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The Contribution of International Biodiversity Law

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**No need to reinvent the wheel for a human rights-based approach
to tackling climate change: The contribution of international
biodiversity law**

Dr Elisa Morgera

Lecturer in European Environmental Law
University of Edinburgh, School of Law

elisa.morgera@ed.ac.uk

Also published as E Morgera, "No need to reinvent the wheel for a human rights-based approach to tackling climate change: The contribution of international biodiversity law" in Erkki Hollo, Kati Kulovesi and Michael Mehling (eds.), Climate Change and the Law: A Global Perspective (Springer, forthcoming 2012). The original publication will be available at www.springerlink.com



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Abstract

This chapter provides a systematic analysis of the ways in which international biodiversity law contributes to the fight against climate change by assessing and preventing the negative impacts on biodiversity and community livelihoods of measures to address climate change ('response measures'), and adopting the ecosystem approach to climate change mitigation and adaptation. In highlighting readily available legal avenues for ensuring the mutual supportiveness of the international biodiversity regime and the international climate change regime, the chapter argues that positive interaction between the two regimes can promote a human rights-based approach to the development of the international climate change regime and its implementation at the national level.

Keywords

International climate change law; international biodiversity law; Convention on Biological Diversity; human rights

No need to reinvent the wheel for a human rights-based approach to tackling climate change: The contribution of international biodiversity law

Elisa Morgera¹

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1. Introduction

Climate change is one of the main drivers of global biodiversity loss.² Consequently, the closely related challenges of biodiversity loss and climate change must be addressed “with equal priority” and in close coordination, if “tipping points in biodiversity loss” are to be avoided.³ This objective is increasingly reflected in international biodiversity law. This chapter thus proceeds from the argument that international biodiversity law has established close and important links with climate change law, making a multifaceted contribution to the fight against climate change.⁴ Parties to the Convention on Biological Diversity (CBD)⁵ and to the various other biodiversity-related conventions have, through normative activity of their governing bodies, sought to assess potential and actual threats that climate change and measures to respond to climate change (‘response measures’) pose to the conservation and sustainable use of biodiversity. They have also identified ways to prevent and address negative impacts of climate change and response measures on biodiversity through the mutually supportive interpretation and application of international climate change and biodiversity law.

This chapter provides a systematic analysis of the normative contribution of international biodiversity law to climate change law. This is particularly useful as guidance under the CBD has been developed in an obscure fashion,⁶ with the result that these significant developments

¹ Elisa Morgera holds a LL.M degree from UCL and a Ph.D. from the European University Institute, Florence. She is Lecturer in European Environmental Law and Director of the LL.M Programme in Global Environment and Climate Change Law, School of Law, University of Edinburgh, UK.

² CBD and UNEP-WCMC, *Global Biodiversity Outlook 3* (Montreal: CBD, 2010), available at: <http://gbo3.cbd.int/> (last accessed on 10 April 2012), at 22 (hereinafter, GBO 3).

³ *Ibid.*, at 11 and 75.

⁴ I preliminarily explored this argument in Elisa Morgera, “Far away, so close: A legal analysis of the increasing interactions between the Convention on Biological Diversity and climate change law”, 2 *Climate Law* (2011), 85.

⁵ Convention on Biological Diversity, Rio de Janeiro, 5 June 1992, in force 29 December 1993, 1760 *United Nations Treaty Series* (1993), 79, (hereinafter CBD).

⁶ This is due to the fact that “CBD guidance on climate change and biodiversity is dispersed throughout a myriad of (generally long) COP decisions; and within these decisions, relevant passages are not always well

have escaped academic attention. Notably, these developments not only concern specifically climate change, but also include earlier and more general guidance providing innovative, environmentally holistic and people-centered approaches that can usefully apply for climate change-related purposes. These developments concern the assessment of the negative impacts of climate change response measures on biodiversity and community livelihoods, and the application of the ecosystem approach to climate change mitigation and adaptation. In doing so, the present contribution investigates readily available legal avenues to ensure mutual supportiveness between the international biodiversity regime and the international climate change regime, highlighting how a positive interaction between the two regimes can also support a human rights-based approach⁷ to the development of the international climate change regime and its implementation at the national level.

This chapter thus places itself in the context of the ongoing debate on the ‘normative interplay’ between the international biodiversity and climate change regimes, which are seen as overlapping and distinct, but not necessarily conflicting, systems of rules.⁸ By outlining normative developments in international biodiversity law, this chapter aims to show that the abundant and timely normative activity of the CBD Conference of the Parties (COP), which not only embodies the consensus of 193 States but also the inputs of indigenous and local communities,⁹ already provides useful and well-developed conceptual bridges not only

organized or clearly separated by topic or addressee. Frequent qualifications and convoluted drafting further undermine the comprehensibility of COP decisions and of their legal implications under the CBD.” Morgera, “Far away, so close”, supra, note 4, at 86.

⁷ In line with the hortatory reference in the Cancun Agreements that UNFCCC parties “should in all climate change related actions, fully respect human rights”, Decision 1/CP.16, Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, FCCC/CP/2010/7/Add.1, 15 March 2011 para. 8. While a human rights-based approach has been described as “viewing certain human rights as essential precursors to achieving environmental protection” and focused on procedural rights, see Edward Cameron, “Human Rights and Climate Change: Moving from an Intrinsic to an Instrumental Approach”, 38 *Georgia Journal of International and Comparative Law* (2009-2010), 673, at 699, in this chapter “human rights-based approach” is rather concerned both with procedural and substantive rights and aiming to achieve both protection of human rights and the environment.

⁸ Harro van Asselt, Francesco Sindico and Michael Mehling, “Global Climate Change and the Fragmentation of International Law”, 30 *Law and Policy* (2008), 423; Margaret Young, “Climate Change and Regime Interaction”, 5 *Carbon and Climate Law Review* (2011), 147; Harro van Asselt, *Managing the Fragmentation of International Environmental Law: Forests at the Intersection of the Climate and Biodiversity Regimes* (SSRN, 2010).

⁹ Under the CBD Working Group on Article 8(j) (traditional knowledge), the fullest possible participation of indigenous and local communities is ensured in all Working Group meetings, including in contact groups, by welcoming community representatives as Friends of the Co-Chairs, Friends of the Bureau and Co-Chairs of contact groups; without prejudice to the applicable rules of procedure of the Conference of the Parties establishing that representatives duly nominated by parties are to conduct the business of CBD meetings so that any text proposal by indigenous and local communities’ representatives must be supported by at least one party. Report of the Seventh meeting of the Ad Hoc Open-ended Working Group on Article 8(j) and Related Provisions, UN Doc. UNEP/CBD/COP/11/7, 24 November 2011, para. 20.

between climate change law and biodiversity law, but also with human rights law.¹⁰ It argues that normative activity under the CBD provides environmentally holistic and human rights-based standards that could fill gaps related to the protection of biodiversity and human rights in climate change law, both at the level of international law-making and national implementation.¹¹ The gaps in the climate change regime have already been identified, particularly in relation to human rights implications of the Clean Development Mechanism and reducing emissions from deforestation and forest degradation in developing countries (REDD), as well as other measures on energy, biofuels and adaptation.¹²

Overall, this contribution aims to fill a gap in the current policy and academic debates on human rights and climate change.¹³ Leaving aside the consideration of human rights in the context of the North-South divide in the ongoing UN climate change negotiations¹⁴ and the potential of human rights-based litigation to contribute to the development or implementation of climate change law,¹⁵ the present analysis offers significant insights on a human right-

¹⁰ Human Rights Council, Resolution on Human Rights and Climate Change: 7/23 of 2008; 10/4 of 2009; and 18/22 of 2011. See generally, Cameron, "Human Rights and Climate Change", supra, note 7; and Lavanya Rajamani, "The Increasing Currency and Relevance of Rights-based Perspectives in the International Negotiations on Climate Change", 22 *Journal of Environmental Law* (2010), 391.

¹¹ Young, "Climate Change and Regime Interaction", supra, note 8, at 152-153: although not at the level of adjudication, due to the absence of a compliance mechanism under the CBD. On the latter point, see Elisa Morgera and Elsa Tsioumani, "Yesterday, Today and Tomorrow: Looking Afresh at the Convention on Biological Diversity", 21 *Yearbook of International Environmental Law* (2011), available at: <http://yielaw.oxfordjournals.org/content/early/2011/11/10/yiel.yvr003.full.pdf+html>, at 7-8 and 25. Other avenues could, however, be available: for instance, in the case of marine biodiversity, the UN Fish Stocks Agreement could provide access to international adjudication for disregarding the duty to protect biodiversity of species associated or dependent from fish stocks from climate change impacts. See, William Burns, "Potential Causes of Action for Climate Impacts under the United Nations Fish Stocks Agreement", in William Burns and Hari Osofsky (eds), *Adjudicating Climate Change* (Cambridge: Cambridge University Press, 2009), 14.

¹² Naomi Roht-Arriaza, "'First, Do No Harm': Human Rights and Efforts to Combat Climate Change", 38 *Georgia Journal of International and Comparative Law* (2009-2010), 593, at 595; Ole Pedersen, "The Janus Head of Human Rights and Climate Change: Adaptation and Mitigation", 80 *Nordic Journal of International Law* (2011), 403; Cameron, "Human Rights and Climate Change", supra, note 7, at 704-705, who emphasizes that response measures may "undermine" but not necessarily "violate" human rights.

¹³ To the author's knowledge, none of the legal scholars writing on climate change and human rights has yet made an argument about the usefulness of the normative activity of the CBD: in addition to the sources cited elsewhere in this article, the author has also consulted: Ole Pedersen, "Climate Change and Human Rights: Amicable or Arrested Development?", 1 *Journal of Human Rights and the Environment* (2010), at 236; Amy Sinden, "Climate Change and Human Rights", 27 *Journal of Land, Resources and Environmental Law* (2007), 255; and Rebecca Tsosie, "Indigenous People and Environmental Justice: The Impact of Climate Change", 78 *University of Colorado Law Review* (2007), 1625, who briefly refers to the CBD, in *ibid.*, at 1668.

¹⁴ Rajamani, "The Increasing Currency and Relevance of Rights-based Perspectives", supra, note 10, at 395-398.

¹⁵ Marilyn Averill, "Linking Climate Litigation and Human Rights", 18 *Review of European Community and International Environmental Law* (2009), 139; Eric A. Posner, "Climate Change and International Human Rights Litigation: A Critical Appraisal", 155 *University of Pennsylvania Law Review* (2007), 1925; Hari Osofsky, "The Inuit Petition as a Bridge: Beyond Dialectics of Climate Change and Indigenous Peoples' Rights", 31 *American Indian Law Review* (2007), 675; and Svitlana Kravchenko, "Right to Carbon or Right to Life: Human Rights Approaches to Climate Change", 9 *Vermont Journal of Environmental Law* (2008), 513.

based approach to climate change law and policy at the international level as well as “within States.”¹⁶ The latter can be seen as the “most effective means of complying with positive obligations to protect individuals against the threats posed by climate change ... in adaptation measures as well as climate-related development aid.”¹⁷ The chapter will further touch upon the relevance of the CBD normative activity in the context of a human rights-based approach to climate-related development assistance, as well as in relation to the responsibility of business entities to respect human rights in the context of climate change action.

2. Systemic interpretation and mutual supportiveness in context of the UNFCCC and CBD

Before proceeding to the systematic analysis of the multifaceted guidance provided by the CBD parties on climate change, it is necessary to clarify the overall relationship between the international climate change and biodiversity regimes. In doing so, the advantages of systemic interpretation and mutual supportiveness will be illustrated in order to better understand the interaction between the different legal instruments comprised in each legal regime.

