REFLECTION 6: REGIME INCONSISTENCY

Climate Law and Environmental Law: Is Conflict Between Them Inevitable?

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Laws enacted to address climate change and to protect the environment often share common ground. However, climate law can also lead to outcomes that may seem less compatible with environmental law. For example, decision-makers may struggle with whether to approve licensing applications for renewable-energy developments that could affect legally protected environmental resources. Should such developments be permitted on the ground that mitigation of emissions is an environmental benefit, even though they may cause other environmental harm? Or should they be rejected despite the risk that climate change poses to the protected area?[1]

Considering the challenging interactions between addressing climate change and protecting the environment, this chapter poses a stark question: is climate law inevitably on a collision course with environmental law? There is much room for debate over the question. It tends to be assumed that conflict between climate law and environmental law is inevitable due to the urgency, and global nature, of combatting climate change by reducing greenhouse gases, compared to the perceived sub-global nature of environmental harm.

However, there are also grounds for arguing that such conflict is not inescapable but rather the product of legally framing the growth in greenhouse gas emissions as a separate problem from its environmental consequences. This line of argument contends that reframing anthropogenic climate change as one source of the wider global problem of ecosystem deterioration would allow climate and environmental law to operate harmoniously in the service of a common goal: preserving Earth's ecological capacity to support life in the face of planetary change due to global warming, ocean acidification, and biodiversity loss. Later in this chapter I outline the differing positions on the inevitability of conflict between these two branches of law.

The chapter begins by identifying situations of legal conflict. These situations include both direct conflict between laws and their objectives and conflict which is not inevitable but results from a decision by the holder of a legal duty on how it should be implemented. This broad understanding is used, as a narrower understanding would omit the great majority of cases in which conflicts may arise. Implementation choices that may create conflict must be recognized, reasons for conflict between them understood, and political decisions made on which goals should be prioritized in such situations before relevant governance arrangements and laws are formulated. These steps are prerequisites for designing decision-making processes that enable the fullest possible realization of sometimes incompatible goals, such as those encompassed by sustainable development and climate change adaptation.

[1] Andrew LR Jackson, 'Renewable Energy vs. Biodiversity: Policy Conflicts and the Future of Nature Conservation' (2011) 21 Global Environmental Change 1195; Troy A Rule, *Solar, Wind and Land: Conflicts in Renewable Energy Development* (Routledge 2014) 74-96.

Defining Conflict

When does conflict arise between climate law and environmental law? This chapter follows the definition of conflict given in the final report of the International Law Commission's study group on the fragmentation of international law, which examined a growing potential for rules under different treaties to point in different directions when invoked in relation to the same subject.[2] The report defines conflict as 'a situation where two rules or principles suggest different ways of dealing with a problem'.[3]

This broad definition, when applied to climate law's interaction with environmental law, covers three conflict types. The first involves situations in which applying one rule would require the subject to take steps incompatible with applying the other.[4] This is referred to in this chapter as the '*direct conflict*' type. It is hard to come by examples of this purest form of conflict in relations between climate law and environmental law: few rules in these legal branches are so clear about the required outcome that conflict would result automatically from their application.

Within the direct conflict type one may also include 'a looser understanding' of conflict under which compliance with a rule under one treaty would frustrate the goals of another treaty, without there being any strict legal incompatibility between obligations under the two treaties.[5] For example, the duties relating to the prevention, reduction, and control of atmospheric pollution of the marine environment under the United Nations Convention on the Law of the Sea may seem compatible with requirements on reducing greenhouse gas emissions under the climate change treaties.[6] Even so, questions arise over whether provision under the Paris Agreement for bringing greenhouse gas emissions to a net-zero plateau in three-to-eight decades from now is consistent with states' duties under UNCLOS to preserve the marine environment in view of the already substantial and growing threat posed by ocean acidification to the functioning of marine ecosystems and their living components.[7]

The second type of conflict covers rules whose implementation could lead decision-makers to take measures that conflict with the rules of other regimes.[8] It is referred to in

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[2] ILC, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, UN Doc A/CN.4/L.682 (2006; reprint Erik Castrén Institute 2007), [23]. See also discussion of the report in Annalisa Savaresi, 'Climate Change and Human Rights: Fragmentation, Interplay and Institutional Linkages' in Sébastien Duick, Sébastien Jodoin and Alyssa Johl (eds), *The Routledge Handbook of Human Rights and Climate Governance* (Routledge 2018) 31.

