

The need for an international legal concept of fair and equitable benefit-sharing

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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 But, under the radar, a 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 both monetary and non-monetary ones, such as revenue, information,

¹ Such an "international regime" has been identified as comprising: Convention on Biological Diversity (CBD), the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), and the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization (CBD Decision X/1 (2010), preambular para 6). Specialist legal scholarship is abundant: eg, EC 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 *EJIL* (2013) 1205.

² Eg Inter-American Court of Human Rights, *Case of the Saramaka People v. Suriname* (judgment on preliminary objections, merits, reparations and costs), 28 November 2007, para 138; 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 http://www.benelex.ed.ac.uk/mind_maps.

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

⁴ Eg 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 Eg CBD Decision V/25 Biodiversity and tourism (2000), paras 4(b) and (d).

⁶ Eg, UNCLOS arts. 82.4 and 140.2; and FAO, 2012 Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT), Article 8.6.

⁷ Eg 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" (2010) UN Doc A/HRC/13/33/Add.2, para 33.

⁸ Eg African Commission on Human and Peoples' Rights, *Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v. Kenya*, Comm. no 276/2003 (25 November 2009) para 274.

⁹ Eg 2012 UN-REDD Programme Social and Environmental Principles and Criteria, criterion 12; 2013 Adaptation Fund Environmental and Social Policy, para 13.

¹⁰ Universal Declaration on Human Rights, General Assembly Resolution 217 A (III) of 1948, Art. 27(1); CBD Article 8(j); Nagoya Protocol Articles 5(5) and 8(a).

scientific and commercial cooperation, joint management of natural resources, and technical support.

Both from a policy- 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 safeguard¹⁵ or a mechanism.¹⁶ But, there is no instance in which it has been unequivocally understood,¹⁷ fully developed¹⁸ or become 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 relationship is 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, 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

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

¹² CBD Article 1; ITPGR Article 1; Nagoya Protocol Article 1.

¹³ CBD Article 15(7) and 8(j); Nagoya Protocol Article 5.

¹⁴ ILO Convention No 169, Article 15(2); ITPGR, Article 9.

¹⁵ *Saramaka* (n 2) para 129; *Endorois* (n 8) para 227; Rapporteur on Indigenous Peoples' Rights, Study on extractive industries and indigenous peoples (2013) UN Doc A/HRC/24/41, para 52.

¹⁶ UNCLOS, Article 140; ITPGR Article 10; Nagoya Protocol Article 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 Eg 'Towards the development of a regulatory framework for polymetallic nodule exploitation in the Area' (2013) UN Doc ISBA/19/C/5.

¹⁹ An intersessional process is currently underway on enhancing the functioning of the ITPGR Multilateral System: ITPGR Resolution 2/2013.

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

²¹ Morgera and Tsioumani, 'The Evolution of Benefit-Sharing: Linking Biodiversity and Communities' Livihoods' 19 *RECIEL* (2010) 150.

²² International Finance Corporation (IFC), Performance Standard 7 (2012), paras. 18-20; FAO, IFAD, UNCTAD and the World Bank, Principles for Responsible Agricultural Investment that Respects Rights, Livelihoods and Resources (PRAI), 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 People' Rights (2010) UN Doc A/HRC/15/37, paras 73-75.

rights.²³ Finally, benefit-sharing applies to relations within communities (intra-community),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 inter-State and intra-State dimensions of benefit-sharing, as well as in the intra-community (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 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 'have distinct normative and regulatory implications.'²⁷ As a frame, benefit-sharing holds the promise to facilitate agreement upon specific forms of cooperation, as 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 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 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 skeptical and legally robust perspective.

²³ UNHRC, 'Protect, respect and remedy, a Framework for Business and Human Rights' (2008) UN Doc A/HRC/8/5, endorsed by A/HRC/RES/8/7 (2008); UNHRC, 'Guiding principles on business and human rights: implementing the United Nations "Protect, Respect and Remedy" Framework' (2011) UN Doc A/HRC/17/31, endorsed by Resolution A/HRC/RES/17/4 (2011).

²⁴ This is *intra-community* benefit-sharing: eg PRAI, principle 6; Committee on Food Security, Principles for Responsible Investment in Agriculture and Food Systems (2014), para. 23, iv.

²⁵ Eg Nagoya Protocol Article 12(1).

²⁶ Parks and Morgera, 'Understanding the Normative Diffusion of Benefit-sharing: An Interdisciplinary Approach' forthcoming in *Global Environmental Politics*.

²⁷ Nollkaemper, 'Framing Elephant Extinction' (2014) 3 *ESIL 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 Eg Wynberg and Hauck, 'People, Power, and the Coast: A Conceptual Framework for Understanding and Implementing Benefit Sharing' 19 *Ecology and Society* (2014) 27; and 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.

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 contribute to research in other areas such as international health³¹ and economic³² law. 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 But it is not intended to provide a holistic or exhaustive notion of benefit-sharing: rather it will allow to appreciate variations 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

No legal history of benefit-sharing in international law has been drawn yet. 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

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 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 (eg, Resolution 63/230 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 Resolution 29/3281 (1974), Art. 10.

³³ McLachlan, 'The Principle of Systemic Integration and Article 31(3)(c) of the Vienna Convention' 54 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 General Assembly Resolution 217 A (III), 1948 Article 27.1

practice.³⁶ Instead, benefit-sharing appears to have found more fertile normative ground in connection with natural 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 development,⁴⁰ 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 regards to the Moon⁴² and deep sea-bed minerals,⁴³ to prevent 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 But 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

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 Special Rapporteur in the field of cultural rights: the right to enjoy the benefits of scientific progress and its applications (2012) UN Doc A/HRC/20/26; and M Mancisidor, 'Is There such a Thing as a Human Right to Science in International Law?' ESIL Reflections (7 April 2015).

³⁷ UN General Assembly Resolutions 3201 of 1974 'Declaration on the Establishment of a New International Economic Order' and 3202 of 1974 'Programme of Action for the Establishment of a New International Economic Order'.

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, art. 2.3.

⁴¹ ILO Convention No 169, Art. 15.2.

⁴² Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, art 11(7).

⁴³ UNCLOS art.140.

⁴⁴ Francioni, 'Equity' in Wolfrum (n 20), para 21.

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

⁴⁶ Salmon (n 38), at 49.

aimed at solidarity and cooperation to the benefit of the least favored countries.⁴⁷ And it has been enriched by the recognition of cultural diversity among and within States, resulting in 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 (ITPGR) and the Protocol on Access and Benefit-Sharing to the CBD (Nagoya Protocol).

The more recent spread of benefit-sharing in the areas of water, land and climate change has in turn been attributed⁵² to the discourse on ecosystem services - the multiple ways in which ecosystems contribute to human well-being.⁵³ Having gained global scientific and political traction in the lead up to the 2005 UN Summit,⁵⁴ this discourse has served to emphasize the largely unaccounted *merit* of ecosystem service providers⁵⁵ and the devastating impacts of ecosystems' decline on the *vulnerable*. The discourse clearly starts from an economic perspective, to develop the argument that an economic valuation of ecosystems serves to prevent more easily monetized objectives from taking priority in decision-making⁵⁶ and that ecosystem stewards should be rewarded (including through payments for ecosystem services) for contributing to human wellbeing. While ecosystem stewards may often be vulnerable, being the most exposed to unsustainable and inequitable environmental management decisions and practices,⁵⁷ this is not always the case and the notion of ecosystem services does not necessarily aim to protect the vulnerable.⁵⁸ Legal scholars has therefore focused on the moral and cultural acceptability, and the social and environmental effectiveness, of pricing and marketing ecosystem services,⁵⁹ with the limitations of purely

⁴⁷ Eg 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 258-9.

