International law and the sustainable governance of shared natural resources: A principled approach

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A Principled Approach

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To my family

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Nadia Sánchez Castillo-Winckels
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List of abbreviations

ABNJ	Areas beyond national jurisdiction
ACHPR	African Court on Human and People's Rights
ACHR	American Convention on Human Rights
APA	Ad Hoc Working Group on the Paris Agreement
BINGOs	Business and industry NGOs
CARU	Comisión Administradora del Río Uruguay
CBD	Convention on Biological Diversity
CCAC	Climate and Clean Air Coalition
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CCZ	Clarion-Clipperton Zone
CERDS	Charter of Economic Rights and Duties of States
CICH	Convention for the Safeguarding of the Intangible Cultural Heritage
COP	Conference of the Parties
ENGOs	Environmental NGOs
ESIA	Environmental and social impact assessments
ETF	Enhanced transparency framework
FAO	Food and Agriculture Organization of the United Nations
FMCP	Facilitative multilateral consideration of progress
FSA	Fish Stocks Agreement
GOC	Global Ocean Commission
HRC	Human Rights Committee
IACtHR	Inter-American Court of Human Rights
IAR	International assessment and review process
ICA	International consultation and analysis process
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICCPR	International Covenant on Civil and Political Rights
ICJ	International Court of Justice
IGOs	Intergovernmental organizations
IHRL	International human rights law
ILA	International Law Association
ILC	International Law Commission
INDCs	Intended Nationally Determined Contributions
IPOs	Indigenous peoples' organizations
ISA	International Seabed Authority
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IUCN	International Union for Conservation of Nature
LGMAs	Local governments and municipal authorities

LTC	Legal and Technical Commission
LTC	Legal and Technical Commission
MPGs	Modalities, procedures and guidelines
MRV	Measurement, reporting and verification framework
NAFO	Northwest Atlantic Fisheries Organization
NASCO	North Atlantic Salmon Conservation Organization
NBA	Niger Basin Authority
NDC	Nationally determined contribution
NGOs	Non-governmental organizations
OHCHR	Office of the High Commissioner for Human Rights
ORASECOM	Orange-Senqu River Commission
OWG	Open Working Group
PCIJ	Permanent Court of International Justice
PM	Particulate matter
PSNR	Permanent sovereignty over natural resources
RFMOs	Regional fisheries management organizations
RINGOs	Research and independent NGOs
SADC	Southern African development community
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SDG 14	Sustainable Development Goal 14
SDGs	Sustainable Development Goals
SLCPs	Short-lived climate pollutants
SSNR	Sovereignty over shared natural resources
TER	Technical expert review
TRIPS	Trade-Related Aspects of Intellectual Property Rights
TUNGOs	Trade union NGOs
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNECE	UN Economic Commission for Europe
UNEP	UN Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNGA	United Nations General Assembly
UNWC	Convention on the Law of Non-navigational Uses of International Watercourses
WGC	Women and gender constituency
WHO	World Health Organization
WTO	World Trade Organization
YOUNGOs	Youth NGOs

Introduction

This dissertation consists of five chapters. Four chapters have been published in peer-reviewed international law journals[1] and one is a published book chapter subjected to review by the book editors. All five chapters form together a coherent whole (this thesis) and are at the same time stand-alone pieces, each with their individual and independent *raison d'être*. In this introduction, I describe the general background and context in which the chapters, seen as a whole, position themselves. I explain the specific background and context relevant to each particular chapter in their respective introductory sections.

The term 'shared natural resources' refers in the narrow sense to resources shared by a limited number of states, also known as transboundary natural resources, including international watercourses, aquifers, oil and gas reservoirs, and forests. In a wider sense, the term also includes global commons, such as biological diversity, the atmosphere and high seas fisheries.[2] Transboundary resources form a single unit but are distributed over the territory of two or more states. The first two chapters focus on transboundary freshwater resources, underground and surface waters respectively. Global resources are those beyond the limits of national jurisdiction. Chapter 3 and Chapter 4 focus on the atmosphere, addressing the problems of atmospheric degradation and climate change respectively. Chapter 5 focuses on marine resources beyond national jurisdiction or 'ocean global commons'. In this thesis, the term 'shared natural resources' is used in the broad sense referring to both transboundary and global resources. This terminological choice is based on three reasons. First, the most prominent governance problems identified in this thesis are applicable to all those natural resources examined. Second, the 'inherent and fundamental interdependence of the world environment'[3] warrants searching for common solutions to common governance problems. In this regard, it has been submitted that fresh water 'is no longer just an aggregated sum of local events, but rather it is becoming a resource of global concern and with poten-

1 See publication status per chapter in section 7 of this introduction.

2 N. Schrijver, *Development without Destruction: The UN and Global Resource Management* (2010 Indiana University Press), at 5.

3 P. Allott, *Eunomia: A New Order for a New World* (Oxford: Oxford University Press, 1990), at 359, para. 17.52.

tially global implications'.[4] Third, the principles discerned and assessed in this thesis could provide solutions to those common problems promoting coherence of state practice. In addition, the term 'shared natural resource governance' refers to the norms, institutions, and processes that determine how state sovereignty over shared natural resources is exercised, how decisions are made, and how non-state actors have access to, participate in, and are affected by the management of said resources.[5] The principles examined in this dissertation promote the sustainable governance of shared resources whenever they support norms, institutions and processes that conserve the ecological balance by avoiding resource degradation or depletion.

I selected natural resources that are significant to the world's population, that have the potential to be a source of conflict (between the states sharing the resource and/or between the states and the populations affected) and whose governance presents problematic aspects. This PhD project was motivated by the research on transboundary freshwater resources I have conducted previously.[6] I intended to explore in my doctoral research the questions I was left with after concluding my previous research, including the question I considered to be the most intriguing one: how to reconcile the exercise of permanent sovereignty over natural resources and the equitable use and protection of resources that are shared by two or more states?

Consequently, Chapter 1 discusses the principle of sovereignty in the context of transboundary aquifer governance. This was a topical discussion at the time of the consideration by the United Nations General Assembly (UNGA) of the UN International Law Commission (ILC)'s Draft Articles on the Law of Transboundary Aquifers and the adoption of the Guaraní Aquifer Agreement in 2010 for the governance of one of the largest reservoirs of freshwater on Earth.[7] In addition, Chapter 2 discusses a topic frequently encountered in law, court decisions and literature but which appeared to be

4 E. Brown Weiss, *International Law for a Water-Scarce World* (Martinus Nijhoff Publishers 2013), at 67.

5 Adapted from the definition of natural resource governance in IUCN, *Natural Resource Governance Framework Assessment Guide: Learning for improved natural resource governance* (2016) <https://www.iucn.org/sites/dev/files/content/documents/the_nrgf_assessment_guide_working_paper.pdf> at 1.

6 LLM thesis entitled 'Recent legal and political changes in the Nile Region and their implications for equitable water sharing in the Nile River Basin' (Leiden University). In addition to my LLM thesis, joint publication with professor Yongmin Bian from the University of International Business and Economics in Beijing, China. N. Sanchez and Y. Bian, 'China's Obligation to Conduct Transboundary Environmental Impact Assessment (TEIA) in Utilizing Its Shared Water Resources', 55 Natural Resources Journal 1 (2014) 105–125.

7 Acuerdo sobre el Acuífero Guaraní (Agreement on the Guarani Aquifer) between Argentina, Brazil, Paraguay and Uruguay, adopted 2 August 2010 in San Juan, Argentina, not in force. See F Sindico, R Hirata and A Manganelli, 'The Guarani Aquifer System: From a Beacon of hope to a question mark in the governance of transboundary aquifers', 20 *Journal of Hydrology: Regional Studies* (2018) 49-59, which traces the trajectory of transboundary cooperation for the Guarani Aquifer System.

insufficiently elaborated: the legal nature of the principle of community of interests and its role in the exercise of sovereignty over shared water resources. Chapters 3-5 address global natural resources, namely the atmosphere (Chapters 3 and 4) and marine resources in areas beyond the limits of national jurisdiction (Chapter 5).

Chapter 3 addresses the principle of common concern of humankind and its application to atmospheric governance with the intention to clarify what the principle entails, including with regard to its legal consequences, and establish whether atmospheric degradation is an issue of common concern. Chapter 4 addresses the principle of public participation in the context of climate change governance in search of ways to enhance observer participation in international climate change decision-making processes. Finally, Chapter 5 addresses the principle of sustainable development in the context of high seas fisheries and deep seabed minerals with the purpose of establishing whether the Sustainable Development Goals could influence and thus strengthen the institutions governing these natural resources. The specific research problems identified concerning the selected resources and principles are presented in section 2 of this introduction.

1 Research background and context

This dissertation discusses principles of international law applicable to the governance of natural resources that are shared by two or more states. International rules for the governance of shared natural resources emerged initially in the context of international watercourses.[8] States sharing transboundary rivers developed forms of cooperation that gradually distanced them from theories and practices of absolute sovereignty.[9] At first, water agreements focused on allocating the economic benefits derived from water uses such as

8 For an early in-depth analysis on the utilization of shared freshwater resources see X. Fuentes, 'The Criteria for the Equitable Utilization of International Rivers' 67 *British Yearbook of International Law* 1 (1996) 337–412.

9 Two absolute sovereignty theories have been developed in the context of international watercourses: absolute territorial sovereignty and absolute territorial integrity. The former, also known as the 'Harmon Doctrine', is used by upper riparian States to claim the right to do whatever they choose with the water regardless of its effect on lower riparians. The latter is invoked by downstream States to claim that upstream States can do nothing that affects the quantity or quality of the water that flows down the river. See N. Sanchez and J. Gupta, 'Recent Changes in the Nile Region May Create an Opportunity for a More Equitable Sharing of the Nile River Waters', 58:3 *Netherlands International Law Review* (2011), 363, at 378. For a discussion on the evolving nature of national sovereignty in international water law, with a focus on China, see P. Wouters, 'The Yin and Yang of International Water Law: China's Transboundary Water Practice and the Changing Contours of State Sovereignty', 23:1 *Review of European, Comparative and International Environmental Law* (2014), 67.

navigation, hydropower generation, and agricultural and industrial uses.[10] Later on, rules for the environmental protection of shared water resources began to appear.[11] Although states sharing international watercourses have regulated their use through treaties for centuries,[12] it was only after the rise of international environmental awareness in the early 1970s, marked by the adoption of the 1972 Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), that the international community began articulating principles of general application to the use and protection of shared natural resources.

In 1973, the UNGA Resolution 3129 (XXVIII) considered it necessary to ensure effective cooperation between states through 'the establishment of adequate international standards for the conservation and harmonious exploitation of natural resources common to two or more States'.[13] It also considered that cooperation between states sharing natural resources and interested in their exploitation 'must be developed on the basis of a system of information and prior consultation'.[14] The UNGA requested the Governing Council of the United Nations Environment Programme (UNEP) to report on measures adopted for implementing resolution 3129 (XXVIII).[15] In 1978, the Inter-governmental Working Group of Experts on Natural Resources Shared by Two or More States, established by the UNEP Governing Council in fulfilment of said request, issued a report containing the 'Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States' (1978 UNEP Draft Principles).[16]

The UNGA took note of the 1978 UNEP Draft Principles[17] and requested all states to use them as guidelines and recommendations in the formulation

10 See, e.g., Convention on the Regime of Navigable Waterways of International Concern (Barcelona, 20 April 1921; in force 31 October 1922); Convention Relating to the Development of Hydraulic Power Affecting More Than One State (Geneva, 9 December 1923; in force 30 June 1925); Declaration of Montevideo Concerning the Agricultural and Industrial Use of International Rivers, Inter-American Conference 1933, in: Yearbook of the International Law Commission, Volume II, Part Two (UN Doc. A/CN.4/SER.A/1974/Add.l, 1974), at 58.

11 See E. Brown Weiss, 'The Evolution of International Water Law', 331 *Recueil de Cours* (2007), at 199–210.

12 See, e.g., S.C. McCaffrey, *The Law of International Watercourses* (Oxford University Press, 2007), 58–65.

13 Cooperation in the Field of the Environment Concerning Natural Resources Shared by Two or More States, UN Doc Res A/RES/3129(XXVIII), 13 December 1973, para. 1.

14 Ibid. para. 2.

15 Ibid. para. 3.

16 UNEP Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, 17 I.L.M. 1091 (1978).

17 Cooperation in the Field of the Environment Concerning Resources Shared by Two or More States, UN Doc Res A/RES/34/186, 18 December 1979, para. 2.

of bilateral or multilateral conventions regarding natural resources shared by two or more states.[18] Most of the draft principles are now part of conventional and/or customary international law applicable to shared natural resources including the principles of international cooperation,[19] equitable use,[20] no harm,[21] transboundary environmental impact assessment,[22] and information exchange, consultations, and prior notification of planned measures that could have adverse effects on the environment.[23] In the meantime, the UNGA adopted the 1974 Resolution 3281 (XXIX) 'Charter of Economic Rights and Duties of States'[24] which contains a provision referring specifically to shared natural resources: 'In the exploitation of natural resources shared by two or more countries, each State must co-operate on the basis of a system of information and prior consultations to achieve optimum use of such resources without causing damage to the legitimate interest of others.'[25]

Legally binding international agreements on shared natural resources followed these initial soft law elaborations of general rules and principles in the subsequent decades including, for instance, the 1982 United Nations Convention on the Law of the Sea (UNCLOS), the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses (UNWC). In addition, several events relevant to the governance of the resources examined took place during the course of this study, namely the entry into force of the UNWC (2014); the adoption and entry into force of the Paris Agreement under the UNFCCC (2015 and 2016 respectively); the adoption of the 2030 Agenda for Sustainable Development and the accompanying Sustainable Development Goals (2015); the initiation by the International Seabed Authority of a process to develop regulations for the exploitation of mineral resources in the seabed beyond the limits of national jurisdiction (the so-called Area) according to UNCLOS (since 2014, still in progress);[26] the consideration of the ILC Draft Articles on the Law of Transboundary Aquifers by the UNGA (since 2011, still in progress); and the inclusion of the topic 'protection of the atmosphere' in the programme of work of the ILC (2013, still in progress). These events and the related legal and soft law instruments form part of the general context of this dissertation.

18 Ibid. para. 3.
19 N. 16 above, Principles 1 and 2.
20 Ibid. Principle 1.
21 Ibid. Principle 3.
22 Ibid. Principle 4.
23 Ibid. Principle 5–7.
24 Charter on the Economic Rights and Duties of States, UN Doc Res 3281(XXIX), 12 December 1974, ('CERDS').
25 Ibid., Article 3.
26 See, e.g., L. Sun, *International Environmental Obligations and Liabilities in Deep Seabed Mining* (Meijers Instituut, Leiden University, 2018).

International environmental agreements and soft law instruments stress international cooperation as a fundamental principle in the governance of natural resources shared by two or more states. However, tensions between national interests and the common interests of the states sharing natural resources can make it difficult for states to cooperate. Hindered cooperation can lead to problems such as protracted conflict (e.g. between riparians of the Nile River), slow ratification processes of joint management agreements (e.g. Guaraní Aquifer Agreement) or judicial battles (e.g. several cases before the International Court of Justice concern shared resources including landmark cases *Gabčíkovo-Nagymaros* and *Pulp Mills*). Meanwhile, the sustainable management of the resource in question and the human rights of the populations involved can be affected. In the next section, I describe the specific problems the present thesis deals with.

2 Problem statement

The most prominent problems concerning shared resource governance that I identified are: (1) the reconcilement of the exercise of permanent sovereignty over natural resources and the equitable use and protection of resources that are shared by two or more states; (2) the insufficient legal conceptualization of the common interests and concerns that exist between states sharing natural resources; and (3) the inclusion of non-state actors in governing processes. The aim of this dissertation is to discern, examine and evaluate principles of international law that could address these problems. Two reasons justify this aim.

First, principles could promote coherence in state practice. The 1996 report of a UNEP expert group described the role of principles as 'providing coherence and consistency to international environmental law; guiding governments in negotiating future international instruments; providing a framework for the interpretation and application of domestic environmental laws and policies; and assisting the integration of international environmental law with other international law fields.'[27] Principles of general application, such as permanent sovereignty over natural resources, the responsibility not to cause transboundary environmental damage, and the principles of cooperation and sustainable development, 'provide a framework that shapes the structure and development of international environmental law'.[28] Principles 'embody legal standards, but the standards they contain are more general than commitments and do

27 Final Report of the Expert Group Workshop on International Environmental Law Aiming at Sustainable Development, Washington DC, 30 September-4 October 1996, UN Doc UNEP/IEL/WS/3/2 (4 October 1996) Annex I at para. 29.

28 P. Sands and J. Peel, *Principles of International Environmental Law* (CUP 2018, 4th ed.) at 392.

not specify particular actions'.[29] Principles may influence 'the interpretation, application, and development of treaties in accordance with Article 31(3) of the 1969 of the Vienna Convention on the Law of Treaties'[30] and derive their authority and legitimacy from the endorsement by states.[31]

Following the 1978 UNEP Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States' (1978 UNEP Draft Principles),[32] shared natural resources began to be regulated by resource-specific legal regimes creating separate self-contained sets of rules. State practice through treaty bodies established for the governance of particular resources (e.g. UNFCCC treaty bodies) is not necessarily coherent with state practice through bodies governing other resources (e.g., the International Seabed Authority, river commissions). One example of this situation relates to my experience during COP22 in Marrakech. While attending negotiations, I observed that some Latin American delegations held positions that were less favourable to public participation than those the same delegations held at the then parallel negotiation process of the Escazú Agreement.[33] Despite fragmented regulation and implementation in shared resource governance, two of the three prominent problems identified in this thesis -the exercise of permanent sovereignty over shared resources and the inclusion of non-state actors-[34] occur in the governance of all resources examined. This suggests that the same discerned principles could apply to address those two problems. The discerned principles could serve as the initial foundation for a set of principles on sustainable shared resource governance applicable to all types. Such a set of principles could offer a general framework to guide states in an integrated

29 D. Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary' 18 *Yale Journal of International Law* 2 (1993), at 501.

30 P. Birnie, A. Boyle and C. Redgwell, *International Law & the Environment*, (OUP 2009, 3rd ed.) at 28.

31 Ibid.

32 N. 16 above.

33 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (adopted 4 March 2018, open for signature on 27 September 2018, not in force) available at https://treaties.un.org/doc/Treaties/2018/03/20180312%2003-04%20PM/CTC-XXVII-18.pdf. See also N. Sanchez, 'What Latin America and the Caribbean could do to strengthen public participation in the climate change regime', an opinion piece on channeling the regional consensus on public participation reached in the context of the Escazú Agreement to global climate negotiations < http://www.iei.uchile.cl/noticias/strengthen-public-participation-in-the-climate-change-regime>

34 The remaining identified problem -the legal conceptualization of common interests and concerns- appears to be more resource specific. Generally, the principle of community of interests applies to transboundary freshwater resources while the principle of common concern of humankind applies to the natural global commons. However, it has already been argued that the availability and use of freshwater should be recognized as a common concern of humankind, see Brown Weiss (n. 4) at 70-77.

way regarding the equitable utilization and environmental protection of their shared resources and promote coherence in state practice.

Second, the 1978 UNEP Draft Principles remain to be the most influential effort to provide principles applicable to all shared natural resources. While the Draft Principles stress international cooperation as a principle *sine qua non* in shared resource governance and refer to the no-harm rule, equitable use, environmental impact assessment and information exchange, consultations and prior notification between states, they do not address the exercise of sovereignty over shared resources, community of interests and common concerns among states, or non-state actor participation in the governance of shared natural resources. Building on the 1978 UNEP Draft Principles, the principles discerned in this dissertation reflect developments in international environmental law particularly since the 1990s and current trends relating to shared resource governance.

Each chapter in this dissertation identifies a specific problem or gap in the knowledge related to the three most prominent problems mentioned above and advances an original and cogent argument to address it. The problems identified in each chapter are:

Chapter 1: The recognition of PSNR over transboundary aquifers is controversial. The main objections are that the exercise of PSNR over transboundary aquifers might discourage transboundary cooperation and be insufficient to protect the environment of shared freshwater resources.

Chapter 2: The legal nature of community of interests and its role in the exercise of sovereignty over shared water resources remain unclear.

Chapter 3: The International Law Commission removed from its Draft Guidelines on the Protection of the Atmosphere the concept that the degradation of atmospheric conditions is a 'common concern of humankind' because of objections by ILC members concerning the insufficient clarity of the concept of common concern of humankind and its legal consequences.

Chapter 4: Parties to the UNFCCC acknowledged the need to further enhance the effective engagement of observer organizations as the UNFCCC process moves towards implementation of the Paris Agreement. However, climate law does not stipulate *how* parties are to ensure effective observer participation.

Chapter 5: While binding and non-binding international instruments provide for and decisively encourage public participation in environmental governance, the existing conception of ocean commons governance primarily involves states and industry organizations and restricts access to civil society.

3 RESEARCH QUESTIONS

Based on the problems identified, this dissertation deals with the following general research questions:

> *What principles of international law promote the reconcilement of the exercise of permanent sovereignty over natural resources and the common interests of states sharing natural resources? How are such common interests conceptualized in international law? (Chapters 1-3)*
>
> *What principles of international law promote the inclusion of non-state actors in the governance of shared natural resources? (Chapters 4 and 5)*

The general research questions are divided into the following sets of sub-questions per chapter:

Chapter 1: Is the sovereignty exercised over natural resources under the exclusive jurisdiction of a state different from the sovereignty exercised over resources that are shared by two or more states? If that is the case, what distinguishes one from the other? What is the usefulness of differentiating between them from the perspective of transboundary cooperation and environmental protection?