[3] ILC (n 2) [25].

[4] ibid [24].

[5] ibid.

[6] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3; Alan Boyle, 'Litigating Climate Change under Part XII of the LOSC' (2019) 34 Intl J Marine and Coastal L 458.

[7] Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016), (2016) 55 ILM 740, art 192; Tim Stephens, 'Ocean Acidification' in Rosemary Rayfuse (ed), *Research Handbook on International Marine Environmental Law* (Elgar 2015) 431.

[8] Public international law scholars have argued that conflict is not possible between permissive norms which allow a course of action and prescriptive norms. See Daniel G McCabe, 'Resolving

this chapter as the '*implementation conflict*' type. For example, a target increase of renewable-energy production as part of decarbonization efforts could be implemented by authorizing environmentally harmful developments in areas protected by nature-conservation laws because of their suitability for wind-power generation. Decision-makers may justify choices that give rise to legal conflict on the grounds that the twin duties of increasing renewable-energy capacity and reducing greenhouse gas emissions within set timescales demand an urgent response. They may even say that those duties necessitate 'local' environmental harm in order to tackle a 'global' environmental threat. Conflict of this second type may become inevitable when feasible alternatives for advancing the goals of one legal branch without contravening another's have been exhausted. In such cases, decision-makers will be left with stark choices between pursuing environmentally harmful development or accepting environmental constraints on the extent of economic and social activities that energy systems are capable of supporting.

Third, some of the legal goals and concepts of *climate law itself* embrace two or more objectives whose simultaneous pursuit can give rise to conflict between them. I call this intra-climate law (ICL) conflict, a conflict type which is nested within the second type mentioned above. Such conflict could undermine progress on advancing one of the objectives at the expense of the other, and therefore potentially on achieving the climate-law goals which efforts to advance the objectives serve. I will refer to it as the '*ICL implementation*' conflict type.

ICL implementation conflict potentially affects, for instance, provisions on adaptation under the Paris Agreement.[9] Adaptation is described diffusely as encompassing the protection of 'people, livelihoods and ecosystems', without any indication of how interaction between actions in these arenas should be managed.[10] In addition, the Paris Agreement gives equal billing to its three goals of limiting growth in global average temperature by reducing greenhouse gas emissions, reducing vulnerability while increasing resilience to climate change, and realizing adequate finance flows.[11] The first of these goals leaves open the possibility for policy choices that undermine the pursuit of the second, and vice versa.[12] The Agreement doubles down on the potential for ICL conflict by requiring that efforts 'to strengthen the global response to the threat of climate change' be conducted 'in the context of sustainable development'. This concept fails to address the reality that the potential for making simultaneous progress on these

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Conflicts between Multilateral Environmental Agreements: The Case of the Montreal and Kyoto Protocols' (2007) 18 Fordham Envtl L Rev 433, 448-451. However, see the argument by Jeutner that potential for conflict between prescriptive and permissive norms should be recognised as to do otherwise would often risk reducing permissive norms and rights to inutility in the face of laws which prescribe action. Valentin Jeutner, *Irresolvable Norm Conflicts in International Law: The Concept of a Legal Dilemma* (Oxford University Press 2017) 27-30.

[9] Paris Agreement (n 7) arts 2(1)(b) and 7.

[10] ibid art 7(2).

[11] ibid art 2(1).

[12] Olivia Woolley, 'What Would Ecological Climate Law Look Like? Developing a Method for Analysing the International Climate Change Regime from an Ecological Perspective' (2020) 29 RECIEL 76.

different fronts is constrained by various factors, including the environment's finite capacity to support human exploitation.[13]

Legal issues and debates concerning climate law's relationship with environmental law differ depending on the conflict type. Awareness of the three types defined in this section assists with the identification of legal controversies and related arguments which the different aspects of interaction between the two legal fields give rise to.

