
The Need for an International Legal Concept of Fair and Equitable Benefit Sharing

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Abstract

This article proposes a concept of 'fair and equitable benefit sharing' deriving from international biodiversity law, international human rights law, and the law of the sea. The concept identifies normative elements that are shared among the international treaties that refer to benefit sharing, comprising the act of sharing; the nature of the benefits to be shared; the activities from which benefit sharing arise; the beneficiaries; and fairness and equity as the rationale for benefit sharing in international law. The concept is not intended to provide a holistic or exhaustive notion of fair and equitable benefit sharing but, rather, to support comparison and generalization with a view to shifting the current investigation from sectoral/technical approaches to the perspective of general international law and the contribution to research in other areas of international law. The proposed conceptualization is thus geared towards the development of a research agenda targeting a variety of international and transnational legal materials, allowing for the appreciation of differences in the context of varying logics of different areas of law.

Fair and equitable benefit sharing is a diffuse legal phenomenon in international law that has elicited little investigation with regard to its nature, extent, and implications. It has been mostly studied as the cornerstone of the international legal regime on bioprospecting (research and innovation based on genetic resources).¹ However, under the radar, a

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¹ Such an 'international regime' has been identified as comprising the Convention on Biological Diversity (CBD) 1992, 1760 UNTS 79; the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization 2014, CBD Decision X/1 (2010) Annex I; the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGREA) 2001, 2400 UNTS 303; CBD, Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of Their Utilization, CBD Decision VI/24 (2002) Annex, according to CBD

growing number of international legal materials refer to ‘benefit sharing’ with regard to natural resource use (extractive activities,² forest³ and water⁴ management, tourism,⁵ the use of marine resources,⁶ land use, and food production),⁷ environmental protection (biodiversity conservation⁸ and the fight against climate change⁹), and the use of knowledge.¹⁰ Concrete benefits to be shared have been identified as being both monetary and non-monetary in nature, such as revenue, information, scientific and commercial cooperation, joint management of natural resources, and technical support.

Yet from both a policy-making and law-making perspective, the proliferation of references to benefit sharing has been accompanied by a remarkable lack of conceptual clarity, to the point that it has been rightly asked whether there is just one concept of benefit sharing or many.¹¹ Benefit sharing is employed in international law to connote a treaty objective,¹² an international obligation,¹³ a right,¹⁴ a safeguard,¹⁵

Decision X/1 (2010), preambular para. 6. Specialist legal scholarship is abundant. E.g., E.C. Kamau and G. Winter (eds), *Genetic Resources, Traditional Knowledge and the Law: Solutions for Access and Benefit Sharing* (2009); Singh Nijar, ‘Traditional Knowledge Systems, International Law and National Challenges: Marginalization or Emancipation?’, 24 *European Journal of International Law (EJIL)* (2013) 1205.

² E.g., IACtHR, *Case of the Saramaka People v. Suriname*, Judgment (Preliminary Objections, Merits, Reparations and Costs), 28 November 2007, para. 138, available online at www.corteidh.or.cr/index.php/en/jurisprudencia (last visited 12 April 2016). 2012 Expert Mechanism: Follow-up Report on Indigenous Peoples and the Right to Participate in Decision-Making with a Focus on Extractive Industries, UN Doc. A/HRC/21/52 (2012). For further examples of international materials referring to benefit sharing in this and other contexts, see www.benelex.ed.ac.uk/mind_maps (last visited 12 April 2016).

³ E.g., Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation, and Sustainable Development of All Types of Forests, UN Doc. A/CONF.151/26 (1992), vol. 3, para. 12(d).

⁴ E.g., Ramsar Convention on Wetlands of International Importance, Resolution X.19: Wetlands and River Basin Management: Consolidated Scientific and Technical Guidance (2008), Annex, para. 25.

⁵ E.g., CBD, Guidelines on Biodiversity and Tourism, Decision V/25 (2000), paras 4(b) and (d).

⁶ E.g., United Nations Convention on the Law of the Sea (UNCLOS) 1982, 21 ILM 1261, Arts 82.4, 140.2; Food and Agriculture Organization (FAO), Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT), UN Doc. CL 144/9 (C 2013/20) (2012), Appendix D, Art. 8.6.

⁷ E.g., UN Rapporteur on the Right to Food, Large-Scale Land Acquisitions and Leases: A Set of Minimum Principles and Measures to Address the Human Rights Challenge, UN Doc. A/HRC/13/33/Add.2 (2010), para. 33.

⁸ E.g., African Commission on Human and Peoples’ Rights, Centre for Minority Rights Development (Kenya), and Minority Rights Group International, *Endorois Welfare Council v. Kenya*, Communication no. 276/2003, 25 November 2009, para. 274.

⁹ E.g., UN Reducing Emissions from Deforestation and Forest Degradation (REDD) Programme, Social and Environmental Principles and Criteria, Criterion 12 (2012); Adaptation Fund Board, Adaptation Fund Environmental and Social Policy (2013), para. 13.

¹⁰ Universal Declaration of Human Rights, GA Res. 217 A (III), 10 December 1948, Art. 27(1); CBD, *supra* note 1, Art. 8(j); Nagoya Protocol, *supra* note 1, Arts 5(5), 8(a).

¹¹ De Jonge, ‘What Is Fair and Equitable Benefit-Sharing?’, 24 *Journal of Agricultural and Environmental Ethics* (2011) 127; Schroeder, ‘Benefit-Sharing: It’s Time for a Definition’, 33 *Journal of Medical Ethics* (2007) 205, at 208.

¹² CBD, *supra* note 1, Art. 1; ITPGRFA, *supra* note 1, Art. 1; Nagoya Protocol, *supra* note 1, Art. 1.

¹³ CBD, *supra* note 1, Arts 15(7), 8(j); Nagoya Protocol, *supra* note 1, Art. 5.

¹⁴ International Labour Organization (ILO) Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries 1989, 28 ILM 1382, Art. 15(2); ITPGRFA, *supra* note 1, Art. 9.

¹⁵ *Saramaka*, *supra* note 2, para. 129; *Endorois*, *supra* note 8, para. 227; Rapporteur on Indigenous Peoples’ Rights, Study on Extractive Industries and Indigenous Peoples, UN Doc. A/HRC/24/41 (2013), para. 52.

or a mechanism.¹⁶ However, there is no instance in which it has been unequivocally understood,¹⁷ fully developed,¹⁸ or made satisfactorily operational.¹⁹

In addition, benefit sharing is applied to relations that have different relevance under international law and are characterized by different de facto power asymmetries. It applies among countries whose relationships are characterized by sovereign equality and, in key areas of international cooperation, by the controversial principle of common but differentiated responsibility.²⁰ It also applies to relations between a government and a community within its territory, whose relationship is characterized by the state's sovereign powers and international obligations over natural resources and the relevance, to different extents, of international human rights law. For the purposes of conceptual clarity, therefore, a distinction needs to be drawn between benefit sharing *among* states (inter-state benefit sharing) and benefit sharing *within* states (intra-state benefit sharing between governments and communities).²¹ Furthermore, benefit sharing applies to relations between communities and private companies²² that may be protected by international investment law and that, even when that is not the case, are increasingly understood in the light of business responsibility to respect human rights.²³ Finally, benefit sharing applies to relations within communities (intra-community benefit sharing),²⁴ which raises questions of the interaction among communities' customary laws, and national and international law.²⁵ These occurrences point to another overlooked conceptual distinction: transnational traits can be identified in the

¹⁶ UNCLOS, *supra* note 6, Art. 140; ITPGREFA, *supra* note 1, Art. 10; Nagoya Protocol, *supra* note 1, Art. 10.

¹⁷ See interpretative divergences and ongoing negotiations under the Nagoya Protocol discussed in E. Morgera, E. Tsioumani and M. Buck, *Unraveling the Nagoya Protocol: Commentary on the Protocol on Access and Benefit-sharing to the Convention on Biological Diversity* (2014).

¹⁸ E.g., International Seabed Authority (ISA), Towards the Development of a Regulatory Framework for Polymetallic Nodule Exploitation in the Area, UN Doc. ISBA/19/C/5 (2013).

¹⁹ An inter-sessional process is currently underway on enhancing the functioning of the ITPGREFA Multilateral System. ITPGREFA, Resolution 2/2013 (2013).

²⁰ E.g., L. Rajamani, *Differential Treatment in International Environmental Law* (2006); Hey, 'Common but Differentiated Responsibilities', in R. Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law* (2010) 447.

²¹ Morgera and Tsioumani, 'The Evolution of Benefit-Sharing: Linking Biodiversity and Communities' Livelihoods', 19 *Review of European, Comparative and International Environmental Law* (2010) 150.

²² International Finance Corporation (IFC), Performance Standard 7 (2012), paras 18–20; FAO, International Fund for Agricultural Development, UN Conference on Trade and Development and the World Bank, Principles for Responsible Agricultural Investment That Respects Rights, Livelihoods and Resources (PRAI) (2010), principle 6; UN Global Compact Office, Business Reference Guide to the UN Declaration on the Rights of Indigenous Peoples (2013), at 76–77; Report of the Special Rapporteur on Indigenous Peoples' Rights (Indigenous Peoples' Rights Report), UN Doc. A/HRC/15/37 (2010), paras 73–75.

²³ UN Human Rights Commission (UNHRC), Protect, Respect and Remedy, a Framework for Business and Human Rights, UN Doc. A/HRC/8/5 (2008), welcomed by Resolution A/HRC/RES/8/7 (2008); UNHRC, Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework, UN Doc. A/HRC/17/31 (2011), endorsed by Resolution A/HRC/RES/17/4 (2011).

²⁴ E.g., PRAI, *supra* note 22, principle 6; Committee on Food Security (CFS), Principles for Responsible Investment in Agriculture and Food Systems (2014), paras iv, 23.

²⁵ E.g., Nagoya Protocol, *supra* note 1, Art. 12(1).

inter-state and intra-state dimensions of benefit sharing as well as in the intra-community dimensions (particularly when international development assistance is involved).

This proliferation may be explained by the intuitive appeal of benefit sharing as a frame, to borrow a term from communication, sociological, and political sciences.²⁶ It emphasizes the advantages (the positive outcomes or implications) of tackling challenges in bioprospecting, natural resource use, and knowledge production so as to help motivate participation by different stakeholders. As André Nollkaemper has aptly explained, frames ‘play an essential, though not always recognized, role in the development of international law’. Frames select and accentuate certain aspects of reality over others to promote a particular problem definition or approach to its solution, they are chosen and strategically used by actors with particular agendas and powers, and they ‘have distinct normative and regulatory implications’.²⁷ As a frame, benefit sharing holds the promise to facilitate agreement upon specific forms of cooperation since different parties are being motivated by their perception of the benefits that would derive from it.²⁸

On the other hand, fragmented, but growing, empirical evidence indicates that in practice benefit sharing rarely achieves its stated objectives and may actually end up working against its purposes. On the ground, benefit sharing has been seen as a ‘disingenuous win-win rhetoric’ that leads to the loss of control and access over resources by the vulnerable through ‘narrative framings of the global public good’ and ‘dominating knowledge approaches’.²⁹ This body of work, in other words, points to the critical weight that power asymmetries have in all of the relations to which benefit sharing applies. This literature, however, does not engage in a systematic reflection on the opportunities and limitations of international law to prevent, address, and remedy the injustices that may be brought about in the name of benefit sharing.³⁰ The implication is that as an aspirational and optimistic frame, benefit sharing remains to be assessed from a healthily sceptical and legally robust perspective.

Against this background, this article aims to develop a concept of fair and equitable benefit sharing deriving from international environmental law, international human rights law, and the law of the sea, with a view to shifting the investigation from current sectoral/technical approaches to the perspective of general international law, and possibly contributing to research in other areas such as international health³¹

²⁶ Parks and Morgera, ‘The Need for an Interdisciplinary Approach to Norm Diffusion: The Case of Fair and Equitable Benefit Sharing’, 24 *Review of European, Comparative and International Environmental Law* (2015) 353.

²⁷ Nollkaemper, ‘Framing Elephant Extinction’, (2014) 3 *European Society of International Law* (blogpost).

²⁸ Sadoff and Grey, ‘Cooperation on International Rivers: A Continuum for Securing and Sharing Benefits’, 30 *Water International* (2005) 420, at 420 (emphasis added).

²⁹ Martin *et al.*, ‘Just Conservation? On the Fairness of Sharing Benefits’, in T. Sikor (ed.), *The Justices and Injustices of Ecosystem Services* (2014) 69, at 84–88.

³⁰ E.g., Wynberg and Hauck, ‘People, Power, and the Coast: A Conceptual Framework for Understanding and Implementing Benefit Sharing’, 19 *Ecology and Society* (2014) 27; Van Wyk, Breen and Freimund, ‘Meanings and Robustness: Propositions for Enhancing Benefit Sharing in Social-Ecological Systems’, 8 *International Journal of the Commons* (2014) 576.

