincidence of the two disputing parties' recognition of the Court's compulsory jurisdiction under article 36(2) ICJ Statute. I also agree with Boyle's and Harrison's assessment that, even so, this case most probably would not have reached the ICJ, had the ICRW provided the basis for the IWC to develop managerialist approaches towards compliance.[178] While hypothetical, this latter remark is significant, as the managerialist approach advocates for constructive, non-punitive responses to non-compliance for the sake of regime integrity. Against this backdrop, the ironical twist in the story of this landmark case of international environmental adjudication was the withdrawal of Japan from the IWC as of 2019, resuming thereafter commercial whaling operations.

On the other side, the practice of managerial compliance control and assistance under MEA has silently continued over these years, allowing treaty bodies to accumulate valuable institutional knowledge, which has seen compliance mechanisms like those in the Basel Convention and the Cartagena Protocol finally becoming operative. The perhaps most remarkable development comes with the adoption and entry into force of the 2015 Paris Agreement, the compliance mechanism of which seemingly entails a shift away from the harder enforcement edge and quasi-judicial features of the compliance mechanism under the Kyoto Protocol,[179] towards decidedly more facilitative and managerial patterns of operation.[180] As part of international bureaucratic governance structures,[181] moreover, compliance mechanisms in MEA provide technocratic forums for compliance monitoring and management which possibly harness the required technical expertise for scientific fact-finding more readily than international courts and tribunals. However, the technocratic nature of these mechanisms also confers a degree of opaqueness to these procedures, which compromises the deliberative quality of international environmental decision-making processes.[182] Participation of NGOs or of indigenous peoples and local communities in compliance mechanisms has only been addressed to some extent in the more liberal approaches taken by quasi-judicial compliance procedures like the one under the Kyoto Protocol, or the quite unique mechanism of the Nagoya Protocol[183] at global level, and those established under some regional MEA in the UNECE region.[184] From this perspective, some authors suggest that the increasing relevance of the best available science (BAS) standard for the discharge of international obligations undertaken in MEA, such as the Paris Agreement, and in UNCLOS, may well lead to litigation of the transparency and legitimacy of 'best' science, as well as gaps in the 'available' science, before international courts and tribunals.[185] While the compulsory dispute settlement system under UNCLOS makes this scenario more likely under that treaty system, the compliance mechanism in the Paris Agreement and the lack of provision for compulsory dispute settlement makes it less likely. However, time will tell.

These concluding reflections seem to confirm that compliance mechanisms of MEA and international courts and tribunals have continued to coexist in a largely autonomous manner. However, a more detailed scrutiny of the attitude of domestic and international courts vis-à-vis the actuations of compliance mechanisms may provide a more nuanced picture. As highlighted by Tabau and Maljean-Dubois some

[178] Boyle and Harrison (2013), p. 260.
[179] Klabbers (2008).
[180] Voigt (2016).
[181] Biermann and Siebenhüner (2009).
[182] Dryzek and Stevenson (2011); Stevenson and Dryzek (2012); Stevenson and Dryzek (2014).
[183] Zheng (2021).
[184] Cardesa-Salzmann (2012), pp. 122–126. See above no. **Error! Bookmark not defined.**.
[185] Cook (2018).

time ago, a closer look into the practice of the European Union with respect to the decisions of compliance mechanism in the Kyoto Protocol regarding its Member States, reveals a remarkable deferential approach by the European Commission and the Court of Justice of the European Union for the sake of consistency between the international and EU legal systems. [186] The spectacular rise in domestic climate change litigation across the globe also suggests that domestic courts are taking a much more demanding attitude towards national governments and legislatures in order to fully comply with the best available science standard under the Paris Agreement.[187] Of course, the willingness of courts, especially international courts, to seek the solution to a dispute 'not by taking the one-jurisdiction-at-a-time perspective – the perspective of mutual alternative or exclusion – but by showing the relevance of – and the caring for – all the relevant normativities actually controlling the case,'[188] varies greatly and depends on the institutional and normative preferences or biases of the international legal framework from which it draws its mandate and jurisdiction.[189]

In this sense, I conclude by reiterating the desirability of enhancing synergies between compliance mechanisms in MEA and international courts and tribunals. While managerial compliance mechanisms have proven overall effective in supporting and facilitating the implementation and compliance of their respective MEA, they have equally performed well in avoiding disputes. At the same time, one may nevertheless agree with Stephens in that, in contrast to compliance procedures, international courts are 'more authoritative sites for independent decision-making, and therefore are potentially more useful for assisting in the principled development of the law'. [190] Put differently, other than endogenous, treaty-specific, managerial compliance mechanisms in MEAs, international courts and tribunals, and especially the ICJ, are in principle better placed to act as 'hubs of inter-legality.'[191] But I definitely also concur with Pineschi that the comity and mutual deference that judicial and non-judicial mechanisms ought to engage in for the sake of 'inter-legality,' crucial as it indeed is, is unfortunately only a tiny part of the challenges we all face for the preservation of global ecosystems for future generations.[192]

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[186] Tabau and Maljean-Dubois (2010), p. 755; see also Cardesa-Salzmann (2012), p. 129.

[187] See e.g. the Judgment of the German Constitutional Court of 29 April 2021in the Neubauer case, ECLI:DE:BVerfG:2021:rs20210324.1bvr265618. See also Chapter 20 in this volume.

[188] Klabbers and Palombella (2019), p. 3.

[189] Shany (2019), p. 328.

[190] Stephens (2009), p. 364.

[191] Shany (2019).

[192] Pineschi (2019).

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