Chapter 2: What is the legal nature of the principle of community of interests? How does community of interests relate to the exercise of sovereignty over shared water resources? Does international water law show any trends indicating that the emerging principle of community of interests is evolving in a certain direction?

Chapter 3: What does the principle of common concern of humankind entail according to international law? What are the legal consequences of the principle? Is atmospheric degradation a common concern of humankind?

Chapter 4: What characterizes observer participation in international climate change decision-making processes? What does the acknowledgement in the Paris Agreement that parties should comply with human rights obligations mean? What does the human right to participate in public affairs entail? Does it encompass decision-making processes at the international level? How could the right to participate in public affairs complement climate law and possibly contribute to enhancing observer participation in international climate change decision-making?

Chapter 5: What is the state of affairs regarding the use and protection of high seas fisheries and deep seabed minerals? What is the situation of public participation in institutions governing these resources and the legal framework

applicable thereto? What role for public participation in the Sustainable Development Goals (SDGs)? What is the legal nature of the SDGs? In what way could SDG 14 (sustainable use of marine resources) and SDG 16 (building strong institutions at all levels) influence institutions governing high seas fisheries and deep seabed minerals for sustainable resource governance?

Each chapter answers the respective set of sub-questions focusing on one international legal principle relevant to the governance of shared natural resources, namely sovereignty (Chapter 1), community of interests (Chapter 2), common concern of humankind (Chapter 3), public participation (Chapter 4) and sustainable development (Chapter 5). In addition to the principle in focus, the chapters pay attention to related principles applicable to the governance of the shared resource being discussed.[35] The concluding chapter highlights the findings in chapters 1-5 and the answers to the research questions, discusses the interrelationship between the discerned principles and other principles of international law – as well as that of the discerned principles among themselves, and evaluates the outlook for the governance of shared waters, the atmosphere and the ocean commons based on the discerned principles.

4 Methodology

This dissertation is primarily based on a classical legal research methodology. Where necessary and possible, I combined primary and secondary source analysis with a certain level of practical exposure or 'in situ observation' in order to fully understand the issues at hand and answer the research questions mindful of the practical implications of my propositions. This dissertation is thus also generally informed by the experiences I describe below. In this section I explain first the general methodological approach and subsequently the methodology used per chapter.

The general methodological approach consists of a thorough examination of the applicable treaties – whether universal, regional or bilateral – , their level of acceptance and ratification record and their subsequent interpretation by international courts and tribunals. I also analysed relevant decisions adopted

35 Besides sovereignty, Chapter 1 discusses the principle of transboundary cooperation. It also touches upon the principles of equitable utilization, no harm, information exchange, prior notification of planned measures and consultation.
Besides community of interests, Chapter 2 discusses the principles of sovereignty, equitable and reasonable use and transboundary cooperation.
Besides common concern of humankind, Chapter 3 discusses the principle of international cooperation.
Chapter 4 brings forward a human rights approach to public participation in climate change decision-making, implying the principle of respect for human rights.
Besides sustainable development, Chapter 5 discusses the principle of public participation.

by institutions in charge of overseeing the implementation of specific international treaties such as those by the International Seabed Authority and the Human Rights Committee. In addition, wherever relevant, the chapters discuss customary international law and general principles of international law. I also examined applicable soft law instruments – i.e. non-legally binding instruments used in contemporary international relations[36] – , some of which play a significant role in shared resource governance. These include intergovernmental conference declarations such as the 1992 Rio Declaration on Environment and Development; UNGA resolutions such as the one adopting the 2030 Agenda for Sustainable Development; and guidelines and recommendations such as the 1978 UNEP Draft Principles on shared resources and the ILC Draft Articles on the Law of Transboundary Aquifers. Present-day international law 'is often the product of a complex and evolving interplay of instruments, both binding and non-binding.'[37] Soft law may not be legally binding in the strict sense of the word, but some of the non-binding instruments studied in this thesis are deeply rooted in international law and call on states to fulfil their legally binding obligations. Examples abound and include the 1962 Declaration on PSNR, the 1978 UNEP Draft Principles, the 1992 Rio Declaration on Environment and Development, the UNGA Declaration on Human Rights Defenders and the 2030 Agenda for Sustainable Development. Such interaction results in instruments that are non-binding yet influential in national and international law and policy. As for secondary sources, each chapter reviews legal academic scholarship on the issues examined as well as scholarship from other disciplines where relevant, including natural resource science, natural resource governance and global environmental politics.

With regard to practical exposure, Chapters 1 and 3 discuss the work of the International Law Commission (ILC). In addition to a rigorous examination of ILC documents, the chapters are generally informed by my experience as research assistant to ILC member Professor Shinya Murase. In this role I was able to attend part of the ILC's sixty-fifth session (2013) and sixty-eighth session (2016). I had the opportunity to hold informal conversations concerning my research questions with several ILC members, academics at the University of Geneva Faculty of Law, and participants of the International Law Seminar (summer of 2013).[38] This contributed to developing my own opinion about the issues discussed in Chapters 1 and 3. Similarly, Chapter 4 is generally informed by my experience as member of the Chilean delegation to COP 22 in Marrakech (7-18 November 2016). I was able to observe and experience first-hand climate change negotiations and to hold informal conversations about my research questions with government officials and members of civil society

36 A. Boyle and C. Chinkin, *The Making of International Law* (Oxford 2007), at 212.
37 Ibid. 210.
38 The International Law Seminar is organised by the UN Office at Geneva (UNOG) during the annual session of the ILC.

organizations. This dissertation is also generally informed by the experience I gained through presenting papers at seminars and conferences throughout the course of the study.[39]

The next section provides a summary of each chapter followed by the specific methodological approach employed.

5 Outline and methodological approach per chapter

Each chapter in this dissertation identifies a problem or 'knowledge gap' concerning the principle in focus and its application to a particular shared natural resource. Subsequently, each chapter puts forward an original and cogent argument to address the problem identified. Finally, each chapter suggests ways to strengthen the role of the principle under review in the governance of the shared resource in question. All chapters are kept in the same way as they appear in their respective publications except for a few minor revisions and updates I considered necessary.

Chapter 1 on Sovereignty over natural resources

Chapter 1 is entitled 'Differentiating between sovereignty over exclusive and shared resources in the light of future discussions on the law of transboundary aquifers'.[40] It identifies the problem that the recognition of PSNR over transboundary aquifers is controversial primarily because PSNR might discourage transboundary cooperation and be insufficient to protect the environment of shared freshwater resources. The chapter argues that PSNR and 'sovereignty over shared natural resources' (SSNR) are distinct from each other. First, it presents the controversy caused by applying the principle of PSNR to resources that are shared by two or more states. It then analyses relevant international instruments in order to identify characteristics that distinguish sovereignty over exclusive resources from sovereignty over shared resources. This compared analysis finds three main differences. First, PSNR is exercised exclusively by one state over the natural resources located entirely within its national

39 Young Scholars Forum, International Conference on Energy, Water & Climate Change/ Building Bridges between Europe, the Middle East and North Africa (EWACC) 10-12 December 2012, Nicosia, Cyprus; Strathclyde Postgraduate Colloquium on Environmental Law and Governance, University of Strathclyde, 6 June 2013, Glasgow, Scotland; Latin-American Society of International Law, Annual Meeting of the Interest Group on International Courts and Tribunals, 15 August 2015, Rio de Janeiro, Brazil; International Conference on Global Public Goods, Global Commons and Democracy: Interdisciplinary Perspectives, Leuven Centre for Global Governance Studies, 22–23 February 2016, Leuven, Belgium.

40 Peer-reviewed journal article originally published in 24:1 *Review of European Comparative & International Environmental Law (RECIEL)* (2015) 4-15.

boundaries and in areas under its exclusive economic jurisdiction (exclusive economic zone and continental shelf), while SSNR is exercised jointly by two or more states over resources distributed over their respective territories and where utilization by one state affects utilization by the other(s). Second, the original purpose of PSNR was to ensure political and economic self-determination, while that of SSNR was to regulate the benefit sharing from, and the environmental protection of, shared natural resources. Third, the essential and characteristic right under PSNR to freely dispose of natural resources does not apply to resources that are shared, while the essential and characteristic duty under SSNR to cooperate does not apply to resources under exclusive jurisdiction. Based on these findings, the chapter concludes that PSNR and SSNR are conceptually different, constituting distinct legal regimes. The chapter suggests that understanding SSNR as a set of rules different from those of PSNR could promote that shared resource governance continues to be increasingly focused on cooperation and environmental protection, and less and less oriented towards satisfying state's territorial interests. In addition, increased awareness of the differences between sovereignty over exclusive and shared resources could facilitate negotiations, particularly in the light of the ongoing discussions on the law of transboundary aquifers at the UNGA.

Methodology

- Detailed examination of the *travaux préparatoires* of the Draft Articles on the Law of Transboundary Aquifers and other relevant instruments[41] in order to identify and understand the reasons why recognizing PSNR with respect to transboundary aquifers – and shared water resources in general- causes controversy within UN organs.
- Study of legal academic scholarship in order to identify and understand the reasons why recognizing PSNR with respect to transboundary aquifers gives rise to disagreement among international water law scholars.
- Analysis of UNGA resolutions concerning PSNR[42] in order to identify PSNR's distinctive characteristics.
- Analysis of instruments concerning shared natural resources[43] in order

41 The Charter of Economic Rights and Duties of States (CERDS), the UNEP Draft Principles, and the UNWC.

42 UNGA Resolutions 523 (VI), 626 (VII), 1515 (XV), 1803 (XVII), 2158 (XXI), 3171 (XXVIII), 3201 (S-VI), CERDS.

43 UNGA Resolutions 2995 (XXVII), 3129 (XXVIII), 34/186, CERDS. Other soft law instruments: UNEP Draft Principles, ILC Draft Articles on the Law of Transboundary Aquifers. Treaties: UNWC; Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Agreement on Cooperation for the Sustainable Development of the Mekong River Basin; Revised Protocol on Shared Watercourses in the Southern African Development Community; Indus Waters Treaty; Protocol for Sustainable Development of Lake Victoria Basin, East African Community; 1995 Protocol on Shared Watercourses in the Southern African Development Community (SADC) Region. I also studied the following

to determine whether the sovereignty exercised over shared resources – 'sovereignty over shared natural resources (SSNR)' – is different from PSNR and, if that is the case, identify SSNR's distinctive characteristics.
- Compared analysis of the identified characteristics in order to establish that PSNR and SSNR are conceptually different and constitute distinct legal regimes.
- Evaluation of the usefulness of differentiating between PSNR and SSNR from the perspective of transboundary cooperation and environmental protection.

Chapter 2 on Community of Interests

Chapter 2 is entitled 'Community of interests: furthering the ecosystems approach and the rights of riparian populations'.[44] It identifies the problem that the legal nature of community of interests and its role in the exercise of sovereignty over shared water resources remain unclear. Chapter 2 examines treaties that expressly recognize 'common interests' or a 'community of interests' between riparian states in order to ascertain the legal conceptualization of community of interests, determine its foundational elements, and identify trends indicating the general direction in which community of interests is evolving. Based on this analysis, the chapter argues that community of interests is a principle that, when provided for in a treaty or subsequently interpreted as such, governs riparian states' relations concerning the shared water resources. Its basic legal features are: (1) the unity of the shared drainage basin; (2) riparian solidarity and cooperation; and (3) the harmonization of riparians' national laws and policies on water governance. In addition, Chapter 2 identified two trends shedding light on the general direction in which the emerging principle of community of interests is evolving: a shift from the traditional approach to environmental protection based on the no-harm rule to the ecosystems approach, and the inclusion of the basin populations as subjects of rights and duties concerning shared drainage basins. Chapter 2 suggests that community of interests promotes a shift from protecting primarily state interests to protecting the environment – irrespective of whether harm is caused to other riparian states – and the rights of the riparian populations. Community of interests thus contributes to harmonising the pivotal dimensions of state sovereignty, environmental protection and human rights.

judicial decisions: River Oder, Gabčíkovo-Nagymaros Project, Pulp Mills on the River Uruguay and Rhine Clorydes; and the for Stockholm Declaration contextual background.

44 Peer-reviewed journal article originally published in 24:2 *The Journal of International Water Law* (2015) 62-72.

Methodology

- Study of legal academic scholarship in order to identify gaps in the knowledge concerning the principle of community of interests.
- Study of a range of secondary sources[45] in order to identify water treaties that expressly recognise a 'community of interests' or 'common interests' between the riparian states.
- Detailed examination of the identified water treaties[46] in order to ascertain the legal conceptualization of community of interests.
- Analysis of said water treaties and relevant judicial decisions[47] in order to identify the foundational elements of community of interests.
- Analysis of said water treaties and judicial decisions in order to identify trends indicating the general direction in which community of interests is evolving.

Chapter 3 on Common concern of humankind

Chapter 3 is entitled 'Why "common concern of humankind" should return to the work of the International Law Commission on the atmosphere'.[48] It identifies the problem that the ILC removed from its Draft Guidelines on the Protection of the Atmosphere (Draft Guidelines) the concept that the degradation of atmospheric conditions is a 'common concern of humankind'. This decision was the result of objections by ILC members concerning the insufficient clarity of the concept of common concern of humankind and its legal con-

45 Legal academic scholarship (treatises, law journals) and databases (International Water Law Project <https://www.internationalwaterlaw.org/>; International Freshwater Treaties Database <https://transboundarywaters.science.oregonstate.edu/content/international-freshwater-treaties-database>; FAO water treaties database < http://www.fao.org/legal/databases/water-treaties/en/>) and my own personal database created during my previous academic work on international water law issues.

46 The water agreements examined in Chapter 2 are: the 1950 Treaty between Canada and the United States concerning the Diversion of the Niagara River, the 1960 Indus Waters Treaty, the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission, the 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, the 1995 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region and the 2000 Revised SADC Protocol, the 2000 Agreement between Botswana, Lesotho, Namibia and South Africa on the Establishment of the Orange-Senqu River Commission (ORASECOM), the 2002 Water Charter of the Senegal River, the 2003 Protocol for Sustainable Development of Lake Victoria Basin, the 2008 Water Charter of the River Niger and the 2012 Water Charter of the Lake Chad Basin.

47 The judicial decisions examined in Chapter 2 are: *River Oder* case, Lake Lanoux arbitral award, *Gabčíkovo-Nagymaros, Indus Waters Kishenganga* (2011), 2004 *Rhine Chlorides* arbitration (Netherlands/France), 2010 *Pulp Mills* case.

48 Peer-reviewed journal article originally published in 29 *Georgetown Environmental Law Review* (2017) 131-151.

sequences. The chapter argues that atmospheric degradation is in fact a common concern of humankind and suggests reinstating the principle in the Draft Guidelines. Two reasons support this argument. First, several international instruments recognize issues of common concern as being those which affect human health and the environment and which require the concerted actions of all states to be effectively addressed. Atmospheric degradation shares these basic characteristics and is therefore a common concern of humankind. Second, short-lived climate pollutants such as black carbon both degrade the atmosphere and cause climate change. Since the UN Framework Convention on Climate Change recognizes climate change as an issue of common concern, atmospheric degradation necessarily also falls within this category. The chapter suggests that returning common concern to the Draft Guidelines would allow the ILC the opportunity to contribute to elaborating on the meaning and scope of this rather controversial principle.

Methodology

- Detailed examination of ILC reports in order to determine and understand the reasons why the concept that the degradation of atmospheric conditions is a 'common concern of humankind' was removed from the ILC Draft Guidelines on the Protection of the Atmosphere.
- Study of treaties, non-binding international instruments, and legal academic scholarship in order to identify the origin, evolution and meaning of the principle of common concern of humankind.
- Analysis of five treaties and five non-binding international instruments containing the principle of common concern of humankind[49] in order to identify the distinctive features shared by the issues currently considered as common concerns of humankind.
- Examination of whether the issue of atmospheric degradation shares those distinctive features.
- Study of reports and scientific academic scholarship in order to gain knowledge of the effects of short-lived climate pollutants (SLCPs) on atmospheric conditions and the linkage between air pollution and climate change.

49 Treaties: UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement; the Convention on Biological Diversity (CBD); the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA); Convention for the Safeguarding of the Intangible Cultural Heritage (CICH). Non-binding or soft law instruments: the Earth Charter; the Langkawi Declaration on the Environment; the Hague Recommendations on International Environmental Law; the International Law Association (ILA)'s New Delhi Declaration of Principles of International Law Relating to Sustainable Development; and the International Union for Conservation of Nature (IUCN)'s Draft Covenant on Environment and Development.

- Analysis of the Air Convention[50] and the 2012 amendment to its Gothenburg Protocol[51] in order to establish the legal recognition of the linkage between SLCPs and climate change.

Chapter 4 on Public participation in climate change governance

Chapter 4 is entitled 'Observer participation in international climate change decision-making: A complementary role for human rights?'[52]. It identifies the problem that while parties to the UNFCCC acknowledged the need to further enhance the effective engagement of observer organizations as progress is made towards the implementation of the Paris Agreement, climate law does not stipulate *how* parties are to ensure effective observer participation. The chapter argues that observance of the human right to participate in public affairs and the obligation to ensure effective participation derived from it could contribute to enhancing observer participation in international UNFCCC decision-making processes. This argument is based on the following reasons. First, the right to participate in public affairs requires states to adopt legislative and other measures as may be necessary to ensure effective participation in decision-making of public interest. Second, the right to participate in public affairs encompasses international decision-making processes. Third, although neither the UNFCCC nor the Paris Agreement expressly refer to ensuring effective observer participation, UNFCCC parties that are also party to relevant human rights treaties have nevertheless the obligation to ensure effective participation including at the international level. This obligation is reinforced by the parties' acknowledgement in the Paris Agreement that they should honour their existing human rights obligations when taking action to address climate change. Consequently, the human right to participate in public affairs provides for obligations for UNFCCC parties that are also party to relevant treaties, which could complement climate provisions and thus contribute to enhancing observer participation in international UNFCCC decision-making processes.

50 Convention on Long-Range Transboundary Air Pollution (13 Nov 1979) 1302 U.N.T.S. 217.

51 Protocol to the 1979 Convention on Long-range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone (30 Nov 1999) 2319 U.N.T.S. 80.

52 Peer-reviewed journal article originally published in 31 *Colorado Natural Resources, Energy, & Environmental Law Review* 2 (2020), 315-378.

Methodology

- Examination of treaties and soft law instruments concerning public participation in environmental matters[53] in order to contextualize observer participation in climate change decision-making.
- Analysis of climate law[54] in order to identify the rules applicable to observer participation in international UNFCCC decision-making processes.
- Study of reports issued by the UNFCCC Subsidiary Body for Implementation and the UNFCCC Secretariat as well as legal and multidisciplinary academic scholarship in order to ascertain the state of affairs regarding public participation.
- Analysis of international human rights law[55] and soft law instruments[56] in order to determine whether and how the right to participate in public affairs and the obligation to ensure effective participation derived from it could complement climate law in such a way as to contribute to enhancing observer participation in international UNFCCC decision-making processes.

53 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention); Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement); Rio Declaration on Environment and Development (Principle 10) and Agenda 21; and UNGA resolutions 'The Future We Want' and Transforming our world: the 2030 Agenda for Sustainable Development.

54 UNFCCC; Paris Agreement; Rules of Procedure of the Conference of the Parties and its Subsidiary Bodies; COP Decisions 18/CP.4 'Attendance of intergovernmental and non-governmental organizations at contact groups'; 1/CP.16 'The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' (Cancun Agreements); 2/CP.17 'Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' (Durban Outcome);

55 I surveyed the following human rights agreements stipulating the right to participate in public affairs: International Covenant on Civil and Political Rights (ICCPR), American Convention on Human Rights (ACHR), International Convention on the Elimination of All Forms of Racial Discrimination, Convention on the Elimination of All Forms of Discrimination against Women, International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, Convention on the Rights of Persons with Disabilities, African Charter of Human and Peoples Rights, and Protocol No. 1 to the European Convention on Human Rights. I selected the ICCPR and the ACHR (including subsequent interpretations by the institutions in charge of overseeing their implementation i.e. the Human Rights Committee, the Inter-American Court of Human Rights and the Inter-American Commission on Human Rights) because the other agreements surveyed focus on the rights to vote and be elected, which do not apply to international decision-making processes.

56 UNGA Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms (Declaration on Human Rights Defenders); UN High Commissioner for Human Rights (OHCHR) 2018 Draft Guidelines for States on the Effective Implementation of the Right to Participate in Public Affairs; OHCHR report *Factors that Impede Equal Political Participation and Steps to Overcome those Challenges* and the recommendations therein.

- Detailed examination of the parties' acknowledgement in the Paris Agreement that they should honour their existing human rights obligations when taking climate action and the history thereof, in order to ascertain the meaning of said acknowledgement for public participation.
- Exploration of possible ways in which the human right to participate in public affairs could complement climate provisions on observer participation at the international level.

Chapter 5 on Sustainable development and ocean commons governance

Chapter 5 is entitled 'How the Sustainable Development Goals promote a new conception of ocean commons governance'.[57] It identifies the problem that the existing conception of ocean commons governance primarily involves states and industry organizations and restricts access to civil society. Chapter 5 argues that the Sustainable Development Goals (SDGs) contribute to developing a new conception of ocean commons governance by emphasizing civil society participation in achieving sustainable development. This argument is based on two reasons. First, the SDGs encourage institutions at all levels to strengthen public access to information and participation in decision making in order to increase transparency, accountability and effectiveness of their administration. Second, the study of public participation in regional fisheries management organizations (RFMOs) and the International Seabed Authority (ISA) shows that the existing conception of ocean commons governance primarily involves states and industry organizations and restricts access to civil society. The chapter suggests that the SDGs promote a new understanding of ocean commons governance in which public participation is integral to the governing process and necessary to ensure institutional transparency, accountability and effectiveness for sustainable development.