At the treaty level, there is no insurmountable conflict between the international biodiversity and climate change regimes.¹⁸ The United Nations Framework Convention on Climate Change (UNFCCC) makes reference to ecosystems in context of its ultimate objective of stabilizing greenhouse gas concentrations and achieving international cooperation for the conservation of sinks and reservoirs.¹⁹ It does not, however, link the application of the precautionary principle to potential environmental consequences or seek to prioritize mitigation measures based on their environmental impacts.²⁰ While the Kyoto Protocol²¹ does

¹⁶ That is of a state vis-a-vis its citizens: Rajamani, “The Increasing Currency and Relevance of Rights-based Perspectives”, supra, note 10, at 426.

¹⁷ John von Doussa, Allison Corkery and Renee Chartres, “Human Rights and Climate Change”, 14 *Australian International Law Journal* (2007), 161, at 161-162.

¹⁸ Van Asselt, *Managing the Fragmentation of International Environmental Law*, supra, note 8, at 17; on the basis of United Nations Framework Convention on Climate Change, New York, 9 May 1992, in force 21 March 1994, 31 *International Legal Materials* (1992), 849 (hereinafter, UNFCCC), Arts. 2, 4(1)(d), 1(1) and 4(8).

¹⁹ *Ibid.*, Arts. 2 and 4(1)(d).

²⁰ Meinhard Doelle, “Integration among Global Environmental Regimes: Lessons Learned from Climate Change Mitigation”, in Aldo Chircop, Ted McDorman, Susan Rolston (eds), *The Future of Regime-Building in the Law of the Sea: Essays in Tribute to Douglas M. Johnston* (Leiden: Martinus Nijhoff, 2008), 63, at 75, based on UNFCCC, supra, note 18, Arts. 3(3) and 4.

²¹ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 10 December 1997, in force 16 February 2005, 37 *International Legal Materials* (1998), 22.

not expressly provide incentives for meeting the legally binding emission reduction targets it contains for developed countries “in a manner that minimizes negative impacts on biodiversity,”²² it does require minimization of adverse environmental impacts by one Protocol party on another, particularly on developing states.²³ It also requires its governing body to assess the environmental impacts of measures taken pursuant to the Protocol,²⁴ and includes a clause calling upon parties to implement policies and measures taking into account commitments under relevant international agreements.²⁵

To compare, the CBD requires its Parties to cooperate through competent international organizations on matters of mutual interest for the conservation and sustainable use of biodiversity, which may well include climate-related issues.²⁶ In addition, on the basis of systemic interpretation,²⁷ the CBD can be read as calling on its Parties to: integrate biodiversity issues into climate change plans, programmes, and policies;²⁸ undertake environmental impact assessments of adaptation and mitigation projects that are likely to have significant adverse effects on biodiversity;²⁹ regulate climate-change-related processes and activities that have a significant adverse effect on biodiversity;³⁰ avoid or minimize adverse impacts from the use of biological resources for adaptation or mitigation purposes;³¹ prevent the introduction of invasive alien species in the context of adaptation and mitigation measures;³² bring about cooperation between national authorities and the private sector in ensuring the sustainable use of biodiversity for adaptation or mitigation purposes;³³ and provide incentives for the conservation and sustainable use of biodiversity components in the

²² Meinhard Doelle, “Linking the Kyoto Protocol and Other Multilateral Environmental Agreements: From Fragmentation to Integration?”, 14 *Journal of Environmental Law and Practice* (2004), 75, at 83.

²³ Doelle, “Integration among Global Environmental Regimes”, supra, note 20, at 76; and Van Asselt, Sindico and Mehling, “Global Climate Change and the Fragmentation of International Law”, supra, note 8, at 18; based on Kyoto Protocol Art. 2(3).

²⁴ Kyoto Protocol, supra, note 21, Art. 13(4)(a); See comments by van Asselt, *Managing the Fragmentation of International Environmental Law*, supra, note 8, at 18.

²⁵ Kyoto Protocol, supra, note 21, Art. 2(a)(ii).

²⁶ CBD Article 5; Frédéric Jacquemont and Alejandro Caparrós, “The Convention on Biological Diversity and the Climate Change Convention 10 Years After Rio: Towards a synergy of the Two Regimes?”, 11 *Review of European Community and International Environmental Law* (2002), 169, at 179.

²⁷ Vienna Convention on the Law of Treaties, Vienna, 23 May 1969, in force 27 January 1980, 1513 UNTS 293 (1980), Art. 31(3)(c).

²⁸ CBD, supra, note 5, Art. 6(b).

²⁹ Ibid., Art. 14(1)(a).

³⁰ Ibid., Art. 8(l).

³¹ Ibid., Art. 10(b).

³² Ibid., Art. 8(h).

³³ Ibid., Art. 10(e).

context of adaptation and mitigation activities.³⁴ Furthermore, the CBD can be interpreted as calling on Parties to respect and preserve the traditional knowledge and practices of indigenous and local communities when implementing mitigation and adaptation measures, involving those communities in climate-change-related decision-making and rewarding them for their intellectual contribution to mitigation and adaptation measures.³⁵ The latter notably offers a specific legal basis for the CBD to inject a right-based approach to the application of all the other above-outlined tools, thereby promoting synergies between biodiversity law, human rights and climate change law.

Furthermore, the CBD³⁶ gives “conditional priority” to its Parties’ obligations arising from other treaties existing at the time of its conclusion only in the absence of a serious threat or damage to biodiversity.³⁷ It thus leaves a wide margin of discretion to its Parties to determine the circumstances in which the CBD should take precedence over other international agreements.³⁸ In this light, the CBD can arguably be interpreted as authorizing CBD parties to give precedence to their international obligations arising from the CBD in those specific instances where a serious threat of damage to biodiversity has been identified. In addition, this provision implicitly calls upon CBD Parties to be constantly alert to, and promptly identify, such a threat to biodiversity when it materializes.³⁹ Against this background, the normative activity of the CBD COP has periodically and progressively crystallized consensus on the identification of serious threats to biodiversity arising from climate change and from actions pursuant to the international climate change regime that warranted synergetic responses. By the end of 2010, climate change had evolved into a key cross-cutting component in the work of the CBD in two respects. As a threat to biodiversity through the negative impacts of climate change and response measures on biodiversity and the livelihood of communities; and as a response that contributes to biodiversity conservation and sustainable use through climate change mitigation and adaptation measures with biodiversity

³⁴ Ibid., Art. 11.

³⁵ Ibid., Art. 8(j). Note that this language is partly reflected in Decision 1/CP.16, supra, note 7, Appendix I, para. 2(c-d). For a discussion of the significant evolution in the interpretation of this provision by CBD Parties, see Elisa Morgera and Elsa Tsioumani, “The Evolution of Benefit-sharing: Linking Biodiversity and Community Livelihoods”, 15 *Review of European Community and International Environmental Law* (2010), 150.

³⁶ CBD, supra, note 5, Art. 22(1).

³⁷ Riccardo Pavoni, “Mutual Supportiveness as a Principle of Interpretation and Law-Making: A Watershed for the WTO-and-Competing-Regimes Debate?”, 21 *European Journal of International Law* (2010), 649, particularly, at 655.

³⁸ Jacquemont and Caparrós, “The Convention on Biological Diversity and the Climate Change Convention 10 Years After Rio”, supra, note 26, at 178.

³⁹ Morgera, “Far away, so close”, supra, note 4, at 89.

co-benefits.⁴⁰ Thus, the impacts of climate change and of response measures that pose significant threats to biodiversity have been, and will continue to be, addressed comprehensively in normative work under the CBD.⁴¹

This, however, has not been reciprocated in the practice of the international climate change regime:⁴² recent decisions on REDD, for instance, have only provided for a very general reference to relevant international instruments.⁴³ The coherence between the international biodiversity and climate change regimes thus appears to rest mostly on coherence between the decisions by their respective treaty bodies.⁴⁴ This is particularly significant as both regimes evolve dynamically and continuously through COP decisions; several studies have been devoted to the legal nature and impacts of the climate change COP decisions,⁴⁵ and the few studies on the relevant CBD COP decisions indicate that the Convention on Biodiversity has been subject to a highly evolutionary interpretation by its parties.⁴⁶ While CBD COP decisions, however, have been systematically taking into account normative developments occurring in the international climate change regime, the latter has not shown any specific interest in parallel developments in the international biodiversity regime. Divergences in COP decisions under separate international regimes may represent “different ways of dealing with a problem” but can still “lead to mutually supportive outcomes,”⁴⁷ thereby paving the

⁴⁰ I am grateful to Jaime Webbe, CBD Secretariat, for drawing my attention to this point, which I discussed in more detail in Morgera, “Far away, so close”, supra, note 4.

⁴¹ Ibid., at 113-115.

⁴² The lack of cross-reference in decisions taken in the context of the international climate change regime to relevant decisions taken in the context of the CBD has been emphasized by van Asselt, *Managing the Fragmentation of International Environmental Law*, supra, note 8, at 36-37, referring specifically to decisions on forests, and Jamie Pittock, “A Pale Reflection of Political Reality: Integration of Global Climate, Wetland and Biodiversity Agreements”, 1 *Climate Law* (2010), 343, at 355.

⁴³ Decision 1/CP.16, supra, note 7, Appendix I, para. 2(a, c-e). Note that the explicit reference to the CBD in Decision 2/CP.15, The Copenhagen Accord, FCCC/CP/2009/11/Add.1, 30 March 2010, para. 8, Annex, “[does] not reappear in subsequent COP decisions dealing with REDD” as highlighted by Annalisa Savaresi in her contribution to this volume.

⁴⁴ Van Asselt, Sindico and Mehling, “Global Climate Change and the Fragmentation of International Law”, supra, note 8, at 425.

⁴⁵ Jutta Brunnée, “COPing with Consent: Law-making under Multilateral Environmental Agreements”, 15 *Leiden Journal of International Law* (2002), 1; Annecoos Wiersema, “The New International Law-Makers? Conferences of the Parties to Multilateral Environmental Agreements”, 31 *Michigan Journal of International Law* (2009), 231.

⁴⁶ Morgera and Tsoumani, “Yesterday, Today and Tomorrow”, supra, note 11. Strangely enough, none of the general studies on COP decisions has ever referred to the CBD as a case study: in addition to the sources cited supra, note 45, see also Malgosia Fitzmaurice, “Consent to Be Bound – Anything New Under the Sun?”, 74 *Nordic Journal of International Law* (2005), 483; and Robert Churchill and Geir Ulfstein, “Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-Noticed Phenomenon in International Law”, 94 *The American Journal of International Law* (2000), 623.