Conflict between Climate Law and Environmental Law

Commentators on the relationship between climate law and environmental law find that the two legal fields share much common ground, as both aim to prevent human activities from harming the environment.[14] Legal obligations under climate law (for example, to reduce greenhouse gas emissions and enhance sinks) can advance aims of environmental law by lowering the risks of environmental harm resulting from climate change.[15] Similarly, legal obligations under environmental law (for example, to protect biodiversity) can advance climate law's aim of strengthening socio-ecological resilience in the face of global warming.[16] However, there is a potential for conflict between them. This is often of the implementation type, in which obligations to reduce greenhouse gases and increase renewable-energy production allow decision-makers to choose implementation options that conflict with environmental law. Common examples involve proposals for development driven by climate change obligations, such as building wind farms in previously undeveloped uplands, damming rivers to produce hydroelectric power in places protected by environmental law, and increasing consumption of biofuels at the risk of environmentally valuable areas being converted into agricultural land.[17]

Climate change treaties and the regional and national policies and laws adopted in their wake separate the goal of reducing greenhouse gas emissions from that of preventing environmental harm from climate change or from the interaction of climate change with other drivers of ecological deterioration. The United Nations Framework Convention on Climate Change and the Paris Agreement frame their main objective as stabilizing atmospheric greenhouse gases at a level that allows the achievement of desired goals.[18]

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[13] Rakhyun E Kim and Klaus Bosselmann, 'Operationalizing Sustainable Development: Ecological Integrity as a *Grundnorm* of International Law' (2015) 24 RECIEL 194, 197-201.

[14] Chris Hilson, 'It's All about Climate Change Stupid! Exploring the Relationship Between Environmental Law and Climate Law' (2013) 25 JEL 359; Michael Mehling and others, 'Teaching Climate law: Trends, Methods and Outlook' (forthcoming) JEL, 2, describing the boundaries between climate law and environmental law as 'unquestionably porous'.

[15] Roger Hildingsson and Bengt Johansson, 'Governing Low-Carbon Energy Transitions in Sustainable Ways: Potential Synergies and Conflicts between Climate and Environmental Policy Objectives' (2016) 88 Energy Policy 245.

[16] Hilson (n 14) 368-9.

[17] Rule (n 1) 74-96; European Commission, 'Wind Energy Development and Natura 2000', Guidance Document (2011), <ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms.pdf>; Jackson (n 1) 1195.

[18] United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107, art 2; Paris Agreement (n 7) art 2(1)(a).

They aim, respectively, for avoiding 'dangerous anthropogenic interference with the climate system' (the meaning of which is obscure) and for keeping the increase of the global average temperature since pre-industrial times at 'well below' 2°C and ideally near 1.5°C. The separation of these two goals creates potential for conflict between climate law and environmental law when adherence to environmental protection rules obstructs taking measures to limit or reduce greenhouse gas emissions.

In addition, the breadth of the Paris Agreement's adaptation goals creates fertile ground for ICL implementation conflict due to incompatibilities between steps taken to advance the environmental components of these goals (eg, ecosystem preservation as a component of adaptation) and steps taken to promote adaptation in other respects. Sterner and colleagues give examples of short-term fixes to shore up food supplies and prevent flooding that may 'increase the risk of [environmental] degradation beyond the point of no return'.[19]

Climate change and ocean acidification are already having significant negative impacts on the environment. The risks of more serious harm will only grow as atmospheric concentrations of greenhouse gases increase. States take on commitments under multilateral environmental agreements and under related laws at regional and national levels to protect environments from the harmful effects of human activity. These include commitments under the climate change treaties themselves to conserve and enhance ecosystems that act as sinks of greenhouse gases and to reduce vulnerability and increase resilience through adaptation actions, including ecosystem protection. [20] Different commitments could require reductions of greenhouse gas emissions at different levels and rates, creating the potential for conflict.[21] Notably, direct conflict may occur because one law requires greater urgency in reducing greenhouse gases than another law. But even when no direct conflict is present, conflict may also occur because inadequate provisions for addressing a threat under one law frustrates the observance of environmental protection duties under another. The abovementioned tendency in climate law of framing the problem of the growth in greenhouse gas emissions separately from the environmental problems to which it contributes underlies such conflict.