Methodology

- Study of reports issued by the Global Ocean Commission,[58] UN organizations and bodies,[59] regional fisheries management organizations (RFMOs), the International Seabed Authority (ISA) as well as multidisciplinary aca-

57 Book chapter subjected to review by the book editors originally published in D. French and L. Kotzé (eds.) *Global Goals: Law, Theory and Implementation* (Edward Elgar, 2018) 117–146.

58 Independent commission established in 2013 to raise awareness and promote action to address ocean degradation. It was conceived by the Pew Charitable Trusts and hosted by Somerville College at the University of Oxford. Members of the GOC included José María Figueres (former President of Costa Rica), Vladimir Golitsyn (then President of the International Tribunal for the Law of the Sea), and Pascal Lamy (Former Director-General of the WTO).

59 Food and Agriculture Organization of the United Nations (FAO), UN Environment Programme (UNEP), Intergovernmental Panel on Climate Change (IPCC).

demic scholarship in order to ascertain the state of affairs regarding the use and protection of high seas fisheries and deep seabed minerals (ocean commons), and identify the source of prominent governance problems.
- Examination of treaties and soft law instruments concerning public participation in environmental matters[60] as well as multidisciplinary academic scholarship in order to contextualize public participation in ocean commons governance.
- Detailed study of the UN Convention on the Law of the Sea (UNCLOS), its Fish Stock Agreement[61] and 1994 Implementing Agreement,[62] rules and regulations issued by the ISA,[63] and relevant rules of procedure[64] in order to identify the legal framework applicable to public participation in RFMOs and the ISA.
- Detailed examination of reports,[65] performance reviews of RFMOs, ISA periodic review and multidisciplinary academic scholarship in order to ascertain the state of affairs regarding public participation in RFMOs and the ISA.
- Analysis of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) in order to clarify its legal nature, ascertain the role of public participation in the drafting and subsequent implementation of the SDGs and establish the potential of SDGs 14 and 16 to influence ocean commons governance.
- Analysis of SDG 16 in order to determine the role of public participation in achieving the goal of building strong institutions at all levels set therein and to establish the potential of SDG 16 to influence institutions governing high seas fisheries and deep seabed minerals (RFMOs and the ISA respectively).

60 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention); Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement); Rio Declaration on Environment and Development (Principle 10) and Agenda 21; and UNGA resolutions 'The Future We Want' and Transforming our world: the 2030 Agenda for Sustainable Development.

61 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

62 1994 Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea.

63 *Inter alia*, Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, ISBA/19/C/17 (22 July 2013); Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11 (27 July 2012); and Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1 (7 May 2010).

64 Rules of procedure of RFMOs and organs of the ISA (Assembly, Council, Legal and Technical Commission).

65 Issued by the Global Ocean Commission, FAO, World Bank.

6 SUMMARY TABLE

The following table summarizes the problem or knowledge gap and the research questions per chapter.

Ch.	*Title*	*Problem*	*Research questions*
1	Differentiating between Sovereignty over Exclusive and Shared Resources in the Light of Future Discussions on the Law of Transboundary Aquifers	The recognition of PSNR over transboundary aquifers is controversial. The main objections are that the exercise of PSNR over transboundary aquifers might discourage transboundary cooperation and be insufficient to protect the environment of shared freshwater resources.	Is the sovereignty exercised over natural resources under the exclusive jurisdiction of a state different from the sovereignty exercised over resources that are shared by two or more states? If that is the case, what distinguishes one from the other? What is the usefulness of differentiating between them from the perspective of transboundary cooperation and environmental protection?
2	Community of Interests: Furthering the Ecosystems Approach and the Rights of Riparian Populations	The legal nature of community of interests and its role in the exercise of sovereignty over shared water resources remain unclear.	What is the legal nature of the principle of community of interests? How does community of interests relate to the exercise of sovereignty over shared water resources? Does international water law show any trends indicating that the emerging principle of community of interests is evolving in a certain direction?

Ch.	*Title*	*Problem*	*Research questions*
3	Why 'Common Concern Of Humankind' Should Return to the Work of the International Law Commission on the Atmosphere	The International Law Commission removed from its Draft Guidelines on the Protection of the Atmosphere the concept that the degradation of atmospheric conditions is a 'common concern of humankind' because of objections by ILC members concerning the insufficient clarity of the concept of common concern of humankind and its legal consequences.	What does the principle of common concern of humankind entail according to international law? What are the legal consequences of the principle? Is atmospheric degradation a common concern of humankind?
4	Observer participation in international climate change decision-making: A complementary role for human rights?	Parties to the UNFCCC acknowledged the need to further enhance the effective engagement of observer organizations as the UNFCCC process moves towards implementation of the Paris Agreement. However, climate law does not stipulate *how* parties are to ensure effective observer participation.	What characterizes observer participation in international climate change decision-making processes? What does the acknowledgement in the Paris Agreement that parties should comply with human rights obligations mean? What does the human right to participate in public affairs entail? Does it encompass decision-making processes at the international level? How could the right to participate in public affairs complement climate law and possibly contribute to enhancing observer participation in international climate change decision-making?

Ch.	*Title*	*Problem*	*Research questions*
5	How the Sustainable Development Goals promote a new conception of ocean commons governance	While binding and non-binding international instruments provide for and decisively encourage public participation in environmental governance, the existing conception of ocean commons governance primarily involves states and industry organizations and restricts access to civil society.	What is the state of affairs regarding the use and protection of high seas fisheries and deep seabed minerals? What is the situation of public participation in institutions governing these resources and the legal framework applicable thereto? What role for public participation in the Sustainable Development Goals (SDGs)? What is the legal nature of the SDGs? In what way could SDG 14 (sustainable use of marine resources) and SDG 16 (building strong institutions at all levels) influence institutions governing high seas fisheries and deep seabed minerals for sustainable resource governance?

7 PUBLICATION STATUS PER CHAPTER

Chapter 1

'Differentiating between Sovereignty over Exclusive and Shared Resources in the Light of Future Discussions on the Law of Transboundary Aquifers' published in 24 *Review of European Comparative & International Environmental Law (RECIEL)* 1 (2015) 4-15.

Chapter 2

'Community of Interests: Furthering the Ecosystems Approach and the Rights of Riparian Populations' published in 24 *The Journal of International Water Law* 2 (2015) 62-72.

Chapter 3

'Why "common concern of humankind" should return to the work of the International Law Commission on the atmosphere', published in 29 *Georgetown Environmental Law Review* 131 (2017) 131-151.

Chapter 4

'Observer participation in international climate change decision-making: A complementary role for human rights?', published in 31 *Colorado Natural Resources, Energy, & Environmental Law Review* 2 (2020) 315-378.

Chapter 5

'How the Sustainable Development Goals Promote a New Conception of Ocean Commons Governance' published in D. French and L. Kotzeì (eds.), *Sustainable Development Goals: Law, Theory and Implementation* (Edward Elgar 2018) 117–146.

1 Differentiating between Sovereignty over Exclusive and Shared Resources in the Light of Future Discussions on the Law of Transboundary Aquifers

ABSTRACT

The recognition of permanent sovereignty over natural resources (PSNR) over transboundary aquifers is controversial primarily because PSNR might discourage transboundary cooperation and be insufficient to protect the environment of shared freshwater resources. The chapter argues that PSNR and 'sovereignty over shared natural resources' (SSNR) are distinct from each other. First, it presents the controversy caused by applying the principle of permanent sovereignty over natural resources to resources that are shared by two or more states. It then analyses relevant international instruments in order to identify characteristics that distinguish sovereignty over exclusive resources from sovereignty over shared resources. This compared analysis finds three main differences. First, PSNR is exercised exclusively by one state over the natural resources located entirely within its national boundaries and in areas under its exclusive economic jurisdiction (exclusive economic zone and continental shelf), while SSNR is exercised jointly by two or more states over resources distributed over their respective territories and where utilization by one state affects utilization by the other(s). Second, the original purpose of PSNR was to ensure political and economic self-determination, while that of SSNR was to regulate the benefit sharing from, and the environmental protection of, shared natural resources. Third, the essential and characteristic right under PSNR to freely dispose of natural resources does not apply to resources that are shared, while the essential and characteristic duty under SSNR to cooperate does not apply to resources under exclusive jurisdiction. Based on these findings, the chapter concludes that PSNR and SSNR are conceptually different, constituting distinct legal regimes. The chapter suggests that understanding SSNR as a set of rules different from those of PSNR could promote that shared resource governance continues to be increasingly focused on cooperation and environmental protection, and less and less oriented towards satisfying state's territorial interests. In addition, increased awareness of the differences between sovereignty over exclusive and shared resources could facilitate negotiations, particularly in the light of the ongoing discussions on the law of transboundary aquifers at the UNGA.

1 INTRODUCTION

The International Law Commission (ILC) adopted the Draft Articles on the Law of Transboundary Aquifers (Draft Articles)[1] in 2008 as a result of its work on the topic of shared natural resources.[2] This chapter follows the work of the ILC on this topic. Therefore, the term 'shared resources' refers here to natural resources contained in a single geological formation (i.e., groundwater, oil and natural gas) situated in the territory of a limited number of States.[3] 'Transboundary aquifers' are defined in the Draft Articles as 'a permeable water-bearing geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation'.[4]

The United Nations General Assembly (UNGA) took note of the Draft Articles and encouraged States to take them into account in managing their transboundary aquifers.[5] Whether the Draft Articles will take the form of a convention or non-binding guidelines is yet to be decided. The UNGA considered the item entitled 'The law of transboundary aquifers' at its sixty-sixth (2011)[6] and sixty-eight (2013)[7] sessions and included it in the agenda of its seventy-first session (2016).[8] Under 'General Principles', the Draft Articles

1 Draft articles on the Law of Transboundary Aquifers, Report of the International Law Commission (ILC Report), Sixtieth session (2008) in Official Records of the General Assembly, Sixty-third session, Supplement No. 10 (A/63/10).

2 This topic was added to the programme of work of the ILC in 2002 and included groundwater, oil and natural gas. C. Yamada, Shared Natural Resources: First Report on Outlines UN Doc A/CN.4/533 (30 April 2003) para. 4.

3 Ibid., para. 17. See also R. Rosenstock, Shared Natural Resources of States, Report of the International Law Commission, Fifty-second session (2000) in Official Records of the General Assembly, Fifty-fifth session Supplement No. 10 (A/55/10) Annex, Section 3. The ILC only finished draft articles on transboundary aquifers; its work on oil and natural gas was discontinued in 2008. See S. Murase, Shared Natural Resources: Feasibility of Future Work on Oil and Gas, International Law Commission Sixty-second session (UN Doc. A/CN.4/621, 9 March 2010), at 3.

4 Draft Articles (n. 1) Art. 2(a).

5 UNGA 'The law of transboundary aquifers' UN Doc A/RES/63/124 (15 January 2009). For a comprehensive description of the work of the ILC on transboundary aquifers, see K. Mechlem, 'Moving Ahead in Protecting Freshwater Resources: The International Law Commission's Draft Articles on Transboundary Aquifers', 22:4 *Leiden Journal of International Law* (2009), 801.

6 UNGA 'The law of transboundary aquifers' UN Doc A/RES/66/104 (13 January 2012).

7 UNGA 'The law of transboundary aquifers' UN Doc A/RES/68/118 (19 December 2013).

8 Ibid., para. 3. After the publication of this journal article, the topic of the law of transboundary aquifers was discussed during the seventy-first (2016) and seventy-fourth (2019) sessions of the UNGA and will once again be considered at the seventy-seventh session (2022) showing that the discussion is not only still in progress but also relevant. See UNGA 'The law of transboundary aquifers' UN Doc A/RES/71/150 (20 December 2016) and UNGA 'The law of transboundary aquifers' UN Doc A/RES/74/193 (30 December 2019).
For a discussion on the future form of the Draft Articles, including the advantages and disadvantages of each possibility, see G. Eckstein and F. Sindico, 'The Law of Transboundary

enumerate the core principles of international water law – namely equitable and reasonable utilization, the obligation not to cause significant harm, co-operation, and exchange of data and information.[9] These principles are considered part of customary international law.[10] In addition, and for the first time in an instrument regulating shared water resources, the Draft Articles include one more principle: sovereignty. The Draft Articles apply the principle of 'permanent sovereignty over natural resources' (PSNR) to shared aquifers, referring to UNGA Resolution 1803 (XVII) in the Preamble and providing in Draft Article 3 that: 'Each aquifer State has sovereignty over the portion of a transboundary aquifer or aquifer system located within its territory. It shall exercise its sovereignty in accordance with international law and the present draft articles.'[11] This recognition of sovereignty over transboundary aquifers has proven to be controversial.

As discussed below, the scholarly debate about the effect of PSNR on the attitude of states sharing resources and about the limitations of the no-harm rule suggests that applying PSNR to shared resource governance would not contribute to advancing transboundary cooperation and effective environmental protection. If PSNR encompasses shared resources, the protection of state interests would prevail over the protection of transboundary ecosystems. In addition, discussions within UN organs show that the issue of sovereignty over shared resources is controversial and highly influenced by political concerns. In this light, the chapter explores the possibility of distinguishing between PSNR and SSNR, thus establishing a foundation for a different approach to the topic. It does so by looking into differences between PSNR and SSNR based on, first, the nature of the resources over which they are exercised; second, their original purpose; and third, their distinguishing rights and duties. Based on the differences found, the chapter argues that PSNR and 'sovereignty over shared natural resources' (SSNR) are distinct from each other. It concludes that although the overlap found in the Draft Articles -in which PSNR seemingly applies to shared resources, at least shared aquifers – reflects the current political reality, PSNR and SSNR are nevertheless conceptually different and constitute distinct legal regimes. The chapter suggests that understanding SSNR as a set of rules different from those of PSNR could promote that shared resource governance continues to be increasingly focused on cooperation and environmental protection, and less and less oriented towards satisfying state's territorial interests. In addition, increased awareness of the differences between sovereignty over exclusive and shared resources could make debates about

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Aquifers: Many Ways of Going Forward, but Only One Way of Standing Still', 23:1 *Review of European, Comparative and International Environmental Law* (2014), 32.

9 Draft Articles, n. 1 above, Articles 4-8.

10 P. Sands and J. Peel, *Principles of International Environmental Law* (Cambridge University Press, 2012), at 305–319.

11 Draft Articles, n. 1 above, Article 3.

the issue of sovereignty over transboundary aquifers more straightforward and negotiations easier, particularly in the light of the discussions about the law of transboundary aquifers scheduled at the UNGA.[12]

The chapter begins by presenting discussions about applying the principle of PSNR to shared aquifers and to shared resources in general. It then elaborates on the three fundamental differences between PSNR and SSNR. The chapter concludes that these are two different concepts constituting distinct legal regimes.

2 SOVEREIGNTY OVER SHARED RESOURCES: A CONTROVERSIAL ISSUE

2.1 Academic discussion

Draft Article 3 limits the exercise of sovereignty by international law and the Draft Articles, and in the words of the ILC it 'represents an appropriately balanced text'.[13] In addition, it is argued that the Draft Articles impose considerable restrictions and obligations through the provisions on equitable use, no harm, information exchange and cooperation, which would mitigate the reference to sovereignty.[14] However, academic discussions have focused on whether recognizing sovereignty over the portion of a shared aquifer located within a national jurisdiction entails a regression to theories of absolute sovereignty over shared water resources, such as the discredited Harmon Doctrine.[15] Such regression would clash with the principle of limited territorial sovereignty[16] that is currently the norm in international water law and according to which the exercise of sovereignty over shared waters is limited by the obligation not to cause significant harm to other states.[17] To dissipate this concern, some alternatives have been suggested. For instance, establishing two

12 The topic of the law of transboundary aquifers will be considered at the seventy-seventh session (2022) of the UNGA, n. 8 above.

13 Draft Articles on the Law of Transboundary Aquifers with Commentaries, in: Yearbook of the International Law Commission, Volume II, Part Two (UN Doc. A/CN.4/SER.A/2008/Add.1, 2008), Draft Article 3, Commentary (3).

14 See, e.g., G. Eckstein, 'Commentary on the UN International Law Commission's Draft Articles on the Law of Transboundary Aquifers', 18:3 *Colorado Journal of International Environmental Law and Policy* (2007), 537, at 560–562. See also A. Tanzi, 'Furthering International Water Law or Making a New Body of Law on Transboundary Aquifers? An Introduction', 13:3 *International Community Law Review* (2011), 193, at 204–205.

15 S. McCaffrey, 'The International Law Commission Adopts Draft Articles on Transboundary Aquifers', 103:2 *American Journal of International Law* (2009), 272, at 289; K Mechlem, 'Past, Present and Future of the International Law of Transboundary Aquifers', 13:3 *International Community Law Review* (2011), 209, at 219–220.

16 Also referred to as 'restricted sovereignty'. See, e.g., E. Brown Weiss, 'The Evolution of International Water Law', 331 *Recueil de Cours* (2007), at 94.

17 S.C. McCaffrey, *The Law of International Watercourses* (Oxford University Press, 2007), at 135–147.

different regimes – one for the geological formation that contains the groundwater, based on sovereignty; and another for the water itself, based on equitable use and a community of interest[18] – or, more drastically, eliminating the concept of sovereignty from the Draft Articles altogether.[19] The latter is suggested because recognizing sovereignty 'risks encouraging [the] state to drill first and ask questions later – or, more likely, to wait to see if its neighbour asks questions later'.[20] Indeed, a significant apprehension among scholars regarding the recognition of sovereignty over shared aquifers is that it might discourage transboundary cooperation. For instance, McCaffrey and Neville argue that assertions of sovereignty 'tend to engender disputes over international waters and hinder their resolution'.[21] Eckstein argues that States would be less inclined to cooperate in determining their rights over shared waters because they perceive any interference with their rights over their natural resources as 'an infringement of [their] sovereignty'.[22] Vick states that sovereignty is 'unhelpful' for promoting cooperation over shared water resources[23] and that Article 3 of the Draft Articles 'should be deleted or transformed' so as not to give the idea that sovereignty over shared aquifers is exercised by one state to the exclusion of the other/s.[24]

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18 O. McIntyre, 'International Water Resources Law and the International Law Commission Draft Articles on Transboundary Aquifers: A Missed Opportunity for Cross-fertilisation?', 13:3 *International Community Law Review* (2011), 237, at 248, 254.

19 S.C. McCaffrey, 'The International Law Commission's Flawed Draft Articles on the Law of Transboundary Aquifers: The Way Forward', 36:5 *Water International* (2011), 566, at 571.

20 Ibid., at 570.

21 See, e.g., S.C. McCaffrey and K.J. Neville, 'The Politics of Sharing Water: International Law, Sovereignty and Transboundary Rivers and Aquifers', in: K. Wegerich and J. Warner (eds.), *The Politics of Water: A Survey* (Routledge, 2010), 18, at 19. See also A. López and R. Sancho, 'Central America', in: F. Rocha Loures and A. Rieu-Clarke (eds.), *The UN Watercourses Convention in Force: Strengthening International Law for Transboundary Water Management* (Routledge, 2013), 123, at 130–131 stating that notions of traditional sovereignty, territoriality and national interests remain a serious challenge for inter-State cooperation in the Central American region.

22 G.E. Eckstein, 'Buried Treasure or Buried Hope? The Status of Mexico-US Transboundary Aquifers under International Law', 13:3 *International Community Law Review* (2011), 273, at 286 (citing the Israeli/Palestinian negotiations over the Jordan River and the Mountain Aquifer as an example in which negotiations over water rights hindered the development of cooperative water arrangements).

23 M.J. Vick, 'International Water Law and Sovereignty: A Discussion of the ILC Draft Articles on the Law of Transboundary Aquifers', 21:2 *Pacific McGeorge Global Business and Development Law Journal* (2008), 191, at 213.

24 Ibid., at 221, suggesting that Article 3 should be transformed according to the principle of equitable apportionment as defined in 1907 by the United States Supreme Court in the *Kansas v. Colorado* case (also known as the 'Arkansas River Disputes'). Here, the Court recognized the sovereign equality of each of the riparian states and the sovereign right of each state to assert jurisdiction over and regulate the use of their equitable share of the water contained in transboundary aquifers. However, it determined that neither state had sovereignty over the water to the exclusion of the other. Ibid., at 215.

In addition, scholars also point out apprehensions related to environmental protection and water security. Indeed, although subject to the *sic utere tuo ut alienum non laedas* ('use your own as not to harm that of another') principle or no-harm rule, the theory of limited territorial sovereignty has been criticized as being insufficient to protect the environment of shared water resources.[25] According to this view, limited territorial sovereignty would allow states to use (and abuse) the resource until the required threshold of *significant* harm to any of the other states concerned is reached and a resulting complaint is made by the affected state/s. McCaffrey points out that the no-harm rule is not 'an *absolute* obligation, but rather one of due diligence, or best efforts under the circumstances'.[26] In addition, Brunnée and Toope argued that the no-harm rule seeks to balance conflicting sovereign rights and therefore focuses on the protection of state's territorial interests rather than on the protection of the environment as such.[27] This state-centred approach to environmental protection would be contrary to the ecosystem-centred approach necessary for the effective protection of the flora and fauna of international rivers *per se* – that is, irrespective of whether harm is caused to other states.[28] On the issue of water security, Grey and Garrick argue that the principle of sovereignty is no longer capable of providing 'the primary basis for achieving and sustaining water security' because its local character does not correlate with the global nature and interdependencies of the water cycle.[29]

2.2 Discussions within UN organs

Discussions on the Draft Articles on the Law of Transboundary Aquifers within the ILC and the Sixth Committee of the UNGA (Sixth Committee) proved the issue of exercising PSNR over shared aquifers to be controversial and highly influenced by political concerns. Similar discussions took place earlier in the *travaux préparatoires* of other international instruments – namely the Charter

25 A. Tanzi and M. Arcari, *The United Nations Convention on the Law of International Watercourses: A Framework for Sharing* (Kluwer Law International, 2001), at 19–20.