⁴⁷ Van Asselt, Sindico and Mehling, “Global Climate Change and the Fragmentation of International Law”, supra, note 8, at 430.

way for “fruitful interactions” between the two regimes.⁴⁸ As compatibility with COP decisions cannot be assured through the systemic interpretation approach reflected in the Vienna Convention on the Law of Treaties,⁴⁹ the emerging general principle of mutual supportiveness appears as a more appropriate legal avenue to promote coherence between the two regimes at the level of the normative work of their governing bodies. In addition to being more flexible than systemic interpretation concerning the instruments to which it can be applied, the added value of the principle of mutual supportiveness is that it goes beyond interpretation. This means that it not only calls on States, at the interpretative level, to avoid resolving tensions between competing international regimes through the subordination of one regime to the other; but that the principle of mutual supportiveness also has a law-making dimension. It calls upon States to exert good-faith efforts to negotiate and conclude instruments that clarify the relationship between competing regimes, particularly when interpretative reconciliation efforts have been exhausted.⁵⁰

Through the lens of mutual supportiveness, therefore, the following sections will discuss how the guidance from the CBD COP has sought to promote an environmentally holistic and human rights-based approach to the international law-making on climate change and national implementation, through guarantees for the conservation and sustainable use of biodiversity and the protection of indigenous and local communities.⁵¹ Although other biodiversity-related conventions have increasingly addressed climate change issues, notably the Convention on Migratory Species (CMS),⁵² the Ramsar Convention on Wetlands of International Importance⁵³ and the World Heritage Convention,⁵⁴ these contributions appear less

⁴⁸ Young, “Climate Change and Regime Interaction”, supra, note 8, at 147.

⁴⁹ Art. 31(3)(c); Van Asselt, Sindico and Mehling, “Global Climate Change and the Fragmentation of International Law”, supra, note 8, at 430.

⁵⁰ Pavoni, “Mutual Supportiveness”, supra, note 37, at 661-669.

⁵¹ Morgera, “Far away, so close”, supra, note 4.

⁵² Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 23 June 1979, in force 01 November 1983, 1651 *United Nations Treaty Series* (1991), 333.

⁵³ Convention on Wetlands of International Importance, Ramsar, 2 February 1971, in force 21 December 1975, 996 *United Nations Treaty Series* (1976), 245.

⁵⁴ World Heritage Convention (Convention Concerning the Protection of the World Cultural and Natural Heritage), Paris, 16 November 1972, in force 7 August 1975, 1037 *United Nations Treaty Series* (1977), 151; and Policy Document on the Impacts of Climate Change on World Heritage Properties, WHC-07/16.GA/10, September 2008. Nonetheless the World Heritage Committee has been “reluctant to impose more than site-specific mitigation obligations on state parties,” basically “deferring to the general mitigation options contained in the UNFCCC”: comments by Young, “Climate Change and Regime Interaction”, supra, note 8, at 148-149 and 152. See also William Burns, “‘Belt and Suspenders’? The World Heritage Convention’s Role in Confronting Climate Change”, 18 *RECIEL* (2009), 148; and Anna Huggins, “Protecting World Heritage Sites from Adverse Impacts of Climate Change: Obligations for State Parties to the World Heritage Convention”, 14 *Australian International Law Journal* (2007), 121.

sophisticated or less comprehensive than those emerging from the CBD framework. Accordingly, this chapter will only draw on relevant normative benchmarks elaborated under other biodiversity-related treaties⁵⁵ when they provide value added to normative work under the CBD.

3. The contribution of the international biodiversity regime: the ecosystem approach

The conceptual cornerstone of the interaction between the international climate change and biodiversity regimes is the ecosystem approach, which allows both regimes to integrate other environmental concerns beyond their specific objectives. While under the international climate change regime limited references are made to the ecosystem approach, the CBD COP has devoted significant time and energy to fleshing out this approach not only with a view to ensuring the balanced and coherent achievement of its three objectives,⁵⁶ but also to contributing to other areas of international law.⁵⁷ In doing so, CBD parties have delved into key questions of relevance for both regimes, such as the role of precaution, the balance between cost-effectiveness and equity, and the need for procedural and substantive protection of indigenous and local communities.

In 2004, the CBD COP identified the ecosystem approach as a tool to facilitate climate change mitigation and adaptation while ensuring mutual supportiveness between the UNFCCC and the CBD.⁵⁸ The ecosystem approach as elaborated under the CBD entails a process aimed at integrating management of land, water and living resources, and promoting

⁵⁵ The other two biodiversity-related conventions have only begun to address climate change: the COP to the Convention on International Trade in Endangered Species (Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington DC, 3 March 1973, in force 1 July 1975, 993 *United Nations Treaty Series* (1976), 243) adopted in 2010 decisions on information-gathering related to climate change impacts on the Convention (Decisions 15.15 and 15.16); while a Ministerial Conference on Biodiversity, Food Security and Climate Change, held on 11 March 2011, in Bali, Indonesia, adopted the Bali Ministerial Declaration on the Role of the International Treaty on Plant Genetic Resources for Food and Agriculture on Biodiversity, Climate Change and Food Security. Note also that under this Treaty (Rome, 3 November 2001, in force 29 June 2004, 2400 *United Nations Treaty Series* (2006), 303) the multilateral benefit-sharing fund provides financial support for the development of strategic action plans to adapt plant genetic resources for food and agriculture to climate change, as well as financial support for the implementation of immediate action projects that in the second round prioritized climate change adaptation: accordingly, the Treaty's benefit-sharing fund is recognized as an adaptation-funding mechanism in the UNFCCC adaptation funding interface, available at: http://unfccc.int/adaptation/implementing_adaptation/adaptation_funding_interface/items/4638.php (last accessed on 10 April 2012). I am grateful to Elsa Tsioumani for drawing my attention to this development.

⁵⁶ CBD, *supra*, note 5, Art. 1.

⁵⁷ Morgera and Tsioumani, "Yesterday, Today and Tomorrow", *supra*, note 11, at 38; Daniel McGraw, "The CBD: Key Characteristics and Implications for Development", 11 *Review of European Community and International Environmental Law* (2002), 17, at 24.

⁵⁸ CBD Decision 7/15, Biodiversity and Climate Change, UNEP/CBD/COP/7/21, 13 April 2004, para. 8.

conservation and sustainable use in an equitable way, recognizing that human beings are an integral component of many ecosystems.⁵⁹ In a nutshell, the ecosystem approach focuses on the interconnectedness among species and between species and their habitats, on long-term timeframes and on the integrity of the structure and functions of genetic, species, population and ecosystem diversity for human wellbeing and ecosystem resilience.⁶⁰

The ecosystem approach is thus tightly linked to precaution,⁶¹ also included among the principles listed in the UNFCCC.⁶² As aptly summed up by Burns, the precautionary approach entails taking into account the vulnerability of the environment, the limitations of science, the availability of alternatives, and the need for long-term, holistic environmental considerations, thus operating as a safeguard against asymmetric information and imperfect monitoring.⁶³ The precautionary approach can be implemented through adaptive management;⁶⁴ responding to changing circumstances and new knowledge, as well as generating new knowledge and reducing uncertainties, thereby allowing management to anticipate and cater for change as a result of an ongoing learning process.⁶⁵ As highlighted by Trouwborst, the precautionary and ecosystem approaches both embody responses to the failure of reactive and fragmented approaches to environmental protection: precaution is an integral component of the ecosystem approach, determining when action to prevent damage is necessary, that is, when there are reasonable grounds for concern that serious or irreversible harm to ecosystem integrity may occur.⁶⁶ Both approaches accordingly assign similar roles to scientific information, requiring continuous information-gathering and monitoring to feed back into decision-making, and mandate similar implementing measures that should be tailor-made and readily adaptable.⁶⁷ Trouwborst thus concludes that the

⁵⁹ CBD Decision 5/6, Ecosystem approach, UNEP/CBD/COP/5/23, 22 June 2000, paras. 1-2.

⁶⁰ Arie Trouwborst, "The Precautionary Principle and the Ecosystem Approach in International Law: Differences, Similarities and Linkages", 18 *Review of European Community and International Environmental Law* (2009), 26, at 28.

⁶¹ UNFCCC, *supra*, note 18, Art. 3(3). On the fact that the CBD is based on the ecosystem approach and the UNFCCC on the precautionary approach as a differentiating factor see Pittock, "A Pale Reflection of Political Reality", *supra*, note 42, at 349; based on Rudiger Wolfrum and Nele Matz, *Conflicts in International Environmental Law* (Berlin: Springer, 2003), at 119.

⁶² UNFCCC, *supra*, note 18, Art. 3.3.

⁶³ Burns, "Potential Causes of Action for Climate Impacts under the United Nations Fish Stocks Agreement", *supra*, note 11.

⁶⁴ CBD Decision 7/11, Ecosystem Approach, UNEP/CBD/COP/7/21, 13 April 2004, Annex I, Principle 6, Implementation Guideline 6.2.

⁶⁵ *Ibid.*, Annotations to the Rationale of Principle 9.

⁶⁶ Trouwborst, "The Precautionary Principle and the Ecosystem Approach in International Law", *supra*, note 60, at 26 and 33-34.

⁶⁷ *Ibid.*, at 36.

ecosystem approach should be taken into account in the application of the precautionary principle, which addresses broader environmental protection issues than ecosystem integrity.⁶⁸

The consideration of cost-effectiveness is also a common feature of the precautionary and ecosystem approaches. The ecosystem approach calls for assessing the costs and benefits of conserving, maintaining, using and restoring ecosystems and for taking into account the interests of all relevant stakeholders for equitably sharing the benefits according to national law.⁶⁹ This is particularly significant in light of the “prominent role afforded to cost-effectiveness in the climate regime,”⁷⁰ and the need to ensure that the economic and non-economic values of biodiversity and ecosystem services⁷¹ are taken into account when planning and undertaking climate-change-related activities; and that incentives for such activities should be carefully designed to simultaneously consider cultural, social, economic, and biophysical factors, while avoiding market distortions.⁷² The international reflection on the economic valuation of biodiversity, however, is only at incipient stages, although it is considered essential for mainstreaming biodiversity more effectively in other sectors and demonstrating the effectiveness of ecosystem protection and restoration towards climate change adaptation and mitigation.⁷³

⁶⁸ Ibid., at 33-34.

⁶⁹ CBD Decision 7/11, supra, note 64, Annex I, para. 12(5).

⁷⁰ Van Asselt, Sindico and Mehling, “Global Climate Change and the Fragmentation of International Law”, supra, note 8, at 428.

⁷¹ *The Millennium Ecosystem Assessment, Ecosystems and Human Well-being: Synthesis* (Washington DC: Island Press, 2005), also available at: www.maweb.org/en/index.aspx (last accessed on 10 April 2012) is a global scientific process commissioned by the UN Secretary-General to assess the consequences of ecosystem change on human well-being. The report is noteworthy for having facilitated far-reaching global endorsement of the term “ecosystem services” as the benefits people obtain from ecosystems, such as: food, water, timber, and fiber; regulating services that affect climate, floods, diseases, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling. For a discussion of legal implications, see Elisa Morgera, “The 2005 UN World Summit and the Environment: The Proverbial Half-Full Glass”, 15 *Italian Yearbook of International Law* (2006), 53.

⁷² CBD Secretariat, *Connecting Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change, Technical Series No. 41* (Montreal: CBD Secretariat, 2009), at 8-14.

⁷³ GBO 3, supra, note 2, at 83; Pavan Sukhdev, Heidi Wittmer, Christoph Schröter-Schlaack, Carsten Nesshöver, Joshua Bishop, Patrick ten Brink, Haripriya Gundimeda, Pushpam Kumar and Ben Simmons, *The Economics of Ecosystems and Biodiversity – Mainstreaming the Economics of Nature: A Synthesis of the Approach* (Malta: Progress Press, 2010); and CBD Decision 10/4, Third edition of the Global Biodiversity Outlook: implications for the future implementation of the Convention, UNEP/CBD/COP/10/27, 20 January 2011, para. 5; CBD Decision 10/2, The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, UNEP/CBD/COP/10/27, 20 January 2011, paras. 7 and 17(e).