³¹ There is already a body of research on benefit sharing in this area, but with limited engagement with other areas of international law. Wilke, ‘A Healthy Look at the Nagoya Protocol: Implications for Global

and economic law.³² The concept will serve to identify normative elements that are shared among different treaties and other international legal instruments, based on the understanding that international law is often developed by building in an iterative process on previously agreed language.³³ Identifying a common core to fair and equitable benefit sharing in international law will serve the purposes of comparison and generalization.³⁴ However, it is not intended to provide a holistic or exhaustive notion of benefit sharing. Rather, it will allow for an appreciation of the variation and continuous evolution across regimes with different purposes, standards of protection, and interpretative approaches.

Different historic matrices behind the proliferation of references to benefit sharing in international law will be identified first, with a view to explaining the methodological and substantive premises of the enquiry. On these bases, an international legal concept of benefit sharing will be proposed, comprising the following elements: the act of sharing; the nature of the benefits to be shared; the activities from which benefit sharing arise; and the beneficiaries. The connection between benefit sharing and equity will be explored last, with the latter providing the rationale for benefit sharing in international law. The conclusions will develop a research agenda on the basis of the proposed conceptualization.

1 Historic Matrices

A legal history of benefit sharing in international law has yet to be drawn. The earliest textual reference to benefit sharing can likely be found in the Universal Declaration of Human Rights (the right of everyone to share in the benefits of scientific advancements as part of the human right to science).³⁵ Its normative content, however, has not yet been clarified through national or international practice.³⁶ Instead, benefit sharing appears to have found more fertile normative ground in connection with natural

Health Governance', in E. Morgera, M. Buck and E. Tsioumani (eds), *The 2010 Nagoya Protocol on Access and Benefit-Sharing in Perspective: Implications for International Law and Implementation Challenges* (2013) 123.

³² There appears to be no literature examining the impact (or lack thereof) on international economic law of the exhortations of the UN General Assembly to sharing the benefits of globalization. E.g., GA Res. 63/230, 17 March 2009; Second UN Decade for the Eradication of Poverty (2008–2017), para. 12 or earlier references to benefit sharing in the Charter of Economic Rights and Duties of States, GA Res. 29/3281, 12 December 1974, Art. 10.

³³ McLachlan, 'The Principle of Systemic Integration and Article 31(3)(c) of the Vienna Convention', 54 *International Comparative Law Quarterly* (ICLQ) (2005) 279, at 284.

³⁴ In the tradition of analytical jurisprudence, as defined by Twining, 'Law, Justice and Rights: Some Implications of a Global Perspective', in J. Ebbeson and P. Okowa (eds), *Environmental Law and Justice in Context* (2009) 76, at 80–82.

³⁵ Universal Declaration of Human Rights, *supra* note 10, Art. 27.1.

³⁶ Schabas, 'Study of the Right to Enjoy the Benefits of Scientific and Technological Progress and Its Applications', in Y. Donders and V. Volodin (eds), *Human Rights in Education, Science and Culture: Legal Developments and Challenges* (2007) 273; Chapman, 'Towards an Understanding of the Right to Enjoy the Benefits of Scientific Progress and Its Application', 8 *Journal of Human Rights* (2009) 1; Report of the

resources. In this section, it is argued that benefit sharing developed in international law first under the umbrella of the New International Economic Order (NIEO) and its legacy for the global sustainable development agenda and, more recently, under the discourse on ecosystem services.

The NIEO can be described as newly independent developing countries' attempt in the 1970s at radically restructuring the global economic system by prioritizing the objective of development as part of the decolonization process.³⁷ The NIEO provided the context for the development of the concept of national sovereignty over natural resources to support the self-determination of states and of peoples to decide about the economic, social, and cultural aspects of human development.³⁸ In both cases, the NIEO called for international cooperation on the basis of need and for shifting away from legal techniques that serve to perpetrate economic domination by a minority of states.³⁹ Against this background, benefit sharing has been linked to the still controversial notion of a human right to development⁴⁰ and to the rights of indigenous and tribal peoples to their lands and natural resources.⁴¹ In addition, it has been encapsulated in the innovative construct of the common heritage of mankind with regard to the moon⁴² and deep seabed minerals,⁴³ to prevent a few states from appropriating resources beyond the reach of those with fewer technological and financial capacities.

Since then, the NIEO has formally disappeared from the international agenda, its project of overhauling the international economic order having been abandoned following the creation of the World Trade Organization.⁴⁴ However, the discourses on equitable globalization and the principle of sustainable development have been seen as 'direct reminders' of the NIEO's call for equity among states⁴⁵ and for a rights-based approach to development.⁴⁶ To a still significant extent, the NIEO has thus evolved into a general approach to the making of international environmental law aimed at solidarity and cooperation

Special Rapporteur in the Field of Cultural Rights: The Right to Enjoy the Benefits of Scientific Progress and Its Applications, UN Doc. A/HRC/20/26 (2012); M. Mancisidor, 'Is There Such a Thing as a Human Right to Science in International Law?', *ESIL Reflections* (7 April 2015); Morgera, 'Fair and Equitable Benefit-sharing at the Crossroads of the Human Right to Science and International Biodiversity Law', 4 *Laws* (2015) 803.

³⁷ Declaration on the Establishment of a New International Economic Order, GA Res 3201, 1 May 1974; Programme of Action for the Establishment of a New International Economic Order, GA Res. 3202, 1 May 1974.

³⁸ Salmon, 'From NIEO to Now and the Unfinishable Story of Economic Justice', 62 *ICLQ* (2013) 31.

³⁹ C. Rossi, *Equity and International Law: A Legal Realist Approach to International Decision-Making* (1993), at 200–201.

⁴⁰ UN Declaration on the Right to Development, GA Res 41/128, 4 December 1986, Art. 2.3.

⁴¹ ILO Convention no. 169, *supra* note 14, Art. 15.2.

⁴² Agreement Governing the Activities of States on the Moon and Other Celestial Bodies 1979, 1363 UNTS 21, Art. 11(7).

⁴³ UNCLOS, *supra* note 6, Art. 140.

⁴⁴ Francioni, 'Equity', in Wolfrum, *supra* note 20, 632, para. 21.

⁴⁵ E. Tourme-Jouannet, *What Is a Fair International Society? International Law between Development and Recognition* (2013), at 37, 86–87.

⁴⁶ Salmon, *supra* note 38, at 49.

to the benefit of the least-favoured countries.⁴⁷ And it has been enriched by the recognition of cultural diversity among and within states, resulting in the protection of the rights of marginalized individuals and communities over natural resources in order to protect their cultural identity and livelihoods.⁴⁸ As a result, national sovereignty over natural resources has been progressively qualified by duties and responsibilities towards other states and towards communities⁴⁹ (including communities outside states' own borders⁵⁰) and redefined as a commitment to cooperate for the good of the international community at large in terms of equity and sustainability.⁵¹ This evolution provides the background for the references to both inter-state and intra-state benefit sharing in the Convention on Biological Diversity (CBD), the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), and the Nagoya Protocol on Access and Benefit-Sharing to the CBD (Nagoya Protocol).⁵²

The more recent spread of benefit sharing in the areas of water, land, and climate change has in turn been attributed to the discourse on ecosystem services⁵³ – the multiple ways in which ecosystems contribute to human well-being.⁵⁴ Having gained global scientific and political traction in the lead up to the 2005 UN Summit,⁵⁵ this discourse has served to emphasize the largely unaccounted merit of ecosystem service providers and the devastating impacts of ecosystems' decline on the vulnerable.⁵⁶ The discourse clearly starts to develop the argument, from an economic perspective, that an economic valuation of ecosystems serves to prevent more easily monetized objectives from taking priority in decision making⁵⁷ and that ecosystem stewards should be rewarded (including through payments for ecosystem services) for contributing to human well-being. While ecosystem stewards may often be vulnerable, being the most exposed to unsustainable and inequitable environmental management decisions and practices,⁵⁸ this is not always the case, and the notion of ecosystem services does not necessarily aim to protect the vulnerable.⁵⁹

⁴⁷ E.g., Maljean-Dubois, 'Justice et société internationale: l'équité dans le droit international de l'environnement', in A. Michelot (ed.), *Équité et environnement* (2012) 355, at 358–359.

⁴⁸ Tourme-Jouannet, *supra* note 45, at 121, 149.

⁴⁹ Lenzerini, 'Sovereignty Revisited: International Law and Parallel Sovereignty of Indigenous Peoples', 42 *Texas International Law Journal* (2006) 155.

⁵⁰ Benvenisti, 'Sovereigns as Trustees of Humanity: On the Accountability of State to Foreign Stakeholders', 107 *American Journal of International Law (AJIL)* (2013) 295.

⁵¹ P. Birnie, A. Boyle and C. Redgwell, *International Law and the Environment* (2009), at 192.

⁵² CBD, *supra* note 1; ITPGRFA, *supra* note 1; Nagoya Protocol, *supra* note 1.

⁵³ E.g., Nkhata *et al.*, 'A Typology of Benefit Sharing Arrangements for the Governance of Social-Ecological Systems in Developing Countries', 17 *Ecology and Society* (2012) 1.

⁵⁴ Millennium Ecosystem Assessment, available at www.millenniumassessment.org/en/index.aspx (last visited 12 April 2016).

⁵⁵ Morgera, 'The 2005 UN World Summit and the Environment: The Proverbial Half-Full Glass', 15 *Italian Yearbook of International Law* (2006) 53.

⁵⁶ Sikor *et al.*, 'Toward an Empirical Analysis of Justice in Ecosystem Governance', 7 *Conservation Letters* (2014) 4.

⁵⁷ Economics of Ecosystems and Biodiversity (TEEB), *Challenges and Responses* (2014).

⁵⁸ UN General Assembly, Strategic Framework for the Period 2012–2013, UN Doc. A/65/6/Rev.1 (2011), para. 11(24)(b); UN General Assembly, Strategic Framework for the Period 2014–2015, UN Doc. A/67/6 (prog 11) (2012), para. 11(16).

⁵⁹ See generally Sikor, *supra* note 29.

Legal scholars, therefore, have focused on the moral and cultural acceptability, and the social and environmental effectiveness, of pricing and marketing ecosystem services,⁶⁰ with the limitations of purely monetary valuation being openly acknowledged in the discourse.⁶¹ Whether or not ecosystem services can be fully or solely responsible for the diffusion of benefit sharing, they raise conceptual questions that find clear correspondence in the debate on benefit sharing as a 'post-neoliberal attempt to harness market-based activities ... to social and environmental ends'⁶² or a preference for solutions based on financial transactions that may ignore or even reinforce injustices.⁶³ Other questions, however, relating to ecosystem services from an international legal perspective have not yet been tackled in the literature – namely whether and to what extent ecosystem services contribute to an evolutive interpretation of human well-being⁶⁴ as the objective of international economic and social cooperation under the UN Charter,⁶⁵ of permanent sovereignty over natural resources,⁶⁶ and of the human right to a decent standard of living.⁶⁷ These inter-linked notions will be relied upon in conceptualizing benefit sharing in the following sections.

2 Premises

Short of a legal history of benefit sharing, it is proposed, following Neil Walker's reflection on global law, to conceptualize benefit sharing by identifying 'heavily overlapping, mutually connected and openly extended' patterns of normative development through a selective reading of the sources of international law, their areas of impact, and their perceived limits.⁶⁸ This approach appears particularly fitting since iterative, reflexive, and decentralized approaches are increasingly relied upon in the further development and implementation of international law.⁶⁹ The present conceptualization, therefore, attempts to gauge incipient trends and articulate future projections, as part of an iterative process of mapping, scanning, schematizing, and (re)framing legal phenomena related to benefit sharing,⁷⁰ with a view to understanding the 'capacity of law, drawing upon deep historical resources, to recast the ways in which it addresses

⁶⁰ E.g., Reid and Nsoh, 'Whose Ecosystem Is It Anyway? Private and Public Rights under New Approaches to Biodiversity Conservation', 5 *Journal of Human Rights and the Environment* (2014) 112.

⁶¹ TEEB, *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations* (2010), available at www.teebweb.org/ (last visited 12 April 2016), at 11–12; TEEB, *supra* note 57, at 9.

⁶² Hayden, 'Benefit-Sharing: Experiments in Governance', in R. Ghosh (ed.), *CODE: Collaborative Ownership and Digital Economy* (2005) 113.

⁶³ Martin *et al.*, *supra* note 29, at 84.

⁶⁴ *Aegean Sea Continental Shelf Case*, Judgment, 19 December 1978, ICJ Reports (1978) 3, paras 45–49.

⁶⁵ See generally on the evolving interpretation of the UN Charter in light of developments in international environmental law, Stoll, 'Article 55(a) and (c)' and 'Article 56', in B. Simma (ed.), *The Charter of the United Nations: A Commentary* (2012) 1535, at 1538–1540, 1603 and at 1605–1610.

⁶⁶ GA Res. 1803 (XVII), 14 December 1962, para. 1.

⁶⁷ Universal Declaration of Human Rights, *supra* note 10, Art. 25(1).

