Biodiversity Litigation:

Setting the scene

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1. Introduction

In 2020, the cognitive dissonance of environmental governance was made painfully clear. At the same time that the pandemic shed light on the disastrous and direct consequences of environmental degradation for the well-being of humans worldwide,[1] environmental exploitation and mismanagement nevertheless continued, mostly, in a ruinous "business as usual" fashion.[2]

The most recent edition of the Global Biodiversity Outlook is clear: "none of the Aichi Biodiversity Targets[3] will be fully met."[4] This assessment is unfortunately similar to the outcome of the 2002 strategic plan for the Convention on Biological Diversity (CBD)[5] that ended in 2010 on the same observation.[6] These failures are not uncommon in international environmental law, and the field inevitably carries a sense of pessimism. It is now a truism to point out that the exponential growth of this branch of international law stands in stark contrast with the factual situation. In many ways, international environmental law is fraught with unfulfilled promises.

But necessity is the mother of invention. And we have witnessed legal developments in the past years that have the potential to facilitate better implementation of international environmental law.[7]

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[1] In October 2020, the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES) issued a special report highlighting the links between biodiversity loss and the occurrences of pandemics. IPBES, *IPBES Workshop on Biodiversity and Pandemics Executive Summary* (IPBES 2020).

[2] This state of affairs was highlighted with stark words by the UN Secretary General during a speech in Columbia University in December 2020. "The state of the planet is broken", "Humanity is Waging War Against Nature" … such were the words used by António Guterres on this occasion. <https://www.un.org/en/climatechange/un-secretary-general-speaks-state-planet> accessed 9 March 2022.

[3] CBD, 2010, Decision X/2, The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets.

[4] Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5 – Summary for Policy Makers* (Secretariat of the Convention on Biological Diversity 2020), 4. The Aichi Targets were a set of objectives to be met by 2020 in order to ensure the conservation and sustainable use of biodiversity worldwide.

[5] Convention on Biological Diversity (opened for signature 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79. For the 2010 plan, see CBD, 2002, Decision VI/26, Strategic Plan for the Convention on Biological Diversity.

[6] CBD, 2010, UNEP/CBD/COP/10/8, Implementation of the Convention and the Strategic Plan and Progress Towards the 2010 Biodiversity Target, §.85.

[7] These innovations are carefully monitored by institutions working in the field of environmental conservation and sustainable development. See for instance, UN Environment, *Global Environment Outlook 6 Summary for Policy Makers* (Cambridge University Press 2019), 17-18.

For instance, at the global level, there are ongoing and concerted efforts to improve the overall effectiveness of international biodiversity law (IBL).[8] As we enter the new decade, several multilateral environmental agreements will have landmark conferences of the parties (COP) paving the way for the future of IBL. The most important of which being arguably the 15th COP of the CBD – that was postponed several times due to the pandemic and is now scheduled in the third quarter of 2022 – which intends to set the tone for the next decade of international efforts for the conservation and sustainable use of biodiversity. A new "post 2020" framework is expected to be endorsed for this purpose,[9] potentially cementing the coherence and synergies of this field as the previous strategic plan did.[10]

In some ways, this current trajectory for global biodiversity governance is akin to the momentum that preceded the adoption of the Paris Agreement in 2015.[11] In the years leading to its adoption, there was a consensus on the shortcomings of the current climate regime on the necessity to advance it further by establishing a new and better suited legal framework. The adoption of such a framework was seen as a diplomatic success[12] and welcomed with cautious optimism by observers.[13]

However, if one is to compare the future development of international biodiversity law with what happened in the climate regime, then the outcomes do not look promising. Evidently, the Paris Agreement has become a central instrument to strengthen the global response to the threat of climate change. Policy makers worldwide will mostly incorporate references to climate change mitigation and/or adaptation in their decisions, projects and programmes.[14] Yet despite this centrality in the political discourse, the recent global assessments show that the concentration of Green House Gas (GHG) is still on the rise.[15] Without radical and swift change, the very purpose

[8] In the context of this project, we understand International Biodiversity Law as "the branch of international law that comprises all of the rules related to biodiversity (the variability among living organisms from all sources and the ecological complexes of which they are part)". This introduction will expand on this definition in the first section.
[9] CBD, 2021, CBD/WG2020/3/3, First Draft of the Post-2020 Global Biodiversity Framework, *Note by the Co-Chairs*.
[10] Guillaume Futhazar, 'The Diffusion of the Strategic Plan for Biodiversity and its Aichi Biodiversity Targets Within the Biodiversity Cluster. An Illustration of Current Trends in the Global Governance of Biodiversity and Ecosystems' (2014) 35 Yearbook of International Environmental Law 133.
[11] Paris Agreement (opened for signature 12 December 2015, entered into force 4 November 2016) *UNTS* I-54113.
[12] Fiona Harvey, 'Paris Climate Change Agreement: The World's Greatest Diplomatic Success' *The Guardian* (London, 14 December 2015).
[13] This can be seen in the articles that followed the adoption of the agreement. See e.g. Annalisa. Savaresi, 'The Paris Agreement: A New Beginning?' (2016) 34 Journal of Energy & Natural Resources Law 16; Jorge Vinuales, 'The Paris Agreement on Climate Change: Less is More' (2017) 59 German Yearbook of International Law 12. This feeling soon faded as the assessments on GHG emissions and states commitments highlighted that we were not on track to meet the objectives. UNEP, *Emissions Gap Report 2020* (UNEP 2020).
[14] For instance, climate change is mentioned on numerous occasions in the documents produced for the ongoing reform for the EU Common Agricultural Policy. See, *inter alia*, Regulation (EU) 2020/2220 of the European parliament and of the Council of 23 December 2020 laying down certain transitional provisions for support from the European Agricultural Fund for Rural Development (EAFRD) and from the European Agricultural Guarantee Fund (EAGF) in the years 2021 and 2022.
[15] IPCC, Global Warming of 1.5°C. *An IPCC Special Report 2018: Summary for Policymakers* (IPCC 2018); UNEP, *Emissions Gap Report 2021: The Heat Is On – A World of Climate Promises Not Yet Delivered* (UNEP Nairobi 2021).

of the climate regime is unlikely to be met.[16] If the climate regime is failing to meet its objective, why would it be any different for the biodiversity regime?

One has to keep in mind that the management of global environmental problems is not only dealt through international legal instruments and institutions. Innovative solutions can come from other actors and at different levels. In the case of climate change mitigation and adaptation, judges are increasingly contributing to counterbalance the discrepancy between the international commitments of states and their lacklustre implementation.[17]

The 2019 has offered a spectacular illustration of this role with the final act of the Urgenda saga.[18] Here, the Dutch Supreme Court interpreted the national and international commitments of the Netherlands through the prism of international climate law and issued a decision compelling the Dutch governing to reduce its GHG by at least 25% by 2020. To reach this conclusion, the UNFCCC and its protocols, its COP decisions, the reports of the Intergovernmental Panel on Climate Change all came to bear on how to interpret and implement articles of the European Convention on Human Rights. And the Urgenda case is only but the "spectacular" tip of the iceberg of a legal trend that has been ongoing for several years.[19] These numerous cases indicate that the developments that occurred at the global level for the mitigation of climate change are correlated with a rise in the number of legal disputes concerning climate change. We also witness an emerging trend of cases where international developments on climate change have been used as part of the arguments of the claimants and the reasoning of the judges.[20] Indeed the Paris Agreement, thanks to the involvement of civil society, has provided fuel for climate litigation in a decisive manner and offered national courts the opportunity to position themselves as key players of climate governance.[21]

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[16] Paris Agreement, Article 2: "This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change".

[17] Matthias Petel, 'Analyse de l'usage stratégique des droits humains au sein du contentieux climatique contre les États' (2020) MPIL Research Paper Series No. 2020-33.

[18] Supreme Court of the Netherlands, Judgment19/00135 of 20 December 2019.

[19] The Sabin Center for Climate Change Law has been referencing these cases for several years now. See <https://climate.law.columbia.edu/> accessed 9 March 2022. Some authors have argued that the cases referenced by the Sabin Center are only but a fraction of cases that might have an impact on climate change. On this question of framing, see Kim Bouwer, 'The Unsexy Future of Climate Change Litigation' (2018) 30 Journal of Environmental Law 483.

[20] For instance, in recent cases of civil disobedience in Switzerland and France, parties invoked the international commitments of the States, and their subsequent failure to act, as a justification for their action. See Saskia Stucki, 'In Defence of Green Civil Disobedience Judicial Courage in the Face of Climate Crisis and State Inaction' (2020) Verfassunblog <https://verfassungsblog.de/in-defence-of-green-civil-disobedience/> accessed 30 October 2020.

[21] Sandrine Maljean-Dubois, 'Climate Litigation: The Impact of the Paris Agreement in National Courts' (2022, forthcoming), Taiwan Law Review; Anna-Julia Saiger, 'Domestic Courts and the Paris Agreement's Climate Goals: The Need for a Comparative Approach' (2020) 9(1) Transnational Environmental Law, 37-54; Lys Kulamadayil, 'Between Activism and Complacency: International Law Perspectives on European Climate Litigation' (2021) 10 (5) European Society of International Law Reflections, 1-7.