⁴⁸ Tourme-Jouannet (n 45), at 121 and 149.

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

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

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

⁵² Eg, 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.

⁵³ Millennium Ecosystem Assessment: www.millenniumassessment.org/en/index.aspx.

⁵⁴ Morgera, 'The 2005 UN World Summit and the Environment: The Proverbial Half-Full Glass' 15 *Italian Yearbook of International Law* (2006) 53.

⁵⁵ Sikor et al, 'Toward an Empirical Analysis of Justice in Ecosystem Governance' (2014) *Conservation Letters* doi: 10.1111/conl.12142, at 4.

⁵⁶ The Economics of Ecosystems and Biodiversity (TEEB), *Challenges and Responses* (2014).

⁵⁷ UN General Assembly Strategic Framework for the period 2012-2013, UN Doc A/65/6/Rev.1 (2011), para 11(24)(b) and for the period 2014-2015, UN Doc A/67/6 (prog 11) (2012), para 11(16).

⁵⁸ See generally Sikor (n 39).

⁵⁹ Eg 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.

monetary valuation being openly acknowledged in the discourse.⁶⁰ 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'⁶¹ or a preference for solutions based on financial transactions that may ignore or even reinforce injustices.⁶² Other questions, however, related 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-being⁶³ as the objective of international economic and social cooperation under the UN Charter,⁶⁴ of permanent sovereignty over natural resources,⁶⁵ and of the human right to a decent standard of living.⁶⁶ 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 perceived limits.⁶⁷ This approach appears particularly fitting as iterative, reflexive and decentralized approaches are increasingly relied upon in the further development and implementation of international law.⁶⁸ 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)framing⁶⁹ legal phenomena related to benefit-sharing, with a view to understanding the 'capacity of law, drawing upon deep historical resources, to recast the ways in which it addresses some of the problems of an interconnected world.'⁷⁰ As with other enquiries into global law, therefore, the conceptualization of benefit-sharing finds itself 'somewhere between settled doctrine and an aspirational approach.'⁷¹ 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

⁶⁰ TEEB, *Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations* (2010), www.teebweb.org/, at 11-12; TEEB (n 56), at 9.

⁶¹ Hayden, 'Benefit-sharing: experiments in governance'
<http://programs.ssrc.org/ccit/publications/hayden-benefitsharing.doc>

⁶² Martin et al (n 29), at 84.

⁶³ ICJ Aegean Sea Continental Shelf case, judgment of 19 December 1978, paras 45-49.

⁶⁴ See generally on the evolving interpretation of 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 and 1603, at 1605-1610.

⁶⁵ UNGA Resolution 1803 (XVII) of 1962, para. 1.

⁶⁶ Universal Declaration on Human Rights, Article 25(1).

⁶⁷ N. Walker, *The Intimations of Global Law* (2015), at 11-12, 14, 112-113 and 152.

⁶⁸ *Ibid*, at 108.

⁶⁹ *Ibid*, at 25-26, 143 and 112.

⁷⁰ *Ibid*, at 110.

⁷¹ *Ibid*, at 18 and 21.

and politics in that connection and of possible bias in this type of research, such as the assumption that norms that diffuse are desirable or innovative.⁷²

Besides taking a global law approach, the other premise of this paper 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 Convention on Biological Diversity has contributed to significant normative development of benefit-sharing, gradually building consensus⁷³ among 196 Parties⁷⁴ on both its inter- and intra-State dimensions across different triggering activities (bioprospecting, use of knowledge, and natural resource management). 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. This may thus explain the occasional, explicit reliance by international human rights bodies on the normative development of benefit-sharing under the CBD,⁷⁵ and similar proposals also in the context of the further development of the law of the sea.⁷⁶

In that connection, the worth of the CBD to provide relevant and applicable norms for the interpretation of other international treaties through systemic integration⁷⁷ is often underestimated. The CBD's membership is virtually global and its subject matter is remarkably wide: it covers the variability of life on earth,⁷⁸ all human activities that may affect biodiversity conservation as a common concern of humankind,⁷⁹ and arguably even non-living resources that form part of ecosystems.⁸⁰ 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)⁸¹ as subsequent practice establishing agreement on the interpretation⁸² of relevant CBD rules on benefit-

⁷² Parks and Morgera (n 26).

⁷³ On the law-making power of consensus see A. Boyle and C. Chinkin, *The Making of International Law* (2007), 260.

⁷⁴ The whole international community is party to the CBD, with the notable exception of the United States.

⁷⁵ Eg, reliance on Article 8(j) in 'Review of Developments pertaining to the Promotion and Protection of Human Rights and Fundamental Freedoms of Indigenous Peoples' (2001) UN Doc E/CN.4/Sub.2/AC.4/2001/2, para 15; reliance on CBD guidelines on socio-cultural and environmental impact assessments (Akwé: Kon Voluntary Guidelines, CBD Decision VII/16C (2004), Annex) as a pre-condition for benefit-sharing by the Inter-American Court of Human Rights, Inter-American Court of Human Rights, *Case of the Saramaka People v. Suriname (Interpretation of the Judgment on Preliminary Objections, Merits, Reparations and Costs)*, Judgment of 12 August 2008, para. 41 and fn 23; by the Special Rapporteur on the Rights of Indigenous Peoples, A/HRC/15/37 (n 22), para. 73; and the Expert Mechanism on the Rights of Indigenous Peoples (2010) UN Doc A/HRC/15/35, para 37, which also referred to the CBD work programme on protected areas (CBD Decision VII/28, 2004).

⁷⁶ Co-Chairs' summary of discussions at the Working Group on marine biodiversity in areas beyond national jurisdiction (2014) UN Doc A/69/177, para 54.

⁷⁷ VCLC art. 31(3)(c).

⁷⁸ See the definition of biological diversity under CBD Article 2.

⁷⁹ CBD preambular para 3.

⁸⁰ See the definition of ecosystems under CBD Article 2.

⁸¹ Brunne, 'COP-ing with Consent: Law-Making under Multilateral Environmental Agreements' 15 LJIL (2002) 1.

⁸² VCLT, 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 A/CN.4/671 (2014).

sharing.⁸³ Notwithstanding the continued reluctance to use explicit human rights language,⁸⁴ 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.⁸⁵ 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,⁸⁶ which explains why the status and broad implications of relevant and applicable CBD rules on benefit-sharing have not been appreciated.

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 ILC Indigenous and Tribal Peoples Convention No 169, the CBD and its Nagoya Protocol on Access to Genetic Resources and Benefit-sharing, and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR). 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- and intra-State benefit-sharing with regards 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.

3.1 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. 196 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.⁸⁷ In fact, the Inter-American Court of Human Rights⁸⁸ and former UN Special Rapporteur of Indigenous Peoples' Rights James Anaya⁸⁹ have emphasized that "benefit-sharing," as encapsulated in the ILO Convention, refers to an inherent

⁸³ Morgera and Tsioumani (n 21).