Conflict between climate law and environmental law compromises values whose societal importance has been recognized through dedicated laws. Conflict within climate law between climatically and environmentally oriented objectives may compromise human well-being by undermining progress on combating climate change under the Paris Agreement. The significant negative consequences flowing from conflict between and within these legal branches raise urgent questions: Is conflict inevitable? Can it be avoided?

The following section examines the debates prompted by these two questions.

Is Conflict Inevitable?

[19] Thomas Sterner and others, 'Quick Fixes for the Environment: Part of the Problem or Part of the Solution?' (2006) 48 Environment 20, 23-5.
[20] UNFCCC (n 18) art 4(1)(d); Paris Agreement (n 7) arts 2(1)(b), 5(1), 7(1) and 7(2).
[21] Woolley 'What Would Ecological Climate Law Look Like?' (n 12) 79-80, 83.

The answer to this question depends on the conflict type involved. Implementation and ICL implementation conflicts are not inevitable in every case, but instead result from choices about how to implement broad goals, such as targets for reducing greenhouse gas emissions and increasing consumption of renewable energy. Much literature on the scope for conflict between climate and environmental policies and related branches of law therefore focuses on how potential conflict can be avoided.[22] Particular interest lies in identifying and prioritizing 'win-win' opportunities for advancing climate goals and other environmental objectives simultaneously. With regard to renewable energy and other technologies whose development is driven by mitigation duties, environmental impacts are often related to the locations chosen for deploying the technology, the type of technology deployed, and how it is deployed in the particular location.[23] There are legal tools that have long been used to ensure that development that advances economic and social goals does not cause environmental harm, such as environmental impact assessment, strategic environmental assessment (at the programme, plan, or policy levels), and spatial planning. Such tools can help identify and avoid potential conflicts between climate and environmental policy or law.[24] Guidance on planning policy and subsidies can be used to promote the use of agricultural land of low value for food-crop production for producing energy crops.[25] At the policymaking level, working from home and taking public transport can be promoted over driving cars.[26] In addition, lawmakers can seek to discourage environmentally harmful practices by requiring bioproducts to meet sustainability criteria (in terms of land use and greenhouse gas emissions associated with their production and consumption) before their producers can access financial support and markets.[27]

The practices and tools advocated for in this literature are valuable for finding ways of pursuing climate and environmental goals in concert; however, significant uncertainty over the relative impacts of different approaches prompts debate over how much effort should be spent on the search for non-conflicting alternatives in view of the seriousness of the threat posed by global warming. At what point would the environmental benefits of avoiding conflict be outweighed by the negative environmental consequences of delaying our response to climate change? Science does not furnish clear-cut answers to

[22] Hildingsson and Johansson (n 15) 249-251; Jackson (n 1) 1205; Rule (n 1) 79-84; Alexandros Gasparatos and others 'Renewable Energy and Biodiversity: Implications for Transitioning to a Green Economy' (2017) 70 Renewable & Sustainable Energy Reviews 161.
[23] Gasparatos and others (n 22) 171-3; Hildingsson and Johansson (n 15) 249.
[24] John Glasson and Riki Therivel, *Introduction to Environmental Impact Assessment* (4th edn, Routledge 2012) 3-19; Olivia Woolley, 'Ecological Governance for Offshore Wind Energy in United Kingdom Waters: Has an Effective Legal Framework Been Established for Preventing Ecologically Harmful Development?' (2015) 30 Intl J Marine and Coastal L 765, 771-2, 776-82; Michaela Young, 'Building the Blue Economy: The Role of Marine Spatial Planning in Facilitating Offshore Renewable Energy Development' (2015) 30 Intl J Marine and Coastal L 148; Olivia Woolley, *Ecological Governance: Reappraising Law's Role in Protecting Ecosystem Functionality* (Cambridge University Press 2014) 71-4, 77-85, 93-6; Jackson (n 1) 1205; Hildingsson and Johansson (n 15) 250.
[25] Hildingsson and Johansson (n 15) 249-250.
[26] ibid 250; Gasparatos and others (n 22) 165-8.
[27] Woolley, *Ecological Governance* (n 24) 80-1; Renske A Giljam, 'Towards a Holistic Approach in EU Biomass Regulation' (2016) JEL 95.

these questions because of the difficulty in predicting with accuracy how and when planetary-level systems and ecosystems will be altered by human activity.[28] Does the law guide decision-makers on how to proceed despite such scientific uncertainty?