26 S.C. McCaffrey, 'The Contribution of the UN Convention on the Law of the Non-navigational Uses of International Watercourses', 1:3-4 *International Journal of Global Environmental Issues* (2001), 250, at 254 (emphasis in the original).

27 J. Brunnée and S.J. Toope, 'Environmental Security and Freshwater Resources: A Case for International Ecosystem Law', 5 *Yearbook of International Environmental Law* (1994), 41, at 53–54.

28 See also J. Brunnée and S.J. Toope, 'Environmental Security and Freshwater Resources: Ecosystem Regime Building', 91:1 *American Journal of International Law* (1997), 26, at 37.

29 D. Grey and D. Garrick, 'Water Security, Perceptions and Politics: The Context for International Watercourse Negotiations', in: L. Boisson de Chazournes, C. Leb and M. Tignino (eds.), *International Law and Freshwater: The Multiple Challenges* (Edward Elgar, 2013), 37, at 44–45.

of Economic Rights and Duties of States (CERDS),[30] the Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States (UNEP Draft Principles),[31] and the 1997 UN Convention on the Non-navigational Uses of International Watercourses (UNWC).[32] These discussions show the insistence of states on ensuring the protection of their interests over shared resources through the principle of PSNR.

During discussions on the Draft Articles, the issue of sovereignty over transboundary aquifers was considered at length both at the ILC and at the Sixth Committee. It was also addressed in the comments of governments submitted to the ILC, in which states advocated including an explicit reference to the principle of PSNR in the Draft Articles. This was requested 'particularly by those delegations [at the UNGA] that are of the opinion that water resources belong to the States in which they are located and are subject to the exclusive sovereignty of those States'.[33] Eventually, the preamble to the Draft Articles included express reference to UNGA Resolution 1803 (XVII) on PSNR. Part of the discussions focused on the terminology used by the ILC, where the term 'shared' in the title of the ILC topic 'Shared natural resources' was a matter of concern in connection with the principle of PSNR.[34] The concerns were primarily based on the fact that 'the term "shared resources" might refer to a shared heritage of mankind or to notions of shared ownership'.[35] Comments during ILC sessions throw light on the nature of the discussions. The Costa Rican member stated that: 'Above all, he supported the idea of deleting the word "shared" so as not to give the impression that what was meant was "shared property". That was a key point that must be extremely clear.'[36] The member from New Zealand affirmed that: 'The decision to refer to "transboundary" rather than "shared" natural resources seemed sensible. The former term had the obvious advantage of describing the physical characteristics of the resources rather than the attitude or action taken by the contiguous States

30 Charter on the Economic Rights and Duties of States (UNGA Resolution 3281 (XXIX), 12 December 1974) ('CERDS').

31 UNEP Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, 17 I.L.M. 1091 (1978).

32 Convention on the Law of the Non-navigational Uses of International Watercourses (New York, 21 May 1997; in force 17 August 2014).

33 C. Yamada, Third Report on Shared Natural Resources: Transboundary Groundwaters (UN Doc. A/CN.4/551, 11 February and 9 March 2005), at paragraph 4.

34 International Law Commission (ILC), Summary Record of the 2778th Meeting (UN Doc. A/CN4/SR.2778, 2003), at paragraph 3.

35 C. Yamada, Second Report on Shared Natural Resources: Transboundary Groundwaters (UN Doc. A/CN.4/539, 9 March and 12 April 2004), at paragraph 3.

36 ILC, Summary Record of the 2798th Meeting (UN Doc. A/CN.4/SR.2798, 2004), at paragraph 7.

towards them.'[37] The Malian member stated that 'the phrase "shared transboundary groundwaters" was problematic from the technical, political and legal points of view. It would thus be sensible to dispense with the word "shared" in the title and retain only the subtitle "transboundary groundwaters" '.[38] And the Italian member expressed that 'it might be useful to state, if only in the preamble, that territorial sovereignty over groundwaters was not under discussion'.[39]

Because of the sensitivity of the issue, Special Rapporteur Chusei Yamada decided in his report of 2004 to focus on the sub-topic of transboundary groundwaters in the times when the ILC dealt exclusively with groundwaters.[40] One year later, and considering that '[s]ome aquifer States continued to object to the application of the concept of "shared" natural resources to groundwaters',[41] the Special Rapporteur said that '[h]e continued to avoid using the word "shared", but it should be noted that accepting the principle of "equitable utilization" implied recognizing the shared character of a transboundary aquifer and the absence of absolute sovereign rights over it'.[42] The original terminology was nevertheless considered appropriate by some delegations, since in their view it referred to only common management, and not sovereignty or common heritage.[43]

A similar controversy took place in the *travaux préparatoires* of the CERDS,[44] the UNEP Draft Principles and the UNWC. The discussions about the CERDS show that states had trouble finding a harmonious interpretation of PSNR, addressed in Article 2, and the exploitation of shared natural resources, addressed in Article 3. Article 2 states: 'Every State has and shall freely exercise full permanent sovereignty, including possession, use and disposal, over all its wealth, natural resources and economic activities.'[45] Article 3 states: 'In the exploitation of natural resources shared by two or more countries, each State must co-operate on the basis of a system of information and prior consultations to

37 ILC, Summary Record of the 2797th Meeting (UN Doc. A/CN.4/SR.2797, 2004), at paragraph 36.

38 See ILC, n. 36 above, at paragraph 45.

39 Ibid., at paragraph 3.

40 See C. Yamada, n. 35 above, at paragraph 4. In the end, the ILC discontinued its work on oil and gas (S. Murase, n. 3 above). It therefore made no final statement on the terminology and its implications for sovereignty.

41 ILC, Summary Record of the 2831st Meeting (UN Doc. A/CN4/SR2831, 2005), at 6.

42 Ibid., at 7.

43 Sixth Committee, Summaries of Work 59th Session (2004), Report of the International Law Commission on the Work of its Fifty-sixth Session, Shared Natural Resources, found at: <http://www.un.org/law/cod/sixth/59/sixth59.htm>.

44 The fact that the legal effects of the CERDS are contested is irrelevant to this analysis because this chapter aims at illustrating the controversy regarding the exercise of permanent sovereignty over shared resources and at pointing out the distinction between exclusive and shared resources made in Articles 2 and 3 (see below). The aim of this chapter is not to discuss the legal nature of the obligations contained in the CERDS.

45 CERDS, n. 30 above, Art. 2.

achieve optimum use of such resources without causing damage to the legitimate interest of others.'[46] Comments of states claiming the protection of their interests through the principle of PSNR include, for instance, that Article 3 imposes an undue limitation to the exercise of PSNR (Afghanistan), that it openly disregards PSNR (Bolivia), that optimum use and prior consultations constitute a 'grave and unacceptable limitation' of PSNR (Brazil), that prior consultations could be interpreted as prior consent, which would be a clear contravention of PSNR (Ethiopia); and that the principle of PSNR is 'negated and diminished' by Article 3 (Paraguay).[47]

The effort to reconcile PSNR and shared resource governance is also observed in the UNEP Draft Principles, which recognize the basic principles of the exercise of sovereignty over shared natural resources – namely equitable and reasonable utilization, the obligation not to cause significant harm, exchange of information, prior notification of planned measures and consultation and the duty to cooperate. Draft Principle 1 tries to harmonize said basic principles with PSNR, providing that the duty to cooperate is to be fulfilled 'on an equal footing and taking into account the sovereignty, rights and interests of the States concerned'.[48] In this way, Principle 1 ensures that territorial rights and interests of states are expressly considered. During discussions at the UNGA on adopting the UNEP Draft Principles, several states reiterated their objection to any breach of sovereignty.[49] Finally, similar debates took place during the discussions on the Draft Articles on the Non-navigational Uses of International Watercourses.[50] This was the first time that the ILC dealt with shared resources, and these Draft Articles formed the basis of the UNWC.[51] Here, all references to 'shared' were changed to 'transboundary' because of the continued opposition to the phrase 'shared natural resources'.[52]

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46 Ibid., Art. 3.

47 UN, *Yearbook of the United Nations* (UN, 1977), at 397. Article 3 was adopted by 100 votes to eight with 28 abstentions; the high number of abstentions illustrates the controversy of the issue. See N Schrijver, *Development without Destruction: The UN and Global Resource Management* (Indiana University Press, 2010), at 58.

48 UNEP Draft Principles, n. 31 above, Principle 1.

49 UN, *Yearbook of the United Nations* (UN, 1978), at 537.

50 Draft Articles on the Law of the Non-Navigational Uses of International Watercourses and Commentaries thereto and Resolution on Transboundary Confined Groundwater, in: Yearbook of the International Law Commission, Volume II, Part II (UN Doc. A/CN.4/SER.A/1994/Add.l, 1994), at 89.

51 See P. Sands and J. Peel, n. 10 above, at 310.

52 P. Birnie, A. Boyle and C. Redgwell, *International Law and the Environment* (Oxford University Press, 2009), at 193. See also E. Benvenisti, 'Collective Action in the Utilization of Shared Freshwater: The Challenges of International Water Resources Law', 90:3 *American Journal of International Law* (1996), 384, at 399 (arguing that the ILC's rejection of the concept should be reconsidered because its recognition could enhance the riparians' duty to cooperate). The Report of the United Nations Conference on Sustainable Development held in Rio de Janeiro in 2012 (Rio+20) contains one recent example of the insistence of States on including express recognition of permanent sovereignty in the context of water resources (Report

Arguably, PSNR could help dissipate certain political concerns. For instance, it could protect aquifer states as a group from foreign intervention by third States or international organizations,[53] including environmental interventions,[54] and from the intention to make shared aquifers part of the common heritage of humankind.[55] Further, PSNR could possibly contribute to allocating responsibility to the aquifer states for complying with the duties inherent to the exercise of sovereignty over the shared resource.[56] However, as shown below, PSNR focuses on the rights of states to manage natural resources under their exclusive jurisdiction (with correlative duties derived, for example, from international environmental law) without addressing the need to jointly manage resources that are shared. In addition, environmental protection based on the no-harm rule has a definite territorial scope. It does not address the environment as such (i.e., disconnected from the artificial political boundaries of states) but to the extent that significant harm is caused to the territory of another state. Considering that academic discussions suggest that PSNR might discourage transboundary cooperation and be insufficient to effectively protect the environment of shared water resources,[57] and that discussions within UN organs prove the issue of sovereignty over shared resources to be controversial and highly influenced by political concerns, the chapter explores whether

of the United Nations Conference on Sustainable Development, Rio de Janeiro, 20-22 June 2012 (UN Doc. A/CONF.216/16, 2012). In the report, states reaffirmed their commitment to the human right to safe drinking water and sanitation, which is to be progressively realized for their populations 'with full respect for national sovereignty' (ibid., at paragraph 121). Considering that groundwater constitutes approximately 97% of the fresh water on earth (C. Yamada, n. 2 above, at paragraph 12) and that a large number of aquifers are shared between two or more states (see, e.g., G. Eckstein and A. Aureli, 'Strengthening Cooperation on Transboundary Groundwater Resources', 36:5 *Water International* (2011), 549), this statement has implications for the governance of shared aquifers as well as for the fulfilment of the human right to water and sanitation.

53 F. Sindico, 'The Guarani Aquifer System and the International Law of Transboundary Aquifers', 13:3 *International Community Law Review* (2011), 255, at 261–262.

54 F.X. Perrez, *Cooperative Sovereignty: From Independence to Interdependence in the Structure of International Environmental Law* (Kluwer Law International, 2000), at 95.

55 L. del Castillo Laborde, 'The Guaraní Aquifer Framework Agreement (2010)', in: L. Boisson de Chazournes, *et al.*, n. 29 above, 196, at 207.

56 The Argentinian member of the ILC stated that permanent sovereignty places 'the primary responsibility for the use and management of each transboundary aquifer on the State where the aquifer was located'. Report of the International Law Commission on the Work of its Fifty-eighth Session (2006), Topical Summary of the Discussion held in the Sixth Committee of the General Assembly During its Sixty-first Session, Prepared by the Secretariat (UN Doc. A/CN4/577, 19 January 2007), at paragraph 10. The same member had pointed out earlier that recognizing permanent sovereignty 'was consistent with … the crucial role assigned to aquifer States in the draft articles'. ILC, Summary Record of the 2834th Meeting (UN Doc. A/CN.4/SR.2834, 19 May 2005), at 15–16.

57 See S.C. McCaffrey and Neville, n. 21 above; G.E. Eckstein, n. 22 above; M.J. Vick, n. 23 above; J. Brunnée and S.J. Toope, n. 27 above; J. Brunnée and S.J. Toope, n. 28 above. See also E Benvenisti, *Sharing Transboundary Resources: International Law and Optimal Resource Use* (Cambridge University Press, 2002), at 18.

approaching the issue from a different angle could contribute to dissipating concerns. Therefore, it does not ask whether PSNR should apply – the question around which the above discussions revolve – but whether PSNR is any different from the sovereignty exercised over resources that are shared by two or more states. The next section thus identifies distinctive characteristics of PSNR and SSNR, and conducts a compared analysis of said characteristics.

3 SOVEREIGNTY OVER EXCLUSIVE AND SHARED RESOURCES: DIFFERENT CONCEPTS

The main differences between PSNR and SSNR are based on the nature of the resources over which they are exercised (exclusive versus shared), their original purpose (strengthening political and economic self-determination versus benefit sharing and environmental protection) and their distinctive rights and duties (right to freely dispose of exclusive resources versus duty to cooperate in managing shared resources). These differences allow for the argument that PSNR and SSNR are two different concepts and constitute two different sets of rules.

3.1 The nature of the resource determines applicable concept of sovereignty

3.1.1 Sovereignty over exclusive resources

Exclusive resources are located entirely within the international borders of a state.[58] Based on the principle of territorial sovereignty, PSNR is exercised over these resources by the state concerned to the exclusion of other states.[59] Territorial sovereignty extends to the land and subsoil, internal waters, the territorial sea and the airspace above these areas.[60] As reaffirmed by UNGA Resolution 3171 (XXVIII), states exercise permanent sovereignty over all their natural resources 'on land within their international boundaries as well as those in the sea-bed and the subsoil thereof within their national jurisdiction and in the superjacent waters'.[61] Later, the law of the sea extended the exercise of sovereign rights to the continental shelf[62] and the exclusive economic zone,[63] placing both areas under the exclusive economic jurisdiction of the

58 See N.J. Schrijver, n. 47 above, at 5.
59 See P. Birnie *et al.*, n. 52 above, at 190–192.
60 See P. Sands and J. Peel, n. 10 above, at 12.
61 Permanent Sovereignty over Natural Resources (UNGA Resolution A/RES/3171(XXVIII), 17 December 1973), at paragraph 1.
62 United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982; in force 16 November 1994), Article 77.
63 Ibid., Article 56.

coastal state. Exclusive resources are then under the sole jurisdiction of the state concerned. Consequently, for instance, if the state does not exploit them, no other state can. Exclusive resources are subject to national law; international law applies only to the transboundary impacts of their utilization, if any. Further, as discussed below, the right to freely dispose of natural resources – an essential and characteristic element of PSNR – can only be exercised with respect to resources under exclusive jurisdiction.

3.1.2 Sovereignty over shared resources

As mentioned above, the term 'shared resources' in this chapter refers to resources contained in a single geological formation (i.e., groundwater, oil and natural gas) distributed over the international borders of two or more states, particularly shared aquifers.[64] The situation of shared resources is different from that of exclusive resources because the very nature of shared resources prevents dividing them into parts over which each state could exercise exclusive sovereignty. Shared aquifers constitute whole units that have been artificially divided by political boundaries.[65] As a unit, and because of the liquid condition of the resource, the utilization of an aquifer by one state affects its utilization by the other aquifer state(s).[66] For instance, water abstraction on one side of the border may alter the flow passing the international boundary.[67] Unilateral abstraction – that is, water abstraction without taking into consideration the interests of the other aquifer state(s) – may thus adversely affect the rights of the latter to an equitable share of the resource.[68] In addition, polluting activities in one area expose other areas of the reservoir to their effects.[69] Pollutants such as pesticides used in agriculture could infiltrate the aquifer through the soil and then travel in the direction of groundwater flow.[70] Thus,

64 The chapter then does not discuss shared resources such as migratory species or the portion of the atmosphere above the territory of a limited number of States because they are of a different nature. In fact, the Special Rapporteur was of the view that it was not appropriate to deal with other resources under the topic of shared natural resources 'as they had characteristics that were far too different from those of groundwaters, oil and gas, and could be and in fact were dealt with more appropriately elsewhere'. See C. Yamada, n. 2 above, at paragraph 4.

65 S. Puri, *Internationally Shared (Transboundary) Aquifer Resources Management: Their Significance and Sustainable Management* (International Hydrological Programme, UNESCO, 2001), at 11.

66 Ibid., at 16–20.

67 Ibid., at 16.

68 The principle of equitable and reasonable utilization is one of the corner stones of the Draft Articles on the Law of Transboundary Aquifers. See Draft Articles, n. 1 above, Articles 4–5.

69 See S. Puri, n. 65 above, at 17.

70 See C. Yamada, n. 2 above, at paragraph 27. See also R.M. Stephan, 'The Draft Articles on the Law of Transboundary Aquifers: The Process at the UN ILC', 13:3 *International Community Law Review* (2011), 223.

in view of the effects one state's water use has on that of the other(s), the exercise of permanent sovereignty (exclusive and exclusionary) is at odds with the actual nature of a shared resource. In addition, a shared aquifer is not subject to the exclusive jurisdiction of any one aquifer state: if one state does not exploit the resource, the other state(s) could. Naturally, their use must take into account the legitimate interests of the other aquifer state(s). Insistence of one state on exercising exclusive sovereign rights over the portion of the shared resource within its territory is therefore in conflict with the rights of the other states over the same resource.[71] Since any acts of disposition by one state (e.g., a contract for water abstraction with a private company) affect, and likely harm, the rights and legitimate interests of the other state(s) concerned,[72] aquifer states are to cooperate and manage the resource jointly.

After the rise of international environmental awareness in the early 1970s, marked by the adoption of the 1972 Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration),[73] international instruments began addressing shared natural resources and acknowledging their distinct nature. UNGA Resolution 3129 (XXVIII) calls on states to ensure effective cooperation for the conservation and harmonious exploitation of shared resources based on a system of information and prior consultation.[74] This resolution takes note of the Declaration adopted by the Fourth Conference of Heads of State or Government of Non-aligned Countries, which stresses in similar wording the importance of cooperation based on information and prior consultation in managing resources common to two or more States.[75] In the CERDS, above-cited Article 2 is dedicated to exclusive resources and above-cited Article 3 to shared resources, clearly acknowledging their distinct

71 See B.A. Godana, *Africa's Shared Water Resources: Legal and Institutional Aspects of the Nile, Niger and Senegal River Systems* (Frances Pinter, 1985), at 55; G. Handl, 'The Principle of "Equitable Use" as Applied to Internationally Shared Natural Resources: Its Role in Resolving Potential International Disputes over Transfrontier Pollution', 14 *Revue Belge de Droit International* (1978), 41, at 43.

72 N. Matz-Lück, 'The Benefits of Positivism: The ILC Contribution to the Peaceful Sharing of Transboundary Groundwater', in: G. Nolte (ed.), *Peace through International Law* (Springer, 2009), 125, at 130.

73 Stockholm Declaration on the Human Environment, found in: Report of the UN Conference on the Human Environment (UN Doc. A/CONF.48/14/Rev.1, 16 June 1972) ('Stockholm Declaration').

74 Cooperation in the Field of the Environment Concerning Natural Resources Shared by Two or More States (UNGA Resolution A/RES/3129(XXVIII), 13 December 1973), at paragraphs 1 and 2.

75 Economic Declaration adopted by the Fourth Conference of Heads of State or Government of Non-aligned Countries, held at Algiers from 5 to 9 September 1973 (UN Doc. A/9330), at 72, found at: <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N74/037/44/PDF/N7403744.pdf?OpenElement>.

nature.[76] These two provisions offer the basis of a legal regime for each type of resource – that is, PSNR for exclusive resources based on possession, disposal and the right to nationalization; and SSNR for shared resources based on cooperation, information exchange and prior consultation. This process of recognizing the essential differences between these two types of resources led to the UNEP Draft Principles, which, as mentioned above, outline the basic elements of SSNR: equitable utilization, no harm, exchange of information and consultation, and transboundary cooperation. The UNGA took note of the UNEP Draft Principles and asked all states to use them as guidelines in their relations regarding shared resources.[77]

In sum, the nature of the resource determines the applicable concept of sovereignty. PSNR is exercised over resources located entirely within the international borders of a State and in areas under its exclusive economic jurisdiction. SSNR, on the other hand, is exercised over natural resources forming a single unit but distributed over the territories of two or more states and of which the use by one state affects the use by the other(s). Applying the principle of PSNR to shared resources places the emphasis on notions of exclusivity and protection of territorial interests, which are at variance with the nature of shared resources.