⁸⁴ Morgera, "Against All Odds: The Contribution of the Convention on Biological Diversity to International Human Rights Law" in Alland et al (eds), *Unity and Diversity of International Law. Essays in Honour of Professor Pierre-Marie Dupuy* (2014) 983.

⁸⁵ See n 75 above.

⁸⁶ Morgera and Tsioumani, 'Yesterday, Today and Tomorrow: Looking Afresh at the Convention on Biological Diversity' 21 *YbIEL* (2011) 3, at 23-25.

⁸⁷ Eg, Observation (CEACR) - adopted 2009, published 99th ILC session (2010), para 11.

⁸⁸ *Saramaka* (n 2), para 138.

⁸⁹ A/HRC/15/37 (n 22), paras. 67 and 76-78.

component of indigenous peoples' rights to land and natural resources that is implicit in the Inter-American Convention on Human Rights and the UN Declaration on the Rights of Indigenous Peoples.

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.⁹⁰ The ways in which the action of "sharing" is spelt out in 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 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:⁹¹ it entails a long-term process, rather than a one-off exercise, of good-faith engagement among different actors that lays the foundation for a *partnership* among them.⁹² In the inter-State context, this arguably refers to the idea of a global partnership enshrined in the Rio Declaration on Environment and Development,⁹³ both in terms of a 'new level of cooperation' between developed and developing States,⁹⁴ and also a form of cosmopolitan cooperation,⁹⁵ which includes (controversial) public-private partnerships but extends also to other cooperative relations between States and civil society that are inspired by a vision of public trusteeship.⁹⁶ With regard to the intra-State dimension of benefit-sharing, partnership specifically refers to an approach to accommodate State sovereignty over natural sovereignty and indigenous peoples' self-determination.⁹⁷

The verb sharing also implies that not every actor may play an active part in a certain activity that triggers benefit-sharing, but everyone should participate in some of the benefits derived from it.⁹⁸ This is probably the least studied aspect in all 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-

⁹⁰ Mancisidor (n 36).

⁹¹ Special Rapporteur on the Rights of Indigenous Peoples, Report to the Human Rights Council (2009) UN Doc A/HRC/12/34, para. 53; A/HRC/24/41 (n 15), para 88.

⁹² On the intra-State dimension of benefit-sharing, see, eg, A/HRC/24/41 (n 15), paras 75-77 and 92; and 'Review of Developments pertaining to the Promotion and Protection of Human Rights and Fundamental Freedoms of Indigenous Peoples' (2001) UN Doc E/CN.4/Sub.2/AC.4/2001/2, para 19. On the inter-State dimension, see, eg, Report of the high-level task force on the implementation of the right to development on its second meeting (2005) UN Doc. E/CN.4/2005/WG.18/TF/3, para 82.

⁹³ Rio Declaration on Environment and Development, preamble and principles 7 and 27.

⁹⁴ Dupuy, 'The Philosophy of the Rio Declaration' in J. Vinuales (ed), *The Rio Declaration on Environment and Development: A Commentary* (2015) 65, at 69 and 71. See generally R. Wolfrum and C. Kojima (eds), *Solidarity: A Structural Principle of International Law* (2010).

⁹⁵ Dupuy (n 94) at 72; and Francioni 'The Preamble of the Rio Declaration' in Vinuales (n 94) 85, at 89.

⁹⁶ Sand, 'Cooperation in a Spirit of Global Partnership' in Vinuales (n 94) 617, who refers as a concrete example to the ITPGR.

⁹⁷ 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; A/HRC/15/37 (n 22), para 53.

⁹⁸ Schabas (n 36), at 276, referring to the travaux préparatoires of Article 27(1) of the Universal Declaration on Human Rights.

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 objective,⁹⁹ 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 ITPGR 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, according to internationally-agreed upon eligibility and selection criteria.¹⁰⁰ In other regimes, these obligations remain much more indeterminate.¹⁰¹

3.1.1 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 specialized areas of bioprospecting, occurs through multilateral decision-making within an international organization leading to the determination of standard contractual clauses. This is the case, under the law of the sea, of how benefits are shared from the minerals in the deep sea-bed:¹⁰² the development of precise rules and procedures is left to the International Seabed Authority (ISA).¹⁰³ 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.¹⁰⁴ Under the ITPGR, 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, potato and maize).¹⁰⁵ In these cases,¹⁰⁶ the multilateral decision-making rules applicable determine how State Parties arrive through dialogue to a concerted determination of the sharing modalities.

⁹⁹ CBD Article 1, ITPRG Article 1, and Nagoya Protocol Article 1.

¹⁰⁰ ITPGR Article 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).

¹⁰¹ Nagoya Protocol Article 8(b).

¹⁰² UNCLOS Articles 136-141.

¹⁰³ UNCLOS Article 160 (2)(f)(i) and (g).

¹⁰⁴ 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' (SSRN 2014), discussing benefit-sharing obligations included in the regulations for prospecting and exploration of seabed mineral resources.

¹⁰⁵ ITPGRFA Governing Body Resolution 2/2006.

¹⁰⁶ But also in the WHO Pandemic Influenza Preparedness (PIP) Framework for the sharing of influenza viruses and access to vaccines and other benefits (effective 24 May 2011) WHO Doc WHA64.5.

As opposed to the circumscribed areas of deep-sea bed minerals and plant genetic resources for food and agriculture, bilateral¹⁰⁷ sharing of benefits is envisaged under the Convention on Biological Diversity¹⁰⁸ and its Nagoya Protocol¹⁰⁹ as a residual regime with regard to transboundary bio-prospecting.¹¹⁰ In this case, benefit-sharing is operationalized through ad hoc private-law contracts ('mutually agreed terms'),¹¹¹ instead of standard agreements decided by an international decision-making body. These treaties thus leave national rules to govern these contracts, without providing specific substantive criteria in that regard¹¹² and without creating an international mechanism to oversee how benefits are shared in particular cases.¹¹³ While contractual negotiations may in principle also be seen as a consensus-building, dialogic way to share benefits, leaving partnership building to contractual freedom raises concerns in the face of the well-documented, unequal bargaining powers at stake.¹¹⁴ 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, including in dialogue with non-State actors,¹¹⁵ but to a lesser extent than in multilateral systems.

3.1.2 Intra-State benefit-sharing

With the exception of the Nagoya Protocol that refers to mutually agreed terms,¹¹⁶ international treaties on intra-State benefit-sharing do not spell out in any comparable way to inter-State benefit-sharing 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'¹¹⁷ and 'can take a variety of forms.'¹¹⁸

Both in the context of biodiversity and human rights, a (domestic) public law approach could be used to share benefits, through direct payments or the

¹⁰⁷ Although note the possibility for a multilateral benefit-sharing mechanism to be established under Nagoya Protocol Article 10: Morgera, Tsioumani and Buck (n 17), at 197-208.

¹⁰⁸ CBD Article 15(7). See also Agenda 21, paras 15(4)(d), 15(4)(j) and 16(7)(a).

¹⁰⁹ The Nagoya Protocol Article 5.

¹¹⁰ Morgera, Tsioumani and Buck (n 17) at 85.

¹¹¹ As is explicitly foreseen in CBD Article 15(7), last sentence, and the last sentence of Nagoya Protocol Article 5(1), where reference is made to 'mutually agreed terms.'

¹¹² Nagoya Protocol Article 5(1-2 and 5) and 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.

¹¹³ Morgera, Tsioumani and Buck (n 17) at 282.