⁶⁸ N. Walker, *The Intimations of Global Law* (2015), at 11–12, 14, 112–113, 152.

⁶⁹ *Ibid.*, at 108.

⁷⁰ *Ibid.*, at 25–26, 112, 143.

some of the problems of an interconnected world'.⁷¹ As with other enquiries into global law, therefore, the conceptualization of benefit sharing finds itself 'somewhere between settled doctrine and an aspirational approach'.⁷² In this effort, it is further proposed to draw on the multi-disciplinary literature on norm diffusion in order to understand how benefit sharing has become embedded in various contexts, while developing an awareness of the role of power and politics in this connection and of the possible bias in this type of research, such as the assumption that norms that diffuse are desirable or innovative.⁷³

In addition to taking a global law approach, the other premise of this article is that even if earlier references to benefit sharing can be found in international human rights instruments and in the law of the sea, conceptualizing benefit sharing today should take international biodiversity law as a reference point. The reasons for this stance is that the CBD has contributed to the significant normative development of benefit sharing, gradually building consensus⁷⁴ among 196 parties on both its inter- and intra-state dimensions across different triggering activities (bioprospecting, the use of knowledge, and natural resource management).⁷⁵ International human rights law and the law of the sea, in comparison, have focused mainly on intra-state and inter-state benefit sharing respectively and on a narrower range of triggers, which may explain the occasional, explicit reliance by international human rights bodies on the normative development of benefit sharing under the CBD⁷⁶ and on similar proposals in the context of the further development of the law of the sea.⁷⁷

In this connection, the worth of the CBD to provide relevant and applicable norms for the interpretation of other international treaties through systemic integration is often underestimated.⁷⁸ The CBD's membership is virtually global, and its subject matter is remarkably wide: it covers the variability of life on earth,⁷⁹ all human activities that may affect biodiversity conservation as a common concern of humankind,⁸⁰ and

⁷¹ *Ibid.*, at 110.

⁷² *Ibid.*, at 18, 21.

⁷³ Parks and Morgera, *supra* note 26, at 365.

⁷⁴ On the law-making power of consensus, see A. Boyle and C. Chinkin, *The Making of International Law* (2007), at 260.

⁷⁵ The whole international community is party to the CBD, with the notable exception of the USA.

⁷⁶ E.g., reliance on Article 8(j) in Review of Developments pertaining to the Promotion and Protection of Human Rights and Fundamental Freedoms of Indigenous Peoples, UN Doc. E/CN.4/Sub.2/AC.4/2001/2 (2001), para. 15; reliance on CBD guidelines on socio-cultural and environmental impact assessments in CBD, Akwé: Kon Voluntary Guidelines, Decision VII/16C (2004), annex; as a pre-condition for benefit sharing by the Inter-American Court of Human Rights in IACtHR, *Case of the Saramaka People v. Suriname*, Judgment (Interpretation of the Judgment on Preliminary Objections, Merits, Reparations and Costs), 12 August 2008, para. 41, n. 23; by the Special Rapporteur on the Rights of Indigenous Peoples in Indigenous Peoples' Rights Report, *supra* note 22, at para. 73; and in the Report of the Expert Mechanism on the Rights of Indigenous Peoples, UN Doc. A/HRC/15/35 (2010), para. 37, which also referred to the CBD, Work Programme on Protected Areas, Decision VII/28 (2004).

⁷⁷ Co-Chairs' Summary of Discussions at the Working Group on Marine Biodiversity in Areas beyond National Jurisdiction, UN Doc. A/69/177 (2014), para. 54.

⁷⁸ Vienna Convention on the Law of Treaties (VCLT) 1969, 1155 UNTS 331, Art. 31(3)(c).

⁷⁹ See the definition of biological diversity under CBD, *supra* note 1, Art. 2.

⁸⁰ *Ibid.*, preambular para. 3.

arguably even non-living resources that form part of ecosystems.⁸¹ Admittedly, however, the open-ended and heavily qualified rules contained in the CBD may not, in and of themselves, provide sufficient guidance to the interpreter. One needs to rely on the decisions of the CBD Conference of the Parties (COP)⁸² as subsequent practice establishing agreement on the interpretation⁸³ of relevant CBD rules on benefit sharing.⁸⁴ Notwithstanding the continued reluctance to use explicit human rights language,⁸⁵ this normative activity has contributed to clarify the implications of the CBD obligations for the protection of the human rights of indigenous peoples in the context of the technicalities of environmental decision making and management processes.⁸⁶ That said, relevant interpretative guidance is dispersed in a myriad of CBD decisions and has not been subject to any significant monitoring or compliance process, which explains why the status and broad implications of relevant and applicable CBD rules on benefit sharing have not been appreciated.⁸⁷

3 The Concept

The following sections will identify the shared normative elements of benefit sharing in international law by focusing, in turn, on the act of sharing, the nature of the benefits to be shared, the activities from which benefit sharing arise, the beneficiaries, and the teleological connection with equity. The conceptualization will start from an analysis of the references to benefit sharing in treaty law: the UN Convention on the Law of the Sea (UNCLOS), the International Labour Organization's (ILO) Convention No. 169 Concerning Indigenous and Tribal Peoples, the CBD and its Nagoya Protocol, and the ITPGRFA.⁸⁸ It will explore textual variations and identify evidence of convergence in their interpretation. The discussion will also point to other areas of international law where benefit sharing is emerging and engage with the limitations to the proposed concept with a view to informing future research. The conceptualization will distinguish between inter-state and intra-state benefit sharing with regard to specific regimes, while attempting to identify a common normative core of benefit sharing that can apply to both as well as to transnational dimensions of the concept.

⁸¹ See the definition of ecosystems under *ibid.*, Art. 2.

⁸² Brunnée, 'COP-ing with Consent: Law-Making under Multilateral Environmental Agreements', 15 *Leiden Journal of International Law* (2002) 1.

⁸³ VCLT, *supra* note 78, Art. 31(3)(b); First and Second Report on Subsequent Agreements and Subsequent Practice in Relation to Treaty Interpretation, UN Doc. A/Cn.4/660 (2013) and UN Doc. A/CN.4/671 (2014).

⁸⁴ Morgera and Tsioumani, *supra* note 21.

⁸⁵ Morgera, 'Against All Odds: The Contribution of the Convention on Biological Diversity to International Human Rights Law', in D. Alland *et al.* (eds), *Unity and Diversity of International Law. Essays in Honour of Professor Pierre-Marie Dupuy* (2014) 983.

⁸⁶ See note 76 in this article.

⁸⁷ Morgera and Tsioumani, 'Yesterday, Today and Tomorrow: Looking Afresh at the Convention on Biological Diversity', 21 *Yearbook of International Environmental Law* (2011) 3, at 23–25.

⁸⁸ UNCLOS, *supra* note 6; ILO Convention no. 169, *supra* note 14.

A Sharing

The verb to 'share' distinguishes international agreements that encapsulate benefit sharing as a specific legal notion from hortatory references to the benefits arising from international cooperation more generally. Although the ILO Convention No. 169 does not use the verb 'to share' (rather the verb 'to participate in'), successive interpretations of the Convention have repeatedly used a benefit-sharing terminology.⁸⁹ In fact, the Inter-American Court of Human Rights⁹⁰ and former UN Special Rapporteur on Indigenous Peoples' Rights James Anaya⁹¹ have emphasized that 'benefit sharing', as encapsulated in the ILO Convention, refers to an inherent component of indigenous peoples' rights to land and natural resources that is implicit in the American Convention on Human Rights and the UN Declaration on the Rights of Indigenous Peoples.⁹²

In all events, it has been argued that 'to share' and 'to participate' in the benefits convey the same idea of agency, rather than of the passive enjoyment of benefits.⁹³ The ways in which the action of 'sharing' is spelled out in the relevant international materials discussed below, in effect, points to a concerted effort in identifying and apportioning benefits through a dialogic process. In other words, benefit sharing differs from the unidirectional (top-down) flows of benefits and, rather, aims at developing a common understanding of what the benefits at stake are and how they should be shared. In this connection, it has been argued that benefit sharing is geared towards consensus building.⁹⁴ It entails an iterative process, rather than a one-off exercise, of good-faith engagement among different actors that lays the foundation for a partnership among them.⁹⁵ In the inter-state context, this arguably refers to the idea of a global partnership enshrined in the Rio Declaration on Environment and Development,⁹⁶ in terms of both a 'new level of cooperation' between developed and developing states⁹⁷ and a form of cosmopolitan cooperation,⁹⁸ which includes (controversial)

⁸⁹ E.g., Observation of the Committee of Experts on the Application of Conventions (2009), reprinted in 99th ILC Session (2010), para. 11.

⁹⁰ *Saramaka*, *supra* note 2, para. 138.

⁹¹ Indigenous Peoples' Rights Report, *supra* note 22, paras 67, 76–78.

⁹² American Convention on Human Rights 1969, 1144 UNTS 123; UN Declaration on the Rights of Indigenous Peoples (UNDRIP), GA Res. 61/295, 2 October 2007.

⁹³ Mancisidor, *supra* note 36.

⁹⁴ Special Rapporteur on the Rights of Indigenous Peoples, Report to the Human Rights Council, UN Doc. A/HRC/12/34 (2009), para. 53; Rapporteur on Indigenous Peoples' Rights, *supra* note 15, para. 88.

⁹⁵ On the intra-state dimension of benefit sharing, see, e.g., Rapporteur on Indigenous Peoples' Rights, *supra* note 15, paras 75–77, 92; Review of Developments Pertaining to the Promotion and Protection of Human Rights and Fundamental Freedoms of Indigenous Peoples, UN Doc. E/CN.4/Sub.2/AC.4/2001/2 (2001), para. 19. On the inter-state dimension, see, e.g., Report of the High-Level Task Force on the Implementation of the Right to Development on Its Second Meeting, UN Doc. E/CN.4/2005/WG.18/TF/3 (2005), para. 82.

⁹⁶ Rio Declaration on Environment and Development 1972, 11 ILM 1416 (1972), preamble and principles 7 and 27.

⁹⁷ Dupuy, 'The Philosophy of the Rio Declaration', in J. Viñuales (ed.), *The Rio Declaration on Environment and Development: A Commentary* (2015) 65, at 69, 71. See generally R. Wolfrum and C. Kojima (eds), *Solidarity: A Structural Principle of International Law* (2010).

⁹⁸ Dupuy, *supra* note 97, at 72; Francioni 'The Preamble of the Rio Declaration', in Viñuales, *supra* note 97, 85, at 89.

public-private partnerships as well as other cooperative relations between states and civil society that are inspired by a vision of public trusteeship.⁹⁹ With regard to the intra-state dimension of benefit sharing, the term ‘partnership’ specifically refers to an approach to accommodate state sovereignty over natural sovereignty and indigenous peoples’ self-determination.¹⁰⁰

The verb ‘sharing’ also implies that not every actor may play an active part in a certain activity that triggers benefit sharing but, rather, that everyone should participate in some of the benefits derived from it.¹⁰¹ This is probably the least studied aspect of the treaties that include benefit sharing. Beyond a mere logic of exchange, benefit sharing serves to recognize, reward, promote, and renew/strengthen the conditions for the production of global benefits (such as scientific advancements for global food security and global health or ecosystem services) that derive from specific activities that trigger benefit sharing among specific parties. As discussed below, however, international rules on benefit sharing have mostly developed with regard to the sharing of benefits among those directly participating in the triggering activity and often enshrine the underlying production of global benefits in the treaty’s objective,¹⁰² with the intention of providing a yardstick to scrutinize the suitability of implementing measures in sharing benefits beyond the specific parties involved in a triggering activity. Occasionally, specific obligations concern the sharing of global benefits deriving from specific triggering activities, in which case vulnerable beneficiaries tend to be privileged. For instance, the ITPGREFA foresees that benefits deriving from the use of plant genetic resources for food and agriculture flow directly and indirectly to farmers in all countries, particularly in developing countries, irrespective of whether they have contributed relevant genetic material to the multilateral system of access and benefit sharing, according to internationally agreed eligibility and selection criteria.¹⁰³ In other regimes, however, these obligations remain much more indeterminate.¹⁰⁴

1 Inter-State Benefit Sharing

In the inter-state dimension, there appear to be two fundamental ways to share benefits among states – multilateral and bilateral – with the latter being a residual solution and the former being confined to specialized ambits of application. The multilateral sharing of benefits, which has been resorted to in the context of natural resource use within the common heritage regime and in specialized areas of bioprospecting, occurs through multilateral decision making within an international organization

⁹⁹ Sand, ‘Cooperation in a Spirit of Global Partnership’, in Viñuales, *supra* note 97, 617, who refers as a concrete example to the ITPGREFA.

¹⁰⁰ Fitzmaurice, ‘The Question of Indigenous Peoples’ Rights: A Time for Reappraisal?’, in D. French (ed.), *Statehood and Self-Determination: Reconciling Tradition and Modernity in International Law* (2013) 349, at 375; Indigenous Peoples’ Rights Report, *supra* note 22, para. 53.