3.2 Sovereignty over exclusive and shared resources has different purposes

3.2.1 PSNR: Strengthening political and economic self-determination

The principle of PSNR started to take shape during the decolonization process begun in the 1950s. Newly independent States and developing countries, especially in the Latin American region, strongly advocated international recognition of their rights to freely dispose of their natural resources in order to strengthen their rights to self-determination and to achieve and protect their economic independence.[78] The discussions did not address the management of shared natural resources.

Several UNGA resolutions confirm that the initial purpose of recognizing the principle of PSNR was to ensure political and economic self-determination – not to regulate shared resources. In chronological order, Resolution 523 (VI) considered that 'the under-developed countries have the right to determine freely the use of their natural resources', and recommended facilitating the

76 Notes 45 and 46 above. See also E. Benvenisti, n. 57 above, at 16 (arguing that these two articles represent a clash between permanent sovereignty and the management of shared resources that is almost irreconcilable).

77 Cooperation in the Field of the Environment Concerning Resources Shared by Two or More States (UNGA Resolution A/RES/34/186, 18 December 1979), at paragraph 3.

78 See N. Schrijver, *Sovereignty Over Natural Resources: Balancing Rights and Duties* (Cambridge University Press 1997), at 82–118.

movement of machinery, equipment and industrial raw materials to these countries through commercial agreements that 'shall not contain economic or political conditions violating [their] sovereign rights'.[79] In addition, Resolution 626 (VII) on the right to exploit freely natural wealth and resources, also known as the 'nationalization resolution', recalled that 'the right of peoples freely to use and exploit their natural wealth and resources is inherent in their sovereignty', and recommends that all states 'refrain from acts, direct or indirect, designed to impede the exercise of the sovereignty of any State over its natural resources'.[80] Furthermore, Resolution 1515 (XV) recommended that 'the sovereign right of every State to dispose of its wealth and its natural resources should be respected'.[81] No reference to shared natural resources is found in any of these resolutions, which recognized PSNR, more than anything else, as a constitutive element of the right to self-determination.[82]

Similarly, the purpose of Resolution 1803 (XVII) on PSNR was to safeguard political and economic self-determination.[83] The Draft Articles on the Law of Transboundary Aquifers include this resolution in the preamble, despite the fact that shared resources were neither considered in the negotiations nor included in the text of Resolution 1803 (XVII). This resolution recognizes 'the inalienable right of all States freely to dispose of their natural wealth and resources in accordance with their national interests', and calls for 'respect for the economic independence of States'.[84] The preamble of the resolution clearly shows that the purpose was to address the situation of newly independent states and especially to ensure the economic development and economic independence of developing countries in general (newly independent or not).[85] This is also clear from the declaratory part, which lays down the basic elements of PSNR, including the right to freely dispose of natural

79 Integrated Economic Development and Commercial Agreements (UNGA Resolution A/RES/523(VI), 12 January 1952).

80 The Right to Exploit Freely Natural Wealth and Resources (UNGA Resolution A/RES/626(VII), 21 December 1952).

81 Concerted Action for Economic Development of Economically Less Developed Countries (UN Doc. A/RES/1515(XV), 15 December 1960).

82 Recommendations Concerning International Respect of the Right of the Peoples and Nations to Self-determination (UNGA Resolution A/RES/1314(XIII), 12 December 1958), at preamble, refers to permanent sovereignty as a 'basic constituent of the right to self-determination'.

83 Permanent Sovereignty over Natural Resources (UNGA Resolution A/RES/1803(XVII), 14 December 1962).

84 Ibid., preamble, at paragraph 4.

85 Resolution A/RES/1803(XVII), ibid., attaches 'particular importance to the question of promoting the economic development of developing countries and securing their economic independence' and notes that 'the creation and strengthening of the inalienable sovereignty of States over their natural wealth and resources reinforces [such] independence'.

resources.[86] Evidently, the purpose of Resolution 1803 (XVII) was not to provide principles for the governance of shared natural resources, but to safeguard states' rights to self-determination and freedom from foreign intervention through protecting the right to explore, develop and dispose of natural resources within a state's national jurisdiction. It reaffirms PSNR as a constituent of the right to political and economic self-determination[87] and sets forth principles to deal with specific economic situations between states and foreign investors such as profit sharing, enforcement of investment agreements and nationalization. Shared natural resources are rightly omitted, not only because the nature of exclusive resources is different from that of shared resources, but also because the right to dispose freely of natural resources applies only to exclusive resources. This last point is discussed further in section 3.3 below.

Subsequent UNGA resolutions continued to recognize PSNR in similar terms. Resolution 2158 (XXI) states the freedom of developing countries to choose the manner in which the exploitation and marketing of their natural resources should be carried out addressing foreign investment and cooperation for development.[88] Resolution 3171 (XXVIII) reaffirms PSNR, supports developing countries and peoples under colonial or racial domination 'in their struggle to regain effective control over their natural resources' and affirms nationalization as an expression of sovereignty to safeguard natural resources under exclusive jurisdiction.[89] Resolution 1803 (XVII) was further elaborated in the 1974 Declaration on the Establishment of the New International Economic Order (NIEO Declaration)[90] and in the CERDS, which continued to reflect the conflicting interests of developed and developing countries. The NIEO Declaration provides that the new international economic order should be founded on full respect, inter alia, for the principle of PSNR, including the right to nationalization, and the right to restitution as well as full compensation for the exploitation and depletion of, and damages to, natural resources during foreign occupation, colonial domination or apartheid.[91] The CERDS, in turn, provides for PSNR and the rights to regulate and exercise authority over foreign investment and the activities of transnational corporations within the state's

86 These elements also include the right and duty to exercise permanent sovereignty in the national interest; exploration, development and disposition of natural resources; earnings on imported capital are governed by national law; the right to nationalization; sovereign equality; international cooperation shall further independent national development; and foreign investment agreements must be freely entered into. Ibid.

87 Ibid., preamble refers to UNGA Resolution A/RES/1314(XIII), n. 82 above.

88 Permanent Sovereignty over Natural Resources (UNGA Resolution A/RES/2158(XXI), 25 November 1966), at paragraphs 3, 5 and 7.

89 UNGA Resolution A/RES/3171(XXVIII), n. 61 above, at paragraphs 1–3.

90 Declaration on the Establishment of a New International Economic Order (UNGA Resolution A/RES/3201(S-VI), 1 May 1974).

91 Ibid., at paragraph 4(e)–(f).

national jurisdiction, and to nationalize, expropriate or transfer ownership of foreign property awarding appropriate compensation.[92]

In sum, the aim of developing countries advocating the recognition of PSNR was to secure effective control over resources under their exclusive jurisdiction and to ensure that their exploitation benefited local rather than foreign interests. Rules on shared resource management emerged through a different process and had a different purpose.

3.2.2 SSNR: Regulating benefit sharing and environmental protection

Rules on shared resource management focused initially on allocating the economic benefits derived from the resource, particularly in the context of international watercourses. States sharing a transboundary river developed forms of cooperation that gradually distanced them from theories of absolute sovereignty.[93] Later, with the rise of environmental awareness marked by the adoption of the above-cited Stockholm Declaration, principles regulating the utilization and environmental protection of shared resources – that is, equitable sharing, no harm, information exchange and transboundary cooperation – began to play a stronger role.[94] It was then that the tension between the exercise of PSNR and the management of shared resources surfaced.[95]

Water laws were the first international laws to pioneer in regulating shared natural resources because of the need to manage the sharing of economic benefits from international watercourses. Early codification efforts focused on apportioning economic benefits derived from uses such as navigation,[96] hydropower generation,[97] and agricultural and industrial uses.[98] The first

92 CERDS, n. 30 above, Article 2(2).

93 Two absolute sovereignty theories have been developed in the context of international watercourses: absolute territorial sovereignty and absolute territorial integrity. The former, also known as the 'Harmon Doctrine', is used by upper riparian States to claim the right to do whatever they choose with the water regardless of its effect on lower riparians. The latter is invoked by downstream States to claim that upstream States can do nothing that affects the quantity or quality of the water that flows down the river. See N. Sanchez and J. Gupta, 'Recent Changes in the Nile Region May Create an Opportunity for a More Equitable Sharing of the Nile River Waters', 58:3 *Netherlands International Law Review* (2011), 363, at 378. For a discussion on the evolving nature of national sovereignty in international water law, with a focus on China, see P. Wouters, 'The Yin and Yang of International Water Law: China's Transboundary Water Practice and the Changing Contours of State Sovereignty', 23:1 *Review of European, Comparative and International Environmental Law* (2014), 67.

94 See E. Brown Weiss, n. 16 above, at 199–210.

95 See E. Benvenisti, n. 57 above, at 16–18.

96 Convention on the Regime of Navigable Waterways of International Concern (Barcelona, 20 April 1921; in force 31 October 1922).

97 Convention Relating to the Development of Hydraulic Power Affecting More Than One State (Geneva, 9 December 1923; in force 30 June 1925).

international rulings on water disputes also centred on allocating economic benefits. For instance, the Permanent Court of International Justice (PCIJ) found in the *River Oder* case that the benefits of navigation are to be shared among riparians according to a common legal right based on a community of interest in a navigable river and on sovereign equality.[99] The foundation of shared resource management may arguably be said to be found in this international ruling.[100]

In the 1970s, shared resource governance developed further as a response to transboundary environmental challenges. Despite a few preceding articulations of environmental protection of shared water resources,[101] environmental rules on shared resources firmly began to emerge only after the Stockholm Declaration. Principles such as state responsibility for transboundary environmental harm and international cooperation for environmental protection started to settle.[102] In 1973, UNGA Resolution 3129 (XXVIII) on 'cooperation in the field of the environment concerning natural resources shared by two or more states' considered it necessary to ensure effective cooperation between states through 'the establishment of adequate international standards for the conservation and harmonious exploitation of natural resources common to two or more States'.[103] It also considered that cooperation between states sharing natural resources and interested in their exploitation 'must be developed on the basis of a system of information and prior consultation'.[104] The UNGA requested the Governing Council of the United Nations Environment Programme (UNEP) to report on measures adopted for implementing resolution 3129 (XXVIII).[105] Significantly, UNGA Resolution 2995 (XXVII) on 'cooperation between states in the field of the environment' had addressed the issue from the perspective of exclusive resources a year earlier,[106] showing that shared and exclusive

98 Declaration of Montevideo Concerning the Agricultural and Industrial Use of International Rivers, Inter-American Conference 1933, in: Yearbook of the International Law Commission, Volume II, Part Two (UN Doc. A/CN.4/SER.A/1974/Add.l, 1974), at 58.

99 PCIJ 10 September 1929, *Territorial Jurisdiction of the International Commission of the River Oder*, Judgment No. 16 (Ser. A, No. 23), ('*River Oder*'), at 27.

100 A.S. Al-Khasawneh, 'Do Judicial Decisions Settle Water-related Disputes?', in: L. Boisson de Chazournes *et al.*, n. 29 above, 341, at 346 (stating that together with the doctrine of limited territorial sovereignty, the doctrine of community of interest underlies the development of the basic principles of international water law).

101 See, e.g., Helsinki Rules on the Uses of the Waters of International Rivers (International Law Association, August 1966), found at: <http://www.internationalwaterlaw.org/documents/intldocs/helsinki_rules.html>.

102 See, e.g., P.H. Sand, 'The Evolution of International Environmental Law', in: D. Bodansky, J. Brunnée and E. Hey (eds.), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2007), 29, at 33–36.

103 para. 1

104 para. 2

105 para. 3

106 Cooperation between States in the Field of the Environment (UNGA Resolution A/RES/2995(XXVII), 15 December 1972).

resources were perceived as requiring different rules. Otherwise, adopting two separate resolutions on the same issue – one for exclusive resources and one for shared resources – would have been unnecessary.

In 1978, the Inter-governmental Working Group of Experts on Natural Resources Shared by Two or More States, established by the UNEP Governing Council in compliance with resolution 3129 (XXVIII), issued a report containing the UNEP Draft Principles. Resolution 34/186 took note of the Draft Principles and requested of all member states to use them as guidelines and recommendations in the formulation of bilateral or multilateral conventions regarding natural resources shared by two or more states.[107] Neither Resolution 3129 (XXVIII) nor Resolution 34/186 refer to PSNR. Moreover, UNEP Draft Principle 3 also proves that shared and exclusive resources were rightly regarded as meriting different environmental rules. First, it reproduces Principle 21 of the Stockholm Declaration in paragraph 1:[108]

> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit *their own resources* pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.[109]

Paragraph 2 then confirms that shared and exclusive resources are perceived as different by stating that the principles set forth in paragraph 1 'apply to shared natural resources'.[110] Clearly, if paragraph 1 also applied to shared resources, paragraph 2 would have been unnecessary. The UNEP Draft Principles introduce the bases for environmental protection of shared resources, including cooperation,[111] transboundary environmental impact assessment,[112] and exchange of information, consultation and prior notification of planned measures that could have adverse effects on the environment.[113] Although adopted as recommendations, most of the UNEP Draft Principles reflect existing customary law.[114]

To sum up, the purpose of international instruments on shared natural resources was to regulate the utilization and environmental protection of shared resources – not to ensure the right to self-determination. Moreover, instruments on shared resources before the Draft Articles on the Law of

107 UNGA Resolution A/RES/34/186, n. 77 above, at paragraphs 2 and 3.
108 UNEP Draft Principles, n. 31 above, Principle 3.1.
109 Stockholm Declaration, n. 73 above, Principle 21 (emphasis added).
110 UNEP Draft Principles, n. 31 above, Principle 3.2.
111 Ibid., Principles 1 and 2.
112 Ibid., Principle 4.
113 Ibid., Principles 5–7.
114 See P. Birnie *et al.*, n. 52 above, at 603.

Transboundary Aquifers do not make any reference to PSNR.[115] Like the Draft Articles, these instruments contain the principles of equitable use, no harm to other states, exchange of information and cooperation. But, unlike them, they do not refer to PSNR as an element of shared resource management. This analysis clarifies that applying PSNR to shared resources clashes with the origin, purpose and evolution of the international legal regimes applicable to exclusive resources, on the one hand, and to shared resources, on the other. In an attempt to respond to states' requests for the protection of their territorial interests and to balance the conflicting sovereign rights of the aquifer states, the Draft Articles ignore the developments here described, and bring the principle of PSNR to the governance of shared aquifers, thus placing emphasis on the associated notions of exclusivity and protection of territorial interests.

The last step in this analysis focuses on the distinguishing rights and duties of PSNR and SSNR. This will help us to better understand why they are conceptually different and constitute distinct legal regimes.

3.3 Distinguishing rights and duties regarding exclusive and shared resources

3.3.1 The right to freely dispose of exclusive resources

In the exercise of PSNR, every state has the right to freely dispose of, explore and exploit its own natural resources. This includes the rights of a state to use its resources for the benefit of its people, to regulate the activities of foreign investors and to nationalize foreign property. Among the correlative duties, states have the obligation to exercise PSNR for national development, to promote environmental protection and the sustainable use of natural resources, and to comply with international law regarding the fair treatment of foreign investors.[116] Of all these rights and duties, the essential and characteristic element of PSNR that truly distinguishes it from SSNR is the right to freely dispose of natural resources – that is, the right to transfer ownership of resources (e.g., by selling or giving) without external intervention. So understood, this right of free disposition can only be exercised with respect to resources under exclusive national jurisdiction.

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115 See, e.g., UNGA Resolution A/RES/3129(XXVIII), n. 74 above; UNGA Resolution A/RES/34/186, n. 77 above; UNEP Draft Principles, n. 31 above; United Nations Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 17 March 1992, in force 6 October 1996) ('UNECE Water Convention').

116 UNGA Resolution 626(VII), n. 80 above; UNGA Resolution 1803(XVII), n. 83 above; UNGA Resolution 2158(XXI), n. 88 above; UNGA Resolution 3171(XXVIII), n. 61 above. See also N. Schrijver, n. 78 above, Chapters 9 and 10.

The right of a state to freely dispose of its natural resources entitles it, *inter alia*, to enter into agreements with other states or non-state actors with respect to such resources in accordance with international law.[117] This right to conclude agreements is exercised solely by the state concerned over resources under its exclusive jurisdiction. Any such act of disposition regarding a shared aquifer needs to be jointly executed by the aquifer states. For instance, if one of the aquifer states grants a license for water abstraction to a private entity causing over-abstraction, this could lower the water table in the aquifer, deplete the resource and also destroy the geological formation,[118] thereby affecting the right to an equitable share of the other aquifer state(s).[119] Unilateral disposition of the shared resource (i.e., disposition without taking into account the legitimate interests of the other aquifer state(s)) would thus conflict with the principle of equitable and reasonable utilization, which is one of the cornerstones of the Draft Articles. In addition, to materialize equity in managing shared resources, any act of disposition needs to be jointly executed – for example, through joint management mechanisms.[120] Contracts for exploiting the resource cannot be unilaterally signed without the risk of affecting the rights of the other aquifer states to a reasonable and equitable share.

Since a state can freely (without involving any other state) dispose only of resources under its exclusive jurisdiction, PSNR does not encompass shared resources. SSNR does not confer to each state the right to freely dispose of the shared resource but the right to an equitable share therein, which is to be achieved through cooperation. Therefore, SSNR comprises a set of rules different than that of PSNR.

3.3.2 The duty to cooperate in managing shared resources

Shared resource management is based on four basic principles: (1) equitable and reasonable utilization; (2) no harm; (3) prior notification, consultation and exchange of information; and (4) cooperation, which have been recognized in international treaties[121] and jurisprudence.[122] Accordingly, the Draft

117 See Schrijver, n. 78 above, at 262.

118 C. Yamada, 'Codification of the Law of Transboundary Aquifers (Groundwaters) by the United Nations', 36:5 *Water International* (2011), 557, at 561.

119 See, e.g., M. O¨ztan and M. Axelrod, 'Sustainable Transboundary Groundwater Management under Shifting Political Scenarios: The Ceylanpinar Aquifer and Turkey-Syria Relations', 36:5 *Water International* (2011), 671, at 679–680.

120 Draft Articles, n. 1 above, Article 7. See also O McIntyre, 'Utilization of Shared International Freshwater Resources: The Meaning and Role of "Equity" in International Water Law', 38:2 *Water International* (2013), 112, at 116–117.

121 See, e.g., UNECE Water Convention, n. 115 above; Agreement on Cooperation for the Sustainable Development of the Mekong River Basin (Chiang Rai, 5 April 1995; in force 5 April 1995); Revised Protocol on Shared Watercourses in the Southern African Development Community (Windhoek, 7 August 2000; in force 22 September 2003). See also S.C. McCaffrey, n. 17 above, Part IV.

Articles provide that each aquifer state has the right to an equitable and reasonable share[123] as well as the obligations not to cause significant harm,[124] to cooperate in managing the resource,[125] and to regularly exchange data and information on the condition of the aquifer.[126] Of all these principles, the duty to cooperate is the essential and characteristic element that to the fullest degree distinguishes SSNR from PSNR, because while states can manage their exclusive resources to the exclusion of other states (assuming the absence of transboundary environmental harm), they must develop joint mechanisms to ensure the equitable sharing and environmental protection of their shared resources.

The duty to cooperate is one of the cornerstones of shared resource management.[127] Cooperation is the basis for the equitable utilization and protection of an aquifer, and is fulfilled through procedural obligations such as exchanging information and establishing joint management mechanisms.[128] As discussed above, the actual nature of shared resources requires states to cooperate. Since the use by one state affects the use by the others, the only way in which a shared resource can be effectively and efficiently managed is by engaging all the states concerned in a cooperative effort. By contrast, the management of an exclusive resource does not need to include any other state. Transboundary cooperation only takes place when activities related to an exclusive resource affect the territory of other states.

Concerning shared water resources specifically, the duty to cooperate arguably stems from the 'community of interest' that exists between riparian states.[129] As the PCIJ found in the *River Oder* case, such a community of interest 'becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the user [sic] of the whole

122 See, e.g., ICJ 25 September 1997, *Gabčíkovo-Nagymaros Project* (*Hungary v. Slovakia*), [1997] ICJ Rep 7 ('*Gabčíkovo-Nagymaros*'); ICJ 20 April 2010, *Pulp Mills on the River Uruguay (Argentina v. Uruguay*), [2010] ICJ Rep. 14 ('*Pulp Mills*').

123 Draft Articles, n. 1 above, Articles 4–5.

124 Ibid., Draft Article 6.

125 Ibid., Draft Article 7.

126 Ibid., Draft Article 8.

127 For a detailed description of the evolution of the duty to cooperate in international water law, see C. Leb, 'The UN Watercourses Convention: The Éminence Grise behind Cooperation on Transboundary Water Resources', 38:2 *Water International* (2013), 146. See also C. Leb, *Cooperation in the Law of Transboundary Water Resources* (Cambridge University Press, 2013). On the practicalities of achieving cooperation, see C.W. Sadoff and D. Grey, 'Cooperation on International Rivers', 30:4 *Water International* (2005), 420.

128 O. McIntyre, 'The World Court's Ongoing Contribution to International Water Law: The *Pulp Mills* Case between Argentina and Uruguay', 4:2 *Water Alternatives* (2011), 124. See also S. Schmeier, *Governing International Watercourses: River Basin Organizations and the Sustainable Governance of Internationally Shared Rivers and Lakes* (Routledge 2013).