¹¹⁴ Ibid, at 7.

¹¹⁵ Nagoya Protocol Art. 30 and Decision NP-1/4 (2012); as well as Nagoya Protocol Articles 19(2) and 20(2).

¹¹⁶ Nagoya Protocol Arts. 5(2) and 5(5). Contrast with CBD Article 8(j) and ILO Convention No 169, Art 15(2).

¹¹⁷ ILO, 'Monitoring Indigenous and Tribal Peoples' rights through ILO Conventions: A Compilation of ILO Supervisory Bodies' Comments 2009-2010', Observation (Norway), CEARC 2009/80th session, at 95.

¹¹⁸ ILO, *Indigenous and Tribal Peoples' Rights in Practice: A Guide to ILO Convention No 169* (2009), at 107-108.

establishment of trust funds by the government,¹¹⁹ as well as the legal recognition of communities' customary practices, participatory planning and/or shared or delegated natural resource management.¹²⁰ 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.¹²¹ When the private sector is involved, however, a private-law contractual approach seems needed for setting up joint ventures and licenses with preferential conditions with communities,¹²² although it cannot be excluded that governments could decide to set standard contracts in that regard.

As all these sharing modalities could be put in place in a top-down fashion with disruptive or divisive effects on beneficiary communities,¹²³ both international human rights and biodiversity instruments point to the need for the sharing of benefits to be culturally appropriate and endogenously identified.¹²⁴ 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 spelt out 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 give them a share in profits (for instance, through a minority ownership interest).¹²⁵

3.2 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-

¹¹⁹ CBD Secretariat, 'How tasks 7, 10 and 12 could best contribute to work under the Convention and to the Nagoya Protocol' (2012) UN Doc UNEP/CBD/WG8J/8/4/Rev.2, para 23; *Saramaka* (n 2) fn 191, para 201.

¹²⁰ Eg Work programme on protected areas (n 75), paras 2(1)(3)-2(1)(5); Addis Ababa Principles and Guidelines on the Sustainable Use of Biodiversity (CBD Decision VII/12 (2004), Annex II, operational guidelines to Principle 4; CBD expanded work programme on forest biodiversity (CBD Decision VI/22 (2002) paras 13 and 31.

¹²¹ Akwe: Kon Guidelines (n 75), para 40.

¹²² CBD Guidelines on Tourism (n 5), para 23; Addis Ababa Principles and Guidelines (n 120), operational guidelines to principle 12.

¹²³ Inter-American Court of Human Rights, *Kichwa Indigenous Community of Sarayaku v Ecuador* (Merits and reparations, Judgment of 27 June 2012) para 194; or *Endorois* (n 8), para 274; and CBD Guidelines on Tourism (n 5), para II(27); and PRAI, Principle 12.

¹²⁴ *Saramaka* (n 79), paras 25-2; refinement and elaboration of the ecosystem approach, CBD Decision VII/11 (2004), Annex, para 1(8) and 2(1); and Tkarihwaï:ri Code of Ethical Conduct on Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities, CBD Decision X/42 (2010), Annex, para 14.

¹²⁵ A/HRC/15/37 (n 22), para. 46 and A/HRC/24/41 (n 15), para, 75.

and inter-State benefit-sharing.¹²⁶ 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 these cases, a menu of benefits to be shared is offered, the nature of which is invariably *both* economic and non-economic. This allows for taking into account, through the concerted, dialogic process of sharing, beneficiaries' needs, values and priorities, and possibly 'different understandings of justice,'¹²⁷ with a view to selecting the combination of benefits that lays the foundation for partnership. 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.¹²⁸ 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.

3.2.1 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 International Seabed Authority is still working out how to share monetary benefits from mining in the Area, as expressly provided for by UNCLOS,¹²⁹ it has already regulated the sharing of non-monetary benefits such as training, capacity building, scientific information and cooperation,¹³⁰ as implicit in the common heritage concept.¹³¹ In addition, the Authority has created an endowment fund for marine scientific research in the Area,¹³² which was initially filled with the balance of the application fees paid by pioneer investors and is currently dependent on donations.¹³³ The possibility to choose among monetary and non-monetary benefits thus has the advantage of allowing the sharing of more immediately available (generally non-monetary) benefits, while monetary benefits are being accrued. 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 ITPGR, a benefit-sharing fund is at present filled with donations in order to contribute to capacity building and technology transfer,¹³⁴ as monetary benefits have been defined (as percentages of gross sales of

¹²⁶ Nagoya Protocol Article 5(4) and Annex. The distinction between monetary and non-monetary benefits has emerged in the CBD 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 (n 31) 21, at 23).

¹²⁷ 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.

¹²⁸ Report on the Right to Science (n 36) para 22.

¹²⁹ UNCLOS Article 140.

¹³⁰ Harrison (n 104).

¹³¹ Wolfrum, 'Common Heritage of Mankind' in Wolfrum (n 20), paras 18-19); Lodge, 'The Common Heritage of Mankind' 27 *The International Journal of Marine and Coastal Law* (2012) 733, at 740.

¹³² Resolution establishing an endowment fund for marine scientific research in the Area, ISBA/12/A/11 (2006).

¹³³ Harrison (n 104).

¹³⁴ 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' (SSRN, 2014) at 31-33.

commercialization of products) but not yet materialized.¹³⁵ On the other hand, however, the experience under the ITPGR - the most sophisticated international benefit-sharing mechanism - casts a shadow over the feasibility of monetary benefits 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 fees¹³⁶).

Significant other benefits have also been identified by the CBD as participation in biotechnological research and in the results of biotechnological research.¹³⁷ These were expanded upon in the Nagoya Protocol to include participation in product development and admittance to ex situ facilities and databases,¹³⁸ joint ventures with foreign researchers and joint ownership of relevant intellectual property rights (IPR).¹³⁹ While questions related to IPRs remain the most controversial and well-studied,¹⁴⁰ the trade-offs between different forms of non-monetary benefits have not been fully analyzed. 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.¹⁴¹ On the other hand, they may create dependency on external, ready-made solutions that may not fit particular circumstances, or may allow for the exertion of undue influence by donor countries.¹⁴² 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.¹⁴³ Under the ITPGR, access to plant genetic resources for food and agriculture through a multilateral system is considered a benefit in itself, as the exchange of these resources is indispensable for the continuation of agricultural research and food security.¹⁴⁴ 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 CBD Parties have rather emphasized that access is a pre-condition for sharing benefits.¹⁴⁵

¹³⁵ 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' (FAO, 2013).

¹³⁶ Nagoya Protocol Annex, 1(a-e).

¹³⁷ CBD Articles 1, 15(5) and 16 and 19.

¹³⁸ Nagoya Protocol Annex, 2(a-c) and (e).

¹³⁹ Nagoya Protocol Annex, 1(i) and (j).

¹⁴⁰ 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 (n 31) 185, at 200-205.

¹⁴¹ Eg Nagoya Protocol preambular recitals 5, 7 and 14.

¹⁴² Morgera, Tsioumani and Buck (n 17) at 313 and 331.

¹⁴³ Note, for instance, 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).

¹⁴⁴ ITPGR Art. 13.

¹⁴⁵ Morgera, Tsioumani and Buck (n 17) at 49-52.