¹⁰¹ Schabas, *supra* note 36, at 276, referring to the *travaux préparatoires* of Art. 27(1) of the Universal Declaration on Human Rights, *supra* note 10.

¹⁰² CBD, *supra* note 1, Art. 1; ITPGREFA, *supra* note 1, Art. 1; Nagoya Protocol, *supra* note 1, Art. 1.

¹⁰³ ITPGREFA, *supra* note 1, Art. 13(3) and Annexes 1–3 to the Funding Strategy in 2007; FAO, Report of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (2007).

¹⁰⁴ Nagoya Protocol, *supra* note 1, Art. 8(b).

leading to the determination of standard contractual clauses. Under the law of the sea, benefits from the minerals in the deep seabed have been shared in this way,¹⁰⁵ and the development of precise rules and procedures has been left to the International Seabed Authority (ISA).¹⁰⁶ Due to the fact that activities in the deep seabed have not yet reached the stage of exploitation of resources, however, the ISA has not yet elaborated on revenue sharing, but has already put in place non-monetary benefit-sharing rules.¹⁰⁷ Under the ITPGREFA, a standard material transfer agreement has been agreed upon, with two mandatory monetary benefit-sharing options for the commercial use of a specified list of plant genetic resources for food and agriculture (such as rice, potatoes, and maize).¹⁰⁸ In these cases, the applicable multilateral decision-making rules determine how state parties arrive through dialogue at a concerted determination of the sharing modalities.¹⁰⁹

Compared with the circumscribed areas of deep seabed minerals and plant genetic resources for food and agriculture, the bilateral sharing of benefits¹¹⁰ is envisaged under the CBD¹¹¹ and its Nagoya Protocol¹¹² as a residual regime with regard to trans-boundary bioprospecting.¹¹³ In this case, benefit sharing is operationalized through ad hoc contractual negotiations ('mutually agreed terms'), instead of standard contractual terms decided by an international decision-making body.¹¹⁴ Thus, treaties incorporating a bilateral approach leave national rules to govern the contracts. These treaties have so far not provided specific substantive criteria in this regard¹¹⁵ or created an international mechanism specifically aimed to oversee how benefits are shared in particular cases.¹¹⁶ While contractual negotiations may in principle also be seen as being a consensus-building, dialogic way to share benefits, leaving partnership

¹⁰⁵ UNCLOS, *supra* note 6, Arts 136–141.

¹⁰⁶ *Ibid.*, Art. 160(2)(f)(i), (g).

¹⁰⁷ J. Harrison, *The Sustainable Development of Mineral Resources of the International Seabed Area: The Role of the Authority in Balancing Economic Development and Environmental Protection* (2014), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2531370 (last visited 12 April 2016), discussing benefit sharing obligations included in the regulations for prospecting and exploration of seabed mineral resources.

¹⁰⁸ ITPGREFA, Resolution 2/2006 (2006).

¹⁰⁹ But also in the World Health Organization (WHO), *Pandemic Influenza Preparedness Framework for the Sharing of Influenza Viruses and Access to Vaccines and Other Benefits*, WHO Doc. WHA64.5, 24 May 2011.

¹¹⁰ Although note the possibility for a multilateral benefit-sharing mechanism to be established under the Nagoya Protocol, *supra* note 1, Art. 10; Morgera, Tsioumani and Buck, *supra* note 17, at 197–208.

¹¹¹ CBD, *supra* note 1, Art. 15(7). See also Agenda 21: Programme of Action for Sustainable Development, UN Doc. A/Conf.151/26 (1992), paras 15(4)(d), 15(4)(j), 16(7)(a).

¹¹² Nagoya Protocol, *supra* note 1, Art. 5.

¹¹³ Morgera, Tsioumani and Buck, *supra* note 17, at 85.

¹¹⁴ As is explicitly foreseen in CBD, *supra* note 1, Art. 15(7), last sentence, and the last sentence of Nagoya Protocol, *supra* note 1, Art. 5(1), where reference is made to 'mutually agreed terms'.

¹¹⁵ Nagoya Protocol, *supra* note 1, Art. 5(1–2, 5), 10th preambular recital. See Tvedt, 'Beyond Nagoya: Towards a Legally Functional System of Access and Benefit-Sharing', in S. Oberthür and K. Rosendal (eds), *Global Governance of Genetic Resources: Access and Benefit Sharing after the Nagoya Protocol* (2013) 158.

¹¹⁶ Morgera, Tsioumani and Buck, *supra* note 17, at 282.

building to contractual freedom raises concerns in the face of the well-documented, unequal bargaining powers at stake.¹¹⁷ In partial recognition of this challenge in the bilateral context, the gradual development of international guidance (likely of a soft-law nature) on the terms of sharing is foreseen, in dialogue with non-state actors, but to a lesser extent than in treaties supporting multilateral benefit sharing.¹¹⁸

2 Intra-State Benefit Sharing

With the exception of the Nagoya Protocol, which refers to mutually agreed terms,¹¹⁹ international treaties on intra-state benefit sharing do not spell out in any comparable way to inter-state benefit sharing described above, how sharing is to be undertaken. This may be explained by the fact that appropriate benefit-sharing systems have to be established 'on a case by case basis, taking into account the circumstances of the particular situation of the indigenous peoples concerned'¹²⁰ and 'can take a variety of forms'.¹²¹ In the context of both biodiversity and human rights, a (domestic) public law approach could be used to share benefits, through direct payments or through the establishment of trust funds by the government,¹²² as well as the legal recognition of communities' customary practices, participatory planning, and/or shared or delegated natural resource management.¹²³ In addition, benefits can be shared through practical cooperation and support from the government to communities, by sharing scientific information, building capacity, facilitating market access, and providing assistance in diversifying management capacities.¹²⁴ When the private sector is involved, however, a private law contractual approach seems needed for setting up joint ventures and licences with preferential conditions with communities,¹²⁵ although it cannot be denied that governments could decide to set standard contracts in this regard.

Since all of these sharing modalities could be put in place in a top-down fashion with disruptive or divisive effects on beneficiary communities,¹²⁶ both international

¹¹⁷ *Ibid.*, at 7.

¹¹⁸ Nagoya Protocol, *supra* note 1, Art. 30 and Decision NP-1/4 (2012); as well as Arts 19(2), 20(2).

¹¹⁹ *Ibid.*, Arts 5(2), 5(5). Contrast with CBD, *supra* note 1, Art. 8(j); ILO Convention no. 169, *supra* note 14, Art. 15(2).

¹²⁰ ILO, Monitoring Indigenous and Tribal Peoples' Rights through ILO Conventions: A Compilation of ILO Supervisory Bodies' Comments 2009–2010, Observation (Norway), Canadian Environmental Assessment Research Council 2009/80th session (2009), at 95.

¹²¹ ILO, *Indigenous and Tribal Peoples' Rights in Practice: A Guide to ILO Convention No 169* (2009), at 107–108.

¹²² CBD Secretariat, How Tasks 7, 10 and 12 Could Best Contribute to Work under the Convention and to the Nagoya Protocol, UN Doc. UNEP/CBD/WG8J/8/4/Rev.2 (2012), para. 23; *Saramaka*, *supra* note 2, n. 191, para. 201.

¹²³ E.g., CBD, Work Programme on Protected Areas, *supra* note 76, paras 2(1)(3)–2(1)(5); CBD, Addis Ababa Principles and Guidelines on the Sustainable Use of Biodiversity, Decision VII/12 (2004), Annex II, operational guidelines to Principle 4; CBD, Expanded Work Programme on Forest Biodiversity, Decision VI/22 (2002), paras 13, 31.

¹²⁴ Akwé: Kon Guidelines, *supra* note 76, para. 40.

¹²⁵ CBD, Guidelines on Biodiversity and Tourism, *supra* note 5, para. 23; Addis Ababa Principles and Guidelines, *supra* note 123, operational guidelines to principle 12.

¹²⁶ IACtHR, *Kichwa Indigenous Community of Sarayaku v. Ecuador*, Judgment (Merits and Reparations), 27 June 2012, para. 194; *Endorois*, *supra* note 8, para. 274; CBD, Guidelines on Biodiversity and Tourism, *supra* note 5, para. II(27); PRAI, *supra* note 22, Principle 12.

human rights and biodiversity instruments point to the need for the sharing of benefits to be culturally appropriate and endogenously identified.¹²⁷ In other words, even if treaty law leaves significant leeway to states in determining appropriate forms of sharing benefits with communities, culturally appropriate sharing would be difficult to ensure in the absence of a good faith, consensus-building process with communities. Similarly, international developments on 'business responsibility to respect human rights' have clarified that benefit sharing, as part of the due diligence of companies operating extractive projects in or near indigenous lands, entails good faith consultations with communities with a view to agreeing on benefit-sharing modalities that make them partners in project decision making, not only giving them a share in the profits (for instance, through a minority ownership interest).¹²⁸

B Benefits

International treaties containing benefit-sharing obligations define the nature of the benefits to be shared to various degrees. The Nagoya Protocol is the only instrument that provides a detailed (non-exhaustive) list of benefits that may apply to both intra-state and inter-state benefit sharing.¹²⁹ More generally, applicable specifications with respect to the benefits of intra-state benefit sharing can then be found in soft law documents and case law. In all of these cases, a menu of benefits to be shared is offered, the nature of which is invariably both economic and non-economic, which arguably allows states to take into account, through the concerted, dialogic process of sharing, the beneficiaries' needs, values, and priorities, and possibly their 'different understandings of justice,' with a view to selecting the combination of benefits that lays the foundation for partnership.¹³⁰ While the nature of the benefits is mostly defined with regard to the parties to the triggering activity, several immediate benefits shared among them are meant to preserve, restore, or enhance the conditions under which underlying global benefits (such as ecosystem services) are produced. The benefits to be shared are thus seen as contributions to human well-being.¹³¹ That said, the interplay and tensions between economic and non-economic benefits, as well as between their immediate and global relevance, remain unclear and contentious.

¹²⁷ *Saramaka*, *supra* note 76, paras 25-2; CBD, Refinement and Elaboration of the Ecosystem Approach, Decision VII/11 (2004), annex, paras 1(8), 2(1); CBD, *Tkarihwaié:ri Code of Ethical Conduct on Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities*, Decision X/42 (2010), annex, para. 14.

¹²⁸ Indigenous Peoples' Rights Report, *supra* note 22, para. 46; Rapporteur on Indigenous Peoples' Rights, *supra* note 15, para. 75.

¹²⁹ Nagoya Protocol, *supra* note 1, Art. 5(4) and annex. The distinction between monetary and non-monetary benefits has emerged in the CBD's Bonn Guidelines on Access and Benefit-sharing and the Nagoya Protocol. Glowka and Normand, 'The Nagoya Protocol on Access and Benefit-Sharing: Innovations in International Environmental Law', in Morgera, Buck and Tsioumani, *supra* note 31, 21, at 23.

¹³⁰ Simm, 'Benefit-Sharing: An Inquiry Regarding the Meaning and Limits of the Concept of Human Genetic Research', 1 *Genomics, Society and Policy* (2005) 29, at 29–30.

¹³¹ Report on the Right to Science, *supra* note 36, para. 22; *Endorois*, *supra* note 8, paras 278–279; 87th ILO Session (1999), Report III (Part 1a), at 434.

1 Inter-State Benefit Sharing

In the case of the law of the sea, the nature of the benefits has become clear with practice. While the ISA is still working out how to share monetary benefits from mining in the Area, as expressly provided for by UNCLOS,¹³² it has already regulated the sharing of non-monetary benefits such as training, capacity building, scientific information, and cooperation,¹³³ which is implicit in the common heritage concept.¹³⁴ In addition, the ISA has created an endowment fund for marine scientific research in the Area,¹³⁵ which was initially filled with the balance of the application fees paid by pioneer investors and is currently dependent on donations.¹³⁶ Thus, the possibility of choosing among monetary and non-monetary benefits has the advantage of allowing the distribution of more immediately available (generally non-monetary) benefits while the monetary benefits are being accrued (although the challenge of obtaining stable financing, generally through voluntary contributions, for sharing non-monetary benefits may still be a significant issue). Non-monetary benefits are also aimed at increasing the capabilities of countries that are not able to directly participate in the triggering activity.

Along similar lines, under the ITPGREFA, a benefit-sharing fund is at present filled with donations in order to contribute to capacity building and technology transfer,¹³⁷ since monetary benefits have been defined (as a percentage of the gross sales of the commercialization of products) but not yet materialized.¹³⁸ The challenges in accruing monetary benefits under the ITPGREFA – the most sophisticated international benefit-sharing mechanism to date – cast a shadow over the feasibility of monetary benefit sharing under other, less sophisticated regimes such as the Nagoya Protocol (which identifies monetary benefits as profits in the form of access fees, up-front or milestone payments, royalties, or license fees).¹³⁹

Other significant benefits have also been identified by the CBD as participation in biotechnological research and in the results of biotechnological research.¹⁴⁰ These benefits were expanded upon in the Nagoya Protocol to include participation in product development and admittance to *ex situ* facilities and databases,¹⁴¹ joint ventures

¹³² UNCLOS, *supra* note 6, Art. 140.