129 Chapter 2 of this dissertation discusses the legal nature of the principle of community of interest, its role in the exercise of sovereignty over shared water resources and trends indicating the evolution of the principle.

course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others'.[130] The scope of the community of interests in the *River Oder* case was limited to the interests that riparians had in exercising the right of navigation. Afterwards, water treaties and judicial decisions gradually extended its scope to non-navigational uses.[131] For instance, the International Court of Justice (ICJ) confirmed in the *Gabčíkovo-Nagymaros* case that the community of interests between riparian states also covered non-navigational issues. Indeed, after quoting the principle of community of interests as stated in the *River Oder* case, the ICJ affirmed: 'Modern development of international law has strengthened this principle for non-navigational uses of international watercourses as well, as evidenced by the adoption of the Convention of 21 May 1997 on the Law of Non-navigational Uses of International Watercourses by the United Nations General Assembly'. As the Court stated next, 'Czechoslovakia, by unilaterally assuming control of a shared resource, and thereby depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube – with the continuing effects of the diversion of these waters on the ecology of the riparian area of the Szigetköz- failed to respect the proportionality which is required by international law'.[132] States sharing water resources thus have the right to an equitable share taking into consideration the correlative rights of the other states, and the duty to utilize the resource in a joint manner. Any attempt to unilaterally assume control of said resources, thereby depriving another state of its equitable share, would infringe the rights derived from the community of interest.

Furthermore, according to the arbitral tribunal in *Rhine Chlorides*, which also quoted the *River Oder* case, 'When the States bordering an international waterway decide to create a joint regime for the use of its waters, they are acknowledging a 'community of interests' which leads to a 'community of law' (to quote the notions used … in the [*River Oder* case]).'[133] Establishing a joint management mechanism for the shared river thus admits the existence

130 *River Oder*, n. 99 above, at 27.

131 This section addresses judicial decisions related to community of interests. Water treaties relevant to the principle of community of interests are discussed in Chapter 2 of this dissertation.

132 *Gabčíkovo-Nagymaros*, n. 122 above, at paragraph 85. The Court considered that 'Czechoslovakia, by unilaterally assuming control of a shared resource, and thereby depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube – with the continuing effects of the diversion of these waters on the ecology of the riparian area of the Szigetköz- failed to respect the proportionality which is required by international law'.

133 Permanent Court of Arbitration, *Case Concerning the Auditing of Accounts between the Kingdom of the Netherlands and the French Republic pursuant to the Additional Protocol of 25 September 1991 to the Convention on the Protection of the Rhine against Pollution by Chlorides of 3 December 1976*, Arbitral Award, 12 March 2004, found at: <http://www.pca-cpa.org/upload/files/Neth_Fr_award_English.pdf>, at paragraph 97.

of a community of interests, which in turn creates a community of law between riparian states. The tribunal also found that agreement of action and mutual support – i.e. cooperation- are part of the community of interest by stating that 'Solidarity between the bordering States is undoubtedly a factor in their community of interest'.[134] Finally, in the *Pulp Mills* case, the ICJ links further the principle of community of interests with the duty to cooperate. As noted by the Court, 'the parties have a long-standing and effective tradition of co-operation and co-ordination through CARU [Comisión Administradora del Río Uruguay, the joint management mechanism set up by the parties]'.[135] The Court stated next that 'By acting jointly through CARU, the Parties have established a real community of interests and rights in the management of the River Uruguay and in the protection of its environment.'[136] The relation between cooperation and community of interests has also been acknowledged in state practice.[137]

In sum, PSNR confers to a state the right to freely dispose of natural resources under its exclusive jurisdiction. This right is not conferred over shared resources because, based on their very nature, unilateral acts of disposition may affect the entitlements of the other state(s) concerned. SSNR, in turn, requires states to cooperate in managing shared resources. The duty to cooperate does not apply to exclusive resources because they are managed to the exclusion of other states and cooperation only takes place if activities related to their utilization have transboundary impact. In the case of shared water resources, the duty to cooperate stems from the community of interest existing between riparian states.

4 Conclusion

The inclusion of PSNR in the ILC Draft Articles on the Law of Transboundary Aquifers is a response to the political concerns of states advocating the protection of their interests in their shared aquifers via PSNR. This creates an overlap in which PSNR seems to encompass shared natural resources. Arguably, the recognition of PSNR over shared aquifers might be instrumental in achieving

134 Ibid.

135 Pulp Mills on the River Uruguay (Argentina v. Uruguay) Judgment, I.C.J. Reports 2010, para. 281.

136 Ibid. See also Owen McIntyre, 'The contribution of procedural rules to the environmental protection of transboundary rivers in light of recent ICJ case law' in Laurance Boisson de Chazournes, Christina Leb and Mara Tignino (eds), *International law and freshwater: The multiple challenges* (Edward Elgar 2013), pp. 247-8.

137 See, e.g., Indus Waters Treaty (Karachi, 19 September 1960; in force 1 April 1960), Article VII.1; Protocol for Sustainable Development of Lake Victoria Basin, East African Community (Arusha, 29 November 2003; in force December 2004), Article 4.2(k); 1995 Protocol on Shared Watercourses in the Southern African Development Community (SADC) Region (Maseru, 16 May 1995; in force 29 September 1998), Article 2.2.

geopolitical purposes, such as protecting aquifer states as a group against foreign (political, environmental or ideological) intervention. It may also be argued that PSNR contributes to allocating the responsibilities for the use and protection of shared aquifers to the aquifer states. However, as scholarly writings point out, applying PSNR to shared aquifers might discourage transboundary cooperation and be insufficient to effectively protect the environment. States would perceive any possible violation of their right to an equitable share as an infringement of their sovereignty and invoke PSNR in order to avoid such violation, bringing to the fore ideas of exclusive entitlement and protection of territorial interests that tend to deter joint action. As scholars also point out, environmental protection under PSNR – based on the no-harm rule- does not address the environment as such but to the extent that significant harm is caused to the territory of another state. Furthermore, as shown by the *travaux préparatoires* of the Draft Articles and other international instruments, applying PSNR over shared natural resources gives rise to controversy based on political concerns, making debates on this issue within UN organs more complex and negotiations less easy.

This chapter proposes approaching the issue from a different angle. Instead of asking whether PSNR should apply, it asked whether PSNR is any different from the sovereignty exercised over shared resources. The examination of distinctive characteristics of PSNR and SSNR showed three main differences. First, PSNR is exercised exclusively by one State over the natural resources located entirely within its national boundaries and in areas under its exclusive economic jurisdiction (exclusive economic zone and continental shelf), while SSNR is exercised jointly by two or more States over resources distributed over their respective territories and where utilization by one State affects utilization by the other(s). Second, the original purpose of PSNR was to ensure political and economic self-determination, while that of SSNR was to regulate the benefit sharing from, and the environmental protection of, shared resources. Third, the essential and characteristic right under PSNR to freely dispose of natural resources does not apply to resources that are shared, while the essential and characteristic duty under SSNR to cooperate does not apply to resources under exclusive jurisdiction. Based on these differences, the chapter argues that PSNR and SSNR are conceptually different, constituting distinct legal regimes.

Understanding PSNR and SSNR as different sets of rules could promote that shared resource management continues to be increasingly focused on cooperation and environmental protection, and less and less oriented to satisfy state's territorial interests. Additionally, awareness of the differences between PSNR and SSNR could make debates about the issue of sovereignty more straightforward and facilitate negotiations, particularly in the light of future discussions on the law of transboundary aquifers included in the agenda of the UNGA.

2 Community of Interests: Furthering the Ecosystems Approach and the Rights of Riparian Populations

Abstract

The legal nature of community of interests and its role in the exercise of sovereignty over shared water resources remain unclear. This chapter examines treaties that expressly recognize 'common interests' or a 'community of interests' between riparian states in order to ascertain the legal conceptualization of community of interests, determine its foundational elements, and identify trends indicating the general direction in which community of interests is evolving. Based on this analysis, the chapter argues that community of interests is a principle that, when provided for in a treaty or subsequently interpreted as such, governs riparian states' relations concerning the shared water resources. In addition, the chapter identified two trends shedding light on the general direction in which the emerging principle of community of interests is evolving: a shift from the traditional approach to environmental protection based on the no-harm rule to the ecosystems approach, and the inclusion of the basin populations as subjects of rights and duties concerning shared drainage basins. The chapter suggests that community of interests promotes a shift from protecting primarily state interests to protecting the environment – irrespective of whether harm is caused to other riparian states – and the rights of the riparian populations. Community of interests thus contributes to harmonizing the pivotal dimensions of state sovereignty, environmental protection and human rights.

1 Introduction

Ancient legal traditions show that the management of shared natural resources was based on the notion that the resource was community-owned,[1] something common to all or *res communes*,[2] and also on the notion of a shared – or common – interest, not only in the use but also in the protection of the resource.[3]

1 E. Benvenisti, 'Asian Traditions and Contemporary International Law on the Management of Natural Resources' (2008) 7 *Chinese Journal of International Law* 273, p. 275.

2 D.A. Caponera and Dominique Alheritiere, 'Principles for International Groundwater Law' (1978) 18 *Natural Resources Journal* 589, p. 596-600.

3 E. Benvenisti (n. 1) p. 276.

In the *Gabčíkovo-Nagymaros* case, Judge Weeramantry analysed principles of traditional legal systems, concluding that 'natural resources are not individually, but collectively, owned' and that 'there is a duty laying upon all members of the community to preserve the integrity and purity of the environment.'[4] Historically, the principle of community of property was considered to govern shared water resources. As Berber explains, the principle of 'community of property in water' appears in several official instruments since the end of the eighteenth century.[5]

Modern international water law has shifted the emphasis from ownership to management of shared waters, while keeping the notion of a community of interests between states sharing the resource. Until now, such a community of interests is discussed in scholarly writings primarily as an emerging theory for the governance of shared water resources.[6] Scholars have focused on elucidating what community of interests is and how it relates to the limited territorial sovereignty theory, currently the norm in international water law. According to McCaffrey, a community of interests is created by 'the natural, physical unity of a watercourse'[7] and materialised through establishing joint governance mechanisms.[8] In comparison with limited territorial sovereignty, community of interests has the advantage that it expresses more accurately both the relationship between riparian states and the normative consequences of the physical unity of shared watercourses, as well as that it implies collective or joint action.[9] In the view of McIntyre, community of interests is related to the 'common management approach' under which the drainage basin is regarded as an integrated whole and managed as an economic unit through establishing 'international machinery to formulate and implement common policies for the management and development of the basin'.[10] He agrees with the advantages of community of interests when compared to limited territorial sovereignty identified by McCaffrey.[11]

Both McCaffrey and McIntyre maintained in these writings that community of interests reinforces the doctrine of limited territorial sovereignty rather than contradicting it,[12] a view that is shared by Brown Weiss.[13] Leb in turn submits that community of interests is based on territorial interdependence high-

4 Gabcikovo-Nagymaros Project (Hungary/Slovakia) Judgment, I.C.J. Reports 1997, p. 7, separate opinion of Vice-president Weeramantry, p. 110.
5 F.J. Berber, *Rivers in International Law* (Stevens & Sons 1959), pp. 23-24.
6 Christina Leb, *Cooperation in the Law of Transboundary Water Resources* (Cambridge University Press 2013) p. 54.
7 S.C. McCaffrey, *The law of international watercourses* (Oxford University Press 2007) p. 148.
8 McCaffrey (n. 7) 155-6.
9 McCaffrey (n. 7) 165.
10 Owen McIntyre, *Environmental Protection of International Watercourses* (Ashgate 2007) p. 28.
11 Ibid. p. 37.
12 McCaffrey (n. 7) p. 164-5; McIntyre (n. 10) p. 37.
13 Edith Brown Weiss, International Law for a Water-Scarce World (Martinus Nijhoff 2013) p. 21-5.

lighting the interdependence of states and the fact they 'cannot scape their membership in the community of riparian States because it is established by the nature of their territories'.[14] According to Leb, community of interests can be considered an alternative to the theory of limited territorial sovereignty.[15] Scholars discuss community of interests as an emerging principle pointing out questions for further exploration. These relate, for instance, to the meaning and application of community of interests,[16] to the relationship between community of interests and limited territorial sovereignty,[17] to the standing of community of interests in international water law,[18] to the connection between community of interests and the ecosystems approach,[19] and to the precise legal implications of community of interests for non-navigational

14 Christina Leb, *Cooperation in the Law of Transboundary Water Resources* (Cambridge University Press 2013) p. 52.

15 Ibid.

16 Brown Weiss submits that an examination of the United States' law doctrine requiring reasonable use of water is helpful in understanding the meaning and application of community of interests, (n. 13) p. 23-5. Half a century earlier, Berber considered the principle of a community in the waters as 'a principle well known in municipal water rights, as it is the legal principle most appropriate to a fully developed legal community'. However, he questioned: 'Is the international community already developed to an extent which justifies such an analogy to municipal law?', F.J. Berber, *River in International Law* (Stevens & Sons London 1959) p. 14. Godana responds to Berber's question in 1985: 'the international community if far from being fully developed', Bonaya Adhi Godana, *Africa's Shared Water Resources: Legal and Institutional Aspects of the Nile, Niger and Senegal River Systems* (Frances Pinter 1985), p. 49. Tanzi and Arcari suggest that 'the major challenge for the contemporary law of international watercourses is exactly that of organizing the new ideas, concepts and trends referred to in the preceding pages [including community of interests] and adjusting the traditional principles of international water law accordingly', Attila Tanzi and Maurizio Arcari, *The United Nations Convention on the Law of International Watercourses* (Kluwer Law International 2001), p. 23.

17 Is community of interest a theory for shared water governance distinct from limited territorial sovereignty? See e.g. Leb (n. 14) pp. 53, 56; McIntyre (n. 10) p. 23; McCaffrey (n. 7) p. 163; Owen McIntyre, 'International Water Resources Law and the International Law Commission Draft Articles on Transboundary Aquifers: A Missed Opportunity for Cross-Fertilisation?' (2011) 13 *International Community Law Review* 237, p. 249-250; Dante A. Caponera and Dominique Alhéritiére, 'Principles for International Groundwater Law' (1978) 18 *Natural Resources Journal* 589, at 615.

18 Has community of interests become customary international law? In 1985, Godana submitted that community of interests 'has yet to develop into a principle of international law governing international water relations in the absence of treaties', (n. 16). More recent literature includes McIntyre (n. 10) pp. 33-4; Leb (n. 14) p. 55; Caponera and Nanni submit that community of interests could be considered a principle of customary international law, Dante A. Caponera and Marcella Nanni, *Principles of Water Law and Administration: National and International* (Taylor & Francis 2007) p. 197.

19 Does the ecosystems approach highlight the need for common management institutions? McIntyre (n. 10), p. 34.

uses.[20] Such topics suggest that the legal nature of community of interests remains unclear.

In connection with the relationship between community of interests and limited territorial sovereignty, following the adoption of the 2008 International Law Commission's Draft Articles on the Law of Transboundary Aquifers (Draft Articles, discussed in Chapter 1 of this dissertation)[21] commentators brought community of interests to the fore as a response to the controversial recognition of sovereignty over transboundary aquifers in Draft Article 3. As stated by McCaffrey, 'The notion of "sovereignty" over the portion of shared freshwater resources situated in a state's territory is incompatible with the principle of community of interests in those resources'[22] because 'the concept of "sovereignty" over shared groundwater cannot possibly be squared with "the exclusion of any preferential privilege of any one riparian State in relation to the others"'[23] that community of interests entails. In addition, according to McIntyre, recognising sovereignty over transboundary aquifers appears to be inconsistent with the principle of equitable and reasonable utilization, which 'requires establishment of a "community of interests" approach, normally achieved by means of cooperative institutional machinery'.[24] These scholars thus distance themselves from their previous opinion that community of interests 'reinforces the doctrine of limited territorial sovereignty rather than contradicting it'.[25] Furthermore, in the opinion of Eckstein 'the suggestion that water resources can be subject to a state's sovereignty is contrary to the community of interests approach governing transboundary surface waters.'[26] He adds 'the idea contravenes the basic tenets of international water law, including those of equitable and reasonable utilization and no significant harm, which clearly espouse a more limited conception of sovereign rights over transboundary waters'.[27] In the view of these scholars, recognising sovereignty over transboundary aquifers is 'incompatible'/'inconsistent' with, 'contrary' to community of interests. Such conflicting views, showing support for the recognition of sovereignty in the Draft Articles on the one hand and opposition

20 McCaffrey (n. 7) p. 161 stating that the 'precise legal implications [of community of interests] for non-navigational uses are less than completely clear'.

21 Draft articles on the Law of Transboundary Aquifers, Report of the International Law Commission (ILC Report), Sixtieth session (2008) in Official Records of the General Assembly, Sixty-third session, Supplement No. 10 (A/63/10).

22 Stephen C. McCaffrey, 'The International Law Commission Adopts Draft Articles on the Law of Transboundary Aquifers' (2009) 103 *American Journal of International Law* 272, p. 288.

23 Ibid. p. 289.

24 McIntyre (n. 17) p. 249.

25 (n. 12).

26 Gabriel E. Eckstein, 'Managing Hidden Treasures Across Frontiers: The International Law of Transboundary Aquifers', International Conference Transboundary Aquifers: Challenges and New Directions (ISARM 2010) <http://hispagua.cedex.es/sites/default/files/hispagua_documento/documentacion/documentos/tesoros.pdf>, p. 6.

27 Ibid.

thereto on the other, confirm that the role of community of interests in the exercise of sovereignty over shared water resources stays unsettled.

Consequently, bearing in mind that both the legal nature of community of interests and its role in the exercise of sovereignty over shared water resources remain unclear, this chapter explores community of interests for the purpose of answering the following questions: What are the basic or inherent features of community of interests according to international water law? How does community of interests relate to the exercise of sovereignty over shared water resources? In addition, considering that community of interests is regarded as an emerging principle in legal academic scholarship, the chapter seeks to identify trends that shed light on the general direction in which community of interests is developing. For this purpose, it tries to answer the following question: Does international water law show any trends indicating that community of interests is evolving in a certain direction? The answers are primarily sought in water treaties that expressly recognise 'common interests' or a 'community of interests' between the riparian states.[28] The chapter also analyses judicial decisions adopted by international courts and tribunals where relevant.[29]

The chapter begins by discussing the evolution of the principle of community of interests in chronological order based on the selected water agreements and relevant judicial decisions. It continues with an analysis of relevant provisions of the treaties selected in order to identify (1) the essential distinctive attributes of community of interests and (2) trends indicating the general direction in which the principle is developing. Based on this analysis, the chapter argues that community of interests is a principle that, when provided for in a treaty or subsequently interpreted as such, governs riparian states' relations concerning the shared water resources. Its basic legal features are: (1) the unity of the shared drainage basin; (2) riparian solidarity and cooperation; and (3) the harmonization of riparians' national laws and policies on water governance. Additionally, the chapter identified two significant trends: a shift from the traditional approach to environmental protection based on

28 The water agreements examined in this chapter are: the 1950 Treaty between Canada and the United States concerning the Diversion of the Niagara River, the 1960 Indus Waters Treaty, the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission, the 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, the 1995 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region and the 2000 Revised SADC Protocol, the 2000 Agreement between Botswana, Lesotho, Namibia and South Africa on the Establishment of the Orange-Senqu River Commission (ORASECOM), the 2002 Water Charter of the Senegal River, the 2003 Protocol for Sustainable Development of Lake Victoria Basin, the 2008 Water Charter of the River Niger and the 2012 Water Charter of the Lake Chad Basin.

29 The judicial decisions examined in this Chapter are: *River Oder* case, Lake Lanoux arbitral award, *Gabčíkovo-Nagymaros, Indus Waters Kishenganga* (2011), 2004 *Rhine Chlorides* arbitration (Netherlands/France), 2010 *Pulp Mills* case.

the no-harm rule to the ecosystems approach, and the inclusion of the basin populations as subjects of rights and duties concerning shared drainage basins. The chapter suggests that, when provided for in a treaty, community of interests is an element of sovereignty over shared water resources, which promotes a shift from protecting primarily state interests to protecting the environment as such and the rights of the riparian populations. Community of interests thus contributes to harmonizing the crucial dimensions of state sovereignty, environmental protection and human rights.

2 Evolution of the principle of community of interests

2.1 Initial conceptualization

The existence of a community of interests between riparian states was recognised for the first time in the *River Oder* case. Based on the relevant provisions of the Act of the Congress of Vienna and the Treaty of Versailles, the Permanent Court of International Justice (PCIJ) concluded in 1929 that international river law is 'undoubtedly based' on the conception of a community of interests of riparian states.[30] The ruling states:

> This community of interests in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the user [sic] of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others.[31]

This case laid down the initial distinctive attributes of such a community of interests. Namely, a community of interests is the basis of a common legal right of navigation whose essential characteristics are the perfect equality of all riparian states in the use of the whole navigable course of the river and the exclusion of any preferential privilege of any one riparian in relation to the others. The correlative duty is to refrain from exercising sovereign rights in a way that might impede navigation.[32] The perfect equality of all riparian states indicates that they give each other the same facilities of navigation and profit from these advantages in equal proportion.[33] The *River Oder* case became the point of departure for judicial decisions addressing the principle in the period from 1997 onward.

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30 Case Relating to the Territorial Jurisdiction of the International Commission of the River Oder (UK, Czech Republic, Denmark, France Germany and Sweden v. Poland), PCIJ, Judgment of 10 September 1929, PCIJ Series A. No. 23, p. 27.