The parties to the UNFCCC have an obligation to be guided by principles set out in Article 3 of the Convention in their actions to implement the Convention and achieve its objective. For instance, they are expected to 'take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects'; and they must take into account that 'lack of full scientific certainty should not be used as a reason for postponing such measures' where threats of serious or irreversible damage are present.[29] In any event, states would be obliged to apply the precautionary principle in such circumstances if it has become a principle of customary international law..[30] Legal guidance may therefore be available to actors confronted by scientific uncertainty, but recourse to the precautionary principle takes decision-makers into contested terrain, for three reasons.

First, the deliberately ambiguous wording of the UNFCCC's Article 3 leaves room for debate over the extent to which parties must adhere to its principles in their implementation of the Convention.[31] Parties are obligated to take the principles into account, but the principles themselves set out propositions which the parties 'should' embrace. The disorienting net effect is that parties must 'consider' following the listed principles but are not obliged to practise them.

Second, the legal status of the precautionary principle in customary international law remains the focus of vigorous debate.[32] 'A strong argument' can be made, in Sands' view, that the precautionary principle, as worded in Principle 15 of the Rio Declaration, 'reflects a principle of customary international law'.[33] Principle 15 states that 'lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation' where 'threats of serious or irreversible damage' are present.[34] But the principle's legal status is still not viewed as settled.[35]

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[28] Woolley, *Ecological Governance* (n 24) 18-37, 54-6; Woolley 'What Would Ecological Climate Law Look Like?' (n 12) 80.
[29] UNFCCC (n 18) art 3(3).
[30] Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (4th edn, Cambridge University Press 2018) 239-40.
[31] Farhana Yamin and Joanna Depledge, 'The International Climate Change Regime: A Guide to Rules, Institutions and Procedures' (Cambridge University Press 2004) 66; Shirley V Scott, 'Does the UNFCCC Fulfil the Functions Required of a Framework Convention? Why Abandoning the United Nations Framework Convention on Climate Change Might Constitute a Long Overdue Step Forward' (2015) 27 JEL 69, 75.
[32] Meinhard Schröder, 'Precautionary Approach/Principle' in *Max Planck Encyclopedia of Public International Law* (online edn, Oxford University Press 2014) [16-21]; Sands and Peel (n 30) 234-40.
[33] ibid 239-40.
[34] Rio Declaration on Environment and Development, UN Doc A/CONF.151/26 (vol I) 31 ILM 874 (1992) Principle 15.
[35] Schröder (n 32) [16].

Third, one reason for its uncertain legal status is that guidance about what its implementation involves is not consistent in the many different versions of the principle included in different laws.[36] Some versions of the principle, such as the Rio Declaration's version, give no assistance with answering this question. The version set out in the UNFCCC does provide some guidance, but without clarifying desired outcomes, raising questions about what kind of 'precautionary measures' should be taken.[37] This leaves much room for debate over how to tackle environmental effects whose parameters are not fully known. Some scholars argue that a precautionary response should be commensurate with the seriousness and irreversibility of the harm. Thus, situations having the potential to cause catastrophic and irreversible harm to human wellbeing would demand a strong and urgent response, even when they are thought to be unlikely to occur.[38] However, this approach does not provide clarity on how to act under legal frames which pit responding to climate change against responding to other environmental concerns. Global warming threatens catastrophic and irreversible environmental damage on its own, but so do other contemporaneous problems. For example, loss of biodiversity is currently occurring at a rate comparable to the five prehistoric planetary extinction events of which we are aware. Another is the widespread and accelerating global deterioration of ecosystem services essential to human life, a problem which is due to the cumulative effects of anthropogenic stressors, including climate change and biodiversity loss.[39] The interrelated nature of these problems, and the complexity, dynamism, and non-linear reactions of complex adaptive systems at various levels, make it difficult to conclude with confidence that prioritizing climate change mitigation over the protection of ecosystems does more to avoid a catastrophic outcome than the opposite course of action would.[40]