¹³³ Harrison, *supra* note 107.

¹³⁴ Wolfrum, 'Common Heritage of Mankind', in Wolfrum, *supra* note 20, 452, paras 18–19; Lodge, 'The Common Heritage of Mankind', 27 *International Journal of Marine and Coastal Law* (2012) 733, at 740.

¹³⁵ ISA Assembly, Resolution Establishing an Endowment Fund for Marine Scientific Research in the Area, Doc. ISBA/12/A/11 (2006).

¹³⁶ Harrison, *supra* note 107.

¹³⁷ E. Tsioumani, *Exploring Fair and Equitable Benefit-Sharing from the Lab to the Land (Part I): Agricultural Research and Development in the Context of Conservation and the Sustainable Use of Agricultural Biodiversity* (2014), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2524337 (last visited 12 April 2016) at 31–33.

¹³⁸ N. Moeller and C. Stannard (eds), *Identifying Benefit Flows: Studies on the Potential Monetary and Non Monetary Benefits Arising from the International Treaty on Plant Genetic Resources for Food and Agriculture* (2013).

¹³⁹ Nagoya Protocol, *supra* note 1, Annex, 1(a–e).

¹⁴⁰ CBD, *supra* note 1, Arts 1, 15(5), 16, 19.

¹⁴¹ Nagoya Protocol, *supra* note 1, Annex, 2(a–c), (e).

with foreign researchers, and joint ownership of relevant intellectual property rights (IPRs).¹⁴² While questions related to IPRs remain controversial and well studied, the trade-offs between different forms of non-monetary benefits have not been fully analysed.¹⁴³ On the one hand, non-monetary benefits such as technology transfer and capacity building can be essential to enhance the ability of beneficiaries to share in monetary benefits in the long term.¹⁴⁴ On the other hand, they may create dependency on external, ready-made solutions that may not fit particular circumstances or that may allow for the exertion of undue influence by donor countries.¹⁴⁵ In addition, as will be discussed in the next section, there has not been sufficient legal analysis to distinguish capacity building and technology transfer under benefit-sharing regimes from general obligations in this regard in other international environmental agreements. In other words, no legal investigation has ventured into the relationship between benefit sharing and the principle of common but differentiated responsibility that underlies financial and technological solidarity obligations.

In addition, the conceptual relation between benefits and access to natural resources or knowledge is unclear.¹⁴⁶ Under the ITPGREFA, access to plant genetic resources for food and agriculture through a multilateral system is considered a benefit in itself since the exchange of these resources is indispensable for the continuation of agricultural research and food security.¹⁴⁷ Access to genetic resources in other countries, through bilateral channels, could arguably also be seen as a benefit in the context of the CBD, although the CBD parties have emphasized that access is a pre-condition for sharing benefits.¹⁴⁸ The latter interpretation underlies a logic of exchange that may prevail in concrete (multilateral or bilateral) negotiations to the detriment of the multifaceted equity rationale of benefit sharing.¹⁴⁹

2 Intra-State Benefit Sharing

The types of benefits to be shared at the intra-state level have been specified mostly in international environmental law (in the ITPGREFA and the Nagoya Protocol, with specific regard to genetic resources and traditional knowledge, and in CBD COP decisions with regard to natural resource management). A menu of monetary and non-monetary benefits have been referred to, albeit with a different emphasis under international biodiversity law and international human rights law: as a reward for ecosystem

¹⁴² *Ibid.*, Annex, 1(i), (j).

¹⁴³ And for this very reason, the question was eventually set aside in the negotiations of the Nagoya Protocol. See discussion by Pavoni, 'The Nagoya Protocol and WTO Law', in Morgera, Buck and Tsioumani, *supra* note 31, 185, at 200–205.

¹⁴⁴ E.g., Nagoya Protocol, *supra* note 1, preambular recitals 5, 7, 14.

¹⁴⁵ Morgera, Tsioumani and Buck, *supra* note 17, at 313, 331.

¹⁴⁶ Note, e.g., that Ribot and Lee Peluso, 'A Theory of Access', 68 *Rural Sociology* (2003) 153, refer to access as the 'ability to derive benefits from things' (emphasis added).

¹⁴⁷ ITPGREFA, *supra* note 1, Art. 13.

¹⁴⁸ Morgera, Tsioumani and Buck, *supra* note 17, at 49–52.

¹⁴⁹ Morgera, 'Justice, Equity and Benefit-Sharing under the Nagoya Protocol to the Convention on Biological Diversity', 24 *Italian Yearbook of International Law* (2015) 113.

stewardship under the former and as compensation under the latter. In either case, non-monetary benefits have been less prominent, although empirical evidence suggests that they may exceed the importance of monetary benefits for communities' well-being.¹⁵⁰

In the context of the use of genetic resources, traditional knowledge, and natural resources under international biodiversity law, monetary and non-monetary benefits appear to amount to a reward for traditional knowledge holders and ecosystem stewards for their positive contribution to humanity's well-being through the ecosystem services they provide, maintain, or restore and from the scientific advances and innovation that build on their traditional knowledge. For these reasons, the nature of the benefits is linked to the aim of allowing these communities to continue to provide global benefits by preserving and protecting the communal way of life that has developed and maintaining their traditional knowledge and ecosystem stewardship.¹⁵¹ Non-monetary benefits to be shared to this end comprise the legal recognition of community-based natural resource management¹⁵² and the incorporation of traditional knowledge in environmental impact assessments¹⁵³ and in natural resource management planning,¹⁵⁴ which can be seen as ways for beneficiaries to be formally recognized as partners in resource management.

Another key benefit that is specific to the agricultural sector is the continuation of traditional uses and the exchanges of seeds,¹⁵⁵ which are considered essential for farmers to continue to contribute significantly to global food security.¹⁵⁶ Furthermore, non-monetary benefits have been identified as different forms of support to enable communities to navigate increasingly complex and ever-changing technical, policy, and legal landscapes (from the global to the local level) that affect their traditional way of life, including scientific and technical information and know-how, direct investment opportunities, facilitated access to markets, and support for the diversification of income-generating opportunities for small- and medium-sized businesses.¹⁵⁷ Monetary benefits, in turn, include a share of profits deriving from commercial products or products generated through conservation and sustainable use activities (park entrance fees, for instance), job creation, and payments for ecosystem services.¹⁵⁸ Risks attached to different forms

¹⁵⁰ Wynberg and Hauck, 'People, Power and the Coast: Towards an Integrated, Just and Holistic Approach', in R. Wynberg and M. Hauck (eds), *Sharing Benefits from the Coast: Rights, Resources and Livelihoods* (2014) 143, at 158.

¹⁵¹ CBD Secretariat, *supra* note 122, para. 23.

¹⁵² CBD, Expanded Work Programme on Forest Biodiversity, *supra* note 123, para. 31; CBD, Work Programme on Protected Areas, *supra* note 76, paras 2(1)(3)–2(1)(5).

¹⁵³ Akwé: Kon Guidelines, *supra* note 76, para. 56.

¹⁵⁴ Addis Ababa Principles and Guidelines, *supra* note 123, operational guidelines to Principle 4; CBD, Expanded Work Programme on Forest Biodiversity, *supra* note 123, para. 13; Agenda 21, *supra* note 111, para. 15(4)(g); Johannesburg Plan of Implementation, UN Doc. A/CONF.199/20 (2002), para. 44(j).

¹⁵⁵ Nagoya Protocol, *supra* note 1, Art. 12(4); ITPGREFA, *supra* note 1, Art. 9(3).

¹⁵⁶ See discussion in Tsioumani, *supra* note 137, at 36–37.

¹⁵⁷ *Ibid.*, paras 40, 46; Addis Ababa Principles and Guidelines, *supra* note 123, rationale to Principle 4; CBD, Guidelines on Biodiversity and Tourism, *supra* note 5, paras 22–23, 43; CBD, Bonn Guidelines, *supra* note 1, para. 50.

¹⁵⁸ Akwé: Kon Voluntary Guidelines, *supra* note 76, para. 46.

of benefits to be shared, however, have not been fully or systematically analysed. For instance, community-based management of natural resources within protected areas may impose a very high burden on communities to ensure the respect of environmental and animal and plant health regulations in the face of global crises such as elephant and rhino poaching. Communities may also be subject to concessions with short and insecure tenure and relatively high payments. More generally, little attention has so far been paid to the costs and losses for communities that may be associated with certain benefits.¹⁵⁹

In regional human rights case law, benefit sharing has been portrayed as a form of compensation with an emphasis on monetary benefits.¹⁶⁰ Under ILO Convention No. 169, reference has been made to sharing the profits from oil-producing activities.¹⁶¹ Along similar lines, the African Commission has called for profit sharing from the creation of a game reserve and employment opportunities.¹⁶² In this connection, former UN Special Rapporteur James Anaya tried to distinguish benefit sharing and compensation, while recognizing their connection,¹⁶³ as the former aims to make up for broader, historical inequities that have determined the situation in which the specific material and immaterial damage (including environmental damage affecting indigenous peoples' subsistence and spiritual connection with their territory¹⁶⁴) has arisen.¹⁶⁵ In addition, it can also be deduced from Anaya's more general reflection on benefit sharing that, as opposed to compensation that is expected to make up for lost control over resources and income-generation opportunities, benefits combine new opportunities of income generation and continued, or possibly enhanced, control over the use of the lands and resources affected by the development.¹⁶⁶ While these dividing lines can be quite blurred in practice, however, the nature of benefit sharing as part of a general and permanent obligation to protect the right to property over natural resources of indigenous peoples, which is independent of any violation of their rights, appears as the more fundamental difference from compensation.¹⁶⁷

¹⁵⁹ Wynberg and Hauck, *supra* note 150, at 158.

¹⁶⁰ *Saramaka*, *supra* note 2, paras 138–140; *Endorois*, *supra* note 8, paras 298–299, 295.

¹⁶¹ ILO, Report of the Committee Set Up to Examine the Representation Alleging Non-Observance by Ecuador of ILO Convention No. 169, Doc. GB.282/14/4 (2001), para. 44(3).

¹⁶² *Endorois*, *supra* note 8, para. 228 and recommendations.

¹⁶³ Indigenous Peoples' Rights Report, *supra* note 22, paras 67, 89, 91; Rapporteur on Indigenous Peoples' Rights, *supra* note 15, para. 76.

¹⁶⁴ M. Orellana, 'Saramaka People v Suriname Judgment', 102 *AJIL* (2008) 841, at 845, 847.

¹⁶⁵ Rapporteur on Indigenous Peoples' Rights, *supra* note 15, para. 76. Other bodies have not elaborated on the point. UN Permanent Forum on Indigenous Issues (UNPFII), Review of World Bank Operational Policies, UN Doc. E/C.19/2013/15 (2013), para. 27; ILO, Ecuador, Doc. GB.282/14/2 (2001), para. 44(c)(3); ILO, Bolivia, Docs GB.272/8/1, GB.274/16/7 (1999), para. 40.

¹⁶⁶ Rapporteur on Indigenous Peoples' Rights, Progress Report on Extractive Industries, UN Doc. A/HRC/21/47 (2012), paras 68, 74, 76; Rapporteur on Indigenous Peoples' Rights, *supra* note 15, para. 75.

¹⁶⁷ This argument builds upon the distinction proposed by the IACtHR with regard to community development funds as compensation for material and immaterial damage, being 'additional to any other benefit present and future that communities are owed in relation to the general obligations of development of the State'. IACtHR, *Case of the Community Garifuna Triunfo de la Cruz and Its Members v. Honduras*, Judgment (Merits, Reparations and Costs), 8 October 2015, para. 295; IACtHR, *Case of Garifuna Punta Piedra Community and Its Members v. Honduras*, Judgment (Preliminary Objections, Merits, Reparations and Costs), 8 October 2015, para. 332; IACtHR, *Case of the Kaliña and Lokono Peoples v. Suriname*, Judgment (Merits, Reparations and Costs), 25 November 2015, para. 295.

In both international biodiversity law and international human rights law, therefore, certain forms of benefits to be shared may serve to empower and share authority with communities on environmental protection, natural resource management, and development.¹⁶⁸ Empirical evidence, however, has shown that genuine shifts of rights and authority over natural resources to communities through benefit sharing have not occurred.¹⁶⁹ In addition, concerns have been raised that benefit sharing could be misused to ‘renegotiate’ communities’ human rights or put a price tag on them.¹⁷⁰ In effect, the legal and other guarantees that are necessary to prevent or minimize these risks have not yet been analysed. In principle, benefit sharing is expected to operate as an add-on (a safeguard) to relevant human rights, but there is little guidance other than engaging in good faith, consensus-based negotiations with communities.¹⁷¹ More study is needed on the interactions between benefit-sharing and procedural rights (access to information, decision making, and justice)¹⁷² and legal empowerment approaches.¹⁷³ In addition, considering the reality of many (developed and developing) countries where natural resource-related rights are not settled, recognized, or documented, it remains to be ascertained whether, and under which conditions, benefit sharing may act as a pragmatic process to gradually create the infrastructure necessary for the full recognition, documentation, and protection of human rights.