3.2.2 Intra-State benefit-sharing

The types of benefits to be shared at the intra-State level have been mostly specified in international environmental law (ITPGR and the Nagoya Protocol with specific regard to genetic resources and traditional knowledge, and CBD COP decisions with regard to natural resource management). But both in the case of international environmental and human rights law, a menu of monetary and non-monetary benefits have been referred to, albeit with different emphasis: as a reward for ecosystem stewardship in international biodiversity law and as compensation in international human rights law. 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' wellbeing.¹⁴⁶

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 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 communities to continue to provide global benefits by preserving and protecting the *communal way of life* that develops and maintains their traditional knowledge and ecosystem stewardship.¹⁴⁷ Non-monetary benefits to be shared to this end comprise the legal recognition of community-based natural resource management,¹⁴⁸ and incorporation of traditional knowledge in environmental impact assessments¹⁴⁹ and in natural resource management planning¹⁵⁰ - all can be seen as ways for beneficiaries to be formally recognized as partners in resource management. Another key benefit specific to the agricultural sector is the continuation of traditional uses and exchanges of seeds,¹⁵¹ which is considered essential for farmers to continue to significantly contribute to global food security.¹⁵² 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: 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

¹⁴⁶ 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.

¹⁴⁷ UNEP/CBD/WG8J/8/4/Rev.2 (n 119), para 23.

¹⁴⁸ CBD expanded work programme on forest biodiversity (n 120), para 31 and programme element 1; Work programme on protected areas (n 75), paras 2(1)(3)-2(1)(5).

¹⁴⁹ Akwé: Kon Guidelines (n 75) para 56.

¹⁵⁰ Addis Ababa Principles (n 120), operational guidelines to Principle 4; CBD expanded work programme on forest biodiversity (n 120) para 13); Agenda 21, para 15(4)(g) and Johannesburg Plan of Implementation, para 44(j).

¹⁵¹ Nagoya Protocol art. 12(4); ITPGR Art 9(3).

¹⁵² See discussion in Tsioumani (n 134) at 36-37.

businesses.¹⁵³ 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.¹⁵⁴ Risks attached to different forms of benefits to be shared, however, have not been fully or systematically analyzed. 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 poaching.¹⁵⁵ Or communities may 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.¹⁵⁶

In regional human rights case law, benefit-sharing has been portrayed as a form of *compensation*¹⁵⁷ with an emphasis on monetary benefits. Under the ILO Convention, reference has been made to sharing the profits from oil-producing activities.¹⁵⁸ The African Commission has, along similar lines, called for profit-sharing from the creation of a game reserve and employment creation.¹⁵⁹ In the *Saramaka* case, the Inter-American Court ordered the creation of a community development fund, making reference to the 'suffering and distress that the members of the Saramaka people have endured as a result of the long and ongoing struggle for the legal recognition of their right to the territory they have traditionally used and occupied for centuries ... as well as their frustration with a domestic legal system.'¹⁶⁰ In this connection, the former UN Special Rapporteur Anaya tried to distinguish benefit-sharing and compensation, while recognizing their connection.¹⁶¹ On that and other bases, it can be argued that benefit-sharing adds to compensation for material and immaterial damage (including environmental damage affecting indigenous peoples' subsistence and spiritual connection with their territory)¹⁶² by making up for *broader, historical inequities* that have determined the situation in which the specific material and immaterial damage has arisen.¹⁶³ In addition, it can be also argued that benefits, as opposed to compensation that is expected to make up for lost control over resources and income-generation opportunities, combine instead *new* opportunities of income generation and *continued*, or possibly enhanced, control over the use of the lands and resources affected by the development.¹⁶⁴

¹⁵³ Ibid, para 40 and 46; Addis Ababa Principles and Guidelines (n 120) rationale to Principle 4; Guidelines on Tourism (n 5) paras 22-23 and 43); Bonn Guidelines (n 1) para 50.

¹⁵⁴ Akwé: Kon Voluntary Guidelines (n 75) para 46.

¹⁵⁵ Nollkaemper (n 27).

¹⁵⁶ Wynberg and Hauck (n 146), at 158.

¹⁵⁷ *Saramaka* (n 2), paras 138-140; *Endorois* (n 8), paras 298-299 and 295.

¹⁵⁸ Report of the Committee set up to Examine the Representation alleging non-observance by Ecuador of ILO Convention No. 169 (2001) ILO Doc GB.282/14/4, para 44(3).

¹⁵⁹ *Endorois* (n 8), para. 228 and recommendations.

¹⁶⁰ *Saramaka* (n 2), paras 200-201.

¹⁶¹ A/HRC/15/37 (n 22), paras 67, 89 and 91; A/HRC/24/41 (n 15), para 76.

¹⁶² M Orellana, 'Saramaka People v Suriname Judgment' (2008) 102 *AJIL* 841, at 845 and 847.

¹⁶³ A/HRC/24/41 (n 15), para 76). Other bodies have not elaborated on the point: UNPFII, Review of World Bank operational policies (2013) UN Doc E/C.19/2013/15, para 27; Ecuador (2001) ILO Doc GB.282/14/2, para 44(c)(3), and Bolivia (1999) ILO Doc. GB.272/8/1:GB.274/16/7, para 40.

¹⁶⁴ Rapporteur on Indigenous Peoples' Rights, 'Progress report on extractive industries' (2012) UN Doc A/HRC/21/47, paras. 68, 74 and 76; and A/HRC/24/41 (n 15), para, 75.

Both in international biodiversity law and in 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.¹⁶⁵ Empirical evidence, however, has shown that genuine shifts of rights and authority over natural resources to communities through benefit-sharing have not occurred.¹⁶⁶ In addition, concerns have been raised that benefit-sharing could be misused to 'renegotiate' communities' human rights or put a price-tag on them.¹⁶⁷ In effect, the legal and other guarantees that are necessary to prevent or minimize these risks have not yet been analyzed. 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.¹⁶⁸ More study is needed on the interactions between benefit-sharing and procedural rights (access to information, decision-making and justice)¹⁶⁹ and legal empowerment approaches.¹⁷⁰ 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.

3.3 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 bio-prospecting - are the most well-studied cases. But 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 common concern of mankind).¹⁷¹ With regards to intra-State benefit-sharing, benefit-sharing obligations have been triggered by almost any use of natural resources or any environmental protection measure that may negatively impact on international human rights of indigenous peoples and local communities,

¹⁶⁵ Empowerment was linked to benefit-sharing in the *Endorois* decision (n 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.

¹⁶⁶ 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 and 11.

¹⁶⁷ The concern has been raised by Orellana (n 162) at 847.

¹⁶⁸ N 15 above.

¹⁶⁹ Rio Declaration 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 (n 94), at 630-631.

¹⁷⁰ This is particularly the case of the "community protocols" for which an international obligation to support has been included in the Nagoya Protocol Art. 12(3)(a).

¹⁷¹ Birnie, Boyle and Redgwell (n 51), at 190 ff.

both under international biodiversity and human rights law, with little attention paid so far to possible cross-fertilization between the two. Finally, with regards to the production of knowledge, this has been preeminently 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.