No matter how effective decision-making structures and legal tools may be for identifying non-conflicting options, it remains possible that demands (eg, for energy or food) exceed the capacity to meet them while avoiding conflict between climate and environmental law, or that perceived time pressures lead to these options being used before others are explored. This prospect brings back into focus the question of whether conflict between climate law and environmental law is inevitable. Much of the literature assumes that it is, with commentators noting that decision-makers will have to make

[36] ibid [8-12]; Sands and Peel (n 30) 234; Jonathan B Wiener, 'Precaution and Climate Change' in Cinnamon P Carlarne, Kevin R Gray and Richard Tarasofsky (eds), *The Oxford Handbook of International Climate Change Law* (Oxford University Press 2016) 167-171.
[37] UNFCCC (n 18) art 3(3).
[38] Jeroen van der Sluijs and Wim Turkenburg, 'Climate Change and the Precautionary Principle' in Elizabeth Fisher, Judith Jones and René von Schomberg (eds), *Implementing the Precautionary Principle: Perspectives and Prospects* (Elgar 2006) 245; Jonathan B Wiener, 'Precaution' in Daniel Bodansky, Jutta Brunnée, and Ellen Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press 2008) 597, 608; Wiener (n 36) 169-170.
[39] Millennium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis* (Island Press 2005); World Wildlife Fund, *Living Planet Report 2018: Aiming Higher* (World Wildlife Fund 2018); Johan Rockström and others, 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity' (2009) 14 Ecology & Society 32.
[40] See n 28 above.

hard choices between tackling climate change and protecting the environment, and calling for legal scholarship to establish rules to guide such choices.[41]

I regard the assumption as correct. Conflict is made inevitable by climate law's conceptualization of the environmental problem to be addressed as the excessive level of greenhouse gases in the atmosphere. This viewpoint sets obligations in environmental law (eg, for the protection of areas of ecological value) on a collision course with climate law's mitigation and adaptation responsibilities in cases where environmental law obligations obstruct the implementation of measures taken to effect climate responsibilities. It also sets on an ICL implementation collision course climate law obligations and expectations for reducing emissions and for achieving outcomes which depend on maintaining ecosystem integrity, these being the preservation and enhancement of sinks, as well as adaptation to the extent that it is concerned with ecosystem preservation. Conflicts between climate and environmental law will often overlap with ICL implementation conflicts.

In addition, there is a potential for direct conflict between the duties of ecosystem protection and of limiting emission growth, because the rate of reduction required to comply with the former is higher than the rate required to meet the latter. This potential conflict arises because the relationship between emission growth and ecological degradation from climate change is not linear. Emission growth interacts with other factors to change Earth's climate system. Climate change and other changes in the external conditions of living and non-living components of ecosystems combine with other natural and non-natural impacts (eg, direct disturbance from human exploitation) to have a system-level effect. The resulting systemic change in turn affects ecosystem components.[42] Legal obligations to protect ecosystems may therefore lead to different requirements than obligations to limit greenhouse gas emissions as to the necessary scale and rate of emission reduction for compliance with respective responsibilities.

These considerations have led some scholars to argue that climate action at all levels must be led by the overarching objective of ecosystem preservation if it is to achieve the Paris Agreement's goals.[43] This is more a question of political agreement on the relative priority of different climate goals under the Paris Agreement than of negotiating a new treaty, as ecosystem protection is already one of the aims of international climate action, explicitly in connection with sinks and adaptation and implicitly in connection with maintaining food supplies, pursuing sustainable development, and ending poverty.

Adopting the overarching aim of preserving ecosystems in the face of climate change, replacing potentially antagonistic separate centres of focus on emission reduction and ecosystem preservation, would likely see a significant reduction in conflict between climate law and environmental law. Both legal branches would then share the aim of

[41] Hildingsson and Johansson (n 15) 250; Gasparatos and others (n 22) 171-5; Jackson (n 1) 1205; Rule (n 1) 90.
[42] Simon A Levin, 'Ecosystems and the Biosphere as Complex Adaptive Systems' (1998) 1 Ecosystems 431; Simon A Levin and others, 'Social-Ecological Systems as Complex Adaptive Systems: Modeling and Policy Implications' (2013) 18 Environment & Development Economics 111.
[43] Woolley 'What Would Ecological Climate Law Look Like?' (n 12).