This development is a welcome one. It opens up new means to act for civil society, which in recent years has showed a growing, massive, rejuvenated and sometimes even radicalized mobilisation to defend the environment. One that can help defeat the general feeling of pessimism that stems from the obvious "reality schism" that is at play in the field of international environmental law.[22] In some circumstances, judges are operating the connections that allow international environmental law to overcome its structural ineffectiveness. Judges can link the national and the global level by letting international environmental law permeate, explicitly or implicitly, their reasoning and decisions. They can also influence other judges, thus pushing for converging approaches on this matter.[23] And, most importantly, they often have the ability to deliver decisions that will actually bind the states or compel individuals.

This edited volume draws from this observation and seeks to ask similar questions with regard to biodiversity. If the rise of climate change litigation is correlated to the development of international climate law, can we find a biodiversity litigation correlated with the development of international biodiversity law?

Surprisingly, this question has not, to our knowledge, been explored in a systematic way by legal scholarship. That is not to say that the topic of environment and courts is an unexplored one, far from it.[24] But a glance at the available literature shows that the focus is mainly articulated around two main lines of questioning:[25] either climate change in front of courts, or environment, as a whole, in front of courts. In the case of climate change, obstacles and litigation strategies are explored,[26] while scholarship on the environment focuses on the practices of judges when dealing with environmental matters and also on how this topic might have reshaped procedures (expertise, evidence, legal standing and so on). [27]

Yet, biodiversity has unique characteristics that warrant a more specific investigation as a topic of legal scholarship.

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[22] Stefan Aykut, Amy Dahan, *Gouverner le climat 20 ans de négociation internationale* (Presses de Sciences Po 2015), 399

[23] In the Urgenda case, the Urgenda foundation made several references to other cases in its arguments. The same approach can be observed in currently ongoing disputes in France. See *L'Affaire du Siècle*, written pleadings <https://laffairedusiecle.net/argumentaire-memoire-complementaire/> accessed 9 March 2022 and Judgment of the Paris Administrative Court, cases Nos 1904967, 1904968, 1904972, 1904976/4-1, 14 October 2021.

[24] For recent examples see the edited volumes by Christina Voigt (ed), *International Judicial Practice on the Environment: Questions of Legitimacy* (Cambridge University Press 2019) and *Courts and the Environment* (Edward Elgar 2018).

[25] Of course, exceptions to these two trends exist. See for instance the Claws and Laws project that focuses specifically on the conservation of large carnivores. <http://www.clawsandlaws.eu/> accessed 9 March 2022.

[26] A summary of the debates can be found in the last UNEP report on the topic, UNEP, *Global Climate Litigation Report: 2020 Status Review* (UNEP 2021).

[27] For instance, Eve Truilhé-Marengo (ed), La relation juge-expert dans les contentieux sanitaires et environnementaux (La Documentation Française 2012); Mathilde Hautereau-Boutonnet and Ève Truilhé (eds), *Le procès environnemental. Du procès sur l'environnement au procès pour l'environnement* (Dalloz 2021); Hendrik Schoukens, 'Access to Justice Before EU Courts in Environmental Cases Against the Backdrop of the Aarhus Convention Balancing Pathological Stubbornness and Cognitive Dissonance?' in Voigt, *International Judicial Practice* (n 24), 74.

Firstly, biodiversity combines spatial scales in a remarkable way. Elements of biodiversity may exist only locally, yet the conservation of biodiversity as a whole is simultaneously considered as a common concern of mankind.[28] In other words, the loss of a species located in the confines of a single state will be considered a loss for the entirety of the international community. This interplay between local and global stands in contrast with climate which is by its very nature global and less tangible.

Also, in comparison to climate change law, international biodiversity law is far older and denser.[29] It therefore had many more opportunities to influence litigation in different contexts.

Moreover, biodiversity is inherently dynamic and complex. Our knowledge on the topic never ceases to evolve, and so does our realization of remaining knowledge gaps.[30] This scientific uncertainty is paired with a plurality of socio-cultural values associated to biodiversity, making an objective and decontextualized approach to the field both problematic and impossible.[31] The fleeting nature of biodiversity makes it difficult to be seized by law. It does not fare well with the notion of legal certainty[32] and calls for appropriate legal and conceptual innovation in order to achieve adequate conservation and sustainable use.[33]

To summarize, the purpose of this edited volume is twofold. Firstly, we seek to identify what we label as "biodiversity litigation". To do so, we will follow a comparative approach in order to understand its trends in different contexts and to reframe it in the more general context of environmental litigation. Secondly, we also want to understand how international biodiversity law might have influenced biodiversity litigation. Understanding this correlation will help us to better grasp the full impact of international biodiversity law on states and suggests paths to improve its overall effectiveness.

Doing so requires that several elements be defined with more precision in this introduction.

To this end, the next section will focus on explaining our understanding of international biodiversity law in the context of this project. We will highlight how this branch of international law is far reaching both in terms of topics and in terms of temporality. This section will discuss the current centrality of the CBD for IBL as a whole and the unfortunate lack of effectiveness of this branch.

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[28] Preamble of the CBD.

[29] This characteristic of international biodiversity will be further explored in section 2.

[30] See Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services, *Global Assessment Report on Biodiversity and Ecosystem Services* (IPBES 2019).

[31] On the downfalls of claimed objectivity in environmental governance, see Douglas A Kysar, *Regulating from Nowhere Environmental Law and the Search for Objectivity* (Yale University Press 2001)

[32] Being roughly understood here as the clarity, accessibility, and predictability of law. For more insight on this notion, see Mark Fenwick, Mathias Siems and Stefan Wrbka (eds), *The Shifting Meaning of Legal Certainty in Comparative and Transnational Law* (Hart 2017).

[33] On these numerous innovations, see e.g., Elisa Morgera and Jona Razzaque (eds), *Biodiversity and Nature Protection Law* (Edward Elgar 2017).

Section 3 will then turn to biodiversity litigation as a potential tool to tackle this lack of effectiveness. The section will define biodiversity litigation by taking the concepts of the CBD as a point of reference in order to identify what may actually be covered by such legal disputes. It will highlight that biodiversity litigation can refer to disputes concerning the conservation of biodiversity, the sustainable use of biodiversity, and/or access and benefit sharing.

Section 4 will present the methodology we have chosen to answer our research questions. Specifically, we will discuss the rationale for the selection of our case studies and expose the set of questions that our contributing authors have been asked to answer and explain their relevance for our investigation.

Finally, Section 5 will briefly present the different case studies included in this volume.

2. International Biodiversity Law: A Broad and Far-Reaching Field

The section will start by presenting our definition of international biodiversity law for the purpose of this edited volume (2.1). It will then discuss the emergence of this branch of international law by explaining how something as local as biodiversity nevertheless became the subject of international cooperation and regulation (2.2). Unfortunately, international biodiversity law suffers from a clear lack of effectiveness, particularly regarding its implementation at the national level. In this context, we postulate that biodiversity litigation could help to reach a better implementation of international biodiversity law (2.3).

2.1. The Heterogeneity of International Biodiversity Law

We understand international biodiversity law as the branch of international law that comprises all of the rules related to biodiversity (defined as the variability among living organisms from all sources and the ecological complexes of which they are part).[34]

This seemingly obvious, even tautological, definition is less straight forward than it seems once we start to unpack it. Indeed, this understanding implies several layers, both thematic and temporal.

International biodiversity law comprises international instruments that predate the global consecration of the notion of biodiversity. In other words, what we refer to as being international biodiversity law is uncorrelated from the history of biodiversity as a scientific notion.[35] Indeed, several international agreements have managed or protected biodiversity, at least partially, even before the concept of biodiversity became a staple of environmental governance. We can mention

[34] We draw this understanding of biodiversity from article 2 of the CBD.

[35] For a brief overview of the history of this notion, see Patrick Blandin, 'La diversité du vivant avant (et après) la biodiversité : repères historiques et épistémologiques' in Elena Casetta and Julien Delord, *La biodiversité en question* (Editions Matériologiques 2014); Sandrine Maljean-Dubois, *Le droit international de la biodiversité* (Brill/Martinus Nijhoff 2021); Désirée McGraw, 'The Story of the Biodiversity Convention: from Negotiation to Implementation', in Philippe Leprestre (ed), *Governing Global Biodiversity: The Evolution and Implementation of the Convention on Biological Diversity* (Ashgate 2004) 7.

for instance, the Washington Convention International Trade in Endangered Species of Wild Fauna and Flora adopted in 1973,[36] the Ramsar Convention Wetlands of International Importance Especially as Waterfowl Habitat adopted in 1971[37] or the Bonn Convention on the Conservation of Migratory Species of Wild Animals.[38] These instruments continue to play an important role today for the conservation and sustainable use of biodiversity,[39] alongside the more recent ones that rely explicitly on the notion of biological diversity.[40]

Thematically, international biodiversity law is not strictly limited to conservation and sustainable use. It also refers to all rules that have a direct impact on biodiversity. Because of the all-encompassing nature of biodiversity, these rules are abundant. One can mention international rules on fishing, hunting, biosafety, but also the access to genetic resources and the sharing of the benefits arising out of their utilization. In this respect, international biodiversity law sits at the intersection of numerous regimes such as international trade, investment, or human rights. Consequently, the boundaries of international biodiversity law are inherently blurry. But this blurriness is a common characteristic in a global environmental landscape that is both dense and complex.

Thus conceived, international biodiversity law is a broad field with an abundance of international instruments, both binding and soft. It is, moreover, still a scattered area, the conceptualization of which is at an early stage.