31 Ibid. p. 27.

32 Béla Vitányi, *The International Regime of River Navigation* (Sijthoff & Noordhoff 1979), p. 57.

33 Ibid. p. 33.

Almost three decades later, the 1957 Lake Lanoux arbitral award,[34] although not explicitly referring to community of interests, followed the approach of the *River Oder* case.[35] In this case, Spain argued that the 1866 Additional Act to the Treaties of Bayonne established a 'system of community' between France and Spain, which would be destroyed by the works unilaterally proposed by France for the utilisation of the waters of the lake.[36] The decision of the arbitral tribunal did not refer to such system of community; however, it held that while 'France is entitled to exercise her rights; she cannot ignore Spanish interests. Spain is entitled to demand that her rights be respected and that her interests be taken into consideration'.[37] In addition, and according to the principle of good faith, the upstream state (France) must show that 'it is genuinely concerned to reconcile the interests of the other riparian with its own'.[38]

In line with the *River Oder* case, the Lake Lanoux arbitration established that water management decisions must take into account the legitimate interests of all riparians. In other words, the interests of the other riparian states limit any one state's exercise of its sovereign rights. Despite the absence of an explicit reference to community of interests, the notion that the interests of all riparian states must be reconciled suggests that they share interests in common, i.e. that a community of interests exists between them. The Lake Lanoux arbitration thus broadened the scope of the PCIJ's dictum in the *River Oder* case to include non-navigational uses. The interests of riparian states must be reconciled concerning both navigational and non-navigational uses of transboundary watercourses, which was later confirmed in water treaties and judicial decisions.

2.2 Subsequent evolution

In the second half of the last century, international agreements at the basin level began incorporating the notion that riparian states had common interests in the shared rivers. In the 1950 treaty between Canada and the United States concerning the diversion of the Niagara River, the parties recognised 'their

34 Lake Lanoux Arbitration (France v. Spain) 24 ILR 101 (1957) (http://www.ecolex.org/server2.php/libcat/docs/COU/Full/En/COU-143747E.pdf)

35 See, e.g., Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (Cambridge University Press 2012), p. 307; Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law & the Environment* (Oxford University Press 2009), p. 542; Awn S. Al-Khasawneh, 'Do judicial decisions settle water-related disputes?' in Laurance Boisson de Chazournes, Christina Leb and Mara Tignino (eds), *International Law and Freshwater: The Multiple Challenges* (Edward Elgar 2013), p. 347.

36 Lake Lanoux (n. 34) p. 10.

37 Ibid. p. 33.

38 Ibid. p. 32.

common interest in providing for the most beneficial use of the waters of that River'.[39] Ten years later, in the 1960 Indus Waters Treaty, India and Pakistan 'recognize that they have a common interest in the optimum development of the Rivers'.[40] As stated by the tribunal in the *Indus Waters Kishenganga* arbitration (2011), the terms of the Indus Waters Treaty and the fact that India and Pakistan had applied it for more than 50 years despite difficulties in their relations 'attest to the essential mutuality of their interests'.[41] In 1992, the Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission referred to the shared waters as 'water resources of common interest to the Parties'.[42] In 1995, the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin acknowledged the existence of a 'community of Mekong nations'.[43] This agreement created the Mekong River Commission for the joint management of the shared waters and related resources.[44] It has been submitted that riparian states in the Mekong River have effectively implemented a community of interests through this commission.[45] Also in 1995, the Protocol on shared watercourse systems in the Southern African development community (SADC) region listed community of interests as one of the general principles that shall apply to shared rivers,[46] stating that the parties 'undertake … to respect and abide by the principles of community of interests in the equitable utilisation of [shared watercourse] systems and related resources'.[47] However, the 2000 SADC Revised Protocol on shared watercourses, which repealed and replaced the 1995 Protocol,[48] no longer refers to community of interests.

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39 Treaty between Canada and the United States of America concerning the Diversion of the Niagara River, signed at Washington 27 February 1950, came into force on 10 October 1950 (http://www.treaty-accord.gc.ca/text-texte.aspx?id=100418) see Preamble.

40 The Indus Waters Treaty 1960 between the Government of India, the Government of Pakistan and the International Bank for Reconstruction and Development, 419 UNTS 124, Article VII(1).

41 Order on the Interim Measures Application of Pakistan dated 6 June 2011 in the Indus Waters Kishenganga Arbitration, Secretariat: Permanent Court of Arbitration, para. 121.

42 (http://www.internationalwaterlaw.org/documents/regionaldocs/nambia-southafrica.html) Art. 1(2).

43 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, signed in Chiang Rai, Thailand (5 April 1995) (www.mrcmekong.org/assets/Publications/agreements/agreement-Apr95.pdf), see Preamble.

44 Ibid. Ch. IV.

45 Beatriz Garcia, 'Exercising a Community of Interests: A Comparison between the Mekong and the Amazon Legal Regimes' (2009) 39 *Hong Kong Law Journal* 421, p. 431, comparing state practice in the Mekong and Amazon rivers.

46 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region signed at Johannesburg (28 August 1995) (http://www.fao.org/docrep/w7414b/w7414b0n.htm)

47 Art 2(2).

48 Revised Protocol on Shared Watercourses in the Southern African Development Community (SADC) (http://www.internationalwaterlaw.org/documents/regionaldocs/Revised-SADC-SharedWatercourse-Protocol-2000.pdf) Art. 16 (1).

Community of interests reappeared in international judicial decisions in 1997 with the judgement of the International Court of Justice (ICJ) on the *Gabčíkovo-Nagymaros* case. As mentioned above, the scope of community of interests in the *River Oder* case was limited to the interests that riparians had in exercising the right of navigation. Afterwards, the Lake Lanoux arbitration and the treaties referred to in the previous paragraph gradually extended its scope to non-navigational uses. The *Gabčíkovo-Nagymaros* case confirmed that the community of interests between riparian states also covered non-navigational issues. After quoting the principle of community of interests as stated in the *River Oder* case, the ICJ affirmed: 'Modern development of international law has strengthened this principle for non-navigational uses of international watercourses as well, as evidenced by the adoption of the Convention of 21 May 1997 on the Law of Non-navigational Uses of International Watercourses by the United Nations General Assembly'.[49] Although the Convention on the Law of Non-navigational Uses of International Watercourses (UNWC)[50] – adopted only four months earlier – does not expressly mention community of interests, the ICJ interprets it as containing the principle.

Water agreements signed after the *Gabčíkovo-Nagymaros* case either explicitly recognise the principle of community of interests or use terminology that implies the existence of a community of interests between riparian states. The 2002 Water Charter of the Senegal River acknowledges a community of interests between riparians in its preamble.[51] Mbengue argues that the community of interests in the Senegal River crystallised with the 1963 Bamako Convention[52] because it established a unique joint management organisation, whose unanimous approval was necessary for any project on the river, 'leaving almost no room for unilateral actions'.[53] This facilitated the creation of a 'community of law' between riparians in which no project would be implemented without the prior approval of all of them.[54] As elaborated further below, the common rights and duties of the riparian states create a community of law between

49 Gabcikovo-Nagymaros Project (Hungary/Slovakia) Judgment, I.C.J. Reports 1997, p. 7, para. 85.

50 Convention on the Law of the Non-navigational Uses of International Watercourses (New York, 21 May 1997; in force 17 August 2014).

51 It reads: '*Desireux de donner un cadre a la fois durable et evolutif a la communaute des interest entre les Etats riverains du fleuve Senegal*', Charte des Eaux du Fleuve Sénégal (28 May 2002) (http://www.portail-omvs.org/sites/default/files/fichierspdf/charte_des_eaux_du_fleuve_senegal.pdf).

52 Convention Relative a l'Amenagement General du Bassin du Fleuve Senegal (Bamako, 26 July 1963) (http://iea.uoregon.edu/pages/view_treaty.php?t=1963-BamakoSenegalRiverBasin.FR.txt&par=view_treaty_html).

53 Makane M. Mbengue, 'The Senegal River legal regime and its contribution to the development of the law of international watercourses in Africa' in Laurance Boisson de Chazournes, Christina Leb and Mara Tignino (eds), *International Law and Freshwater: The Multiple Challenges* (Edward Elgar 2013), 218-221.

54 Ibid. p. 223.

them mainly through the harmonisation of their laws and policies on water management.[55] In addition, as stated in the 2003 Protocol for Sustainable Development of Lake Victoria Basin, one of the principles that shall guide the management of the resources of the basin is 'the principle of community of interests in an international watercourse whereby all States sharing an international watercourse system have an interest in the unitary whole of the system'.[56]

Although not explicitly recognising the principle of community of interests, the following water agreements nevertheless imply the existence of a community of interests between riparian states. The 2000 Agreement between Botswana, Lesotho, Namibia and South Africa on the establishment of the Orange-Senqu River Commission (ORASECOM) considers the Orange-Senqu river system as a 'water source of common interest'[57] and affirms that collaboration between the parties with regard to its development 'could significantly contribute towards the mutual benefit, peace, security, welfare and prosperity of their people'.[58] In addition, the 2008 Water Charter of the Niger Basin regulates 'facilities of common interest', namely those 'in which two or several Niger Basin Authority [NBA] Member States have an interest and which [sic] coordinated management has been decided by mutual agreement between the NBA Member States'.[59] It also defines 'project or program of common interest' as 'a transboundary project or programme carried out in the Niger Basin and of interest to two or several Member States'.[60] Finally, the 2012 Water Charter of the Lake Chad Basin acknowledges the 'common interests of the Member States' in the management of the Lake Chad Basin[61] and sets 'the recognition of common facilities and facilities of common interest' as one of its specific objectives.[62]

International judicial decisions continued advancing the development of the principle of community of interests. In the 2004 *Rhine Chlorides* arbitration (Netherlands/France), concerning the parties' financial obligations under the 1991 Additional Protocol to the 1976 Convention on the Protection of the Rhine

55 See section 3.3. below.

56 Protocol for Sustainable Development of Lake Victoria Basin (29 November 2003) (http://www.internationalwaterlaw.org/documents/regionaldocs/Lake_Victoria_Basin_2003.pdf), Art. 4(2)(k).

57 Agreement on the Establishment of the Orange-Senqu River Commission (3 November 2000) (https://iea.uoregon.edu/treaty-text/2000-orangesenqucommissionentxt) Preamble.

58 Ibid.

59 La Charte de l'eau du Bassin du Niger (http://www.abn.ne/attachments/article/39/Charte%20du%20Bassin%20du%20Niger%20version%20finale%20francais_30-04-2008.pdf) English version <http://www.abn.ne/images/documents/textes/water_charter.pdf>, Art 1(19) and Arts 28 and 29.

60 Art 1(24).

61 Water Charter of the Lake Chad Basin (http://www.africanwaterfacility.org/fileadmin/uploads/awf/Projects/MULTIN-LAKECHAD-Water-Charter.pdf) Art. 3.

62 Art. 4(g). See also chapter 11 of the Charter.

against Pollution by Chlorides (Additional Protocol), the tribunal found that: 'When the States bordering an international waterway decide to create a joint regime for the use of its waters, they are acknowledging a 'community of interests' which leads to a 'community of law' (to quote the notions used … in the [*River Oder* case]).'[63] The establishment of a joint management mechanism for the shared river thus admits the existence of a community of interests, which in turn creates a community of law between riparian states. In addition, the tribunal deemed solidarity an element of said community of interests and law, stating that 'Solidarity between the bordering States is undoubtedly a factor in their community of interests'.[64] In this regard, France had argued that the object and purpose of the Additional Protocol was to 'promote solidarity among the States bordering the Rhine, each of which has an equal interest in the quality of its waters, and the activities of which contribute in their different ways to the pollution of the river'.[65] In concrete terms, this solidarity 'takes the form of actions taken by each of the States bordering the river on its own behalf, and also of collective financing of necessary measures.'[66] Therefore, forcing France to bear a heavier burden than it had accepted would undermine the solidarity established under the Protocol and disregard its object and purpose.[67] The tribunal found that the Netherlands too recognised that solidarity was relevant based on a proposal for the subsequent implementation of the 1976 Convention formulated by Germany and the Netherlands setting out measures to be taken 'respecting the principle of solidarity'.[68] Another document considered by the tribunal reads in relevant part: 'After studying all the possible ways of reducing chloride discharges over the entire length of the Rhine, the principle decided on was that of reducing levels at the French Potassium Mines alone, on behalf of all the polluters, because of its better cost-effectiveness ration'.[69] According to the tribunal, it appears from this document that 'the parties decided to opt for a system that established a solidarity between them'.[70]

Finally, the ICJ links further the principle of community of interests with the duty to cooperate in the 2010 *Pulp Mills* case.[71] This case concerned the breach allegedly committed by Uruguay of obligations under the 1975 Statute

63 Case concerning the auditing of accounts between the Kingdom of the Netherlands and the French Republic pursuant to the Additional Protocol of 25 September 1991 to the Convention on the Protection of the Rhine against Pollution by Chlorides of 3 December 1976 (Netherlands/France), Arbitral Award of 12 March 2004, para. 97.

64 Ibid.

65 Ibid. para. 44.

66 Ibid.

67 Ibid. See also para. 96.

68 Ibid. para. 96.

69 Ibid.

70 Ibid.

71 The link between community of interests and the duty to cooperate is also discussed in Chapter 1, Section 3.3.2, of this dissertation.

of the River Uruguay (1975 Statute); as stated by Argentina, said breach arose out of 'the authorization, construction and future commissioning of two pulp mills on the River Uruguay',[72] regarding in particular 'the effects of such activities on the quality of the waters of the River Uruguay and on the areas affected by the river'.[73] Although the 1975 Statute does not expressly refer to a community of interests, Argentina nevertheless argued that the Statute created a community of interests and law between Uruguay and Argentina,[74] whose purpose and aim is to compel the states to cooperate.[75] Argentina requested provisional measures 'to safeguard the community of interests and rights created by the Statute of the River Uruguay',[76] arguing that the legal regime of the shared river was based on '"mutual trust" between the two States and a "community of interests" organized around respect for the rights and duties strictly prescribed by the 1975 Statute'.[77] Such community of interests and mutual trust 'requires Uruguay to co-operate in good faith with Argentina' in complying with the Statute.[78] In Argentina's view, this is 'an objectively established "community of interests"'.[79] In addition, referring to the *River Oder* and *Gabčíkovo-Nagymaros* cases, Argentina argued that Uruguay's refusal to comply with its obligations under the Statute 'runs counter to the requirement of "exclusion of any preferential privilege of any one riparian State in relation to the others"'.[80] In its order on the request for provisional measures, the ICJ did not refer to community of interests. However, in its final judgment the Court confirmed the existence of a community of interests based on the 1975 Statute linking it with the duty to cooperate. As the Court noted, 'the parties have a long-standing and effective tradition of co-operation and co-ordination through CARU [Comisión Administradora del Río Uruguay, the joint management mechanism set up by the parties]'.[81] According to the Court 'By acting jointly through CARU, the Parties have established a real community

72 Pulp Mills on the River Uruguay (Argentina v. Uruguay) Judgment, I.C.J. Reports 2010, para. 1.
73 Ibid.
74 Pulp Mills on the River Uruguay (Argentina v. Uruguay), Provisional Measures, Order of 13 July 2006, I.C.J. Reports 2006, p. 113, paras. 39 and 64.
75 (n. 74) Pleadings by L. Boisson de Chazournes, Transcript of Public Sitting, 8 June 2006, CR 2006/46, p. 45, para. 13.
76 (n. 75) p. 47, para. 18.
77 (n. 74) para. 39.
78 Ibid. para 64.
79 (n. 75) p. 45, para. 12.
80 Ibid.
81 Pulp Mills on the River Uruguay (Argentina v. Uruguay) Judgment, I.C.J. Reports 2010, para. 281.

of interests and rights in the management of the River Uruguay and in the protection of its environment.'[82]

As it stands today, community of interests is not part of customary international water law. All judicial decisions that have contributed to the evolution of the principle are based on the interpretation of one particular treaty or another and not on a rule of customary law. Therefore, community of interests is an element of sovereignty over shared waters only when included in treaty law or when the treaty is silent on the issue but has nevertheless been subsequently interpreted as including a community of interests.[83]

To summarize, the initial conceptualization of the principle of community of interests provided the following foundational attributes: (1) the community of interests of riparian states is the basis of a common legal right of navigation; and (2) the essential features of the common legal right are the perfect equality of all riparian states in the use of the whole navigable course of the river and the exclusion of any preferential privilege of any one riparian in relation to the others. Community of interests evolved from encompassing only riparian states' common interests in navigation to include their common interests in non-navigational uses as well (e.g., consumption, irrigation and hydropower generation). Throughout its evolution, the principle has added to its initial conceptualization the elements of community of law, solidarity and cooperation. As explained in the introduction, the legal nature of community of interests and its role in the exercise of sovereignty over shared water resources continue to be unclear. For this reason, the next section examines water treaties that refer to the 'common interests' or 'community of interests' between riparian states in order to identify the basic features of community of interests according to said treaties and thus establish its legal nature.

3 Elements of community of interests

3.1 The foundation: unity of the basin

The natural physical unity of international rivers has as a result that the community of interests extends to the whole course of the river including its watershed. The Helsinki Rules on the Uses of the Waters of International Rivers adopted by the International Law Association in 1966 introduced the concept of 'international drainage basin' defined as "a geographical area extending

82 Ibid. See also Owen McIntyre, 'The contribution of procedural rules to the environmental protection of transboundary rivers in light of recent ICJ case law' in Laurance Boisson de Chazournes, Christina Leb and Mara Tignino (eds), *International law and freshwater: The multiple challenges* (Edward Elgar 2013), pp. 247-8.

83 Such is the case of the 1975 Statute of the River Uruguay as interpreted by the ICJ in the Pulp Mills case.

over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus".[84] However, states resisted the drainage basin concept because it would limit the exercise of sovereignty not only over the water resources but also over the surrounding land areas.[85] Therefore, the UNWC adopted the term 'international watercourse system', a concept that is 'less explicitly ecosystem-oriented'.[86] The treaties examined show nonetheless a trend towards accepting that what needs to be regulated is the whole drainage basin, particularly with regard to environmental protection.

The Indus Waters Treaty had already in 1960 taken the drainage basin as the basic unit for water management, e.g. when regulating the use of the waters and the installation of hydrologic observation stations.[87] More recently, the 1995 SADC Protocol adopted the notion of drainage basin, defining it as a "geographical area determined by the watershed limits of a system of waters including underground waters flowing into a common terminus",[88] while the 1995 Mekong Agreement applies to the waters and related resources in the basin.[89] The 2000 Revised SADC Protocol defines watercourse as "a system of surface and ground waters consisting [sic] by virtue of their physical relationship a unitary whole normally flowing into a common terminus"[90] and provides that one of the guiding principles is "the unity and coherence of each shared watercourse".[91] The Lake Victoria Protocol defines the Lake Victoria Basin as the "geographical areas extending within the territories of the Partner States determined by the watershed limits of the system of waters, including surface and underground waters flowing into Lake Victoria,"[92] stating that by virtue of the principle of community of interests "all States sharing an international watercourse system have an interest in the unitary whole of the

84 Helsinki Rules on the Uses of the Waters of International Rivers, International Law Association, 1966, Art. II.

85 J Brunnée and SJ Toope, 'Environmental Security and Freshwater Resources: A Case for International Ecosystem Law' (1994) 5 *Yearbook of International Environmental Law* 41, p. 59. See also Alejandro Iza, 'Aspectos Jurídicos de los Caudales Ecológicos en Cuencas Compartidas' [2005] *Lecciones y Ensayos* 219, p. 222; Jean-Marc Thouvenin, 'Droit International General des Utilisations des Fleuves Internationaux' in Bogdan Aurescu and Alain Pellet (eds), *Actualiteì du droit des fleuves internationaux : acte des journeìes d'eìtude des 24 et 25 octobre 2008* (Pedone 2010), pp. 117-8.

86 Brunnée and Toope (n. 85) p. 58. See also Jutta Brunnée and Stephen J. Toope, 'Environmental Security and Freshwater Resources: Ecosystem Regime Building' (1997) 91 *American Journal of International Law* 26, p. 49.

87 Arts. III (2) and VII(1)(a); on agricultural use see Annexure C. See also Annexure F on the determination of the boundary of the drainage basin.

88 Art. 1

89 n. 43, Preamble, Arts. 1 and 3.

90 Art. 1(1)

91 Art. 3(1)

92 Art. 1(2)

system".[93] The agreement on the establishment of ORASECOM provides that the parties shall protect the river system "from its sources and headwaters to its common terminus".[94] The Charter of the Senegal River defines the '*bassin hydrographique du Fleuve*' as "*le fleuve Sénégal, ses affluents, ses défluents et les depressions associées*".[95] The Charter of the Niger River Basin defines 'hydrographic catchment area' as a "geographic area extending over two or several States and determined by the limits of the area supplying the hydrographic network, including groundwater and surface waters flowing to a common terminus".[96] Finally, the Lake Chad Water Charter defines the hydrographic basin of the lake as an "area in which all the runoff converges towards Lake Chad being channelled through a network of rivers and lakes flowing into Lake Chad'.[97] The 1950 Treaty concerning the Diversion of the Niagara River and the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission, although not expressly referring to the drainage basin, nevertheless imply that the parties intended to regulate and protect not only the shared waters but also the related land as a whole.[98]

Repeatedly, we find in the treaties examined the notion that the shared waters and the watershed form a whole indivisible unit and that such a unit is the basis for water management. The realization that an international watercourse constitutes a single unit detached from political boundaries allows the recognition of common interests among riparians.[99] The unity of the basin is thus the first foundational element identified in the treaties examined.