preserving the environmental conditions needed to support a socio-economic transition toward ecological sustainability, including by eradicating activities that emit greenhouse gases.[44] Such a shared objective would militate in favour of a greater emphasis in policy and law on simultaneously reducing greenhouse gases and ecological pressures, such as by minimizing consumption and maximizing its efficiency.[45] In addition, this objective would make it possible to develop common ecological metrics for evaluating the desirability of policy options.[46] Development with negative ecological impacts would not be entirely avoided, but the use of such metrics would allow for objective justification of development on the grounds that avoiding greenhouse gas emissions makes a net positive contribution to ecological sustainability.[47] The corollary of this is that development judged as not making such a contribution should not be pursued from either a climate or environmental perspective.

There would remain a potential for ICL implementation conflict between the different aims of adaptation. Ethically informed political decisions are needed on how to prioritize the economic, social, and ecological aspirations of adaptation in the event of conflict among them. Decisions on priorities should be made before formulating arrangements and laws on adaptation, so that they are equipped to achieve its various desired outcomes with as little conflict as possible, whilst preserving elements identified as fundamental for satisfactory adaptation in other respects.

In addition, the argument that harm to individual ecosystems could be justified in the interests of preserving Earth's ecological capacity to support life is likely to be made by states that stand to benefit. However, such an argument would not sit well with adaptation, conceptualized as action to reduce the vulnerability and bolster the resilience of peoples and places affected by climate change. Political decisions at the international level are required both to formulate laws aimed at avoiding such conflict and to counter risks that individual states may take steps that serve their own adaptation interests (eg, geoengineering) while significantly harming the ecological sustainability of other states.

Conclusion

The chapter has examined the scholarly debates on key questions about climate law's interaction with environmental law. Is conflict between these fields of law inevitable? If so, why and when does conflict arise and which of the values served by conflicting laws should decision-makers prioritize? These questions must be answered, in order to

[44] ibid.
[45] Woolley, *Ecological Governance* (n 24) 71-4.
[46] Woolley 'What Would Ecological Climate Law Look Like?' (n 12) 84. See accounts of ongoing research into the development of methods for identifying and assessing potential nature-based solutions to climate change at Pete Smith and others, 'Which Practices Co-Deliver Food Security, Climate Change Mitigation and Adaptation, and Combat Land Degradation and Desertification?' (2020) 26 Global Change Biology 1533; and C Soto-Navarro and others, 'Mapping Co-Benefits for Carbon Storage and Biodiversity to Inform Conservation Policy and Action' (2020) 375 Philosophical Transactions of the Royal Society B: Biological Sciences 20190128.
[47] See Benoit Mayer, 'The Emergence of Climate Assessment as a Customary Law Obligation' in Benoit Mayer and Alexander Zahar (eds), *Debating Climate Law* (Cambridge University Press 2021).

design laws that enable, to the fullest extent possible, the simultaneous pursuit of climate and environmental goals.

I began by considering the multifaceted nature of legal conflict. Recognition that this covers three different types of disharmony between legal branches enables full appraisal of when their often-complementary interactions may become problematic. I then reviewed the climate law/environmental law relationship to reveal the central focus of debate, namely, whether conflict between climate law and environmental law is inevitable. That debate is obscured somewhat by the use of legal assessment and planning tools that seek to harmonize climate and environmental policy objectives. I showed that conflict between climate law and environmental law is to some extent inevitable. It is made so by climate law's framing of greenhouse gas emission growth and its ecological consequences as problems to be addressed separately. Most legal commentators accept, or at least do not challenge, the appropriateness of this framing in view of the urgent need to reduce greenhouse gas emissions. However, others argue that this framing is not appropriate as it fails to capture the reality of ecological threats posed by climate change. They also argue that the current legal conflict could be avoided by treating greenhouse gas growth and its consequences as aspects of the wider problem of the human-driven deterioration of Earth's ecological capacity to support life.

This fault line in legal scholarship is likely to grow more prominent as the perception of climate change shifts from a 'future' problem to one that is causing significant environmental harm in the present.