2.2. The Convention on Biological Diversity as the Compass of IBL

International biodiversity law was built in a scattered and disconnected fashion. The first IBL treaties concerned specific species or areas and only engaged a limited number of states. For instance, the 1902 Convention for the Protection of Birds Useful to Agriculture[41] had 10 signatories from Europe and aimed at the protection of certain species only because of their instrumental value. The 1936 Convention relative to the Preservation of Fauna and Flora in their Natural State[42] only sought to establish national parks in Africa at a time when the continent was still mainly under colonial domination.

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[36] Convention on International Trade in Endangered Species of Wild Fauna and Flora (opened for signature 3 March 1973, entered into force 1 July 1975) 993 UNTS 243.

[37] Convention on Wetlands of International Importance Especially as Waterfowl Habitat (opened for signature 2 February 1971, entered into force 21 December 1975) 996 UNTS 245.

[38] Convention on the Conservation of Migratory Species of Wild Animals (opened for signature 23 June 1979, entered into force 1 November 1983) 1651 UNTS 333.

[39] See for instance, the parties to the Ramsar Convention adopted, in 2019, a resolution on the "Restoration of Degraded Peatlands to Mitigate and Adapt to Climate Change and Enhance Biodiversity and Disaster Risk Reduction" (Resolution XIII.13). The theme of this resolution illustrates how the convention can contribute to the achievement of the goals of more recent multilateral environmental agreements.

[40] For instance, the International Treaty on Plant Genetic Resources for Food and Agriculture (opened for signature 3 November 2001, entered into force 29 June 2004) 2400 UNTS 303.

[41] Convention for the Protection of Birds Useful to Agriculture, 19 March 1902 (accessible online at www.ecolex.org).

[42] Convention Relative to the Preservation of Fauna and Flora in their Natural State, 8 November 1933 (accessible online at www.ecolex.org).

As our conceptions evolved and our knowledge improved, states became involved in numerous regional and global conventions protecting certain species, groups of species and natural areas. The CITES and the Ramsar Convention, mentioned earlier, are representative of this broader approach. The 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals (CMS), also mentioned above, is similarly illustrative of a systemic understanding of biodiversity rather than a fragmented one.

This progressive broadening of the scope culminated with the adoption of the Convention on Biological Diversity in 1992, which has become, to some extent, the cornerstone of this body of law. With 196 Parties, it is the only convention covering all species and all activities throughout the planet. It is an omnibus convention for "all life on Earth". The Convention has three explicit objectives that reflect what earlier instruments sought to achieve but in a less comprehensive way: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources (often referred to as Access and Benefit Sharing).[43] To this end, it contains numerous obligations, most of which are tempered by the expression "as far as possible and as appropriate". This phrasing makes the CBD a relatively weak legal instrument in terms of binding power.[44]

The CBD is supplemented by various protocols. In 2000, the parties adopted the Cartagena Protocol on biosafety in 2000,[45] itself supplemented by the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress in 2010.[46] The same year, the parties also adopted the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization.[47] Additionally, the CBD is complemented by a wealth of COP decisions that thicken[48] its normative framework. On its own, the CBD system is thus already highly complex.

Unlike the two other conventions adopted following the 1992 Rio Conference,[49] the CBD arrived in an already crowded legal field. As mentioned earlier, several IBL treaties were in force at that

[43] We interchangeably use both terms throughout this introduction.
[44] As stressed by the International Court of Justice in 2015 when it declared that article 14 of the CBD on impact assessment does not "does not create an obligation to carry out an environmental impact assessment before undertaking an activity that may have significant adverse effects on biological diversity. See, Certain Activities Carried Out by Nicaragua in the Border Area (*Costa Rica v Nicaragua*) and Construction of a Road in Costa Rica along the San Juan River (*Nicaragua v Costa Rica*) (Judgment) [2015] ICJ Rep 665, §. 164.
[45] Cartagena Protocol on Biosafety to the Convention on Biological Diversity (opened for signature 29 January 2000, entered into force 11 September 2003) 2226 UNTS 208.
[46] Nagoya - Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (opened for signature 15 October 2010, entered into force 5 March 2018) UNTS A-30619.
[47] 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 (opened for signature 29 October 2010, entered into force 12 October 2014) UNTS A-30619.
[48] Annecoos Wieserma, 'The New International Law-makers? Conferences of the Parties to Multilateral Environmental Agreements' (2009) 31 Michigan Journal of International Law, 231.
[49] United Nations Framework Convention on Climate Change (opened for signature 9 May 1992, entered into force 21 March 1994) 1171 UNTS 107; United Nations Convention to Combat Desertification in those Countries

time. Yet, during the negotiation for the CBD, the consensus was that the existing international rules were insufficient to curb extinctions and that a new tool was needed to strengthen cooperation and, above all, to link all the pre-existing regimes.[50] To ensure proper legal coexistence, article 22 of the CBD states that its provisions "shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity".

The adoption of the CBD did not mean that the earlier conventions had lost their *raison d'être*. The text of Convention on biological diversity remains very general in its content and is only weakly normative. The other instruments, past and future, thus complement it with more precise and more suited provisions with a narrower scope *ratione loci* and/or *ratione materiae*.

This intricate framework where the CBD coexists with a multitude of other treaties forms a "regime complex",[51] a network of international regimes that relate to a common subject matter; exhibit overlapping membership and generate substantive interaction.[52] In this legal constellation, the CBD appears as a legal and political backbone that sets the tone for biodiversity governance and influences the development of other treaties. As such, even though IBL cannot and should not be reduced to the CBD as its sole representative, the Convention is currently the driving conceptual force of this branch.

The architects of the CBD also intend it to have an impact on non-environmental regimes.[53] It was expected that the objectives, principles and standards of the CBD would become commonly agreed references. Indeed, this outreach is crucial as several drivers of biodiversity decline are dealt by specialized regimes that are not part of IBL per se (climate change, chemicals, urbanization, transport, armed conflicts, trade, etc.).

From this point of view, *i.e* the mainstreaming of biodiversity issues, the strategic plan adopted in 2010 by the COP of the CBD, which defines a set of strategic objectives known as the "Aichi targets",[54] has been a real success at the international level. Its adoption represented a real step forward, effectively allowing a strategic refocusing of conventional activities around the Aichi targets.[55] The Convention, which had hitherto been rather marginalized in international governance,[56] was able to assert itself further. Indeed, UNEP supported the implementation of the

Experiencing Serious Drought and/or Desertification, Particularly in Africa (opened for signature 14 October 1994, entered into force 21 December 1996) 1954 UNTS 3.

[50]See UNEP/Bio.Div.1/3, 1988, Report of the Ad Hoc Working Group on the work of its first session.

[51] On this notion, see, *inter alia*, Amandine Orsini, Jean-Frédéric Morin, Oran Young, 'Regime Complexes: A buzz, a Boom, or a Boost for Global Governance?' (2013) 19 Global Governance 27.

[52] Ibid 29.

[53] As illustrated by the numerous COP decisions on cooperation with other sectors. For instance, CBD, 2018, Decision 14/3, Mainstreaming of biodiversity in the energy and mining, infrastructure, manufacturing and processing sectors.

[54] CBD, 2010, Decision X/2, The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets.

[55] Futhazar (n. 10).

[56] Ibid The 2002 Strategic had met explicit resistance from the permanent bodies of other biodiversity-related convention. UNEP, *International Environmental Governance*, Report of the Executive Director, UNEP/IGM/1/2, 3 April 2001.

targets, considering them to be "an important global policy framework for reversing the ongoing decline in biodiversity and ecosystem services". The strategic framework has subsequently been adopted by the other conventions related to biodiversity and ecosystems.[57] But its influence goes far beyond the biodiversity cluster,[58] since the Rio+20 Conference also built on these objectives. Biodiversity and ecosystems do indeed occupy a major place in the UN Sustainable Development Goals (SDGs) and associated targets, in particular SDGs 14 (marine biodiversity) and 15 (terrestrial biodiversity), but also as a cross-cutting issue in most of the SDGs.[59]

To summarize, while IBL emerged in a fragmented way, the adoption of the CBD added a centre of gravity to this branch of international law. While the CBD itself is not the most relevant instrument in terms of binding and specific rules, its influence within and outside IBL illustrate that it has become an important conceptual pillar.

This dynamic development of IBL stands in stark contrast with the current biodiversity crisis.

2.3. The Ineffectiveness of IBL in a Context of Global Biodiversity Crisis

At first glance, the biodiversity crisis may seem less global than the threat posed by climate change. Why should, for instance, the disappearance of a local species be considered a global threat? Such an understanding would ignore two key characteristics of biodiversity: first, the vital inter connections between its elements and second, the numerous equally vital contributions that biodiversity brings to human beings.

On the first characteristic, one has to keep in mind that biological diversity covers the diversity of life, from fauna and flora to bacteria, genes, ecosystems including all ordinary biodiversity made up of common and not necessarily remarkable organisms. Thus, biodiversity is evaluated and measured from the macro to the micro, at different levels (genes, species, ecosystems) and on different scales (biocenosis, landscape, biosphere). It is therefore a unifying concept. Thinking about biodiversity and no longer "wildlife" or "nature" leads to a change of perspective, a more detailed and encompassing one. In this perspective, elements of biodiversity are connected, and the loss of one element can have consequences on the system of which it was part. With less biological diversity, these systems are less resilient to changes and shocks and may therefore collapse. Currently, this risk of collapse is high for the entirety of biological diversity. As highlighted by Johan Rockström *et al.*,[60] the level of biological diversity can be considered as a planetary boundary which, when reached, leaves humanity in an unsafe "operating space". In a world with a too low degree of biological diversity, humanity is threatened.