C Triggers

As anticipated, the activities that trigger benefit-sharing obligations are bioprospecting, certain natural resource use and environmental protection measures, and the production of knowledge. With regard to inter-state benefit sharing, obligations were originally attached to the use of natural resources under the common heritage regime, which – together with most developed benefit-sharing mechanisms now related to bioprospecting – are the most well-studied cases. However, there seems to be an ongoing and under-studied expansion of international regimes that may embody inter-state benefit sharing, by way of interpretation, in relation to other natural resources that are subject to different international limitations to the rights of states (shared natural resources or the common concern of mankind).¹⁷⁴ With regard to intra-state benefit sharing, benefit-sharing obligations have been triggered by almost any use of natural

¹⁶⁸ Empowerment was linked to benefit sharing in the *Endorois* decision, *supra* note 8, para. 283. Benefit sharing is considered ‘effectively expand[ing] on the principle of effective participation, by Pentassuglia, ‘Towards a Jurisprudential Articulation of Indigenous Land Rights’, 22 *EJIL* (2011) 165, at 176.

¹⁶⁹ Note the mixed picture arising in this regard from benefit sharing as part of community-based wildlife management initiatives in Africa. Nelson, ‘Introduction’, in F. Nelson (ed.), *Community Rights, Conservation and Contested Lands: The Politics of Natural Resource Governance in Africa* (2010) 3, at 4, 11.

¹⁷⁰ The concern has been raised by Orellana, *supra* note 164, at 847.

¹⁷¹ See note 15 in this article.

¹⁷² Rio Declaration, *supra* note 96, Principle 10. Note that Sand considered Rio Principle 27 on a global partnership as the substantive basis for the exercise of the procedural rights enshrined in Principle 10. Sand, *supra* note 99, at 630–631.

¹⁷³ This is particularly the case of the ‘community protocols’ for which an international obligation to support has been included in the Nagoya Protocol, *supra* note 1, Art. 12(3)(a).

¹⁷⁴ Birnie, Boyle and Redgwell, *supra* note 51, at 190ff.

resources or any environmental protection measure that may negatively impact on the international human rights of indigenous peoples and local communities, both under international biodiversity and human rights law, with little attention paid so far to the possible cross-fertilization between the two. Finally, with regard to the production of knowledge, this not only has been pre-eminently the traditional knowledge of indigenous peoples and local communities but also extends to other forms of knowledge in the context of the human right to science.

1 Inter-State Benefit Sharing

Originally, inter-state benefit sharing was part of the common heritage regime. Thus, it was associated with natural resources that cannot be appropriated to the exclusive sovereignty of states, that must be conserved and exploited for the benefit of mankind, without discrimination and for peaceful purposes, and that are subject to international management. While several commentators saw benefit sharing from minerals in the Area as the most controversial element of common heritage, and, as such, responsible for the very cautious use of this principle in international law,¹⁷⁵ the uptake of benefit sharing as a self-standing approach in the international regime on bioprospecting has proven that the concept is capable of adapting to the legal specificities of genetic resources under the sovereignty of third countries (under the Nagoya Protocol) or being held in trust by an international network of collections (under the ITPGREFA).¹⁷⁶ Benefit sharing has now come full circle. Its normative development under the ITPGREFA and the Nagoya Protocol is likely to influence the further development of the law of the sea with regard to living resources in areas beyond national jurisdiction.¹⁷⁷

More recently, benefit sharing has surfaced in other areas of international environmental law through interpretation. This is the case of regimes applying to shared natural resources and to environmental matters of common concern to mankind. With regard to the former, benefit sharing in the international law on transboundary watercourses has been seen as an extension of the general principle of equitable and reasonable utilization,¹⁷⁸ challenging inter-state cooperation as it has traditionally

¹⁷⁵ E.g., Shackelford, 'The Tragedy of the Common Heritage of Mankind', 28 *Stanford Environmental Law Journal* (2009) 109, at 128; Noyes, 'The Common Heritage of Mankind: Past, Present and Future', 40 *Denver Journal of International Law and Policy* (2011–2012) 447, at 451, 469–470; Frakes, 'The Common Heritage of Mankind Principle and the Deep Seabed, Outer Space, and Antarctica: Will Developed and Developing Nations Reach a Compromise?', 21 *Wisconsin International Law Journal (WILJ)* (2003) 409, at 417.

¹⁷⁶ In effect, UNCLOS already included other articulations of benefit sharing related to resources outside of the common heritage regime. UNCLOS, *supra* note 6, Art. 82(1), (4). It has also been argued that benefit sharing is foreseen in the regulation of marine scientific research under UNCLOS: see generally Salpin, 'The Law of the Sea: A Before and an After Nagoya?' in Morgera, Buck, and Tsioumani, *supra* note 31, 149.

¹⁷⁷ In the context of the negotiating process launched by GA Res. 69/292, 6 July 2015, on the development of an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction. See note 77 in this article.

¹⁷⁸ Abseno, 'The Concept of Equitable Utilisation, No Significant Harm and Benefit-Sharing under the River Nile Cooperative Framework Agreement: Some Highlights on Theory and Practice', 20 *Journal of Water*

focused on purely quantitative allocations of water.¹⁷⁹ Accordingly, benefit sharing has led to a consideration of more sophisticated forms of inter-state cooperation that factor in non-water-related benefits (economic, socio-cultural, and broader environmental benefits) arising from the enhanced stewardship of a shared watercourse, which would normally be undertaken by an upstream state.¹⁸⁰ Water lawyers and practitioners are increasingly looking into this development, but they have not fully investigated cross-fertilization with international biodiversity law in this regard. Interactions between inter-state and intra-state benefit sharing remain to be explored in consideration of the role of communities in the conservation of inland water ecosystems and related traditional knowledge, and so do possible synergies and tensions with the human right to water.¹⁸¹

In addition, an argument appears to be put forward that inter-state benefit sharing is relevant in the context of those international environmental regimes whose object is characterized as a common concern of mankind and that routinely include financial assistance and technology transfer obligations. This interpretation emerges from international human rights processes such as the ongoing international effort to define a 'human right to international solidarity'¹⁸² and the long-standing efforts to clarify the controversial right to development.¹⁸³ It is also the case of recent efforts to conceptually clarify the human right to science with regard to technology transfer.¹⁸⁴ Leaving aside the debate on the value of solidarity rights,¹⁸⁵ these efforts express a discontent about the current level of cooperation under international environmental law, particularly the international climate change regime, and arguably make recourse to benefit sharing to bring about a partnership in implementing financial and technological solidarity obligations. However, there is no explicit reference to intra-state benefit sharing in the international climate regime and little practice in international biodiversity law in this regard.¹⁸⁶ Thus, it remains to be clarified whether relying on the concept of

Law (2009) 86; Paisley, 'Adversaries into Partners: International Water Law and the Equitable Sharing of Downstream Benefits', 3 *Melbourne Journal of International Law* (2002) 280.

¹⁷⁹ Wouters and Moynihan, 'Benefit-Sharing in International Water Law', in F. Loures and A. Rieu-Clarke (eds), *The UN Watercourses Convention in Force: Strengthening International Law for Transboundary Water Management* (2013) 321.

¹⁸⁰ McIntyre, 'Benefit-Sharing and Upstream/Downstream Cooperation for Ecological Protection of Transboundary Waters: Opportunities For China as an Upstream State', 40 *Water International* (2015) 48, at 50.

¹⁸¹ Shelton, 'Water Rights of Indigenous Peoples and Local Communities', in L. Boisson de Chazounes, C. Leb and M. Tignino (eds), *International Law and Freshwater: The Multiple Challenges* (2013) 69, at 80.

¹⁸² Report of the Independent Expert on Human Rights and International Solidarity to the General Assembly, UN Doc. A/68/176 (2013), para. 27(d).

¹⁸³ In its so-called 'third dimension'. Report of the High-level Task Force on the Implementation of the Right to Development on its Sixth Session: Right to Development Criteria and Operational Sub-criteria, UN Doc. A/HRC/15/WG.2/TF/2/Add.2 (2010), criteria 3(b)(i)–(ii).

¹⁸⁴ UN Special Rapporteur in the Field of Cultural Rights, Report on the Right to Enjoy the Benefits of Scientific Progress and Its Applications, UN Doc. A/HRC/20/26 (2012), paras 65–69.

¹⁸⁵ Alston, 'A Third Generation of Solidarity Rights: Progressive Development or Obfuscation of International Human Rights Law?', 29 *Netherlands International Law Review* (1982) 307.

¹⁸⁶ E.g., CBD, Technology Transfer Work Programme, Decision VII/29 (2004), paras 3.2.8, 3.2.9.

benefit sharing through a human rights lens may be useful as an analytic tool, if not an obligation, for deepening the understanding of the content of, and consequences of non-compliance with, the international provisions on finance, technology, and capacity building or even to inject a different dynamic in ongoing negotiations such as those on climate change.¹⁸⁷

2 Intra-State Benefit Sharing

The activities that trigger intra-state benefit sharing are the exploitation of natural resources or the creation of environmental protection measures in, or affecting, the lands of indigenous peoples and local communities and the use of their traditional knowledge. The rationale, however, differs in international biodiversity law (ecosystem stewardship) and international human rights law (human rights to property and culture), which can be explained in light of the different objectives and scope of these areas of international law.

Under the CBD, it is through interpretation in relation to the ecosystems approach that benefit sharing has been developed as an incentive for the good management practices of indigenous and local communities¹⁸⁸ as well as of other stakeholders who are responsible for the production and sustainable management of ecosystem functions.¹⁸⁹ This has provided the conceptual departure point for developing soft law guidance on intra-state benefit sharing both with regard to natural resource use¹⁹⁰ and with regard to conservation measures (protected areas¹⁹¹ and climate change response measures).¹⁹² It has also led to the development of a specific benefit-sharing obligation owed to communities as stewards of genetic resources 'held by them' under the Nagoya Protocol.¹⁹³

On the human rights side, regional case law has built on the ILO Convention No. 169 to clarify that benefit sharing is triggered by the exploitation of traditionally owned lands and natural resources necessary for the survival of indigenous and tribal peoples or by the establishment of environmental protection measures negatively affecting them.¹⁹⁴ Other human rights processes have increasingly relied upon this interpretation.¹⁹⁵ Benefit sharing has been invoked in relation to indigenous peoples' right to property

¹⁸⁷ A. Savaresi, *The Emergence of Benefit-sharing under the Climate Regime: A Preliminary Exploration and Research Agenda* (2015), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2524335 (last visited 12 April 2016).

¹⁸⁸ CBD, Principles of the Ecosystem Approach, Decision V/6 (2000), para. 9.

¹⁸⁹ *Ibid.*, Operational Guidance 2, Annex, para. 9; CBD, Refinement and Elaboration of the Ecosystem Approach, *supra* note 127, Annex, para. 12.5.

¹⁹⁰ E.g., Addis Ababa Principles and Guidelines, *supra* note 123, Annex II: Practical Principle 12.

¹⁹¹ CBD, Work Programme on Protected Areas, *supra* note 76, Annex, paras 2(1), 2(1)(4) (while the latter refers to both benefit sharing and cost sharing, the focus on benefit sharing is clarified in CBD, Decision IX/18 (2008), preamble para. 5).

¹⁹² This would be, e.g., the justification for CBD, REDD+, Decision XI/19 (2012).

¹⁹³ Nagoya Protocol, *supra* note 1, Art. 5(2); Morgera, Tsioumani and Buck, *supra* note 17, at 117–126.

¹⁹⁴ *Saramaka*, *supra* note 2; *Endorois*, *supra* note 8; *Garifuna Triunfo de la Cruz*, *supra* note 167; *Garifuna Punta Piedra*, *supra* note 167; *Kaliña and Lokono*, *supra* note 167.

¹⁹⁵ E.g., UN Indigenous Peoples' Partnership, Strategic Framework 2011–2015, available at www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_186285.pdf (last

and natural resources,¹⁹⁶ culture and non-discrimination,¹⁹⁷ and their right to development,¹⁹⁸ as well as in the context of large-scale investments in farmland impacting on the right to food.¹⁹⁹ Overall, however, limited attention has been paid specifically to benefit sharing in human rights policy and academic circles, possibly because it is seen as an ‘additional safeguard’²⁰⁰ to the complex and still unsettled notion of free prior informed consent (FPIC).²⁰¹ Therefore, much remains to be clarified about the interactions between benefit sharing and FPIC. On the one hand, benefit sharing may serve as a condition for the granting of FPIC, thereby contributing to culturally appropriate and effective consultations and affecting the scope of environmental and socio-cultural impact assessment.²⁰² On the other hand, benefit sharing may represent the end result of an FPIC process, thereby providing concrete expression of the accord granted by indigenous peoples on the basis of their own understandings and preferences.²⁰³ It also remains to be determined whether benefit sharing could be required when FPIC is not.²⁰⁴

With regard to traditional knowledge, a qualified obligation to encourage intra-state benefit sharing in the CBD²⁰⁵ has been interpreted through a series of COP decisions to apply more broadly to communities’ customary sustainable use of biological resources²⁰⁶ across all of the Convention’s thematic areas of work.²⁰⁷ This interpretation has developed into a binding obligation under the Nagoya Protocol in relation to traditional knowledge that is more narrowly construed as being ‘associated with genetic resources’.²⁰⁸ While it has been acknowledged in a human rights context

visited 12 April 2016); Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes to the Human Rights Council, UN Doc. A/HRC/21/48 (2012), paras 36 and 69(h).