Much more clearly than the precautionary approach, the ecosystem approach entails a social process: interested communities must be involved through the development of efficient and effective structures and processes for decision-making and management.⁷⁴ From that perspective, a key emerging element of the ecosystem approach is benefit-sharing – the substantive dimension underpinning and reinforcing current efforts to ensure community involvement in decision-making and sustainable management of living resources. Benefit-sharing is thus the linchpin for addressing cost-effectiveness and equity concerns at the same time. It operates as a reward for the integration of the traditional knowledge of indigenous and local communities in planning and management, or as compensation for the costs and negative impacts of biodiversity conservation or sustainable management activities on indigenous and local communities.⁷⁵ According to the ecosystem approach, benefit-sharing is expected to target stakeholders responsible for the production and management of the benefits flowing from the multiple functions provided by biodiversity at the ecosystem level, including through capacity-building, especially at the level of local communities managing biodiversity in ecosystems, and local incentives for good management practices.⁷⁶ This is based on the understanding that where those who control land use do not receive benefits from maintaining natural ecosystems and processes, they are likely to initiate unsustainable practices for short-term gains.⁷⁷

In line with the ecosystem approach, the CBD work programme on protected areas links the goal of promoting equity and benefit-sharing with the legal recognition and effective management of indigenous and local community conserved areas, using the social and economic benefits generated by protected areas for poverty reduction, and stresses the need for engaging indigenous and local communities and relevant stakeholders in participatory planning and governance.⁷⁸ Similarly, the CBD work programme on forest biodiversity explicitly refers to the fair and equitable sharing of the benefits from forest-related traditional knowledge,⁷⁹ emphasizing its link with community-based forest management⁸⁰ and the need

⁷⁴ CBD Decision 10/29, Marine and coastal biodiversity, UNEP/CBD/COP/10/27, 20 January 2011, para. 13(h) and Annex, para. d.

⁷⁵ Morgera and Tsioumani, “The Evolution of Benefit-sharing”, *supra*, note 35, at 160.

⁷⁶ CBD Decision 5/6, Principles of the Ecosystem approach, UNEP/CBD/COP/5/23, 22 June 2000, Annex B, Operational Guidance 2, para. 9.

⁷⁷ CBD Decision 7/11, *supra*, note 64, Annex I, annotations to rationale to Principle 4.

⁷⁸ *Ibid.*, Annex I, paras. 2.1.3-2.1.5.

⁷⁹ CBD Decision 6/22, Expanded Programme of Work on Forest Biological Diversity, UNEP/CBD/COP/6/20 27 May 2002, para. 13.

⁸⁰ *Ibid.*, para. 19(h).

to address socio-economic failures and distortions that lead to decisions that result in loss of forest biodiversity. To this end, the work programme makes reference to the use of forest planning and management, stakeholder analysis and mechanisms for transferring costs and benefits, providing market and other incentives for the use of sustainable practices, develop alternative sustainable income-generation programmes and facilitate self-sufficiency programmes of indigenous and local communities.⁸¹

The Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity adopted under the CBD highlight that the involvement of local people facilitates compliance with legislation on the sustainable use of natural resources. They also underscore that management regimes are enhanced when training to identify income alternatives, or assistance in diversifying their management capacities is provided to communities.⁸² Therefore, policies and regulations should ensure that indigenous communities and local stakeholders involved in the management of a resource for sustainable use receive an equitable share of any benefits derived, as well as additional benefits such as job opportunities for local people and support for co-management, or equal distribution of returns amongst locals and outside investors.

Overall, benefit-sharing in the context of the ecosystem approach implies that the State is expected to couple procedural guarantees for community participation in decision-making and management planning with substantive measures for the legal recognition of communities' sustainable practices, the provision of guidance and support to improve the environmental sustainability of community practices, and the proactive identification of opportunities for better/alternative livelihoods in these endeavours, with a view to facilitating understanding of, and compliance with, the law.

The underlying argument here is that, notwithstanding continued reluctance by some CBD Parties to use more explicit human rights language in CBD COP decisions,⁸³ the normative activity of the CBD COP has had far-reaching implications for the protection of the rights of indigenous peoples and local communities in the context of the precautionary and ecosystem

⁸¹ CBD COP Decision 6/22, *supra*, note 79, Annex, activities (b) and (f) under Objective 1

⁸² CBD, *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* (Montreal: Secretariat of the Convention on Biological Diversity, 2004); CBD COP Decision 7/12, Sustainable Use (Article 10), UNEP/CBD/COP/7/21, 13 April 2004, Annex II, rationale to Principle 4.

⁸³ Morgera and Tsioumani, "Yesterday, Today and Tomorrow", *supra*, note 11, at 15-16 and 18-23.

approaches, well in line with international human rights developments.⁸⁴ The following subsections will provide a coherent reading of the multiple sources of guidance by the CBD COP, designed to ensure environmentally holistic and human rights-based responses to climate change in a way that complements normative developments under the climate change regime.

3.1 Assessing and reducing the negative impacts of climate change response measures on biodiversity

The report of the CBD Expert Group on Climate Change in 2009 not only confirmed the reciprocal interactions between biodiversity loss and climate change, but also called attention more systematically to possible negative impacts of climate change response measures, depending on their design and implementation, on biodiversity.⁸⁵ Accordingly, the CBD COP has in a series of decisions spelt out guidance on carrying out appropriate assessments of response measures with a view to identifying environmentally holistic options and modalities for their design and implementation.

In more specific terms, the CBD COP has recommended undertaking environmental impact assessments and strategic assessments of renewable energy planning in mountain areas.⁸⁶ These assessments are to facilitate the consideration of all available options, with a view to avoiding the conversion or degradation of areas important for biodiversity. In so doing, CBD Parties are to consider traditional knowledge, including through the full involvement of indigenous peoples and local communities; they are also to consider the biodiversity components that are important for conservation and sustainable use; and they are to develop ecosystem- and species-vulnerability assessments.⁸⁷ Parties are also invited to consider the role of biodiversity and associated ecosystem services when enhancing the climate resilience of investments, projects, and programmes.⁸⁸ In addition, CBD Parties committed to assessing the impacts of climate change not only on biodiversity but also on the biodiversity-based

⁸⁴ Notably, relevant human rights case law: Mauro Barelli, “The Interplay between Global and Regional Human Rights Systems in the Construction of the Indigenous Rights Regime”, 32 *Human Rights Quarterly* (2010), 951, particularly at 971-972 and 975-978; and John Knox, “Climate Change and Human Rights Law”, 50 *Virginia Journal of International Law* (2009-2010), 163, at 189-190.

⁸⁵ CBD Secretariat, *Connecting Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change*, supra, note 72, 8-14.

⁸⁶ CBD Decision 10/30, Mountain biological diversity, UNEP/CBD/COP/10/27, 20 January 2011, para. 5.

⁸⁷ *Ibid.*, para. 8(u)-(v).

⁸⁸ *Ibid.*, para. 17.

livelihoods of indigenous and local communities, with a view to identifying adaptation priorities. Particular attention is directed, in this respect, to livelihoods within ecosystems that have been identified as being particularly vulnerable to the negative impacts of climate change.⁸⁹

Along similar lines, the CMS COP has called for the application of strategic environmental assessments to identify the appropriate construction sites of wind turbines, to avoid negative impacts on migratory species,⁹⁰ while the Ramsar Convention urged using environmental impact assessments and strategic assessments before undertaking biofuel production and where avoidance of negative impacts is not feasible, to apply compensation and offsets including through wetland restoration.⁹¹

Earlier, more general guidance from the CBD COP provides further clarification on necessary procedural steps for a biodiversity-inclusive⁹² and socio-cultural assessments that have great importance from an adaptation and mitigation perspective. These procedural⁹³ steps serve to assess the costs and benefits of conserving, maintaining, using and restoring ecosystems, take into account the interests of all relevant stakeholders and equitably share the benefits,⁹⁴ particularly when communities' traditional lands or protected areas are at stake.⁹⁵

The most relevant tool developed by the CBD COP in that regard is the Akwé: Kon Guidelines for the conduct of cultural, environmental and social impact assessment on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities.⁹⁶ These guidelines illustrate how impact assessments can be used for identifying and weighting expected cultural, social and environmental costs and impacts of

⁸⁹ CBD Decision 10/33 Biodiversity and climate change, UNEP/CBD/COP/10/27, 20 January 2011, para. 8(b).

⁹⁰ CMS Resolution 7.5, Wind turbines and migratory species, Proceedings of the Seventh Meeting of the Conference of the Parties, March 2002.

⁹¹ Ramsar Resolution X.25, Wetlands and biofuels, COP10 Conference Report, 2008, para. 15.

⁹² CBD Decision 6/7, Identification, monitoring, indicators and assessments, UNEP/CBD/COP/6/20 27 May 2002, Annex, Guidelines for incorporating biodiversity-related issues into environmental impact assessment legislation and/or process and in strategic environmental assessment.

⁹³ Svitlana Kravchenko, "Procedural Rights as a Crucial Tool to Combat Climate Change", 38 *Georgia Journal of International and Comparative Law* (2009-2010), 613.

⁹⁴ CBD Decision 7/11, *supra*, note 64, para. 12(5).

⁹⁵ CBD Decision 7/28, Programme of Work on Protected Areas, UNEP/CBD/COP/7/21 13 April 2004, Annex, para. 2(1)(1).

⁹⁶ CBD Guidelines, Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities (Montreal: Secretariat of the Convention on Biological Diversity, 2004) in Article 8(j) and related provisions (CBD COP 7 Decision VII/16F, Article 8(j), UNEP/CBD/COP/7/21 13 April 2004), para. 56.

proposed climate change response measures that are proposed to take place on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities. In these circumstances, tangible benefits should accrue to such communities, such as payment for environmental services, job creation within safe and hazard-free working environments, viable revenue from the levying of appropriate fees, access to markets, and diversification of income-generating (economic) opportunities for small and medium-sized businesses.⁹⁷ These more rounded assessments aim to achieve a multiplicity of goals, namely to support the full and effective participation and involvement of indigenous and local communities in all planning phases and properly take into account their cultural, environmental and social concerns and interests. In addition, these assessments are needed to take into account such knowledge, innovations and practices of these communities, with due regard to the ownership of and the need for the protection and safeguarding of traditional knowledge. Furthermore, they can contribute to promoting the use of appropriate technologies; identify and implement appropriate measures to prevent or mitigate any negative impacts of proposed developments; and take into consideration the interrelationships among cultural, environmental and social elements.⁹⁸ To these ends, the assessment needs to evaluate the likely impacts of a proposed development on the way of life of a particular group or community of people, their economic, social, cultural, civic and political rights, as well as their well-being, vitality and viability.⁹⁹ Assessments also need to provide a process whereby local and indigenous communities may have the option to accept or oppose a proposed development that may impact on their community; the conclusion of agreements on mutually agreed terms, between the proponent of the proposed development and the affected communities for the implementation of measures to prevent or mitigate any negative impacts of the proposed development; and of a review and appeals process.¹⁰⁰ Ultimately, against this framework, prior assessments of response measures having potential effects on lands and resources traditionally occupied by indigenous and local communities need to support the right of these communities to prior informed consent,¹⁰¹ by taking into account their

⁹⁷ Ibid., para. 46.

⁹⁸ Ibid., para. 3.

⁹⁹ Ibid., para. 6.

¹⁰⁰ Ibid., para. 8.