3.3.1 Inter-State benefit-sharing

Originally, inter-State benefit-sharing was part of the common heritage regime. It was thus associated with natural resources that cannot be appropriated to the exclusive sovereignty of States, must be conserved and exploited for the benefit of mankind, without discrimination and for peaceful purposes, and 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,¹⁷² the uptake of benefit-sharing as a self-standing approach in the international regime on bioprospecting has proven that the concept is capable of adapting¹⁷³ to the legal specificities of genetic resources under the sovereignty of third countries (under the Nagoya Protocol) or held in trust by an international network of collections (under the ITPGR). Benefit-sharing has now come full circle: its normative development under the ITPGR and 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.¹⁷⁴

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 regards to the former, in the international law on transboundary watercourses,¹⁷⁵ benefit-sharing has been seen as an extension of the general principle of equitable and reasonable utilization, challenging inter-State cooperation as traditionally focused on purely quantitative allocations of water.¹⁷⁶ Accordingly, benefit-sharing leads to a consideration of more sophisticated forms of inter-State

¹⁷² Eg Shackelford, 'The Tragedy of the Common Heritage of Mankind' 28 *Stanford Environmental Law Journal* (2009) 109, at 128; and Noyes, 'The Common Heritage of Mankind: Past, Present and Future' 40 *Denver Journal of International Law and Policy* (2011-2012) 447, at 451 and 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* (2003) 409, at 417.

¹⁷³ In effect, UNCLOS already included other articulations of benefit-sharing related to resources outside of the common heritage regime: UNCLOS Article 82(1) and (4). It has also been argued that benefit-sharing is foreseen in the regulation of marine scientific research under UNCLOS: Salpin, 'The Law of the Sea: A before and an after Nagoya?' in Morgera, Buck, and Tsioumani (n 31), 149.

¹⁷⁴ In the context of the negotiating process launched by UN General Assembly Resolution 69/292 of 2015. See n 76 above.

¹⁷⁵ 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 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.

¹⁷⁶ 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.

cooperation that factor in non-water-related (economic, socio-cultural and broader environmental) benefits arising from the enhanced stewardship of a shared watercourse, that would normally be undertaken by an upstream State.¹⁷⁷ Water lawyers and practitioners are increasingly looking into this development, but have not fully investigated cross-fertilization with international biodiversity law in that regard. Interactions between inter- and intra-State benefit-sharing remain to be explored in consideration of communities' role in the conservation of inland water ecosystems and related traditional knowledge,¹⁷⁸ and so do possible synergies and tensions with the human right to water.

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'¹⁷⁹ and the long-standing efforts to clarify the controversial right to development.¹⁸⁰ It is also the case of recent efforts to conceptually clarify the human right to science with regard to technology transfer.¹⁸¹ Leaving aside the debate on the worth of solidarity human rights,¹⁸² 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. But 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.¹⁸³ It thus remains to be clarified whether relying on the concept of 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, international provisions on finance, technology and capacity-building or even to inject a different dynamic in ongoing negotiations such as those on climate change.¹⁸⁴

3.3.2 *Intra-State benefit-sharing*

¹⁷⁷ 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.

¹⁷⁸ 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.

¹⁷⁹ Report of the Independent Expert on Human Rights and International Solidarity to the General Assembly (2013) UN Doc A/68/176, para 27(d).

¹⁸⁰ 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 (2010) UN Doc A/HRC/15/WG.2/TF/2/Add.2, criteria 3(b)(i)-(ii).

¹⁸¹ UN Special Rapporteur in the field of cultural rights, Report on the Right to Enjoy the Benefits of Scientific Progress and its Applications (2012) UN Doc A/HRC/20/26, paras 65-69.

¹⁸² Alston, 'A Third Generation of Solidarity Rights: Progressive Development or Obfuscation of International Human Rights Law?' 29 *Netherlands International Law Review* (1982) 307.

¹⁸³ Eg, CBD technology transfer work programme, Decision VII/29 (2004) paras. 3.2.8 and 3.2.9.

¹⁸⁴ A. Savaresi, 'The Emergence of Benefit-sharing under the Climate Regime: A Preliminary Exploration and Research Agenda' (SSRN, 2015).

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 the 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 approach¹⁸⁵ that benefit-sharing has been developed as an incentive for the good management practices of indigenous and local communities, as well as of other stakeholders, that are responsible for the production and sustainable management of ecosystem functions.¹⁸⁶ This has provided the conceptual departure point for developing soft-law guidance on intra-State benefit-sharing both with regard to natural resource use¹⁸⁷ and with regard to conservation measures (protected areas¹⁸⁸ and climate change response measures).¹⁸⁹ 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.¹⁹⁰

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.¹⁹¹ This interpretation has been increasingly relied upon other human rights processes.¹⁹² Benefit-sharing has been invoked in relation to indigenous peoples' right to property of lands and natural resources,¹⁹³ culture and non-discrimination,¹⁹⁴ and their right to development,¹⁹⁵ also in the context of large-scale investments in farmland impacting on the right to food.¹⁹⁶ 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*’¹⁹⁷ to the

¹⁸⁵ Principles of the Ecosystem Approach, CBD Decision V/6 (2000), para 9.

¹⁸⁶ Ibid, Annex, Operational Guidance 2, para 9; CBD refinement and elaboration of the ecosystem approach (n 124), Annex, para 12.5.

¹⁸⁷ Eg Addis Ababa Principles and Guidelines (n 120), Annex II: Practical principle 12.

¹⁸⁸ CBD Decision VII/27 (n 75) Annex, paras 2(1) and 2(1)(4) (while the latter refers to both benefit- and cost-sharing, the focus on benefit-sharing is clarified in CBD Decision IX/18 (2008), preamble para 5).

¹⁸⁹ This would be, for instance, the justification for CBD decision XI/19 (2012) on REDD+.

¹⁹⁰ Nagoya Protocol Article 5(2): Morgera, Tsioumani and Buck (n 17), at 117-126.

¹⁹¹ *Saramaka* (n 2) and *Endorois* (n 8).

¹⁹² Eg, UN Indigenous Peoples' Partnership, Strategic Framework 2011-2015; and 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 (2012) UN Doc A/HRC/21/48, paras 36 and 69(h).

¹⁹³ UNPFII (n 163), para 27; and *Saramaka* (n 2), para 138.

¹⁹⁴ 'Progress report on extractive industries' (n 164), paras 50-52.

¹⁹⁵ *Endorois* (n 8), paras 294-295.

¹⁹⁶ 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' (2009) UN Doc A/HRC/13/33/Add.2, paras 30-33.

¹⁹⁷ A/HRC/24/41 (n 15), para 52 (emphasis added).

complex and still unsettled notion of free prior informed consent (FPIC).¹⁹⁸ Much therefore 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 consultations¹⁹⁹ and affecting the scope of environmental and socio-economic impact assessment. 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.²⁰⁰ It also remains to be determined whether benefit-sharing could be required when FPIC is not.²⁰¹

With regard to traditional knowledge, a qualified obligation to encourage intra-State benefit-sharing in the CBD²⁰² has been interpreted through a series of COP decisions to apply more broadly to communities' customary sustainable use of biological resources²⁰³ across all the thematic areas of work of the Convention.²⁰⁴ This has developed into a binding obligation under the Nagoya Protocol in relation to traditional knowledge that is more narrowly construed as "associated with genetic resources".²⁰⁵ While it has been acknowledged in a human rights context that benefit-sharing is also called for when the traditional knowledge of indigenous peoples is at stake,²⁰⁶ there has been no elaboration in this connection by human rights bodies.²⁰⁷ 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 2014.²⁰⁸ In addition, because of the political emphasis placed on biopiracy 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 in the context of pure research

¹⁹⁸ For instance, the lengthy monograph by E Desmet, *Indigenous Rights Entwined with Nature Conservation* (2011) does not mention benefit-sharing.