¹⁹⁶ UNPFII, *supra* note 165, para. 27; *Saramaka*, *supra* note 2, para. 138.

¹⁹⁷ Rapporteur on Indigenous Peoples’ Rights, *supra* note 166, paras 50–52.

¹⁹⁸ *Endorois*, *supra* note 8, paras 294–295.

¹⁹⁹ Report of the UN Special Rapporteur on the Right to Food, Large-Scale Land Acquisitions and Leases: A Set of Minimum Principles and Measures to Address the Human Rights Challenge, UN Doc. A/HRC/13/33/Add.2 (2009), paras 30–33.

²⁰⁰ Rapporteur on Indigenous Peoples’ Rights, *supra* note 15, para. 52 (emphasis added).

²⁰¹ E.g., the lengthy monograph by E. Desmet, *Indigenous Rights Entwined with Nature Conservation* (2011) does not mention benefit sharing.

²⁰² Expert Mechanism on the Rights of Indigenous Peoples, Follow-up Report on Indigenous Peoples and the Right to Participate in Decision-making with a Focus on Extractive Industries, UN Doc. A/HRC/21/55 (2012), para. 43.

²⁰³ Rapporteur on Indigenous Peoples’ Rights, *supra* note 15, para. 43.

²⁰⁴ Pasqualucci, ‘International Indigenous Land Rights: A Critique of the Jurisprudence of the Inter-American Court of Human Rights in Light of the United National Declaration on the Rights of Indigenous Peoples’, 27 *WILJ* (2009–2010) 51, at 91.

²⁰⁵ CBD, *supra* note 1, Art. 8(j). This understanding can also be found in other legal developments contemporary to the CBD, such as Agenda 21, *supra* note 111, paras 15(4)(g), 15(5)(e).

²⁰⁶ CBD, *supra* note 1, Art. 10(c).

²⁰⁷ E.g., CBD, Revised Work Programme on Inland Water Biodiversity, Decision VII/4 (2004), Annex, para. 9; CBD, Work Programme on Island Biodiversity, Decision VIII/1 (2009), Annex, Target 9.2; CBD, Work Programme on Drylands, Decision VIII/2 (2006), Target 9.2.

²⁰⁸ Nagoya Protocol, *supra* note 1, Arts 5(5), 7. See discussion in Morgera, Tsioumani and Buck, *supra* note 17, at 126–130. See also benefit sharing from farmers’ traditional knowledge, a combined reading of the ITPRGEA, *supra* note 1, Arts 9(2)(a), 13(3), as discussed by Tsioumani, *supra* note 137.

that benefit sharing is also called for when the traditional knowledge of indigenous peoples is at stake,²⁰⁹ there has been no elaboration in this connection by human rights bodies.²¹⁰ This gap has been recognized by CBD parties, who initiated a process to develop international guidelines on prior informed consent and on benefit sharing from the use of traditional knowledge in late 2014.²¹¹

In addition, because of the political emphasis placed on bio-piracy as the unlawful use of traditional knowledge for commercial innovation purposes, little attention has been paid to benefit sharing from the non-commercial use of traditional knowledge, including pure research aimed at providing global benefits (such as advancing climate science).²¹² Although the CBD text itself does not distinguish between commercial and other utilization of traditional knowledge, other international legal materials expressly link benefit sharing to commercial use.²¹³ The issue has been treated with extreme caution by the CBD COP through a voluntary 'code of ethical conduct', which is not intended to 'interpret the obligations of the CBD'.²¹⁴ A systematic reading of the Nagoya Protocol, however, would rather point to an obligation to share (arguably non-monetary) benefits arising from non-commercial research on traditional knowledge, including when the research is meant to contribute to the global goal of conserving biodiversity.²¹⁵ The development of guidelines under the CBD may contribute to clarify the benefit-sharing obligations arising under the Convention and the Protocol with regard to different uses of traditional knowledge.²¹⁶

Finally, it should be noted that intra-state benefit-sharing requirements related to the use of natural resources and traditional knowledge have been increasingly reflected in the standards of international development banks,²¹⁷ the requirements

²⁰⁹ UNPFII, *supra* note 165, para. 27.

²¹⁰ In comparison to the Nagoya Protocol, neither the ILO Convention No. 169, *supra* note 1, or the UNDRIP, *supra* note 92, link benefit sharing and traditional knowledge. Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 21, UN Doc. E/C.12/GC/21 (2009), para. 37, refers to prior informed consent but not to benefit sharing, with regard to traditional knowledge. See Morgera, Tsioumani and Buck, *supra* note 17, at 127–130; Craig and Davies, 'Ethical Relationship for Biodiversity Research and Benefit-sharing with Indigenous Peoples', 2 *Macquarie Journal of International and Comparative Environmental Law* (2005) 31.

²¹¹ CBD, Decision XII/12D (2014), preambular paras 2, 4.

²¹² Consider, e.g., Intergovernmental Panel on Climate Change, 'Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change' (2007), at 138, and 673; Paris Agreement, Decision 1/CP.21 (2016), Art. 7(5); UNESCO Declaration on Bioethics and Human Rights (2005), Art. 17.

²¹³ Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa 1996 1954 UNTS 3, Art. 17; World Bank, Operational Policy 4.10 (2005), para. 19; International Finance Corporation, Performance Standard 8 (2012), para. 16.

²¹⁴ CBD, Tkarihwaï:ri Code, *supra* note 127, paras 1, 14.

²¹⁵ Nagoya Protocol, *supra* note 1, Art. 8(a), read with Article 5 and Annex, and Articles 16–17. See Morgera, Tsioumani and Buck, *supra* note 17, at 179–184.

²¹⁶ CBD, Decision XII/12D, *supra* note 211, refers to 'use and applications' of traditional knowledge. See discussion in Morgera, *supra* note 36, at 821–825

²¹⁷ E.g., Inter-American Development Bank, Operational Policy on Indigenous Peoples (2006), para. VI(f); European Bank for Reconstruction and Development, Environmental and Social Policy (2014), performance requirement 7, para 15.

of international climate initiatives,²¹⁸ and guidelines on land tenure and agricultural investment.²¹⁹ A further conceptual aspect that remains to be teased out in this connection is the linkage between benefit sharing and land tenure, including as an essential pre-condition for the protection and preservation of traditional knowledge,²²⁰ against the background of the growing relevance of international human rights and investment treaties for land disputes.²²¹

D *Beneficiaries*

Besides reiterating that benefit-sharing targets state and/or non-state actors, it is difficult to derive a common core with regard to its beneficiaries. The difficulty derives both from the variety of activities that trigger benefit sharing and from the uneven development of sharing modalities in relation to underlying global benefits (and possibly the tensions between the role of ecosystem stewards and the vulnerable in the ecosystem services discourse).²²² It may be argued that benefit sharing primarily (albeit, not exclusively) targets vulnerable beneficiaries, notably developing countries, indigenous peoples, and local communities. It should also be noted that these conceptual difficulties add to the immense practical challenges in the contextual identification of beneficiaries within groups (of state or non-state actors) that are non-homogenous and whose circumstances vary significantly across time and space. In this connection, the identification of beneficiaries and the connected risks of exclusion are tightly linked to the concerted and dialogic process of sharing discussed above and to the purposes of realizing fairness and equity discussed below.

1 *Inter-State Dimension*

The international treaties that include intra-state benefit-sharing obligations refer to beneficiaries in different terms, although they all place special emphasis on developing countries. Under UNCLOS, benefits should be shared with humankind without discrimination but 'taking into particular consideration the interests and needs of developing States'.²²³ Similarly, the ITPGREFA foresees benefit sharing with all parties, specifically pointing to developing countries as beneficiaries of technology transfer, capacity building, and the allocation of commercial benefits.²²⁴ Along similar lines, under the CBD and the Nagoya Protocol, beneficiaries are the 'provider countries' with the understanding that all countries can be both users and providers of genetic resources,²²⁵ but provisions on technology transfer, funding, and sharing of

²¹⁸ Notably climate finance and REDD. See note 9 in this article; Savaresi, *supra* note 187.

²¹⁹ VGGT, *supra* note 6; CFS, *supra* note 24.

²²⁰ CBD, Tkarihwaí:ri Code, *supra* note 127, paras 17–19; CESC, *supra* note 210, paras 36, 50(c).

²²¹ Cotula, 'Land: Property and Sovereignty in International Law', in E. Morgera and K. Kulovesi (eds), *Research Handbook on International Law and Natural Resources* (forthcoming 2016).

²²² See sections 3.A and 3.A.1 in this article.

²²³ UNCLOS, *supra* note 6, Arts 140, 160(2)(f)(i).

²²⁴ ITPGREFA, *supra* note 1, Art. 13(2)(b)(ii–iii), 13(2)(c), 13(4).

²²⁵ CBD, Decision VII/19 (2004), 16th preambular recital.

biotechnological innovation specifically target developing countries.²²⁶ Once again, the question of whether and how benefit sharing adds, or otherwise relates, to the common but differentiated responsibility principle comes to the fore.

2 Intra-State Dimension

In both international biodiversity and human rights law, intra-state benefit sharing most clearly targets indigenous and tribal peoples as beneficiaries.²²⁷ The CBD and its Nagoya Protocol also refer to local communities²²⁸ – a category of unclear status in international human rights law that could apply to a variety of groups benefiting from the protection of human rights of general application (such as those related to property, subsistence, and culture),²²⁹ which may be negatively affected by interferences with their customary relations with land and natural resources.²³⁰ Along similar lines, the ITPGREFA considers ‘farmers’ to be beneficiaries,²³¹ and recent international soft law initiatives have expanded the meaning of beneficiaries to include ‘tenure right holders’ (that is, those having a formal or informal right to access land and other natural resources for the realization of their human right to an adequate standard of living and well-being)²³² and small-scale fishing communities.²³³ The latter, incidentally, appears to point to the emergence of intra-state benefit sharing under the law of the sea.²³⁴

As highlighted above with regard to benefits and triggers, the approach of international environmental law to intra-state benefit sharing differs in terms of emphasis and rationale from that emerging under human rights law. Thus, it remains to be clarified whether, in addition to applying to non-indigenous, traditional rural communities (be they in the North or South), intra-state benefit sharing also applies to non-traditional communities that may collectively manage natural resources (commons²³⁵) or to

²²⁶ CBD, *supra* note 1, Arts 16(3), 19(1–2), 20(5), (7); Nagoya Protocol, *supra* note 1, Arts 8(a–b), 22–23, 25(3–4).

²²⁷ CBD, *supra* note 1, Art. 8(j); Nagoya Protocol, *supra* note 1, Art. 5(2), (5); ILO Convention No. 169, *supra* note 14, Art. 15(2); *Saramaka*, *supra* note 2; *Endorois*, *supra* note 8.

²²⁸ Morgera, Tsioumani and Buck, *supra* note 17, at 383.

²²⁹ A. Bessa, ‘Traditional Local Communities in International Law’ (PhD dissertation, European University Institute, 2013); inconclusive CBD, Decision XI/14 (2012).

²³⁰ De Schutter, ‘The Emerging Human Right to Land’, 12 *International Community Law Review* (2010) 303, at 324–325, 319.

²³¹ ITPGREFA, *supra* note 1, Art. 9.2; see Tsioumani, *supra* note 137. Note also the ongoing international process to draft a Declaration on the Rights of Peasants and Other People Working in Rural Areas, UN Doc. A/HRC/WG.15/1/2 (2013).

²³² VGGT, *supra* note 6, Art. 8.6.

²³³ FAO, Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (2013), para. 5.1.

²³⁴ Note that intra-state benefit sharing could also arise in the context of the negotiations on marine biodiversity in areas beyond national jurisdiction with regard to the use of traditional knowledge (see note 177 in this article). Submission from the Federated States of Micronesia, 14 March 2016, para. 8, available at www.un.org/depts/los/biodiversity/prepcom_files/Federated_States_of_Micronesia.pdf (last visited 12 April 2016).