¹⁰¹ The understanding of “prior informed consent” proposed by the UN Special Rapporteur on indigenous peoples’ rights is that prior informed consent does not provide indigenous people with a veto power when the State acts legitimately and faithfully in the public interest, but rather “establishes the need to frame consultation procedures in order to make every effort to build consensus on the part of all concerned” and that consensus-driven consultation processes should not only address measures to mitigate or compensate for adverse impacts of projects, but also explore and arrive at means of equitable benefit-sharing in a spirit of true partnership

customary laws and procedures, through the use of appropriate language and process, the allocation of sufficient time and the provision of accurate, factual and legally correct information to them.¹⁰²

Overall, undertaking cultural, social and environmental impact assessments with the full engagement of the relevant communities is an indispensable procedural step to ensure intra-generational equity in mitigation and adaptation.¹⁰³ Benefit-sharing in the context of these assessments provides incentives and rewards when community practices and knowledge contribute to biodiversity conservation and the fight against climate change. Benefit-sharing also promotes specific measures, such as payments for ecosystem services, diversification of income-generating opportunities, and other mitigation measures, to constructively address situations, and possibly prevent conflicts, when the interests of biodiversity protection and climate change response measures are in an irreconcilable conflict with the legitimate interests of communities, and the former need to prevail.¹⁰⁴

3.2 Ecosystem approach to climate change mitigation

Systematic proofing of climate change mitigation policies for their impact on biodiversity and ecosystem services is considered essential to ensure that climate change itself is more effectively addressed; biodiversity conservation and, where necessary, restoration of ecosystems can be cost-effective interventions for mitigation purposes, with substantial co-benefits.¹⁰⁵ While the CBD Parties have just started consideration of international guidance on ecosystem restoration, it appears that this will be considered as the last-resort option, and not a substitute for conservation or sustainable use.¹⁰⁶ Conversely, the CBD COP has provided ample guidance on the conservation and sustainable use of ecosystem for mitigation purposes in relation to protected areas, inland waters, forests and biofuels. This guidance not only provides specific, technical adjustments to mitigation action to contribute - or at least

(Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous peoples, UN Doc A/HRC/12/34, day and month 2009, paras. 48 and 53).

¹⁰² Akwé: Kon, supra note 96, paras. 50 and 60.

¹⁰³ Daniel Magraw and Lisa Hawke, "Sustainable Development", in Daniel Bodansky, Jutta Brunnée and Ellen Hey (eds.), *Oxford Handbook of International Environmental Law* (Oxford: Oxford University Press, 2007), 630.

¹⁰⁴ Morgera and Tsioumani, "The Evolution of Benefit-sharing", supra, note 35, at 165.

¹⁰⁵ GBO 3, supra note 2, at 83.

¹⁰⁶ CBD Subsidiary Body for Scientific, Technical and Technological Advice, Recommendation 15/2, Ways and means to support ecosystem restoration, UN Doc. UNEP/CBD/COP/11/2, 7 December 2011.

avoid undermining - biodiversity conservation, but also includes guarantees for indigenous and local communities.

CBD Parties committed to identifying protected areas that are important for mitigation purposes, through carbon sequestration and maintenance of carbon stocks and to undertaking joint planning of protected-area networks and of mitigation measures, while recognizing that biodiversity conservation remains the primary objective of these areas.¹⁰⁷ The COP also invited Parties to evaluate and recognize the value and the benefits of comprehensive, effectively managed, and ecologically representative protected area systems in climate change mitigation efforts.¹⁰⁸ Along similar lines, the CMS COP urged Parties to select sites for mitigation projects on the basis of environmental sensitivity and zoning maps signaling critical sites for migratory species.¹⁰⁹ In addition, CBD Parties undertook to ensure that any resettlement of indigenous communities as a consequence of the establishment or management of protected areas, including for mitigation purposes, will only take place with their prior informed consent that may be given according to national legislation and applicable international obligations.¹¹⁰

With regards to freshwaters, CBD Parties committed to ensuring that their climate change mitigation activities are designed and implemented while taking into account the needs and opportunities to sustain or enhance the services provided by inland water ecosystems and thereby contribute to the improvement of human well-being, as well as the mitigation capacities of wetlands¹¹¹ in the light of the interdependence of the carbon and water cycles.¹¹² In doing so, they are required to ensure opportunities for the active participation of indigenous and local communities in all stages of rapid assessments of biodiversity of inland waters traditionally occupied or used by these communities, consistent with the Akwé: Kon Voluntary Guidelines. This is coupled with the provision of support to these communities in re-establishing, developing and implementing traditional approaches and/or adaptive

¹⁰⁷ CBD COP Decision 10/31, Protected Areas, UNEP/CBD/COP/10/27, 20 January 2011, paras. 14(d) and (f), and 19(c).

¹⁰⁸ *Ibid.*, para. 14(a)-(c).

¹⁰⁹ CMS Resolution 11.19, Migratory species conservation in the light of climate change 2011, paras. 9-13, available at http://www.cms.int/bodies/COP/cop10/resolutions_adopted/resolutions.htm (meeting report unavailable at the time of writing).

¹¹⁰ CBD Work Programme on Protected Areas, *supra*, note 95, para. 2.2.5.

¹¹¹ CBD Decision 10/28, Inland waters biodiversity, UNEP/CBD/COP/10/27, 20 January 2011, paras. 26(a)-(b) and 27.

¹¹² *Ibid.*, para. 29.

management approaches to conserve and sustain the use of the biodiversity of inland water ecosystems. CBD parties are also to draw upon scientific, technical and technological knowledge of these communities, with their prior informed consent, in the implementation phase and promote the fair and equitable sharing of benefits gained from the use of inland water genetic resources and associated traditional knowledge.¹¹³

In the context of forest-based mitigation activities, CBD Parties undertook to promote forest biodiversity conservation and restoration in climate change mitigation measures and assess how the conservation and sustainable use of forest biodiversity can contribute to the international fight against climate change.¹¹⁴ The COP specifically called upon the Parties to prioritize the use of native communities of tree species and limit the degradation and clearing of primary and secondary forests.¹¹⁵ Parties were also encouraged, when designing, implementing, and monitoring afforestation, reforestation, and forest-restoration activities, to consider converting only low-biodiversity value or degraded lands, avoiding invasive alien species, and strategically locating afforestation activities within the landscape to enhance connectivity and increase the provision of ecosystem services within forest areas.¹¹⁶ In that context, CBD Parties are generally expected to support the development of community-based approaches¹¹⁷ and share benefits with indigenous and local communities.¹¹⁸ In the context of these technical measures, CBD Parties called for the development of mechanisms to ensure that monetary and non-monetary costs and benefits of forest biodiversity management are equitably shared between stakeholders at all levels thorough, *inter alia*, the use of forest planning and management, the development of alternative sustainable income-generation programmes and the support of self-sufficiency programmes of indigenous and local communities.¹¹⁹

Along similar lines, Parties to the Ramsar Convention recommended that mitigation responses, including revegetation, forest management, afforestation and reforestation do not

¹¹³ CBD Decision, 7/4, Biological Diversity of Inland Water Ecosystems, UNEP/CBD/COP/7/21 13 April 2004, para. 24 and Annex, Revised programme of work on inland water biodiversity, para. 9.

¹¹⁴ CBD COP Decision 6/22, supra, note 79, Objective 3.

¹¹⁵ CBD Decision 10/36, Forest Biodiversity, UNEP/CBD/COP/10/27, 20 January 2011, para. 8(o).

¹¹⁶ Ibid., para. 8(p).

¹¹⁷ Ibid., para. 34.

¹¹⁸ CBD Decision 6/22, supra, note 79, Annex, activities (b) and (f) under Objective 1; see also UN Forum on Forests, Resolution on Forests for People, Livelihoods and Poverty Eradication, E/CN.18/2011/20, 2011.

¹¹⁹ CBD Decision 6/22, supra, note 79, Annex, activities (b) and (f) under Objective 1.

lead to serious damage to the ecological character of wetlands.¹²⁰ They also urged reducing the degradation and improving the management practices of peatlands for mitigation purposes.¹²¹ CMS Parties, in turn, committed to conduct post-construction monitoring of energy and other mitigation projects as a standard requirement and ensure that such monitoring continues for the duration of plant operations. In addition, CMS Parties committed to ensure that energy and mitigation structures are operated in ways that minimize the mortality of migratory species, such as short-term shutdowns or higher turbine cut-in speeds with regards to wind farms for instance.¹²²

CBD Parties then placed particular attention on sustainable biofuel production, recognizing the need to promote its positive impacts while minimizing the negative impacts on biodiversity and on the livelihoods of local and indigenous communities. To this end, the CBD COP called for the full and effective participation of these communities in the implementation of activities relevant to the sustainable production and use of biofuels, and identified a series of international standards developed by the CBD in the context of precautionary and ecosystem-based approaches that governments should take into account.¹²³ In addition, the CBD COP called on Parties to assess and address direct and indirect land-use and water-use changes affecting areas of high value for biodiversity and areas of cultural, religious, and heritage interest and indigenous and local communities;¹²⁴ and put in place policies, supportive measures, environmentally sound technologies, and impact assessments to minimize negative impacts on broadly defined “biodiversity-related socio-economic conditions.” These are understood by CBD Parties not only as concerns related to food and energy security, but also “the consideration of land tenure and resource rights, including water, where relevant for the CBD implementation, and in particular the implications for

¹²⁰ Ramsar Resolution VIII.3 Climate Change and wetlands: impacts, adaptation and mitigation, COP8 Conference Report, 2002.

¹²¹ Ramsar Resolution X.24: Climate Change and Wetlands, COP10 Conference Report, 2008, para. 32.

¹²² CMS Resolution 10.19, *supra*, note 109, paras. 9-13.

¹²³ CBD Decision 9/2, Agricultural biodiversity: biofuels and biodiversity, UNEP/CBD/COP/9/29, 9 October 2008, paras. 1-3. Relevant guidelines were listed in the decision, namely: the Addis Ababa Principles and Guidelines on Sustainable Use, *supra*, note 82; the work programme on protected areas, *supra*, note 95; CBD Decision 5/16, The work programme on traditional knowledge, Article 8(j) and related provisions, UNEP/CBD/COP/5/23, 22 June 2000; the Akwé: Kon Voluntary Guidelines, *supra*, note 96; CBD Decision 6/9, The Global Strategy for Plant Conservation, UNEP/CBD/COP/6/20 27 May 2002; the guiding principles on alien invasive species (CBD Decision 6/23, Alien species that threaten ecosystems, habitats or species, UNEP/CBD/COP/6/20 27 May 2002); the application of sustainable forest management and best agricultural practices in relation to biodiversity; national biodiversity strategies and action plans; and relevant guidance developed under the Cartagena Protocol on Biosafety (Cartagena, 29 January 2000, into force 11 September 2003, 2226 *UNTS* 208 (2005)).