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[57] Ibid.
[58] The group of self-identified conventions that focus mainly on biodiversity matter. See UNEP-WCMC, *Promoting Synergies Within the Cluster of Biodiversity-related Environmental Multilateral Agreements* (UNEP WCMC, 2012).
[59] CBD, FAO, The World Bank, UNEP, UNDP, 'Biodiversity and the 2030 Agenda for Sustainable Development: Technical Note' (2017) <https://www.cbd.int/development/doc/biodiversity-2030-agenda-technical-note-en.pdf> accessed 9 March 2022.
[60] Johan Rockström and others, 'A Safe Operating Space for Humanity' (2009) 461 Nature 472.

These risks come from the fact that humanity benefits from numerous services – commonly referred to as ecosystem services[61] – that are provided by biological diversity. For instance, pollination is crucial for agriculture – and by extension food security – and is made possible by biological diversity (i.e., the existence of numerous pollinators).[62] These ecosystem services cannot all be replaced and may disappear if the decline of biological diversity continues. If such was the case, it is uncertain whether human societies could be resilient enough to withstand the effects of such an event.[63]

If we compare the impressive development of international biodiversity law, which began more than a century ago, to the worsening state of biodiversity regularly reported in environmental reports,[64] it is obvious that the proliferation of rules has not led to the intended outcome. Admittedly, international biodiversity law has led to an increase of international cooperation among states. However, most of the rules and instruments defined at the international level must be implemented at the national level and then applied locally. Despite the efforts of various COPs to promote them, international biodiversity law still suffers from a lack of implementation at the domestic level.

The parties to multilateral environmental agreement are often under the obligation to provide periodic reports on the local implementation of their international commitments.[65] These reports are self-assessments and therefore should not be read uncritically. For instance, the observations of NGOs and international organization may differ vastly. Nevertheless, even these reports highlight that IBL instruments suffer from a lack of implementation at the local level. For instance, the progress report from the CMS has stressed that more effort is needed in some countries to establish an appropriate governance framework for the conservation of migratory species.[66] The latest progress report for the implementation of the Ramsar Convention on Wetlands paints a sombre picture with regards to implementation,[67] while the Standing Committee of the CITES

[61] On this notion, see the TEEB Initiatives (The Economics of Ecosystems and Biodiversity). <http://teebweb.org/> accessed 9 March 2022.
[62] IPBES, *Assessment Report on Pollinators, Pollination and Food Production* (IPBES, 2016).
[63] The Millennium Ecosystem Assessment already highlighted in 2005 that many of these services were in decline. All the volumes of the Millennium Ecosystem Assessments are available online <https://www.millenniumassessment.org/> accessed 9 March 2022.
[64] IPBES, Global Assessment Report on Biodiversity and Ecosystem Services (IPBES 2019); Sandra Diaz and others, 'Pervasive Human-driven Decline of Life on Earth Points to the Need for Transformative Change' (2019) 336 (6471) *Science*.
[65] For instance, see Article 26 of the CBD or Article VIII of the CITES.
[66] CMS, 2019, UNEP/CMS/COP13/Doc.14.1, Annex 2, Strategic Plan for Migratory Species 2015–2023 – Progress Report.
[67] Ramsar Convention, 2018, Ramsar COP13 Doc.11.1, Report of the Secretary General on the implementation of the Convention: Global implementation. "With the Exception of Strategies Relating to Biodiversity, the Incorporation of Wetland Benefits into National Strategies and Planning Processes is Progressing Slowly, if at all." See also Ramsar Convention, *Global Wetlands Outlook* (Ramsar Convention 2021). <https://www.global-wetland-outlook.ramsar.org/> accessed 9 March 2022.

highlights that a significant number of parties still have inappropriate legislative framework for the implementation of the convention.[68]

The same goes for the CBD and the Aichi Targets. Target 17 specifically specified that "By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan". However, the final assessment carried out by the CBD secretariat and based on the Parties' sixth national reports shows that "none of the 20 targets have been fully achieved, though six targets have been partially achieved" and suggests that "despite all the measures taken to date in support of conservation, sustainable use and sharing the benefits of biodiversity, a continuing decline in biodiversity can be expected based on the pressures currently faced by the world's ecosystems. It also supports the conclusion that an improvement in current trends requires a fundamental change of approach that addresses the underlying drivers of change".[69]

The CBD's treaty bodies are reflecting on ways to strengthen the national implementation of the global targets. A new agreement is due to be reached in 2022 at COP 15 in Kunming, China, concluding a negotiation process launched at COP 14. It is envisaged, inter alia, to draw inspiration from the Paris Agreement by requiring Parties to prepare "nationally determined contributions" as well. Such contributions would be accompanied by monitoring systems established at the international level to follow their level of implementation and encourage to raise the ambition of national policies over time.

In this volume, we seek to explore another approach for effectiveness by determining if litigation could also be used to strengthen the effectiveness of IBL.

2.4. Biodiversity Litigation as a Tool for Effectiveness?

Climate litigation demonstrates the possible role of national courts for the realization of states' international commitments. The rapid development of this litigation trend could lead to national trials for other global environmental threats, such as the loss of biodiversity. Moreover, international provisions promoting broad access to justice in environmental matters could support such developments.[70]

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[68] CITES, 2018, SC70 Doc. 25 (Rev. 1), "While progress and commitment may seem significant with well over half of the Parties with legislation in Category 1, there is still a total of 75 Parties with legislation placed in Category 2 or 3, many of which have been Parties to the Convention for decades." (Categories 2 and 3 refers to legislations that do not meet all the requirements of the convention).

[69] Secretariat of the Convention on Biological Diversity, Global Biodiversity Outlook 5 – Summary for Policy Makers (Secretariat of the Convention on Biological Diversity 2020).

[70] Particularly the Aarhus Convention, and more recently the Escazu Agreement. See, Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (opened for signature 25 June 2001, entered into force 30 October 2001) 2161 UNTS 447 and Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (opened to signature 4 March 2018, entered into force 22 April 2021). <https://www.cepal.org/en/escazuagreement> accessed 9 March 2022.

Such an approach would be particularly appropriate for the implementation of the CBD and its protocols, especially if parties choose to rely on nationally determined contributions in the future framework. We could imagine cases where a judge would find a state responsible of not acting with due diligence to meet its target. This could also concern the implementation of sectoral conventions on wetlands, migratory species, international trade in wild fauna or flora, etc., or even regional conventions. Additionally, judges may have to interpret these different regimes in a consistent manner and thus be in a position to promote better coherence between them.

At the same time, regional – particularly within the European Union- and international disputes relating to biodiversity are also developing.[71] Complementing national litigation, they can help to clarify the commitments of states by interpreting treaty provisions, identifying customary rules and clarifying their content. They can also provide guidance to coordinate international biodiversity law with other branches of international law. The development of international litigation could thus inspire, or even guide, national judges who may have difficulties engaging with an unfamiliar and complex legal landscape.

Biodiversity litigation has the potential to strengthen the effectiveness of international biodiversity law and to push states and businesses to commit themselves further to tackle the current biodiversity crisis. This is the wager we make in this book, which leads us to see in biodiversity litigation a particularly relevant and promising field of research.

3. The Versatility of Biodiversity Litigation

In this edited collection, we define biodiversity litigation as *any legal dispute at the national, regional or international level that concerns conservation of, sustainable use of and access and benefit-sharing to genetic resources, species, ecosystems and their relations*.

In this section, we will explain why we chose the conceptual apparatus of the CBD to frame our definition of biodiversity litigation (3.1). We will then discuss potential disputes arising from the three objectives of the CBD: conservation, sustainable use, and access and benefit sharing (3.2.).

3.1. Understanding Biodiversity Litigation Through the CBD Lens

There are several reasons to align the definition of biodiversity litigation with the CBD.

First, the CBD promotes conservation of three types of diversity: ecosystem, species and genetic.[72] By including genetic and ecosystem diversity in its definition of biodiversity, the CBD goes further than earlier treaties on nature protection, which aim to protect enumerated species or areas from

[71] See chapters on the European Union and on International Biodiversity Litigation in this volume.
[72] Article 2 of CBD defines biodiversity as '…the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part, this includes diversity within species, between species and of ecosystems.'

human threats and destruction or extinction. It also supports a balance between conservation and sustainable use and defines legal concepts such as biodiversity, ecosystems, genetic resources and biotechnology, benefit sharing, and traditional knowledge. Therefore, using the CBD as a point of reference for our definition of biodiversity litigation allows us to encompass the multiplicity of legal disputes that may have an impact on biodiversity. We will not limit the analysis to cases concerning species, or cases concerning protected areas, but try to adopt a transversal reading of biodiversity in front of courts.

Second, at its core, the CBD strikes a balance between the sovereignty of States to exploit their own resource and the imperious need to have conservation and sustainable use. We expect to witness this balance, or tension, within biodiversity litigation at all levels (local, national, global) and within all elements (genes, species, ecosystems).