²³⁵ See generally B. Weston and D. Bollier, *Green Governance: Ecological Survival, Human Rights and the Law of the Commons* (2013); for a specific consideration from a benefit-sharing perspective, see Tsioumani, *supra* note 137.

individual holders of human rights (such as adequate housing, water, and sanitation) that may be negatively affected by environmental measures.²³⁶ In addressing these questions, it should also be kept in mind that the choice of market-based, right-based, or project-based approaches to pursue intra-state benefit sharing has a bearing on the identification of the beneficiaries.²³⁷

E *Fairness and Equity*

Benefit sharing is accompanied by the qualification ‘equitable’²³⁸ or ‘fair and equitable’²³⁹ under all of the treaties referring to it, with the exception of the ILO Convention No. 169. Nonetheless, with regard to the latter, the Committee on the Elimination of Racial Discrimination, the UN Permanent Forum on Indigenous Issues and the Inter-American Court of Human Rights have also referred to equitable benefit sharing.²⁴⁰ Consequently, former UN Special Rapporteur Anaya has concluded that ‘there is no specific international rule that guarantees benefit sharing for indigenous peoples, aside from the consideration that such sharing must be “fair and equitable”’.²⁴¹ Thus, it is argued that the rationale for the emergence of benefit sharing in international law is the operationalization of equity. In other words, benefit sharing should be counted among the specific principles deriving from equity as a general principle of international law, which serves to balance competing rights and interests²⁴² with a view to integrating ideas of justice into a relationship regulated by international law.²⁴³ The value of benefit sharing should therefore be assessed by the same token used for other equitable principles – their capacity in providing ‘new perspectives and potentially fresh solutions to tricky legal problems’ to the benefit of all, not just to the advantage of the powerful.²⁴⁴

International treaties that contain benefit sharing, however, leave the specific determination of what is fair and equitable to successive multilateral negotiations (in the context of multilateral benefit-sharing mechanisms) and contextual negotiations,

²³⁶ This seems to be the case in renewable energy projects. See discussion in Savaresi, *supra* note 187, with regard to Report of the Special Rapporteur on Adequate Housing as a Component of the Right to an Adequate Standard of Living, and on the Right to Non-Discrimination in this Context, UN Doc. A/64/255 (2009), at 47, 71; Special Rapporteur on the Right to Water, Climate Change and the Human Rights to Water and Sanitation, Position Paper, available at www.ohchr.org/Documents/Issues/Water/Climate_Change_Right_Water_Sanitation.pdf (last visited 12 April 2016), at 5–6.

²³⁷ These questions are particularly clear in the realm of agriculture and food. Tsiumani, *supra* note 137.

²³⁸ UNCLOS, *supra* note 6, Art. 140; CBD, *supra* note 1, Art. 8(j).

²³⁹ CBD, *supra* note 1, Arts 1, 15(7); ITPGREFA, *supra* note 1, Arts 1, 10(2), 11(1); Nagoya Protocol, *supra* note 1, Arts 1, 5.

²⁴⁰ Committee on the Elimination of Racial Discrimination, Concluding Observations on Ecuador, UN Doc. CERD/C/62/CO/2 (2003), para. 16; UNPFII, Report of the International Workshop on Methodologies Regarding Free, Prior Informed Consent and Indigenous Peoples, UN Doc. E/C.19/2005/3 (2005), para. 46(i)(e); *Saramaka*, *supra* note 2, para. 140 (‘reasonable equitable’); *Endorois*, *supra* note 8, paras 269, 297.

²⁴¹ Indigenous Peoples’ Rights Report, *supra* note 22, paras 67, 76–78.

²⁴² C. Burke, *An Equitable Framework for Humanitarian Intervention* (2014), at 197–198.

²⁴³ Klager, *Fair and Equitable Treatment in International Investment Law* (2013), at 130.

²⁴⁴ Burke, *supra* note 242, at 250–251.

including contractual ones in the context of bilateral inter-state benefit sharing and of intra-state benefit sharing. Thus, it may be necessary to rely on legal theory to further investigate this tenet of the proposed conceptualization. Building upon Roland Klager's insightful interpretation²⁴⁵ of Thomas Franck's seminal work on equity in international law,²⁴⁶ it can be argued that the use of the two expressions 'fair and equitable' serves to make explicit both procedural dimensions of justice (fairness) that determine the legitimacy of certain courses of action as well as the substantive dimensions of justice (equity).²⁴⁷ And while these are inextricably linked notions, they also point to an inherent tension: fairness supports stability within the legal system (predictable and clear procedures), whereas equity tends towards change (recognition or enhanced realization of rights and the (re-)allocation of power over resources).²⁴⁸

This tension can only be resolved through a 'fairness discourse' – a negotiation 'premised on the moderate scarcity of the world's resources and existence of a global community sharing some basic perceptions of what is unconditionally unfair' and that at the very least allows for 'meaningful scrutiny of whether or not a certain conduct is ultimately fair'.²⁴⁹ Within this discourse, two substantive conditions apply for determining what would be unconditionally unfair. First, a no-trumping condition, whereby no participant can make claims that automatically prevail over the claims made by other participants.²⁵⁰ And this condition notably applies also to claims based on national sovereignty, thereby overriding presumptions in favour of the states.²⁵¹ Second, a maximum condition, whereby inequalities in the substantive outcome of the discourse (thus, the sharing of benefits) are only justifiable if they provide advantages to all participants.²⁵² In the words of Klager, therefore, the use of the expression 'fair and equitable' is 'an invitation by international law-makers to proceed by way of a fairness discourse based on a Socratic method'.²⁵³ This argument resonates with the earlier finding that 'sharing' conveys the idea of a concerted and dialogic process aimed at reaching consensus.

It should be further emphasized that similarly to other equitable principles, fair and equitable benefit sharing is open-textured and evolutionary.²⁵⁴ As such, while it does not open the door to subjective notions of justice,²⁵⁵ it may be filled with content by establishing a linkage with different international legal sub-systems (through

²⁴⁵ Klager, *supra* note 243, at 141–152.

²⁴⁶ Franck, *Fairness in International Law and Institutions* (1995).

²⁴⁷ Klager, *supra* note 243, at 141.

²⁴⁸ *Ibid.*, at 121, 123, 130.

²⁴⁹ *Ibid.*, at 144.

²⁵⁰ *Ibid.*, at 163.

²⁵¹ Burke, *supra* note 242, at 250.

²⁵² Klager, *supra* note 243, at 145.

²⁵³ *Ibid.*, at 146.

²⁵⁴ *United States – Import Prohibition on Certain Shrimp and Shrimp Products – Report of the Appellate Body*, 6 November 1998, WT/DS58/AB/R, para. 130. Klager, *supra* note 243, at 109; McLachlan, *supra* note 33, at 302, 312.

²⁵⁵ It is not an expression of equity as decisions to be taken *ex aequo et bono*. Statute of the International Court of Justice 1945, 1 UNTS 993, Art. 38(2).

systemic integration²⁵⁶ or mutually supportive law-making).²⁵⁷ In this connection, it is instructive to consider the evolution of the similarly worded notion of fair and equitable treatment in international investment law,²⁵⁸ for which the meaning of ‘fair and equitable’ was – similarly to benefit sharing – not clarified in the relevant treaties. International adjudication has instead fleshed out fair and equitable treatment by relying on international human rights law notions such as procedural fairness, non-discrimination, and proportionality.²⁵⁹ The incipient cross-fertilization between international biodiversity and human rights law in relation to benefit sharing may, along similar lines, be part of a ‘global discursive practice of mutual learning’²⁶⁰ with regard to equity and fairness that has so far elicited little attention across different areas of international law and legal scholarship.

4 Research Agenda

The present analysis has provided a tool for a more systematic study of the emergence and evolution of fair and equitable benefit sharing in different areas of international law. Taking treaty law as a basis, it has delineated a concept that could facilitate research across a variety of international and transnational legal materials, while allowing for the appreciation of differences in the context of varying logics of different areas of international law. Fair and equitable benefit sharing has thus been conceptualized as the concerted and dialogic process aimed at building partnerships in identifying and allocating economic, socio-cultural and environmental benefits among state and non-state actors, with an emphasis on the vulnerable. Even in the context of bilateral exchanges, fair and equitable benefit sharing encompasses multiple streams of benefits of a local and global relevance, as it aims to benefit a wider group than those actively or directly engaged in bioprospecting, natural resource management, environmental protection, or use of knowledge where a heightened and cosmopolitan form of cooperation is sought.

As a springboard for future research, this concept could suggest the need to revisit questions about the functions of equity in international law. In particular, it provides a relatively untested ground to better understand the interactions between intra-generational equity – a relatively recent and still unsettled concept in international law²⁶¹ – and inter-generational equity.²⁶² It also feeds an original reflection within the

²⁵⁶ *North Sea Continental Shelf Cases*, Judgment, 20 February 1969, ICJ Reports 3, para. 88; Wolfrum, ‘General International Law (Principles, Rules and Standards)’, in Wolfrum, *supra* note 20, 344, para. 63; Thirlway, *The Sources of International Law* (2014), at 106.

²⁵⁷ Pavoni, ‘Mutual Supportiveness as a Principle of Interpretation and Law-Making: A Watershed for the WTO-and-Competing-Regimes Debate?’, 21 *EJIL* (2010) 649.

²⁵⁸ The suggestion to draw on the evolution of fair and equitable treatment to better understand fair and equitable benefit sharing was put forward by Francioni, ‘International Law for Biotechnology: Basic Principles’, in F. Francioni and T. Scovazzi (eds), *Biotechnology and International Law* (2006) 3, at 24.

²⁵⁹ Dupuy and Viñuales, ‘Human Rights and Investment Disciplines: Integration in Progress’, in M. Bungenberg *et al.* (eds), *International Investment Law: A Handbook* (2015) 1739.

²⁶⁰ Pentassuglia, *supra* note 168, at 201.

²⁶¹ Birnie, Boyle and Redgwell, *supra* note 51, at 123.

²⁶² Some discussion can be found in ISA, *supra* note 18, para. 5; K. Baslar, *The Concept of the Common Heritage of Mankind in International Law* (1998), at 100; Murillo, ‘Common Concern of Humankind and Its

well-established debate on human rights²⁶³ and the environment.²⁶⁴ The opportunities for cross-compliance that synergize the normative detail of international biodiversity law and the justiciability of international human rights are still to be critically assessed. As are the tensions between different premises and interpretative approaches in these two areas of law, including in light of perceived 'unrealistic expectations regarding the conservationist behavior of indigenous peoples [that] may have detrimental consequences for the recognition and respect of their rights'.²⁶⁵ In addition, as clearly demonstrated by the debate on IPRs, international economic law may provide opportunities and challenges to the realization of fair and equitable benefit sharing both from an environmental and human rights perspective.²⁶⁶ In particular, the growing relevance of fair and equitable benefit sharing to natural resource use, including in relation to the responsibility of businesses to respect human rights, underscores the need to fully investigate opportunities and tensions with international investment law.²⁶⁷

Finally, the proposed concept opens up for investigating the status of benefit sharing in general international law. Based on its treaty formulations, it has been argued that in certain sectors it has developed into a customary norm.²⁶⁸ However, across sectoral regimes, it is to be clarified whether, particularly because of its flexibility, fair and equitable benefit sharing is emerging as a general principle of international law that may be derived from converging international – rather than national – legal developments.²⁶⁹ Indeed, if it is evolving into a principle that may affect the exercise of states' discretionary powers in relation to the development, interpretation, and application of international law in the absence of an applicable treaty basis,²⁷⁰ the technical and practical questions raised by the present conceptualization should be addressed in earnest.

Implications in International Environmental Law', 5 *Macquarie Journal of International and Comparative Environmental Law* (2008) 133, at 142.

²⁶³ E.g., Francioni, 'International Human Rights in an Environmental Horizon', 21 *EJIL* (2010) 41; D. K. Anton and D. Shelton, *Environmental Protection and Human Rights* (2012); Boyle, 'Human Rights and the Environment: Where Next?', 23 *EJIL* (2012) 613.

²⁶⁴ The UN Independent Expert on Environment and Human Rights briefly pointed to states' duty to ensure benefit sharing from extractive activities in indigenous peoples' land and territories. UN Independent Expert on Environment and Human Rights, Preliminary Report on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, UN Doc. A/HRC/22/43 (2012), para. 41; UN Independent Expert on Environment and Human Rights, Mapping Report, UN Doc. A/HRC/25/53 (2013), para. 78. He also drew attention to benefit sharing in the context of the right to science. *Ibid.*, preliminary report, para. 21.

²⁶⁵ Desmet, *supra* note 201, at 41.

²⁶⁶ E.g., Helfer, 'Toward a Human Rights Framework for Intellectual Property', 40 *University of California Davis Law Review* (2007) 971.

²⁶⁷ Benefit sharing and investment have, for the time being, only been researched in the context of bioprospecting. J. Viñuales, *Foreign Investment and the Environment in International Law* (2012), chapter 8.

²⁶⁸ With regard to mining in the Area, see Harrison, *supra* note 107, at 7–9; with regard to bioprospecting, see Pavoni, 'Biodiversity and Biotechnology: Consolidation and Strains in the Emerging International Legal Regimes', in Francioni and Scovazzi, *supra* note 258, 29.

²⁶⁹ Wolfrum, 'General International Law', *supra* note 256, paras 33–36, who calls for a comparison of relevant international materials to that end.

²⁷⁰ Boyle and Chinkin, *supra* note 74, at 222–225.