¹²⁴ CBD Decision 9/2, *supra*, note 123, paras. 6 and 8-10.

indigenous and local communities.”¹²⁵ The COP further urged Parties to ensure that the sustainable agricultural practices of indigenous and local communities are addressed and respected, subject to national legislation, taking into account communities’ customary laws where applicable.¹²⁶ In addition, CBD Parties urged governments to apply the precautionary approach to the release of synthetic life, cells, or genomes into the environment, acknowledging the parties’ entitlement, in accordance with domestic legislation, to prevent such release.¹²⁷ Also the Ramsar Convention COP urged formulating appropriate land use policies for biofuels sustainable production, promote sustainable forest and agricultural practices that mitigate any adverse effects of biofuel production and consider the full range and value of ecosystem services and livelihoods provided by wetlands.¹²⁸

Overall, all climate change mitigation measures relying on the use of biodiversity should ensure that such use is undertaken in a manner in which ecological processes, species and genetic variability remains above thresholds needed for long-term viability.¹²⁹ To that end, national legal frameworks should allow for timely and effective responses to unsustainable use and consideration of the customary law of indigenous and local communities, empowering communities through the recognition of their customary rights and effective opportunities for participating in relevant decision-making.¹³⁰ In addition, mitigation measures relying on biodiversity should avoid economic mechanisms and incentives having a negative impact on the sustainable use of biodiversity, and incorporate benefit-sharing systems targetting local and indigenous communities in order to support successful implementation.¹³¹

3.3 Ecosystem approach to climate change adaptation

Adaptive management is also key in the context of climate change adaptation.¹³² According to the Addis Ababa Principles and Guidelines on the Sustainable Use of Biodiversity,¹³³

¹²⁵ CBD Decision 10/37, Biofuels and biodiversity, UNEP/CBD/COP/10/27, 20 January 2011, para. 2.

¹²⁶ *Ibid.*, para. 4.

¹²⁷ *Ibid.*, para. 16.

¹²⁸ Ramsar Resolution X.25, Wetlands and biofuels, COP10 report, 2008, paras. 16-19.

¹²⁹ In line with the definition of “sustainable use” at CBD, *supra*, note 5, Art. 2.

¹³⁰ CBD, *Addis Ababa Guidelines for the Sustainable Use of Biodiversity*, *supra*, note 82, paras. 8(a), Practical Principles 1-2 and 7.

¹³¹ *Ibid.*, Principles 3-4.

¹³² Useful distinctions are drawn between hard and soft adaptation, as well as between first-generation and second-generation adaptation by Cameron, “Human Rights and Climate Change”, *supra*, note 7, at 690.

¹³³ CBD, *Addis Ababa Principles and Guidelines for the Sustainable use of Biodiversity*, *supra*, note 82, Principle 4(a).

adaptive management should be based not only on science but also on local and traditional knowledge, which has led to sustainable use of biodiversity over long time-periods without detriment to the environment and is critical also for modern use systems.¹³⁴ Along these lines, the CBD COP elaborated more specific guidance on an ecosystem approach to climate change adaptation, focusing on protected areas, mountain, forests, inland waters and marine ecosystems, and *ex situ* conservation. Once again, technical guidance is coupled with procedural and substantive guarantees for indigenous and local communities.

First, CBD Parties committed to integrating climate change adaptation measures in protected areas planning, management strategies and in the design of protected area systems.¹³⁵ The COP further invited Parties to consider climate change adaptation in assessing the management effectiveness of protected areas, and in integrating protected areas into wider landscapes, seascapes and sectors, including through the use of connectivity measures and the restoration of degraded habitats and landscapes.¹³⁶ The CBD COP then underscored the need to enhance scientific knowledge, as well as traditional knowledge, to support the development of adaptive-management plans for protected areas, and evaluate and recognize the value and the benefits of comprehensive, effectively managed, and ecologically representative protected area systems in climate change adaptation.¹³⁷ CBD Parties are further called upon to recognize the role of areas conserved by indigenous peoples and local communities in strengthening ecosystem connectivity and resilience, with a view to supporting ecosystem services and biodiversity-based livelihoods in the face of climate change.¹³⁸

Along similar lines, the World Heritage Convention Strategy to Assist State Parties to Implement Appropriate Management Responses¹³⁹ calls for the development of effective monitoring systems, the application of adaptive management responses, and the reduction of non-climatic stress factors on protected sites, including by integrating climate adaptation in site management plans and developing regional or transboundary plans to reduce the

¹³⁴ Ibid., operational guidelines to Principle 4.

¹³⁵ CBD Work Programme on Protected Areas, *supra*, note 95, para. 1.4.5.

¹³⁶ CBD Decision 10/31, *supra*, note 107, para. 14(a).

¹³⁷ Ibid., para. 14(b)-(c).

¹³⁸ Ibid., para. 8(i)-(j).

¹³⁹ World Heritage Committee Decision 30 Com.7.1, Examination of the State of Conservation of World Heritage properties, WHC.06 /30.COM /19, 23 August 2006.

vulnerability of sites in larger landscape and seascape contexts.¹⁴⁰ The Strategy focuses on capacity building and financial assistance, improved knowledge sharing and inclusion of local communities and protected site users in climate change response measures.¹⁴¹ The CMS COP, in turn, urged Parties to ensure that critical sites are sufficiently large to hold a variety of habitats, to strengthen physical and ecological connectivity between sites, and aiding species dispersal and colonization when distribution shifts. Following an assessment of the extent to which existing protected area systems address the needs of migratory species in terms of resilience to climate change, CMS Parties are further to consider the designation of seasonal protected areas where migratory species occur at critical stages of their lifecycle and would benefit from extra protection.¹⁴²

The fragility of mountain ecosystems and species and their vulnerability to global climate change¹⁴³ has led the CBD COP to recommend preventing or mitigating the negative impacts of infrastructure projects and other human-induced disturbances on mountain biodiversity at all levels, paying particular attention to cumulative impacts, with a particular view to reducing the negative impacts of global climate change on mountain biodiversity.¹⁴⁴ The COP thus encouraged climate change adaptation by conserving *in situ* and *ex situ* genetic resources and species currently and potentially under threat from climate change, reducing deforestation, restoring degraded mountain-forest ecosystems, favoring sustainable agricultural practices and conserving carbon in mountain soil.¹⁴⁵ In all these instances, CBD Parties are expected to promote the indigenous and local communities' techniques and technologies and community-based management systems, as well as support the use of mountain-related traditional knowledge, in particular concerning sustainable management of biodiversity, soil, water resources and slopes.¹⁴⁶

¹⁴⁰ Burns, "Belt and Suspenders", supra, note 54, at 157; and Huggins, "Protecting World Heritage Sites from Adverse Impacts of Climate Change", supra, note 54, at 126-127.

¹⁴¹ See comments by Huggins, "Protecting World Heritage Sites from Adverse Impacts of Climate Change", supra, note 54, at 129.

¹⁴² CMS Resolution 10.19, Migratory Species Conservation in the Light of Climate Change, 2011, para. 8 and Resolution 10.3 (2011), The Role of Ecological Networks in the Conservation of Migratory Species, para. 9(i), both available at http://www.cms.int/bodies/COP/cop10/resolutions_adopted/resolutions.htm (meeting report unavailable at the time of writing).

¹⁴³ CBD Decision 7/27, Work Programme on Mountain Biodiversity, UNEP/CBD/COP/7/21 13 April 2004, Annex, para. 8(c).

¹⁴⁴ CBD Decision 10/30, supra, note 86, para. 1.1.1-3 and 5.

¹⁴⁵ Ibid., para. 5.

¹⁴⁶ CBD Decision 7/27, supra, note 143, Annex, paras. 1.3.7 and 1.3.2-1.3.4.

Furthermore, CBD Parties committed to promoting the monitoring of climate change impacts on forest biodiversity and investigate the interface between forest components and the atmosphere; promote the maintenance and restoration of biodiversity in forests in order to enhance their capacity to resist to, recover from and adapt to climate change; and promote forest biodiversity conservation and restoration in climate change adaptation measures.¹⁴⁷

Adaptation and the conservation of inland waters biodiversity have also been explored in detail. CBD Parties committed to encouraging the adoption of integrated river basin management strategies to maintain, restore or improve the quality and supply of inland water resources and the multiple functions and values of inland water ecosystems, including appropriate responses to combat, and prevent where possible, the negative impacts of climate change.¹⁴⁸ In addition, CBD Parties are to encourage the use of low-cost technology, non-structural and innovative approaches, and, through prior informed consent, traditional practices for inland water biodiversity assessment.¹⁴⁹ Parties to the Ramsar Convention also undertook to manage wetlands so as to increase their resilience to climate change and extreme climatic events,¹⁵⁰ promote the restoration of rivers, lakes, aquifer basins and wetlands, protect mountain wetlands and respect water allocations for wetland ecosystems.¹⁵¹ According to the Ramsar Guidelines for establishing and strengthening local communities' and indigenous peoples' participation in the management of wetlands, these communities are to be ensured access to natural resources within the wetland that are essential for their livelihoods, security and cultural heritage, coupling communities' long-term involvement through benefit-sharing and the maintenance of sustainable livelihoods.¹⁵²

In addition, the CBD COP encouraged Parties to maintain or restore the connectivity of inland water ecosystems with terrestrial and marine ecosystems for climate change adaptation purposes.¹⁵³ With specific regard to marine biodiversity, CBD Parties undertook to increase

¹⁴⁷ CBD Decision 6/22, *supra*, note 79, Objective 3.

¹⁴⁸ CBD Decision 7/4, *supra*, note 113, objectives (b)-(c).

¹⁴⁹ *Ibid.*, para. 2.2.2

¹⁵⁰ Climate Change and wetlands: impacts, adaptation and mitigation, Ramsar Resolution VIII.3, COP8 report, 2002, para. 14.

¹⁵¹ Climate Change and Wetlands, Ramsar Resolution X.24, COP10 report, 2008, paras. 28-31.

¹⁵² Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands, Ramsar Resolution VII.8, COP7 report, 1999.

¹⁵³ CBD Decision 10/28, Inland waters biodiversity, UNEP/CBD/COP/10/27, 20 January 2011, paras. 10(l) and 26(c).

the resilience of coastal and marine ecosystems, particularly coral reefs and estuaries, and habitats such as tidal salt marshes, mangroves, and sea grasses, by inter alia establishing marine protected areas.¹⁵⁴ The CBD COP further called on Parties to incorporate emerging knowledge on ocean acidification into relevant (biodiversity, coastal management, and marine protected area) planning; and to incorporate climate change adaptation into development and disaster-reduction planning, particularly in coastal areas.¹⁵⁵

Ex situ conservation measures have also been discussed with a view to contributing to climate change adaptation. CBD Parties are thus expected to take a precautionary approach when considering *ex situ* adaptation measures, such as species relocation, assisted migration, and captive breeding, to avoid unintended ecological consequences, such as the spread of invasive alien species.¹⁵⁶ Parties are further encouraged to develop strategies for biodiversity conservation and sustainable use in areas that are becoming accessible to new uses as a consequence of climate change; to take specific measures for species that are particularly vulnerable to climate change, including migratory species; and to maintain genetic diversity in the face of climate change.¹⁵⁷ These measures are particularly significant for the protection of animal migratory species. Accordingly, the CMS COP specified that Parties should employ adaptive management and the ecosystem approach to address climate impacts and monitor the effectiveness of their migratory species conservation, develop a standardized methodology for evaluating the susceptibility of migratory species to climate change and prepare species-specific action plans for species considered most vulnerable to climate change. Parties are also to consider *ex situ* measures and assisted colonization as appropriate for migratory species most severely threatened by climate change; and implement monitoring regimes on the interaction between climate change and migratory species, including on impacts on local communities dependent on ecosystem services provided by these species with a view to sharing monitoring results regularly with range states.¹⁵⁸

Overall, in providing indications on an ecosystem approach to mitigation and adaptation, the CBD COP pointed to the use of environmental and social impact assessments, the integration of traditional knowledge and community concerns in management plans, the legal

¹⁵⁴ CBD Decision 10/29, Marine and coastal biodiversity, UNEP/CBD/COP/10/27, 20 January 2011, para 8.

¹⁵⁵ *Ibid.*, paras. 67 and 77.

¹⁵⁶ CBD Decision 10/33, *supra*, note 89, para. 8(e).