Third, as highlighted earlier, the CBD has become a conceptual cornerstone for biodiversity governance and as such, other biodiversity-related conventions work closely with the CBD. Framing biodiversity litigation through the conceptual lens of the CBD allows to consider cases that may refer to other biodiversity-related conventions. In other words, our definition of biodiversity litigation stems from the CBD but is permeable to all international biodiversity law.

For all these reasons, the CBD is a useful reference point for our framing of biodiversity litigation as it encompasses the complexity of biodiversity, carries the different interests at stakes in the conservation and sustainable use of biodiversity, and allows to study the influence of the entirety of IBL.

The next sections will highlight the tensions that may arise from the three goals of the CBD: conservation, sustainable use and access and benefit sharing.

3.2. Conservation, Sustainable Use and Access and Benefit Sharing: Tensions Within the Objectives of the CBD

To understand the remit of biodiversity litigation, it is crucial to unpack the three key objectives of biodiversity protection: *conservation, sustainable use and access and benefit sharing*. In this section we will explore the potential dispute that may arise within these objectives and at their intersection.

The three objectives of the CBD reflect the path on which IBL was at the time of its adoption. They carry the core principles and values of this branch of international law. Moreover, these objectives are interlinked, mutually reinforcing and, to a large extent, interdependent. A number of CBD provisions consider conservation and sustainable use together.[73] For example, Article 6

[73] Article 6 (general measures for conservation and sustainable use); Article 7 (identification and monitoring); Article 8 (in situ conservation); Article 10 (sustainable use of components of biological diversity), and Article 11 (incentive measures); Article 13 (promotion of education and public awareness with respect to the conservation and sustainable use of biological diversity).

calls for the development of national strategies, plans or programmes for the conservation and sustainable use of biological diversity[74] and the integration of conservation and sustainable use into relevant sectoral or cross-sectoral plans, programmes and policies.[75] In addition, the link between the two objectives is explicit in the definition of sustainable use (i.e. 'not lead to the long-term decline of biological diversity' and maintain 'its potential to meet the needs and aspirations of present and future generations').[76] Similarly, the conservation and sustainable use aspirations could be achieved simultaneously through access and benefit sharing and the goods and services flow from biological diversity provides an incentive for its conservation. Thus, sustainable use offers a strategy to promote conservation, provided that there is fair and equitable sharing of benefits resulting from such uses. However, sustainable use and ABS objectives of biodiversity are often dictated by political priorities and economic development. This led, to a large extent, to the marginalization of strictly eco-centric conservation aims of the CBD.[77]

In the following paragraph, we will explore potential tensions between these objectives, and how biodiversity litigation may rise from these tensions.

3.2.1 Tensions between conservation and sustainable use

Exploring the potential tensions first requires us to precisely define conservation and sustainable use.

3.2.1.1 Conservation

The meaning of conservation is not just to protect in isolation certain elements of biodiversity, but also to 'conserve and enhance the ability of ecosystems to develop and regenerate themselves as living systems.'[78] At the same time, the CBD encourages Parties to '[e]ndeavour to provide the conditions needed for compatibility between present uses and conservation of biological diversity and the sustainable use of its components.'[79] While 'conservation' is not defined in the CBD, the traditional meaning of conservation includes 'the functions of protection and maintenance'.[80] The principal mechanism in the CBD for achieving conservation is the set of obligations associated with *in-situ* and *ex-situ* conservation.[81] *Ex-situ* conservation means the conservation of components of biological diversity outside their natural habitats. *In-situ* conservation is the conservation of ecosystems and natural habitats and the maintenance and recovery of viable

[74] Article 6(a) of CBD.
[75] Article 6(b) of CBD.
[76] CBD, 1999, UNEP/CBD/SBSTTA/5/13Sustainable Use of the Components of Biological Diversity.
[77] Sarah Laird and others, 'Rethink the Expansion of Access and Benefit Sharing' (2020) 367 Science 1200, 1202.
[78] Aphrodite Smagadi, 'Analysis of the Objectives of the Convention on Biological Diversity: Their Interrelation and Implementation Guidance for Access and Benefit Sharing' (2006) 31 Columbia Journal of Environmental Law 243, at 253.
[79] Article 8 of CBD.
[80] Douglas Edgar Fisher, 'Legal and Paralegal Rules for Biodiversity Conservation: A Sequence of Conceptual, Linguistic, and Legal Problems' in Michael I Jefferey, Jeremy Firestone, Karen Bubnalitic (eds) *Biodiversity Conservation, Law and Livelihoods Bridging the North South Divide* (Cambridge University Press 2008) 105.
[81] Article 2 of CBD.

populations of species in their natural surroundings.[82] According to Smagadi, *in situ* and *ex situ* conservation in the CBD include 'protectionist' goals as well as 'sustainable use' objective.[83]

3.2.1.2 Sustainable use

The CBD defines 'sustainable use' as "the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations."[84]

The first part of the definition refers to biological sustainability, and the second part focuses on social and financial sustainability.[85] According to Intergovernmental Science Policy Platform for Biodiversity and Ecosystem Services (IPBES), sustainable use refers to 'a rational use of the natural resources without undermining the capabilities of regeneration of natural resources.'[86] This definition is built on the CBD definition and emphasizes the need to acknowledge multiple and diverse values (anthropocentric and non-anthropocentric types of value).[87]

To ensure the sustainable use of biological resources, Parties are encouraged to consider *ex situ* and *in situ* measures together, ensure collaboration between biodiversity users, develop supportive incentive measures and cooperate with other Parties in case of transboundary resources.[88]

3.2.1.3 Potential tensions between conservation and sustainable use

According to the CBD, Member States are required to develop national strategies, plans or programmes for the conservation and sustainable use of biodiversity, or to adapt existing plans or programmes for this purpose.[89] Parties are to identify for themselves components of biodiversity important for conservation and sustainable use.[90]

At the national level, such measures may give rise to several tensions leading to legal claims in relation to, for instance, wildlife protection, protected areas/ecosystems, or illegal trade. Cases on land conservation may include forest conservation, habitat protection and illegal wildlife trade

[82] Article 2 of CBD.
[83] Smagadi (n 78) 253-54.
[84] Article 2 of CBD. Sustainable use of biological diversity and its components is mentioned in most of the substantive articles of the Convention as well as annex I and several preambular paragraphs.
[85] Eleanor Jane Milner-Gulland and Marcus J Rowcliffe, *Conservation and Sustainable Use A Handbook of techniques* (Oxford University Press 2007) 4. Biological sustainability implies 'the activity does not compromise the integrity of biological systems'; Social sustainability requires 'cultural appropriateness, social support and institutions'; and financial sustainability implies 'the activity outcompetes unsustainable alternative activities in profit generation'.
[86] IPBES, Preliminary Guide Regarding Diverse Conceptualization of Multiple Values of Nature and its Benefits, Including Biodiversity and Ecosystem Functions and Services' (2015), IPBES/4/INF/13, 93.
[87] Ibid 21-22.
[88] Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity, Decision VII/12, Annex II, COP-7 (2004).
[89] Article 6(a).
[90] Article 7.

(e.g., Africa, Southeast Asia, Europe).[91] Examples of marine conservation claims include marine parks, coastal development, aquaculture, wetlands, heritage, marine pollution. For instance, in India since the 1980s, we can mention several cases dealing with forest conservation, protection of wildlife, bird habitat, wetland conservation, conservation of biodiversity, aquaculture and coastal zone development.[92] Similarly, in Africa,[93] examples of illegal wildlife trade and wildlife crime cases are abundant.

These cases highlight several trends.

First, at the national level, 'conservation' can be treated differently from 'sustainable use'.[94] Trade-offs[95] at the national level are evident between the protection of nature and sustainable use of natural resources (e.g., management of Protected Areas[96]).

Second, various uses of biodiversity and values can lead to trade-offs among intrinsic, biophysical, instrumental and relational value (e.g., protection on ancient woodlands;[97] indigenous people and local communities and forest management[98]).[99]

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[91] Giovanni Broussard, 'Building an Effective Criminal Justice Response to Wildlife Trafficking: Experiences from the ASEAN Region (2017) 26(2) Review European Comparative & International Environmental Law 118; Melanie Wellsmith, 'Wildlife Crime: The Problems of Enforcement' (2011) 17 European Journal of Criminal Policy and Research 125; Patricia Kameri-Mbote and others (eds) *Law, Environment, Africa* (Nomos Verlagsgesellschaft 2019).

[92] Shyam Divan and Armin Rosencranz, *Environmental Law and Policies in India* (Oxford University Press 2002), chapters 7 and 8; Jona Razzaque, *Public Interest Environmental Litigation in India, Pakistan and Bangladesh* (Kluwer 2004), chapters1 and 2.

[93] Examples from Kenya: Kofi Ernest Abotsi, Paolo Galizzi & Alena Herklotz, 'Wildlife Crime and Degradation in Africa: An Analysis of the Current Crisis and Prospects for a Secure Future' (2016) 12 (3) Fordham Intellectual Property Media & Entertainment Law Journal 394; Juma Salum, and others, 'Wildlife Crime Promoted by Weak Governance' (2018) 56(1) African Journal of Ecology 101; Margit Hellwig-Bötte, *Wildlife Crime in Africa - a Global Challenge: Successful Countermeasures Must Involve Local Populations* (Stiftung Wissenschaft und Politik 2014).