¹⁹⁹ 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' (2012) UN Doc A/HRC/21/55, para 43.

²⁰⁰ A/HRC/24/41 (n 15), para 43.

²⁰¹ 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 *Wisconsin International Law Journal* (2009-2010) 51, at 91.

²⁰² CBD Article 8(j). This understanding can also be found in other legal developments contemporary to the CBD, such as Agenda 21, paras 15(4)(g) and 15(5)(e).

²⁰³ CBD Article 10(c).

²⁰⁴ Eg 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; and CBD work programme on drylands, Decision VIII/2 (2006), Target 9.2.

²⁰⁵ Nagoya Protocol Articles 5(5) and 7: see discussion in Morgera, Tsioumani and Buck (n 17), at 126-130. See also benefit-sharing from farmers' traditional knowledge: combined reading of Articles 9(2)(a) and 13(3) ITPRG - discussed by Tsioumani (n 134).

²⁰⁶ UNPFII (n 163) para 27.

²⁰⁷ In comparison to the Nagoya Protocol, neither the ILO Convention No 169 or UNDRIP link benefit-sharing and traditional knowledge. CESCR, General Comment No 21 (2009) UN Doc. E/C.12/GC/21 para 37, refers to prior informed consent, but not benefit-sharing, with regard to traditional knowledge. See Morgera, Tsioumani and Buck (n 17), at 127-130; and 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.

²⁰⁸ CBD Decision XII/12D (2014), preambular para 4 and para 2.

aimed at providing global benefits (such as advancing climate science).²⁰⁹ 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.²¹⁰ The issue has been treated with extreme caution by the CBD COP through a voluntary "code of ethical conduct" that is not intended to 'interpret the obligations of the CBD.'²¹¹ A systematic reading of the Nagoya Protocol,²¹² 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. 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.²¹³

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,²¹⁴ the requirements of international climate initiatives,²¹⁵ and guidelines on land tenure and agricultural investment.²¹⁶ 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 precondition for the protection and preservation of traditional knowledge,²¹⁷ against the background of the growing relevance of international human rights and investment treaties for land disputes.²¹⁸

3.4 Beneficiaries

Besides reiterating that benefit-sharing targets State and/or non-State actors, it is difficult to derive a common core with regards 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).²¹⁹ It may be argued that benefit-sharing

²⁰⁹ Consider, for instance, 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; and UNESCO Declaration on Bioethics and Human Rights (2005), article 17.

²¹⁰ UN Convention to Combat Desertification, art 17; World Bank OP 4.10, para 19; IFC Performance Standard 8, para 16.

²¹¹ Tkarihwaïé:ri Code (n 124), paras 14 and 1.

²¹² Nagoya Protocol Article 8(a), read with Article 5 and Annex, and Articles 16-17. See Morgera, Tsiumani and Buck (n 17) at 179-184.

²¹³ CBD Decision XII/12D refers to "use and applications" of traditional knowledge.

²¹⁴ Eg, Inter-American Development Bank, Operational Policy on Indigenous Peoples and Strategy for Indigenous Development, para VI(f); European Bank for Reconstruction and Development, Environmental and Social Policy, performance requirement 7.

²¹⁵ Notably climate finance and the Reducing Emissions from Deforestation and Forest Degradation (REDD): see n 9 above and Savaresi (n 184).

²¹⁶ VGGT and CFS Principles.

²¹⁷ Tkarihwaïé:ri Code (n 124), paras 17-19; and CESCR, General Comment No 21, para 36 and 50(c).

²¹⁸ L Cotula, 'Land: Property and Sovereignty in International Law' in E Morgera and K Kulovesi (eds), *Research Handbook on International Law and Natural Resources* (forth. 2015).

²¹⁹ See sections 3.1 and 1 above.

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 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 that 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 the purposes of realizing fairness and equity discussed below.

3.4.1. 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.'²²⁰ Similarly, the ITPGR foresees benefit-sharing with all parties, specifically pointing to developing countries as beneficiaries of technology transfer, capacity building and the allocation of commercial benefits.²²¹ 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,²²² but provisions on technology transfer, funding and sharing of biotechnological innovation specifically target developing countries.²²³ 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.

3.4.2. Intra-State dimension

Both in international biodiversity and human rights law, intra-State benefit-sharing most clearly targets indigenous and tribal peoples as beneficiaries.²²⁴ The CBD and its Nagoya Protocol also refer to *local communities*²²⁵ - a category of unclear status in international human rights law²²⁶ that could apply to a variety of groups benefitting from the protection of human rights of general application (such as those related to property, subsistence and culture) that may be negatively affected by interferences with their customary relations with land and natural resources.²²⁷ Along similar lines,

²²⁰ UNLOS Arts. 140 and 160(2)(f)(i).

²²¹ ITPGR Article 13(2)(b)(ii-iii), 13(2)(c) and 13(4).

²²² CBD Decision VII/19 (2004), 16th preambular recital.

²²³ CBD Article 16(3), 19(1-2) and 20(5) and (7); Nagoya Protocol, Articles 8(a-b), 22-23 and 25(3-4).

²²⁴ CBD Article 8(j); Nagoya Protocol Article 5(2) and (5); ILO Convention No 169, Article 15(2); *Saramaka* (n 2) and *Endorois* (n 8).

²²⁵ *Morgera, Tsioumani and Buck* (n 17), at 383.

²²⁶ A Bessa, *Traditional Local Communities in International Law*, PhD thesis EUI, 2013; and inconclusive CBD Decision XI/14 (2012).

²²⁷ De Schutter, "The Emerging Human Right to Land," 12 *International Community Law Review* (2010) 303, at 324-325 and 319.

the ITPGR considers 'farmers' beneficiaries,²²⁸ and recent international soft-law initiatives have expanded the beneficiaries to include 'tenure right holders' (i.e. those having a formal or informal right to access land and other natural resources for the realization of their human rights to an adequate standard of living and wellbeing)²²⁹ and small-scale fishing communities.²³⁰ The latter, incidentally, appears to point to the emergence of intra-State benefit-sharing under the law of the sea.²³¹

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. It thus 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 (commons²³²) or to individual holders of human rights (such as adequate housing, water and sanitation) that may be negatively affected by environmental measures.²³³ 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 beneficiaries.²³⁴

3.5 Fairness and Equity

Benefit-sharing is accompanied by the qualification "equitable"²³⁵ or "fair and equitable"²³⁶ under all the treaties referring to it, with the exception of the ILO Convention No. 169. Nonetheless, also in that context, the Committee on the Elimination of Racial Discrimination of the UN Permanent Forum on Indigenous Issues and the Inter-American Court of Human Rights have referred to equitable benefit-sharing.²³⁷ Consequently, former UN Special Rapporteur Anaya concluded

²²⁸ ITPGR Article 9.2: see Tsioumani (n 134). Note also the ongoing international process to draft a Declaration on the rights of peasants and other people working in rural areas (2013) UN Doc A/HRC/WG.15/1/2.

²²⁹ VGGT Article 8.6.

²³⁰ FAO, Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (2013) para 5.1.

²³¹ 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: Co-Chairs' non-paper to the meeting of the Ad Hoc Open-ended Informal Working Group of 20-23 January 2015 (on file with author).