¹⁵⁷ *Ibid.*, para. 8(f)-(g).

¹⁵⁸ CMS Resolution 10.19, *supra* note 142, paras. 4-7.

recognition and active support of community-based management arrangements, the setting-up of benefit-sharing mechanisms when revenue generated through conservation and sustainable use activities is accrued by the State or outside investors, the provision of livelihood-based mitigation and compensatory measures, the use of other incentives such as payments for ecosystem services, as well as the re-investment of benefits in the protection of traditional knowledge and traditional sustainable practices.¹⁵⁹ These tools can protect several human rights that may be negatively impacted by climate change: the right to life, adequate food, health, adequate housing, self-determination, access to safe drinking water and sanitation, and access to means of subsistence.¹⁶⁰

4. The contribution of international biodiversity law to a human rights-based approach to tackling climate change

The burgeoning academic debate on human rights and climate change has shed much light on the need, benefits and conceptual challenges of developing a human rights-based approach to climate change. Accordingly, a human rights-based approach to the fight against climate change entails a conceptual framework for climate change policies focusing on the inclusion of marginalized populations; encourages accountability, participation and transparency in decision-making; and provides suitable outcomes by building the capacity of key stakeholders.¹⁶¹ It thus emphasizes equity vis-a-vis right-holders, with the implication that states have to create ‘specific channels’ for the poor and marginalized on the basis of non-discrimination and substantive equality.¹⁶² A human rights-based approach could also contribute to a determination of socially and culturally appropriate and ‘acceptable levels of risks’ in light of precaution in the climate change regime.¹⁶³ UNFCCC Parties that are also Parties to human rights treaties must, at a minimum, refer to them as benchmarks to address the climate change problem as a human rights concern and take procedural steps to integrate the relevant standards into policy-making with a view to identifying human rights that may be placed at risk by the impacts of climate change and taking protective action in that regard when devising mitigation and adaptation responses.¹⁶⁴

¹⁵⁹ Morgera and Tsioumani, “The Evolution of Benefit-sharing”, supra, note 35, at 167.

¹⁶⁰ Human Rights Council, Resolution 10/4, supra, note, at 1.

¹⁶¹ Von Doussa, Corkery and Chartres, “Human Rights and Climate Change”, supra, note 17, at 171.

¹⁶² Ibid., at 174.

¹⁶³ Rajamani, “The Increasing Currency and Relevance of Rights-based Perspectives”, supra, note 10, at 424.

¹⁶⁴ Ibid., at 412. Stephen Humphreys, *Climate Change and Human Rights: A Rough Guide* (Geneva: International Council on Human Rights, 2008).

What has not been explored yet in this debate, however, is that the normative developments under the CBD COP represent near-universal intergovernmental consensus on timely, comprehensive and sophisticated guidance that already adapts human rights considerations to the technicalities of the precautionary and ecosystem approaches, with inputs from indigenous and local community representatives. On the basis of the preceding analysis, in fact, a convincing argument can be put forward that the gaps related to a human rights-based approach in the context of the international climate change regime can be filled by the procedural and substantive steps that the CBD COP has spelt out to ensure the protection of the rights¹⁶⁵ and livelihoods¹⁶⁶ of local communities and indigenous peoples that are disproportionately affected by climate change.¹⁶⁷

UNFCCC COP decisions could thus refer to relevant CBD guidance, thereby finding a way for human rights to be incorporated into the international climate regime at different levels, without the need to create new standards.¹⁶⁸ However, doing so would notably require buy-in, or at least acquiescence, by the United States as the only country that is a Party to the UNFCCC but not to the CBD. Beyond a strictly legal perspective, however, buy-in is also required from certain CBD Parties that fear that cross-referencing CBD guidelines in the context of the international climate change negotiations may influence the negotiating dynamics and bargaining power in the UNFCCC.¹⁶⁹ Even in the absence of cross-references between CBD and UNFCCC COP decisions, at the national level, CBD Parties are required to comply with both sets of international obligations and guidance from both bodies. Nonetheless, the need for cross-reference to CBD guidance at the level of the international climate change regime remains relevant in light of inherent limitations in ensuring normative coherence only at the national level.¹⁷⁰

¹⁶⁵ This is quite significant, given the silence of the Convention on human rights, as remarked by Dinah Shelton, “Fair Play, Fair Pay: Preserving Traditional Knowledge and Biological Resources”, *5 Yearbook of International Environmental Law* (1994), 76, at 80.

¹⁶⁶ The focus on livelihoods is also considered necessary in the context of the duty of cooperation in the climate change regime: Rajamani, “The Increasing Currency and Relevance of Rights-based Perspectives”, *supra*, note 10, at 425.

¹⁶⁷ Von Doussa, Corkery and Chartres, “Human Rights and Climate Change”, *supra*, note 17, at 167-168.

¹⁶⁸ As suggested by Roht-Arriaza, “‘First, Do No Harm’: Human Rights and Efforts to Combat Climate Change”, *supra*, note 12, at 609-610.

¹⁶⁹ This political resistance emerges clearly in CBD negotiations of climate-related decisions. See, Asheline Appleton et al., “Analysis of SBSTTA 14”, *The Earth Negotiations Bulletin* 9(514) (2010).

¹⁷⁰ Savaresi’s contribution to this volume.

By focusing on local and indigenous communities, the CBD clearly “gives a human face” to these issues¹⁷¹ and offers a bottom-up approach to building a true partnership with communities in preventing biodiversity loss and fighting climate change by proactively combining economic and non-economic benefits. Reliance on the relevant normative activity under the CBD not only allows to provide “much needed attention to individual welfare” in the context of the climate change regime,¹⁷² but also a “community” dimension in the human rights-based approach to climate change mitigation and adaptation that may be otherwise easily under-emphasized.¹⁷³ Furthermore, the abundant normative activity under the CBD offers a pragmatic approach to ensure good governance and adaptive management for the conservation and sustainable use of biodiversity: ensuring benefit-sharing from the rational use of natural resources to resource-dependent communities may serve as an incentive for communities that in all events utilise resources over which they exercise control.¹⁷⁴ This ultimately facilitates communities’ compliance with applicable biodiversity and climate laws.

Although international human rights do not contain provisions on development aid,¹⁷⁵ the principle of common but differentiated responsibility underpinning the climate change¹⁷⁶ and biodiversity regimes¹⁷⁷ does. Thus, a human rights-based approach to addressing climate change could also imply a human rights-based approach to development cooperation,¹⁷⁸ as a facet of the application of the principle of common but differentiated responsibilities under the climate change and biodiversity regimes. This would entail informing appropriate levels of financing and appropriate choices of measures with poverty reduction concerns and bottom-up community empowerment in the development of climate policies in a locally

¹⁷¹ The importance of this practical value of a human rights-based approach to climate change is stressed by von Doussa, Corkery and Chartres, “Human Rights and Climate Change”, supra, note 17, at 171.

¹⁷² Rajamani, “The Increasing Currency and Relevance of Rights-based Perspectives”, supra, note 10, at 429.

¹⁷³ On a community-focused rather than individualistic human rights-based approach, see Francesco Francioni, “International Human Rights in an Environmental Horizon”, 21 *European Journal of International Law* (2010), 41.

¹⁷⁴ See Gregory Maggio, “Recognizing the Vital Role of Local Communities in International Legal Instruments for Conserving Biodiversity”, 16 *University of California Los Angeles Journal of Environmental Law and Policy* (1997-1998), 179, at 180 and 185.

¹⁷⁵ Possible reliance on article 2(1) of the International Covenant on Economic, Social and Cultural Rights to that end is explored by Daniel Bodansky, “Climate Change and Human Rights: Unpacking the Issues”, 38 *Georgia Journal of International and Comparative Law* (2010), 511; and Knox, “Climate Change and Human Rights Law”, supra, note 84, at 202 and 206-218.

¹⁷⁶ UNFCCC, supra, note 18, Art. 4(3-4). For a discussion of how a human rights approach does not preclude differential treatment, see Rajamani, “The Increasing Currency and Relevance of Rights-based Perspectives”, supra, note 10, at 420-421.

¹⁷⁷ CBD, supra, note 5, Art. 20.

¹⁷⁸ Cameron, “Human Rights and Climate Change”, supra, note 7, at 712-714.

grounded and culturally appropriate way.¹⁷⁹ Through this lens, the CBD can make an important contribution to the application of a human rights-based approach to climate responses not only between States and within States –that is, between governments and local and indigenous communities– but also between States and those subject to another State’s jurisdiction.¹⁸⁰ In the latter case, this would be a reflection of the *global* nature of international environmental law since the functional exercise of national sovereignty aimed at biodiversity conservation and fighting climate change as a common concern of mankind not only is at the service of developing countries in light of the concept of common but differentiated responsibility, but also at the service of the well-being of individuals and groups within developing countries.¹⁸¹ From that perspective, international biodiversity law serves to highlight the interactions between international, national and community customary law, as well as the relevance of international standards for non-State actors, notably the private sector.¹⁸² Both dimensions have important implications for an even more ambitious human rights-based approach to climate change mitigation and adaptation.

Linking different levels of governance according to standards and procedures set out in community customs, national and international law may be necessary for the effective realisation of the goals of the international biodiversity and climate change regimes. A tool attempting to bridge inter-State legal developments with communities’ needs, aspirations and livelihoods that is rapidly gaining currency under the CBD,¹⁸³ is the bio-cultural protocol.¹⁸⁴ Supporting a bottom-up approach, a bio-cultural protocol is a written document developed by

¹⁷⁹ Von Doussa, Corkery and Chartres, “Human Rights and Climate Change”, supra, note 17, at 176.

¹⁸⁰ The question is posed, although not replied to, by Rajamani, “The Increasing Currency and Relevance of Rights-based Perspectives”, supra, note 10, at 428-429.

¹⁸¹ Elisa Morgera, “Bilateralism at the Service of Community Interests? Non-judicial Enforcement of Global Public Goods in the context of Global Environmental Law” (journal article currently undergoing peer review).

¹⁸² Ibid.

¹⁸³ These instruments are included in the 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, UNEP/CBD/COP/DEC/X/1, 29 October 2010, Arts.12 and 21; and also in recent recommendations on sui generis systems of protection of traditional knowledge and of customary sustainable use: Article 8(j) Working Group Recommendation 7/5, Development of elements of sui generis systems for the protection of traditional knowledge, innovations and practices and Recommendation 7/6, Article 10, with a focus on Article 10(c), as a major component of the programme of work on Article 8(j) and related provisions, both in UN Doc. UNEP/CBD/COP/11/7, 24 November 2011).