[94] Jens Jetzkowitz and others, 'The significance of meaning: Why IPBES Needs the Social Sciences and Humanities' (2018) Innovation: The European Journal of Social Science Research 31 (sup 1) 38; Sam Johnston, The Convention on Biological Diversity: The Next Phase (1997) 6 Review European Comparative & International Environmental Law 219; Kent Redford and Brian D Richter, Conservation of Biodiversity in a World of Use (1999) 13 Conservation Biology 1246.

[95] According to IPBES, '[a] trade-off is a situation where an improvement in the status of one aspect of the environment or of human well-being is necessarily associated with a decline in or loss of a different aspect. Trade-offs characterize most complex systems and are important to consider when making decisions that aim to improve environmental and/or socio-economic outcomes.' Available at: <https://ipbes.net/glossary/trade> accessed 9 March 2022.

[96] Thomas O McShane and others, 'Hard choices: Making Trade-offs Between Biodiversity Conservation and Human Well-being' (2011) 144 Biological Conservation 966; Charles Victor Barber, Kenton Miller and Melissa Boness (eds), *Securing Protected Areas in the Face of Global Change: Issues and Strategies* (IUCN 2004).

[97] Jona Razzaque and Claire Lester, 'Why Protect Ancient Woodlands in the UK? Rethinking the Ecosystem Approach' (2020) 10 Transnational Environmental Law 135. This paper highlights the tension surrounding economic value of a large infrastructure project and the intrinsic value of ancient woodlands.

[98] For example, Case of the *Saramaka People v Suriname* Judgment of November 28, 2007 (Preliminary Objections, Merits, Reparations, and Costs), Inter-American Court of Human Rights. This case is not dealing with CBD related issues. However, tension surrounding economic and cultural value dimension is reflected in the case.

[99] Unai Pascual and others, 'Valuing Nature's Contributions to People: The IPBES Approach' (2017) 26-27 Current Opinion in Environmental Sustainability 7; Adam Hejnowicz and Murray Rudd, 'The Value Landscape in Ecosystem Services: Value, Value Wherefore Art Thou Value?' (2017) 9 Sustainability 850.

Third, tensions arise when biodiversity policies and decisions prioritize economic growth without consideration to the damage to ecosystems and rights of nature. This has led to remarkable cases where the right of nature has been acknowledged.[100] To prevent these tensions, some countries even have adopted specific legislative or constitutional provisions recognizing the rights of nature.[101]

While the CBD offers conceptual guidance to envision disputes centred around conservation and sustainable use, many other IBL instruments might be involved in such disputes. For instance, any dispute concerning the conservation and sustainable use of wetlands might be resolved by relying on the Ramsar Convention.[102] On the matter of sustainable use, we witness similar tension within the CITES on the controversial topic of legal ivory trade.[103]

3.2.2 The tensions within fair and equitable benefit sharing of genetic resources, species, ecosystems and their relations

3.2.2.1 The rationale of fair and equitable benefit sharing

While the first two objectives aim to conserve and sustain biodiversity, the third is to balance the costs of conservation and to support the socio-economic development of biodiverse countries of the Global South, by sharing monetary or non-monetary benefits that arise from utilization of genetic resources with original providers of biological material. Although the rationale of fair and equitable sharing is present across most of IBL instruments,[104] the concrete legal rules related to it are found mostly within the framework of the CBD and its Nagoya protocol.

The underlying philosophy of the CBD is that providing access to genetic resources should be done in exchange for a share of the benefits. Resource-user countries need to share the result of research and development as well as the benefits arising from commercial and other uses of the resources with the provider country upon mutually agreed terms.[105] Resource-provider countries are required to facilitate access to such use of genetic resources and minimize restrictions on access. Provider-countries can benefit from participation in scientific research, access to

[100] This was the case, *inter alia*, for the Ganges and the Yamuna Rivers in India. See, High Court of Uttarakhand at *Nainital, Mohd. Salim v State of Uttarakhand & others*, Writ Petition (PIL) No 126 of 2014, 20 March 2017.
[101] New Zealand being a famous example: Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, Public Act n°17, 20 March 2017.
[102] For instance, an infrastructure project near the Gediz Delta in Turkey (classified as a Ramsar site) was dropped following a ruling by a Turkish court. See <https://dibird.com/news/2739/> accessed 9 March 2022.
[103] During the last COP, several states pushed for a declassification of certain elephant populations in order to engage in ivory trade. This led to particularly visible tensions that can be witnessed in the official documentation prepared for that meeting. See for instance, CITES, 2019, CoP18 Doc. 11, Review of the Convention (document prepared by Democratic Republic of the Congo, Namibia, South Africa and Zimbabwe). See also, CITES, 2019, CoP18 Prop. 10, Consideration of proposals for amendment of appendices I and II.
[104] The rationale being that the differences in economic development should lead to appropriate rules on how to conserve and sustainably use biodiversity.
[105] Alan Boyle and Catherine Redgwell, *Birnie, Boyle and Redgwell's International Law and the Environment* (Oxford University Press 2021) 702-703.

technology and other forms of benefit sharing.[106] To achieve fair and equitable sharing, the CBD introduced the concept of Prior Informed Consent (PIC) for access and Mutually Agreed Terms (MAT) for the utilization of genetic resources in bilateral agreements between providers and users.

The benefit-sharing provisions are contained principally in Articles 15, 16 and 19. According to the CBD, where a country provides genetic resources, it should receive a share of any benefits derived from the use of those resources.[107] The CBD does not spell out the meaning of 'fair and equitable'[108] and there is a wide margin of discretion for the Member States to apply this objective at the national level. This objective is to be achieved by appropriate access to genetic resources, appropriate transfer of relevant technologies and funding.[109] Genetic materials extracted from plants and animals provide the basis of research by, for example, pharmaceutical, chemical and agricultural seed companies. Products generated from this research are often protected by patents and marketed worldwide. The CBD recognizes that state Parties with sovereign rights over their natural resources have 'the authority to determine access to genetic resources rests with the national governments and is subject to national legislation'.[110] In order for the sharing of benefits to be fair and equitable, the user of the genetic resources must have prior informed consent and such consent to access genetic resources shall 'be on mutually agreed terms'.[111] The source country providing access to genetic resources must know in advance what will be done with the resource, and what benefits will be shared. Where a party provides genetic resources to another party, the receiving party 'shall endeavour to develop and carry out scientific research based on [those] genetic resources … with the full participation of, and where possible in, [the providing party]'.[112]

State Parties are asked to take appropriate measures to provide for the effective participation in biotechnological research by Parties, especially developing countries that provide the genetic resources for such research.[113] In general, each party shall take measures, 'with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the [party] providing such resources'.[114] Parties are required to 'take all practicable measures to promote and advance priority access on a fair and equitable basis' for Parties providing genetic resources, especially developing countries, 'to the results and benefits arising from biotechnologies based upon genetic resources … on mutually agreed terms'.[115]

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[106] Articles 15(7), 16(3), 19(1) and (2). Ibid. 631 -632.
[107] Lyle Glowka and others, *A Guide to the Convention on Biological Diversity: A contribution to the Global Biodiversity Strategy* (1994), IUCN Environmental Policy and Law Paper No 30.
[108] Article 15 (7) of CBD.
[109] Article 16 of the CBD deals with the transfer of technology. Articles 20 and 21 deal with financial resources.
[110] Article 15(1) of CBD.
[111] Article 15(4) and 15(5) of CBD.
[112] Article 15 (6) of CBD.
[113] Article 19(1) of CBD.
[114] Article 15(7) of CBD.
[115] Article 19(2) of CBD.

The CBD also provides a broad framework for member states' policies concerning access, development and transfer of technologies.[116] Each party shall take measures, 'with the aim that Contracting Parties, in particular those that are developing countries, which provide genetic resources are provided access to and transfer of technology which makes use of those resources, on mutually agreed terms including technology protected by patents and other intellectual property rights'.[117]

The implementation of this intricate system encounters many hurdles, either locally or transnationally, and is prone to generate controversies and legal disputes.

3.2.2.2 Tensions regarding access and benefit sharing that may give rise to biodiversity litigation

At the domestic level, there are tensions between the state and resource holder regarding the access and benefit sharing of biological resources.