²³² See generally B. Weston and D. Bollier, *Green Governance: Ecological Survival, Human Rights and the Law of the Commons* (2013) and for a specific consideration from benefit-sharing perspective, Tsioumani (n 134).

²³³ This seems to be the case in renewable energy projects: see discussion in Savaresi (n 184), 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 (2009) UN Doc A/64/255, at 47 and 71; Special Rapporteur on the Right to Water, Climate Change and the Human Rights to Water and Sanitation, Position Paper (www.ohchr.org/Documents/Issues/Water/Climate_Change_Right_Water_Sanitation.pdf), at 5-6.

²³⁴ These questions are particularly clear in the realm of agriculture and food: Tsioumani (n 134).

²³⁵ UNCLOS Article 140; CBD Article 8(j).

²³⁶ CBD Arts. 1 and 15(7); ITPGR Arts. 1, 10(2) and 11(1); and Nagoya Protocol Arts. 1 and 5.

²³⁷ CERD, Concluding Observations on Ecuador (2003) UN Doc. CERD/C/62/CO/2, para 16; UNPFII, Report of the International Workshop on Methodologies regard Free, Prior Informed Consent and

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"'.²³⁸ It is thus 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, that serve to balance competing rights and interests²³⁹ with a view to integrating ideas of justice into a relationship regulated by international law.²⁴⁰ 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.²⁴¹

International treaties containing 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, including contractual ones, in the context of bilateral inter-State benefit-sharing and of intra-State benefit-sharing. It may thus be necessary to rely on legal theory to further investigate this tenet of the proposed conceptualization. Building upon Klager's insightful interpretation²⁴² of Franck's seminal work on equity in international law,²⁴³ 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 substantive dimensions of justice (equity).²⁴⁴ 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, (re-) allocation of power over resources).²⁴⁵ This tension can only be resolved through a "fairness discourse" - a negotiation "premised on the moderate scarcity of 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."²⁴⁶ 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.²⁴⁷ And this condition notably applies also to claims based on national sovereignty, thereby overriding presumptions in favour of the States.²⁴⁸ Second, a maximum condition, whereby inequalities in the substantive outcome of the discourse (so, the sharing of benefits) are only justifiable if they provide advantages to all

Indigenous Peoples (2005) UN Doc. E/C.19/2005/3, para 46(i)(e); and *Saramaka* (n 2), para 140 ("reasonable equitable") and *Endorois* (n 8), paras 269 and 297.

²³⁸ A/HRC/15/37 (n 22), paras. 67 and 76-78.

²³⁹ C. Burke, *An Equitable Framework for Humanitarian Intervention* (2014), at 197-198.

²⁴⁰ Klager, *Fair and Equitable Treatment in International Investment Law* (2013), at 130.

²⁴¹ Burke (n 239), at 250- 251.

²⁴² Klager (n 240), at 141-152.

²⁴³ Franck, *Fairness in International Law and Institutions* (1995).

²⁴⁴ Klager (n 240), at 141.

²⁴⁵ *Ibid*, at 121, 130, 123.

²⁴⁶ *Ibid*, at 144.

²⁴⁷ *Ibid*, at 163.

²⁴⁸ Burke (n 239) at 250.

participants.²⁴⁹ 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."²⁵⁰ This 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.²⁵¹ As such, while it does not open the door to subjective notions of justice,²⁵² it may be filled with content by establishing a linkage with different international legal sub-systems (through systemic integration²⁵³ or mutually supportive law-making).²⁵⁴ In that connection it is instructive to consider the evolution of the similarly worded notion of fair and equitable treatment (FET) in international investment law,²⁵⁵ for which the meaning of "fair and equitable" was - similarly to benefit-sharing - not clarified in the relevant treaties. International adjudication has instead fleshed FET out by relying on international human rights law notions such as procedural fairness, non-discrimination and proportionality.²⁵⁶ 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'²⁵⁷ with regard to equity that has not so far elicited sufficient 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 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 partnership in identifying and allocating economic and non-economic benefits among State and non-

²⁴⁹ Klager (n 240) at 145.

²⁵⁰ Ibid, at 146.

²⁵¹ United States-Import Prohibition on Certain Shrimp and Shrimp Products, Appellate Body Report (adopted 6 November 1998) WT/DS58/AB/R, para 130. Klager (n 240) at 109; McLachlan (n 33), at 302 and 312.

²⁵² It is not an expression of equity as decisions to be taken *ex aequo et bono* (ICJ Statute Article 38(2)).

²⁵³ ICJ, North Sea Continental Shelf Cases, para 88; Wolfrum, 'General International Law (Principles, Rules and Standards)' in Wolfrum (n 20), para. 63; Thirlway, *The Sources of International Law* (2014) at 106.

²⁵⁴ Pavoni, 'Mutual Supportiveness as a Principle of Interpretation and Law-Making: A Watershed for the WTO-and-Competing-Regimes Debate?' 21 EJIL (2010) 649.

²⁵⁵ 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.

²⁵⁶ Dupuy and Vinuales, 'Human Rights and Investment Disciplines: Integration in Progress', in M Bungenberg et al (eds.), *International Investment Law: A Handbook* (2015) 1739.

²⁵⁷ Pentassuglia (n 165), at 201.

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 law²⁵⁸ - and inter-generational equity.²⁵⁹ It also feeds an original reflection within the well-established debate²⁶⁰ on human rights and the environment.²⁶¹ 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.'²⁶² And, 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.²⁶³ In particular, the growing relevance of fair and equitable benefit-sharing to natural resource use, including in relation to business responsibility to respect human rights, underscores the need to fully investigate opportunities and tensions with international investment law.²⁶⁴

Finally, the proposed concept opens up for investigation 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.²⁶⁵ But across sectoral regimes,

²⁵⁸ Birnie, Boyle and Redgwell (n 51), at 123.

²⁵⁹ Some discussion can be found in International Seabed Authority (n 18), para 5; K. Baslar, *The Concept of the Common Heritage of Mankind in International Law* (1998) at 100; and Murillo, 'Common Concern of Humankind and its Implications in International Environmental Law' 5 *Macquarie Journal of International and Comparative Environmental Law* (2008) 133, at 142.

²⁶⁰ Eg, 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.

²⁶¹ 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: Preliminary report on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (2012) UN Doc A/HRC/22/43, para 41, and mapping report (2013) UN Doc A/HRC/25/53, para 78. He also drew attention to benefit-sharing in the context of the right to science (preliminary report, para 21).

²⁶² Desmet (n 198), at 41.

²⁶³ Eg, L Helfer, 'Toward a Human Rights Framework for Intellectual Property' (2007) 40 *UC Davis Law Review* 971.

²⁶⁴ Benefit-sharing and investment have, for the time being, only researched in the context of bio-prospecting: J. Viñuales, *Foreign Investment and the Environment in International Law* (2012), ch 8.

²⁶⁵ With regards to mining in the Area, Harrison (n 104) at 7-9; and with regards to bioprospecting: Pavoni, 'Biodiversity and Biotechnology: Consolidation and Strains in the Emerging International Legal Regimes' in Francioni and Scovazzi (n 255) 29.

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.²⁶⁶ If it is indeed 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,²⁶⁷ the technical and practical questions raised by the present conceptualization should be addressed in earnest.

²⁶⁶ Wolfrum (n 253) paras 33-36, who calls for a comparison of relevant international materials to that end.

²⁶⁷ Boyle and Chinkin (n 73), at 222-225.