¹⁸⁴ UNEP, “United Nations Environment Programme (UNEP) and Natural Justice, Biocultural Community Protocols: A community approach to ensuring the integrity of environmental law and policy”, 2009, available at: <http://www.unep.org/communityprotocols/index.asp> (last accessed on 10 April 2012); Harry Jonas, Kabir Bavikatte and Holly Shrumm, “Community Protocols and Access and Benefit-Sharing”, 12 *Asian Biotechnology and Development Review* (2010), 49. See also UNEP website on community protocol case studies, available at: <http://www.unep.org/communityprotocols/casestudies.asp> (last accessed on 10 April 2012); and the website of a coalition of different actors on community protocols, available at: <http://www.community-protocols.org/> (last accessed on 10 April 2012).

a community, following a consultative process, to outline the core ecological, cultural and spiritual values and customary laws relating to the community's traditional knowledge and resources, based on which the community provides clear terms and conditions to regulate access to their knowledge and resources. The process leading to the bio-cultural protocol development allows a community to prepare in advance for negotiations of an arrangement with a public or private entity planning activities impacting on the community livelihoods or utilising its traditional resources or knowledge, contributing thus to a more level-playing field among the parties. Furthermore, the development of bio-cultural protocols allows a community to identify any question related to the governance of future benefit-sharing, thus preventing internal conflicts. Compliance with the provisions of bio-cultural protocols, however, remains voluntary, unless it is secured through national legislation.¹⁸⁵ Nonetheless, bio-cultural community protocols can prove essential for a public or private entity planning adaptation or mitigation activities likely to negatively impact on community livelihoods or utilise traditional resources or knowledge. These protocols can significantly support public and private efforts to adopt an ecosystem and human rights-based approach to mitigation and adaptation in light of international standards and with respect for community customary rules and procedures.¹⁸⁶

In addition, a human rights-based approach for mitigation and adaptation also needs to take into account the role of the private sector, which is increasingly prominent under the international climate change regime¹⁸⁷ and under international human rights law.¹⁸⁸ Significantly, normative activity under the CBD not only supports an environmentally holistic and right-based approach in the interactions between States and within States, but also between private entities and local and indigenous communities.¹⁸⁹ Guidelines adopted

¹⁸⁵ This draws on Morgera and Tsioumani, "The Evolution of Benefit-sharing", supra, note 35, at 157-158.

¹⁸⁶ In fact, community biocultural protocols are been pioneered in the context of REDD: see UNEP and Natural Justice, *Biocultural Community Protocols*, supra, note 184, chapter 4.

¹⁸⁷ Von Doussa, Corkery and Chartres, "Human Rights and Climate Change", supra, note 17, at 170; Amy Sinden, "An Emerging Human Right to Security from Climate Change: The Case of Gas Flaring in Nigeria", in William Burns and Hari Osofsky (eds.), *Adjudicating Climate Change* (Cambridge: Cambridge University Press, 2009), 173, at 190-191; Averill, "Linking Climate Litigation and Human Rights", supra, note 15, at 141; Knox, "Climate Change and Human Rights Law", supra, note 84, at 195-198.

¹⁸⁸ Report of the Special Representative of the Secretary-General on the issue of Human Rights and Transnational Corporations and Other Business Enterprises: Protect, Respect and Remedy: A Framework for Business and Human Rights, UN Doc A/HRC/8/5, 7 April 2008; and Guiding Principles on Business and Human Rights to implement the UN Protect, Respect and Remedy Framework, UN Doc A/HRC/17/31, 21 March 2011. The Framework and the Guiding Principles were adopted by the Human Rights Council by Resolutions 8/7, in A/HRC/8/52, 1 September 2008 and 17/4 (2011), in A/HRC/17/L.30 (advanced, undated version).

¹⁸⁹ Morgera and Tsioumani, "The Evolution of Benefit-sharing", supra, note 35, at 165-167.

under the CBD that inform the ecosystem approach to adaptation and mitigation, such as the Addis Ababa Principles and Guidelines¹⁹⁰ and the Akwé: Kon Guidelines,¹⁹¹ were drafted so as to specifically address also non-State actors, especially the private sector. In addition, these and other normative developments under the CBD have been increasingly integrated into international standard-setting on corporate environmental accountability¹⁹² and in normative developments in the context of business responsibility to respect international human rights law.¹⁹³ Relevant CBD standards are thus also readily applicable to private entities responsible for carrying out climate change mitigation and adaptation activities. They could be influential in ensuring that also the private sector's contribution to the fight against climate change follows an ecosystem and human rights-based approach.

5. Conclusions

This chapter has sought to draw attention to the abundance of climate change- and human rights-related normative developments under the CBD and its great potential to fill key gaps in the international climate change regime and in its implementation at the national level. Not only has the CBD COP “actively sought to manage the interactions between the two regimes”, revealing itself as “instrumental in highlighting biodiversity concerns in UNFCCC decisions,”¹⁹⁴ but it has also made significant conceptual progress on the politically charged question related to environmentally holistic and human rights-based approaches to climate

¹⁹⁰ CBD, *Addis Ababa Principles and Guidelines on the Sustainable Use of Biodiversity*, supra, note 82, para. 1 clarifies that: “The principles provide a framework for advising Governments, resource managers, indigenous and local communities, the private sector and other stakeholders about how they can ensure that their use of the components of biodiversity will not lead to the long-term decline of biological diversity.”

¹⁹¹ Although they are directed to Parties and governments, as indicated by Akwé, Kon Voluntary Guidelines, supra, note 96, para. 1, the Guidelines are expected to provide a collaborative framework for Governments, indigenous and local communities, decision makers and managers of developments (para. 3).

¹⁹² I am here referring to standard-setting led by intergovernmental organizations, not private standard-setting, discussed, for instance, in Roht-Arriaza, “First, Do No Harm”, supra, note 12, at 607-609. See in particular 2012 Performance Standards of the International Finance Corporation, available at: <http://www.ifc.org/ifcext/policyreview.nsf/Content/2012-Edition#PerformanceStandards> (last accessed on 10 April 2012); and, Organization for Economic Cooperation and Development, “Final Statement by the UK National Contact Point for the OECD Guidelines for Multinational Enterprises”, 25 September 2009, available at: <http://www.berr.gov.uk/files/file53117.doc> (last accessed on 10 April 2012), paras. 44-46. See generally, Elisa Morgera, *Corporate Accountability in International Environmental Law* (Oxford: Oxford University Press, 2009).

¹⁹³ For instance, Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people, UN Doc. A/HRC/15/37, 19 July 2010, Section III. For a discussion, Elisa Morgera, “From Corporate Social Responsibility to Accountability Mechanisms”, in Pierre-Marie Dupuy and Jorge Vinuales (eds.), *Protecting the Environment in the XXIst Century - The Role of the Private Sector* (Cambridge: Cambridge University Press, forthcoming, 2012).

¹⁹⁴ Van Asselt, , *Managing the Fragmentation of International Environmental Law*, supra, note 8, at 36.

change mitigation and adaptation.¹⁹⁵ As a result, the normative activity undertaken by the CBD COP can contribute to ensuring coherence between the international climate change regime and international human rights instruments, linking international, national and local levels of governance and reaching into the relations between private entities and indigenous and local communities. Notably, international biodiversity law can provide both procedural¹⁹⁶ and substantive elements of a human rights-based approach to climate change.

It remains to be seen whether these multi-level normative developments under the CBD will be allowed to filter into UNFCCC COP decisions and national-level implementation, although practice under the international climate change regime so far has been disappointing. Given the urgency of constructing an effective international climate change regime,¹⁹⁷ however, reliance on the CBD guidance may save UNFCCC Parties precious negotiating time. Cross-reference to the CBD decisions can also provide a “social justice and development” dimension to the international climate change regime, thus facilitating “intersecting inequalities that contribute to vulnerability and allows for an exploration of a variety of approaches that offer redress and capacity-building to marginalized populations.”¹⁹⁸ In addition, the CBD normative activity provides highly refined and intergovernmentally approved “methodologies for engaging the participation of, and consultation with, key stakeholders in the formulation of climate change and development strategies.”¹⁹⁹

In conclusion, this chapter represents an invitation not only to climate change lawyers, but also to human rights experts interested in climate change to engage with the normative activity of the governing bodies of international biodiversity-related conventions. In particular such an engagement would be useful to ascertain whether existing guidance under the CBD and related conventions covers all relevant vulnerable groups.²⁰⁰ It would also be interesting to start a dialogue on the possible value added of supporting a human rights-based

¹⁹⁵ Morgera and Tsioumani “Yesterday, Today and Tomorrow”, supra, note 11, at 33.

¹⁹⁶ *Contra* see Kravchenko, “Procedural Rights as a Crucial Tool to Combat Climate Change”, supra, note 93, at 648, argued that “a human rights approach helps to find solutions to problems for which environmental law does not have a response.”

¹⁹⁷ Cameron, “Human Rights and Climate Change”, supra, note 7, at 701.

¹⁹⁸ As appears needed to Cameron, *ibid.*, at 709.

¹⁹⁹ *Ibid.*

²⁰⁰ For instance, gender has only been recently addressed by the CBD COP. See CBD Decision 9/24, Gender Plan of Action, UNEP/CBD/COP/9/29, 9 October 2008; and CBD Decision 10/19, Gender mainstreaming, UNEP/CBD/COP/10/27, 20 January 2011). On gender and climate change, see Cameron, “Human Rights and Climate Change”, supra, note 7, at 687.

approach through the CBD COP decisions. For instance, an argument can be made that the CBD guidelines go beyond human rights instruments in that they do not require an ‘identifiable violation,’²⁰¹ but can rather be triggered by a threat of a negative impact, thereby injecting human rights with a preventive (and even precautionary) approach. In addition, the CBD guidelines can more easily reach across international borders, on the basis of the common concern of humankind,²⁰² whereas there are significant limitations to the extraterritorial application of human rights instruments.²⁰³ Finally, the CBD can count on a virtually universal membership, whereas different UNFCCC parties are subject to different human rights instruments with varying membership.²⁰⁴

Finally, human rights experts, climate lawyers and biodiversity lawyers could engage in a certainly enriching debate on enforcement and compliance. Without explicit and operational links between the international law on climate change, biodiversity and human rights, state compliance with these interconnected obligations cannot be monitored and enforced.²⁰⁵ Even if these links are established, however, monitoring compliance under the CBD would be very limited. The CBD does not have a compliance committee and does not use Parties’ self-reporting or other types of monitoring to identify shortcomings in individual States’ compliance.²⁰⁶ In turn, while international human rights instruments have international tribunals and rapporteurs to hear and investigate complaints,²⁰⁷ not all impacts on human rights arising from climate change response measure may trigger them²⁰⁸ and not all human rights enforcement mechanisms are necessarily effective.²⁰⁹ So, another question that merits discussion is whether the compliance mechanism under the international climate change regime has the potential to contribute to the respect of international biodiversity and human

²⁰¹ Which was considered a major barrier in applying human rights law to response measures: Cameron, *ibid*, at 705.

²⁰² Jutta Brunnee, “Common Areas, Common Heritage and Common Concern”, in D. Bondansky, J Brunnee and E Hey (eds), *The Oxford Handbook of International Environmental Law* (2007), 550; Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (Oxford: Oxford University Press, 2009), at 128-131.

²⁰³ Cameron, “Human Rights and Climate Change”, *supra*, note 7, at 706.

²⁰⁴ Savaresi, in her contribution to this volume, underlines the “fragmented nature of States’ obligations in the human rights field.” On the limited relevance of customary international law on human rights for climate change-related purposes, see Knox, “Climate Change and Human Rights Law”, *supra*, note 84, at 15; and generally Savaresi’s contribution to this volume, at 140.

²⁰⁵ Roht-Arriaza, “‘First, Do No Harm’”, *supra*, note 12, at 611.

²⁰⁶ Morgera and Tsioumani, “Yesterday, Today and Tomorrow”, *supra*, note 11, at 24-25, note possible indications of a change of practice in that regard.

²⁰⁷ Kravchenko, “Procedural Rights as a Crucial Tool to Combat Climate Change”, *supra*, note 93, at 616.

²⁰⁸ Bodansky, “Climate Change and Human Rights: Unpacking the Issues”, *supra*, note 175, at 517 and 519.

²⁰⁹ Cameron, “Human Rights and Climate Change”, *supra*, note 7, at 706.

rights law between States, within States and possibly even in relations between the private sector and communities.