First, even though the three objectives of the CBD should be complementary, the national laws of access and benefit sharing may fail to take into account the conservation and sustainable use of biological diversity.[118] Moreover, the access-related national laws may not always ensure equitable sharing of benefits, thus limit the ability of the poorer community to obtain benefits from access laws.[119] In addition, all stakeholders may not be included in the process of determining access and use rights to genetic resources. For example, the national seed laws may not have adequate protection to indigenous varieties and may not ensure access rights of the indigenous and local communities.[120] These national rules related to ABS need to provide sufficient information to the community regarding the aims, risks and implications of using the biological resources, and include clear rules and procedures for 'prior informed consent' and 'mutually agreed terms'.[121]

Second, the issue of biopiracy[122] shows the tension between the private and public good aspects of biological resources. Privatization of biological resources can lead to restricted access, greater

[116] Article 16 of CBD.
[117] Article 16(3) of CBD.
[118] Ibid.
[119] Ibid.
[120] Keith Aoki, 'Weeds, Seeds and Deeds: Recent Skirmishes in the Seed War' (2003) 11 Cordozo Journal of International and Comparative Law 247; Zayaan Khan, 'The tragic loss of seed culture', *Mail and Guardian* (9 December 2021) online: <https://mg.co.za/friday/2021-12-09-the-tragic-loss-of-seed-culture/> accessed 9 March 2022).
[121] Article 6, 12 and 13 of Nagoya Protocol.
[122] Understood as the illegal appropriation of life - micro-organisms, plants, and animals - and the traditional cultural knowledge that accompanies it. See Marcia Ellen DeGeer, 'Biopiracy: The Appropriation of Indigenous Peoples' Cultural Knowledge' (2002) 9(1) *New England Journal of International & Comparative Law* 179. Many academics have termed this as 'biocolonialism' or 'bioprospecting' whereby companies or institutions from the industrialized countries appropriate the genetic resources and traditional knowledge in the biodiversity rich countries and become the new owner of these resources. See Lakshmi Sarma, 'Biopiracy: Twentieth Century Imperialism in the Form of International Agreements' (1999) 13 Temple International and Comparative Law Journal 107; Loïc Peyen, *Droit et*

poverty and unsustainable exploitation of biological resources. Granting private property rights over traditional knowledge raises serious questions in respect to 'prior art',[123] and can also be viewed as biopiracy, *i.e.* 'the illegal appropriation of life - micro-organisms, plants, and animals - and the traditional cultural knowledge that accompanies it.'[124] Biopiracy allegations are frequent: a US patent granted for the healing properties of turmeric, known for centuries in India; a US patent on the 'ayahuasca' plant considered sacred and used for medicinal purposes by Amazon's indigenous peoples; Hoodia, an appetite suppressant, and the patent that capitalized the traditional knowledge of the San people in South Africa; patent application by Nestec SA in 2010 in respect of the use of South African rooibos and honeybush for the treatment of hair, skin and some other inflammatory disorders.[125] Such tension regarding bio-piracy and intellectual property rights gives rise to the potential for biodiversity litigation.

Third, state needs to provide adequate legal protection to biological resources and traditional knowledge.[126] At the national level, traditional knowledge can be protected through conventional intellectual property laws, or through *sui generis* laws, such as laws for the protection of traditional knowledge associated with genetic resources. Effective national legislation is crucial because of the role traditional knowledge has on the economic and social life of these communities. The link between genetic resources and traditional knowledge is inextricable in the sense that any access to genetic resources inevitably involves access to traditional knowledge.[127] Examples of traditional knowledge include the use of *plao-noi* by the Thai traditional healers to treat ulcers, and the use *argyapaachya* by the Kani people in South India to suppress fatigue and reduce stress. Countries, such as Brazil, Ethiopia, India, the Philippines have national laws to protect the traditional knowledge rights of indigenous peoples.[128] In addition, the ABS framework at the regional level (e.g. European Union, African Union, Andean Community) entails obligations that need to be implemented nationally by their respective Member States.[129] Tensions arise when the national

biopiraterie Contribution à l'étude du partage des ressources naturelles (LGDJ 2018). Daniel Robinson, *Confronting Biopiracy: Challenges, Cases and International Debates* (Routledge 2010).

[123] The 'prior art' is the body of knowledge that exists prior to the invention. It helps to determine whether or not the invention is 'new' and 'non-obvious.'

[124] DeGeer (n 122).

[125] Ashish Kothari and RV Anuradha, 'Biodiversity and Intellectual Property Rights: Can the Two Co-Exist?' (1999), 2(2) Journal of International Wildlife Law and Policy; Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy* (Commission on Intellectual Property Rights 2002), Chapter 4 (Traditional knowledge and Geographical Indications). Examples from Africa can be found in African Centre for Biosafety, Pirating African Heritage: The Pillaging Continues, Briefing Paper (2009).

[126] UN Environment World Conservation Monitoring Centre, *Access to Genetic Resources and Benefit-sharing: A Review of Existing Framework*s (Cambridge University Press 2019)

[127] The relationship between access and use of genetic resources and associated or non-associated traditional knowledge is dealt with under Article 15 and 8(j) of the Biodiversity Convention. Article 7 and 12 of the Nagoya Protocol.

[128] ECOLEX: The Gateway to Environmental Law, available at https://www.ecolex.org/ .

[129] Jorge Cabrera Medaglia, Frederic Perron-Welch and Freedom Kai Phillips, *Overview of National and Regional Measures on Access and Benefit Sharing and Opportunities in Implementing the Nagoya Protocol,* Technical Report, October 2014. For example, Regulation (EU) No. 511/2014 of the European Parliament and of the Council on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable

laws fail to provide adequate protection associated with the traditional knowledge, restrict the misuse or misappropriation of traditional knowledge, reflect the expectations of the knowledge holder, acknowledge indigenous and customary rights and practices, contain the principle of free prior informed consent and ensure effective participation of traditional knowledge holder in the decision-making.[130] There is a growing jurisprudence regarding the indigenous peoples' rights, especially in relation to the rights over their lands and territories and the right to participate in any decision-making affecting them. The decisions from the Inter-American Court of Human Rights[131] and the African Commission on Human and Peoples Rights[132] can shed light on implementation options concerning key provisions of the Nagoya Protocol related to the rights of indigenous and local communities, including the right to grant free prior and informed consent[133] for using genetic resources located within their lands.

Fourth, because the CBD and the Nagoya Protocol use a broad, sometimes even vague language, key definitions remain unclear. Therefore, national implementation as well as compliance have to rely on juridical interpretation and commentaries at the expense of legal certainty.[134] For instance, both the CBD and the Nagoya Protocol fail to define 'access' and 'fair and equitable.' Interpretation of what is covered with an ambiguous definition of genetic resource, access, traditional uses, commercial utilization and exemptions could lead to tension among the users and providers of genetic resources and traditional knowledge, and may lead to biodiversity litigation at the national level.

In sum, because of the different and opposing interests that coexist in the realm of fair and equitable sharing, legal disputes are likely to abound. Here again, even though the CBD and its protocol are a useful guidepost to conceptualize such disputes, it is important to keep in mind that other international instruments might be relevant to settle such disputes. For instance, the International Treaty on Plant Genetic Resources for Agriculture is an obvious point of references in disputes touching upon the rights of farmers.

Sharing of Benefits Arising from their Utilization in the Union. African Union Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders and for the Regulation of Access to Biological Resources.

[130] Ibid 117-119. UN Environment World Conservation Monitoring Centre (n 126) 188-200.

[131] Inter-American Court of Human Rights, Case of the *Yakye Axa Indigenous Community v Paraguay*, Judgment of 17 June 2005, Series C No. 125; Inter-American Court of Human Rights, Case of the *Mayagna (Sumo) Awas Tingni Community v Nicaragua*, Judgment of 31 August 2001, Series C No. 79; *Maya Indigenous Community of the Toledo District v Belize*, Case 12.053; Inter-American Court of Human Rights, Report No. 40/04, OEA/Ser.L/V/II.122, doc. 5 rev. 1 at 727 (2004); *Saramaka People v Suriname*, Inter-American Court of Human Rights, Preliminary Objections, Merits, Reparations, and Costs, Judgment of 28 November 2007 Series C No. 172; *Kichwa Indigenous People of Sarayaku v Ecuador* [2012] Inter-American Court of Human Rights (ser C) No 245 [186].

[132] African Commission on Human and Peoples' Rights, 276/03 Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of *Endorois Welfare Council v Kenya*, para 162 and 291 (May 2009).

[133] Jona Razzaque, 'A Stocktaking of Free Prior Informed Consent in International Environmental Law' in Stephen J. Turner, Dinah L Shelton, Owen McIntyre and others (eds) *Environmental Rights- The Development of Standards* (Cambridge University Press 2019) 195-221.

[134] Dirk Neumann, Alex Borisenko and others, 'Global Biodiversity Research Tied Up by Juridical Interpretations of Access and Benefit-sharing' (2017) 18 (1) Organisms Diversity & Evolution 1.

Now that we have laid down the main elements of our investigation – international biodiversity law and biodiversity litigation – we can turn to our methodology to understand how biodiversity litigation might be affected by IBL.

4. Methodology

Studying the evolution of biodiversity litigation and how international biodiversity may have influenced it requires a comparative approach framed by a specific set of questions.

4.1 Selection of Case Studies

For this project, we have invited authors from nine countries to present biodiversity litigation in their respective jurisdiction. These national case studies are from, in alphabetical order: Australia, Brazil, Canada, China, France, India, South Africa, United Kingdom, United States of America.

We have chosen to focus mainly on mega-diverse countries in which the abundance and uniqueness of biodiversity are likely to lead to legal disputes with crucial outcome for the preservation of biodiversity as a whole. Biodiversity litigation is obviously not limited to these countries and we also added case studies for Global North countries that are particularly active in international fora dealing with biodiversity. The results of biodiversity litigation in Canada, France and the UK may have effects on the global governance of biodiversity as cases potentially reshape international policies.

These national cases are admittedly too few to allow to truly grasp the reality of biodiversity litigation worldwide. However, this selection aims at representativeness by studying countries with different degrees of development and with different legal traditions (common law, civil law and all the other possible nuances).

In parallel to these national case studies, we have also added analysis of case law at the international level. A chapter is dedicated to biodiversity litigation in front of international courts and dispute settlement bodies. The idea is that these bodies are likely to influence the interpretation of IBL at the national level in potential cases. Another chapter focuses on the case of the European Court of Justice (ECJ) as the regional court with the most developed case-law on environmental matters. The European Union being a major norm entrepreneur at the global level, with a clear ambition to shape the governance of biodiversity,[135] studying biodiversity litigation at this level, and how it is influenced by IBL, will yield interesting findings. Moreover, the practice of the ECJ exerts considerable influence on interpretation and implementation of environmental law at the national level in Members states.

4.2. Research Questions

[135] EU Commission, *EU Biodiversity Strategy for 2030 Bringing Nature Back into Our Lives*, COM (2020) 380 final, 20.

The topic of biodiversity litigation, as described in this introduction, is vast. In order to identify trends, it is therefore necessary to have a framework that will guide the investigation for each case study. To this end, the contributors to this project have been provided with a set of questions that will guide their studies.

These questions are divided along two main lines. Firstly, what is the observable influence of international biodiversity law (IBL) in biodiversity litigation? And, secondly, have we witnessed a paradigm shift in biodiversity litigation?

These questions are broad, and each of them has been complemented by sub-questions. The following paragraphs will present these sub-questions and explain their rationale.

4.2.1 What is the observable influence of international biodiversity law (IBL) in biodiversity litigation?

If we are to measure the impact of international biodiversity law on biodiversity litigation, then a set of basic questions need to be answered first.

- Can judges make a direct or indirect use of international biodiversity law?

The first question has an obvious constitutional nature. Indeed, this possibility will be directly linked to the monist or dualist nature of the state where the dispute unfolds. As such, this first inquiry is directly tied to the broader theme of international law in front of domestic court which is to this day a topic of varied scholarly discussion in law.[136]

More than a matter of constitutional law, the question also relates to which part of international biodiversity law can be used directly by judges. Even if their constitutional system allows them to rely on IBL, we have seen that this legal branch is characterized by its heterogeneity. Its rules are diverse and some may not be meant to be used by judges while others can have direct applicability in certain disputes. Identifying which type of IBL rules are used directly in court could then be a useful tool in the hand of lawmakers for the future design of new IBL instruments.

But the influence of IBL in courts does not have to be a strictly direct one. Indeed, the influence of international law on domestic legal systems can manifest itself in numerous ways. One of the most obvious is the translation of international rules into domestic legal rules. Witnessing the influence of IBL in biodiversity litigation can also mean analyzing the importance of domestic rules inspired by IBL in the context of litigation. If a biodiversity litigation case involves a domestic rule adopted in accordance with IBL, then we have a clear illustration of the influence of international biodiversity law, albeit an indirect one.

This question requires to engage in a survey of the legislative activity taken in reaction to the evolution of IBL, and the relevance of norms thus produced in a context of litigation. Their eventual impact will be a demonstration of how influential international biodiversity law can be.

[136] See, *inter alia*, Andre Nollkaemper and others (eds), *International Law in Domestic Courts: A Casebook* (Oxford University Press 2018).

A clear example could come from the different National Biodiversity Strategy and Action Plans adopted by parties to the CBD. Have these national policies ever been used in the context of a legal dispute?

- Have other branches of international law (e.g., investment, trade, sea, human rights) played a role (direct/indirect) in biodiversity litigation?

Understanding the influence of IBL on biodiversity litigation can also be done by observing other branches of international law. First of all, we can question if IBL is the most important body of international rules in the context of biodiversity litigation. How about other branches of international law? How have international human rights, international trade rules or even investment treaties impacted biodiversity litigation? It may be that legal regimes that only indirectly concern biodiversity have a greater impact on legal dispute concerning diversity. If this proves to be the case, then such a finding will prompt a reexamination of the legal functions of IBL. If these legal regimes influence biodiversity litigation as much as IBL itself, then this will be a clear illustration of the all-encompassing nature of biodiversity as a topic than spans way beyond its dedicated regimes.

- Have international procedural obligations (access to information, participation, access to justice) played a role in biodiversity litigation?

Finally, when discussing the matter of biodiversity in front of courts, one cannot ignore the importance of rules dealing with procedure. Have these types of norms, embodied in the aforementioned Aarhus Convention[137],served or have the potential to serve as a catalyst for biodiversity litigation?

4.2.2 Have we witnessed a paradigm shift in biodiversity litigation?

This line of questioning seeks less to assess the legal role of IBL within the disputes. Rather, the purpose of these questions is to establish whether there is a correlation between the evolution of the global governance of biodiversity and the ways in which judges have dealt with biodiversity over the years. For instance, has the emergence of new concepts (e.g., ecosystem services, ecosystem approach) had an influence on the arguments of the parties and on the reasoning of the judges?

The main questions boil down to this: have judges and parties to disputes considered non-human life in a different perspective over the years? Is this change correlated to the evolution of IBL?

- What is the nature of biodiversity disputes?

For instance, do disputes concerning biodiversity fall mainly within the private sphere or within the public sphere? Is it something that happens mainly between private individuals, as a result of

[137] Also, the Escazu Agreement that has recently entered into force in 2021.

state action against individuals or as a result of individual action against the state? In any case, these trends can shed a light on the underlying paradigm that manifests itself in the national laws for biodiversity. For instance, one can expect that dispute concerning genes will mainly fall in a private setting as it seems that nowadays genes are mainly considered as an object of private ownership despite the existence of rules acknowledging their public and common nature. The nature of disputes can also be linked to the potential remedies ordered by the judge. The award of damage to an individual may not have the same beneficial impact as an order to act addressed to the State. Therefore, the nature of the disputes matters in terms of concrete outcome for the conservation, sustainable use, and ABS of biodiversity.

- How are rights (human and non-human) used within biodiversity litigation?

In recent years, we have witnessed a regime collision between the environment and human rights,[138] and this collision was made manifest in the recent Urgenda case where international human rights obligations of a state were one the legal basis for the judge to order mitigation actions from the State. Human rights are now present in most international environmental regimes, and vice versa, environmental concerns are ever present in human rights discourse. With this in mind, our study aims at identifying occurrences of human rights discourses in biodiversity litigation in order to determine whether this regime collision at the international level has also occurred in front of judges.

Another important conceptual change that occurred in the governance of biodiversity is the apparition of new legal subjects. Recently, legal personality was awarded to ecosystems and even nature as a whole, thus denoting a shift in how the environment was considered in legal texts. This shows that biodiversity is no longer considered only in its physical aspect, but the cultural and spiritual values it carries is also being acknowledged. In this sense, it can be useful to observe how this broader understanding of biodiversity has entered the realm of legal disputes. For instance, do we see a prevalence in the use of different notions referring to biodiversity. One can imagine that the notion of Nature, or its other names (Pacha Mama, Gaia), has entered the discourses of judges and parties. If this is the case, it can be useful to see where this has happened, and what the consequences of such discursive shifts were.

Additionally, with the rise of non-human rights, one can wonder if the way judges deal with biodiversity matters has evolved. The cases are well documented at it may be useful to draw parallel between their rise and the conceptual evolution of biodiversity. For instance, how does the rise of the legal status of the individual animal correlates with the evolution of international biodiversity law? If these two phenomena are disconnected, how then can we explain this disconnection? Are animals, legally, a special element of biodiversity?

[138] On the interaction between these regimes, see, *inter alia* Annalisa Savaresi, 'Climate Change and Human Rights: Fragmentation, Interplay and Institutional Linkages', in Sebastien Duyck, Sebastien Jodoin and Alyssa Johl (eds), *Routledge Handbook of Human Rights and Climate Governance* (Routledge 2018). More generally, on regime interaction, see Margaret Young (ed), *Regime Interaction in International Law* (Cambridge University Press 2012).

- Is biodiversity litigation linked to climate change litigation?

In the same vein of regime collision, one can also wonder how the interplay of biodiversity and climate might have influenced legal dispute. The inherent ties between the two topics have brought different regimes closer.[139] Numerous institutional partnerships and legal synergies are illustrative of the complementarity of the two topics.[140] Has biodiversity been protected in the name of climate change in front of judges, and vice versa?

- Do we witness strategic litigation in the field?

More than the substance of the disputes, another interesting element to investigate is the instrumentation of these disputes. For instance, climate change litigation is a field where strategic litigation is an obvious powerful tool to promote systemic and broader change. Is this something that we witness for biodiversity too? If not, does that mean that biodiversity fails in creating the same popular momentum that climate change can?

4.2.3 Does biodiversity litigation contribute to the effectiveness of International Biodiversity Law?

Finally, after all these questions, it is crucial to ask: does biodiversity litigation contribute to a greater effectiveness of biodiversity law? This question is crucial in order to determine whether courts are actually equipped to enforce biodiversity law and contribute in a meaningful way in halting the current crisis.

Each case study addresses this set of questions which were intended as guidelines rather than a fixed frame. Therefore, each chapter is structured as the authors saw fit, depending on the relevance of certain questions. The results are presented in the synthesis chapter, in which we identify the similarities and divergences between the case studies and highlight the main trends of biodiversity litigation. In the synthesis, we also suggest future research questions. This book intends to set the path for a new research agenda, with fascinating theoretical and practical aspects that can be of use for decision-making processes affecting biodiversity at all levels. We hope researchers and practitioners will join us in this effort: the field is immense and the prospects for biodiversity promising.

[139] See, for instance, Franck Maes, An Cliquet, Willemien du Plessis and Heather McLeod-Kilmurray (eds), *Biodiversity and Climate Change Linkages at International, National and Local Levels* (Edward Elgar 2013).
[140] For a recent example, see the report of the workshop co-organized by the IPCC and the IPBES. <https://www.ipcc.ch/site/assets/uploads/2021/07/IPBES_IPCC_WR_12_2020.pdf> accessed 9 March 2022.