93 Art. 4(2)(k)
94 Art. 7(12)
95 Art. 1(17); see also Art. 3 on the scope of application of the Charter.
96 Art. 1(2); see also arts. 2 and 3.
97 Art. 2; see also art. 5 on the scope of application of the Charter.
98 In the 1950 Treaty concerning the Diversion of the Niagara River, Canada and the United States recognize 'their primary obligation to preserve and enhance the scenic beauty of the Niagara Falls and River'; while the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission provides that the Commission shall advise the parties on the prevention and control of soil erosion affecting the common water resources. The references to 'scenic beauty' and 'soil erosion' suggest an intention to regulate more than just the shared waters.
99 Jutta Brunnée, '"Common Interest" – Echoes from an Empty Shell?: Some Thoughts on Common Interest and International Environmental Law' (1989) 49 *Heidelberg Journal of International Law* 791, pp. 794-5.

3.2 Common rights and duties

3.2.1 Right to an equitable and reasonable share

The treaties examined show that equitable use is one of the common rights and duties that form an integral part of the community of interests. In the Mekong Agreement, the parties agreed to utilize the waters in a reasonable and equitable manner.[100] The 1995 SADC Protocol provides for equitable use, indicating relevant factors to determine it,[101] which are also provided for and broadened by the Revised SADC Protocol.[102] Similar provisions are found in the agreement establishing ORASECOM[103] and the Lake Victoria Protocol.[104] The Charter of the Senegal River directly relates the community of interests between riparians to reasonable and equitable use,[105] including factors to be considered for the distribution of the waters.[106] The Water Charter of the Niger River Basin[107] and the Lake Chad Water Charter contain similar provisions.[108]

The cases studied support equitable and reasonable utilization as being part of the essential rights and duties of the community of interests. It has been submitted that the *River Oder* case implies equitable use,[109] which was confirmed by the Gabcikovo-Nagymaros case.[110] In addition, the ICJ stated in the Pulp Mills case that the utilization of the river Uruguay "could not be considered to be equitable and reasonable if the interests of the other riparian State in the shared resource […] were not taken into account," thus linking equitable use with the common interests of riparian states.[111]

3.2.2 Duty to cooperate

The water treaties examined bind riparian states to comply with the common rights and duties through cooperation, usually through the establishment of

100 In accordance with Articles 26 and 5, which regulate water utilization and inter-basin diversion based on wet and dry season.
101 Art. 2(6)(7)
102 Arts. 3(7) and (8)
103 Art. 7(2). See also Art. 5(2.2) and the Preamble.
104 Arts. 4(2)(a) and 5.
105 Preamble; Art. 4.
106 Arts. 5 to 8.
107 Art. 4
108 Arts. 10 and 13.
109 E. Brown Weiss, 'The Evolution of International Water Law', 331 *Recueil de Cours* (2007) p. 198.
110 Jochen Sohnle, 'Irruption du droit de l'environnement dans la jurisprudence de la C.I.J.: l'Affaire Gabcikovo-Nagymaros ' (1998) 102 *Revue geìneìrale de droit international public* 85, pp. 113-114.
111 Para. 177.

joint management mechanisms. The treaty on the diversion of the Niagara River provides for joint action of the States Party,[112] while the Indus Waters Treaty provides for cooperation in the optimum development of the Rivers and establishes the Permanent Indus Commission.[113] In the Mekong River agreement the parties agreed to cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources and established the Mekong River Commission.[114] Similarly, in the 1995 SADC Protocol the parties agreed to pursue close cooperation and establish River Basin Management Institutions.[115]

The 2000 Revised SADC Protocol strengthens such close cooperation, providing for equitable participation and an institutional framework for implementing the Protocol.[116] The Lake Victoria Protocol recognizes cooperation as one of the fundamental principles of water management and established the Lake Victoria Basin Commission.[117] Notably, the parties to this protocol agreed to negotiate as a bloc (i.e., as a community) on issues related to the basin.[118] The agreements on the establishment of permanent water commissions also show that cooperation is a fundamental common right and duty.[119] The Water Charter of the Senegal River recognizes the fundamental character of cooperation and established the *Commission Permanente des Eaux*.[120] In addition, one of the purposes of the Water Charter of the Niger River Basin is to encourage cooperation, dialogue and consultation between riparians. As such, an advisory committee to the Niger Basin Authority (1980) was added.[121] Finally, in the Lake Chad Water Charter cooperation not only includes the relations between riparian states but also between basin and regional organizations.[122] Accordingly, States Party shall harmonize their positions within the Lake Chad Basin Commission (1964) to ensure coordinated participation in multilateral negotiation.[123]

The notions of working together, agreement of action and mutual support are highlighted through the inclusion of solidarity as an element of community of interests. Some water treaties do this explicitly. For instance, the purpose

112 Art. VII
113 Arts. VII and VIII.
114 Art. 1; Chapter IV.
115 Arts. 2(4) and 3-6.
116 Arts. 2, 3(5), 3(7)(b), 6(6) and 5.
117 Preamble, Arts. 3 and 33-45.
118 Preamble. Indeed, one of the functions of the Lake Victoria Basin Commission is to 'prepare and harmonize negotiating positions for the Partner States against any other State on matters concerning the Lake Victoria Basin', Art. 33(3)(h).
119 The agreement between Namibia and South Africa and the Agreement on the establishment of ORASECOM.
120 Chapter 5.
121 Art. 2; Chapter VI.
122 Art. 7(j).
123 Art. 8.

of the Charter of the Niger River Basin is to encourage cooperation between riparians based on solidarity.[124] Similarly, the Lake Chad Water Charter states that the sustainable development of the Lake Chad Basin advocates "solidarity based on the common interests of the Member States,"[125] featuring the 'principle of solidarity' as one of the fundamental principles that shall guide the actions of the parties.[126] The Charter of the Senegal River includes solidarity by reference in its Preamble to the 1978 Common Works Convention, which sees the rational development of the Senegal *Comité Inter-Eta*River as a way to strengthen solidarity between riparian States.[127]

In other treaties, solidarity is reflected in the form of sharing the costs of water development works. For instance, the Treaty on the Niagara River provides that the total cost of the necessary works shall be divided equally between the parties.[128] In the Indus Waters Treaty, the parties agree on sharing the costs of installing hydrologic and meteorological observation stations.[129] Likewise, the Lake Victoria Protocol provides that the parties shall share the costs of collecting and processing data and information.[130] The 2000 SADC Protocol provides that the parties agree on the way in which they will participate in the payment of the costs of works necessary for regulating the flow of the shared waters.[131] Finally, the agreement between Namibia and South Africa on the establishment of a permanent Water Commission and the agreement on the establishment of ORASECOM provide that the Commission's report may propose the apportionment between the parties of the costs of implementing its advised measures.[132]

3.2.3 Duty of environmental protection

Riparian states then have a common right to use the shared resource as well as a common duty to protect it. Limited territorial sovereignty bases environmental protection of international rivers on the no-harm rule, which presents limitations.[133] Essentially, it allows States to use (and abuse) the resource

124 Art. 2.
125 Water Charter of the Lake Chad Basin (http://www.africanwaterfacility.org/fileadmin/uploads/awf/Projects/MULTIN-LAKECHAD-Water-Charter.pdf) Art. 3.
126 Art. 7(i).
127 Convention conclue entre le Mali, la Mauritanie et le Sénégal relative au statut juridique des ouvrages communs signée a Bamako, le 21 décembre 1978 (http://www.fao.org/docrep/w7414b/w7414b0d.htm). Its Preamble reads 'Désireux de renforcer toujours davantage les liens d'amitié, de fraternité et de solidarité qui unissent leurs peuples respectifs par une mise en valeur rationnelle du bassin du fleuve Sénégal'.
128 Art. II
129 Art. VII(1)(a)
130 Art. 24(2)
131 Art. 4(3)(b)(ii)
132 Arts. 3(4) and 6(4) respectively.
133 Chapter 1, section 2 of this dissertation discusses the limitations of the no-harm rule.

until the required threshold of significant harm to any of the other riparian States is reached *and* a resulting complaint is made by the affected State/s.[134] However, water scarcity (e.g. caused by pollution) and environmental degradation of watercourse systems are contemporary challenges that require a proactive attitude from riparian states, one that centres on the protection of the environment regardless of whether harm is caused to other states.[135] Such challenges highlight the need for an approach that moves "beyond the barriers of state sovereignty to a collective community of interests-based approach."[136] Although the protection of the environment *per se* is still emerging,[137] some of the treaties recognizing a community of interests between riparian states examined in this chapter embrace the ecosystems approach to water management. The most recent treaties have begun shifting the focus from the protection of the environment based on the no-harm rule to the protection of ecosystems regardless of harm caused to any of the riparian states. This will be discussed in section 4 below on emerging trends.

3.3 Community of law

The common rights and duties of the riparian states constitute a community of law between them. This community of law has been recognized in international jurisprudence,[138] but the question remains as to how this community of law actually forms and develops. The treaties examined show that this can be achieved through the harmonization of the laws and policies of the riparian

134 McCaffrey points out that the no-harm rule is not 'an *absolute* obligation, but rather one of due diligence, or best efforts under the circumstances' [emphasis in the original], Stephen C. McCaffrey, 'The contribution of the UN Convention on the law of the non-navigational uses of international watercourses' (2001) 1 *International Journal of Global Environmental Issues* 250, p. 254.

135 J Brunnée and SJ Toope, 'Environmental Security and Freshwater Resources: Ecosystem Regime Building' (1997) 91 *Am. J. Int'l L.* 26, 37. See also J Brunnée and SJ Toope (1994) (n. 85) 53-4, arguing that the no-harm rule seeks to balance conflicting sovereign rights and therefore focuses on the protection of State's territorial interests rather than on the protection of the environment as such.

136 Patricia Wouters and Ruby Moynihan, 'Benefit sharing in the UN Watercourses Convention and under international water law' in Flavia Rocha Loures and Alistair Rieu-Clarke (eds), *The UN Watercourses Convention in Force: Strengthening international law for transboundary water management* (Routledge 2013), p. 326.

137 On the status of ecosystems in international law see Dan Tarlock, 'Ecosystems ' in Daniel Bodansky, Jutta Brunnée and Ellen Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press 2007), pp. 574-596. In relation to international water law specifically see Owen McIntyre, 'The Protection of Freshwater Ecosystems Revisited: Towards a Common Understanding of the 'Ecosystems Approach' to the Protection of Transboundary Water Resources' (2014) 23 *Review of European Community & International Environmental Law (RECIEL)* 88.

138 Rhine Chlorides Arbitration (n XX) para. 97 and Pulp Mills case para. 281.

states. It could also be strengthened by requesting prior unanimous approval of projects of a certain size on the shared river, like in the case of the legal regime of the Senegal River.

As stated in the Revised SADC Protocol, states shall observe the objective of harmonization of their socio-economic policies and plans in accordance with the principle of unity and coherence of each shared watercourse.[139] In addition, states shall take steps to harmonize their policies and legislation regarding the prevention, reduction and control of pollution and may harmonize existing water agreements with the Revised Protocol.[140] The Lake Victoria Protocol provides that riparian states shall harmonize their laws and policies on the protection and conservation of the basin and its ecosystems, waste management and water quality standards.[141] States shall also conform their laws and regulations to the guidelines formulated by the East African Community regarding environmental audits.[142] In addition, the Lake Victoria Basin Commission shall harmonize policies, laws, regulations and standards, while the management plans it develops for the conservation and sustainable utilization of the resources of the basin shall be harmonized with national plans.[143] Similarly, the agreement establishing ORASECOM provides that the Council shall make recommendations for the harmonization of policies on public participation.[144] It also provides that the term 'equitable and reasonable' shall be interpreted in line with the 2000 Revised SADC Protocol,[145] thus contributing to the development of a community of law of in the SADC region. In addition, ane of the objectives of the Water Charter of the Niger River Basin is to promote the harmonization and monitoring of national policies for the preservation and protection of the basin.[146] The Lake Chad Water Charter in turn provides that the Commission shall harmonize national legislation for the enforcement of environment, water, fishing and navigation rights to support compliance with the Charter.[147]

In this context, the Charter of the Senegal River is unique. It provides that its rules apply to all that is not regulated by national legislations and that national authorities shall enforce them.[148] However, it goes beyond the harmonization of rules and policies strengthening the community of law among riparians by requiring unanimous approval prior to the development of any

139 Art. 3(1).
140 Arts. 4(2)(b)(ii) and 6(2).
141 Arts. 6(2), 32 and 25.
142 Art. 14(3).
143 Arts. 33(3)(a) and 27(2).
144 Art. 5(2)(4).
145 Art. 7(2).
146 Art. 2.
147 Art. 62.
148 Art. 12.

planned project on the River.[149] According to the Charter, all projects above a certain size can be executed only after prior approval of the contracting states.[150] As mentioned above, the Bamako Convention introduced this unanimous approval in 1963, which was reinforced by the 1972 Statute on the Senegal River.[151] The Charter repeats almost to the letter Article 4 of the 1972 Statute, stating that no project likely to significantly change the characteristics of the regime of the river, its navigability, the industrial exploitation of the River, the sanitary condition of the waters, the biological characteristics of fauna or flora or its water level can be executed without having been previously approved by the contracting States.[152] It has been submitted that the community of law in the Senegal River acquires in this way the form of a community of management.[153]

According to the treaties examined, riparian states have agreed on harmonizing domestic rules and policies on water management between them as well as between the community of law so created and regional water regimes (e.g., harmonization with SADC Revised Protocol). This is mostly how a community of law comes into existence. Exceptionally, the legal regime of the Senegal River not only fills legal gaps at the domestic level but also requires unanimous approval of certain planned projects, engaging all riparians through acting as a bloc, and as such deciding the rules under which water projects are to be develop.

To sum up, the unity of the shared drainage basin is the foundational legal element of the community of interests between riparian states. In addition, such a community of interests is the basis of riparian states' common rights and duties, which include the right to an equitable and reasonable share, the duty to cooperate and the duty of environmental protection. The treaties examined include riparian solidarity as a factor in the community of interests related to the duty to cooperate. Furthermore, the common rights and duties constitute a community of law among riparian states. Such a community of

149 On the development of the community of law on the Senegal River see Makane M. Mbengue, 'A Model for African Shared Water Resources: The Senegal River Legal System' (2014) 23 *Review of European Community & International Environmental Law (RECIEL)* 59.

150 Art. 24 in relevant part reads 'Conformément aux dispositions de l'article 4 de la Convention du 11 mars 1972 relative au statut du fleuve Sénégal et a l'article 10 de la présente Charte, tout projet d'une certaine ampleur ne peut etre exécuté qu'apres approbation préalable des Etats contractants'.

151 See Mbengue (n. 149) p. 64, stating that by the end of the 1970s, a joint legal regime based on a 'community of law' and solidarity was perfected within the Senegal River basin.

152 Art. 24 in relevant part reads 'En tout état de cause, aucun projet susceptible de modifier d'une maniere sensible les caractéristiques du régime du Fleuve, ses conditions de navigabilité, d'exploitation industrielle, l'état sanitaire des eaux, les caractéristiques biologiques de sa faune ou de sa flore, son plan d'eau, ne peut etre exécuté sans avoir été au préalable approuvé par les Etats contractants'. This provision repeats almost exactly Article 4 of the 1972 Convention on the Statute of the Senegal River.

153 Mbengue (n. 149) p. 62.

law is established mainly through the harmonization of riparians' national laws and policies on water governance. Requiring unanimous approval of projects of a certain size, like in the legal regime of the River Senegal, has also contributed to the formation of a community of law.

4 Community of interests furthers the ecosystems approach and the rights of riparian populations

4.1 From the no-harm rule to the ecosystems approach

The ecosystems approach began appearing in treaty law during the last decade of the 20th century. The 1995 Mekong Agreement extends environmental protection of the river to its related resources and environment, aquatic ecosystem conditions and ecological balance, and includes regulations for the maintenance of flows on the mainstream.[154] In addition, the 1995 SADC Protocol provided that States shall prevent the introduction of alien aquatic species into a shared watercourse system that may have detrimental effects on the ecosystem,[155] while the revised SADC Protocol defines 'environmental use' as the use of water for the preservation and maintenance of ecosystems, binding states to protecting and preserving such ecosystems.[156] Moreover, the 2003 Lake Victoria Protocol provides for the "principle of the protection and preservation of the ecosystems of international watercourses whereby ecosystems are treated as units, all of whose components are necessary to their functioning"[157] and the 'principle of prevention' in order "to minimize adverse effects on fresh water resources and their ecosystems".[158]

The agreement establishing the ORASECOM binds the parties to including the effects of a planned project on the ecosystems of the watercourse, as shown by the respective EIA, in the information presented to the relevant party and to preventing, reducing and controlling pollution that may significantly harm the ecosystem of the river.[159] The Charter of the Senegal River provides that the parties have the obligation to protect and preserve the ecosystem of the

154 Preamble; Arts. 3, 6 and 7. McIntyre holds that the Partial Award of the Permanent Court of Arbitration (PCA) in the Kishenganga Arbitration supports the ecosystems approach because it ruled that an environmental flow of water down the river needs to be maintained (n. 137) p. 88. On the maintenance of minimum environmental flows in the context of Mexico-US transboundary rivers and its relation to ecosystem protection see Dan Tarlock, 'Mexico and the United States Assume a Legal Duty to Provide Colorado River Delta Restoration Flows: An Important International Environmental and Water Law Precedent' (2014) 23 *Review of European Community & International Environmental Law (RECIEL)* 76.

155 Art. 2(11).

156 Arts. 1(1) and 4(2).

157 Art. 4(2)(j). See also Art. 6.

158 Art. 4(2)(i).

159 Art. 7(9) and (13).

river in accordance with its natural balance, particularly fragile areas such as floodplains and wetlands.[160] Likewise, the shared vision of the signatories of the Charter of the Niger River includes the "integrated management of the water resources and associated ecosystems," aiming at maintaining the integrity of ecosystems, their preservation and protection.[161] The Lake Chad Charter also aims at the conservation of ecosystems, including regulations for environmental flows and the obligation to consider ecosystem requirements as one of the relevant factors for the equitable and reasonable allocation of water.[162]

As previously discussed, the treaties surveyed take the drainage basin as the starting point for water governance, i.e. as the unit to be regulated. Consistent with this approach, the treaties adopt the notion of the interconnectedness of the elements of the environment and embrace the ecosystems approach. The treaties show a shift from the traditional approach to environmental protection based on the no-harm rule to the protection of the environment *per se*, i.e., irrespective of whether harm is caused to other riparian states. In comparison, water law of global application shows a rather timid adherence to the ecosystems approach. The UNWC, for instance, provides for the protection and preservation of ecosystems of international watercourses;[163] however, the governing approach to environmental protection continues to be the no-harm rule. [164]Water treaties acknowledging a community of interests or common interests between states adhere more decisively to the ecosystems approach thus furthering its application.

4.2 Rights and duties of the basin populations

Traditionally, the subjects of the common rights and duties in a community of interests are the riparian states. However, because of the growing inclusion of non-state actors in international environmental governance[165] and the emergence of the human right to water, the subject of the rights and duties is evolving to include the riparian populations.

The treaties show a trend towards recognizing the interests of the basin populations in addition to the interests of the riparian states. For instance, the 2000 SADC Revised Protocol recognizes the interests of persons, natural or juridical, in the context of a non-discrimination clause regarding the access of victims of environmental harm to judicial procedures.[166] In addition, the

160 Arts. 16 and 2.
161 Arts. 1(32), 1(14), 2, and 13.
162 Arts. 4(d), 12 and 13. See also arts. 28-30.
163 UNWC (n. 50) Art. 20.
164 Arts. 20 and 7.
165 The participation of non-state actors in international environmental governance is discussed in Chapters 4 and 5 of this dissertation.
166 Art. 3(10)(c).

Lake Victoria Protocol provides that riparian states shall cooperate to promote public participation in planning and decision-making.[167] Public participation is recognized as one of the guiding principles in managing the shared waters, according to which "decisions about a project or policy take into account the views of the stakeholders".[168] It also provides that riparians shall encourage public education and awareness regarding the sustainable development of the basin,[169] thus including the populations in the use and protection of the shared resource. Furthermore, the agreement on the establishment of ORASECOM provides that the Council shall make recommendations on the extent of public participation regarding the planning, development, utilization, protection and conservation of the shared waters.[170]

The Charters of the Senegal and Niger Rivers and of Lake Chad have a clear focus on environmental protection based on the ecosystems approach and on the satisfaction of the vital needs of the population based on the human right to water. The Charter of the Senegal River states that the use of the waters is open to each riparian state as well as the individuals within its territory and that water allocation shall ensure the populations their fundamental right to water,[171] placing the needs of the populations, particularly the most vulnerable, as primary criteria.[172] It also provides that the public shall have access to information relating to the river and to education encouraging a rational use of the waters.[173] In addition, the Water Charter of the Niger River Basin considers access to water to be a fundamental human right, defining it as "the right to a sufficient and physically accessible supply at an affordable cost of safe water of a quality that is acceptable for personal and domestic use by everyone".[174] It also provides for access to information on the condition of the river, the allocation of waters and the measures to prevent, control and reduce transboundary impacts,[175] as well as for public participation in decision-making and implementation procedures.[176] The Water Charter of the Lake Chad also recognizes the right to water,[177] provides that the legitimate concerns of the populations shall be taken into account in water management,[178] and sets forth access to information, public participation in decision-making procedures and public consultation.[179] Satisfying the needs of the

167 Art. 3(l).
168 Art. 4(h). See also Arts. 22 and 33(3)(b).
169 Art. 21.
170 Art. 5(2)(4).
171 Art. 4.
172 Arts. 6 and 8.
173 Art. 13.
174 Preamble; Art. 1(10).
175 Art. 26.
176 Arts. 27 and 5.
177 Art. 2.
178 Art. 7(p).
179 Arts. 7(g), 2 and 73.

population is one of the goals of the Lake Chad Charter.[180] It expressly recognizes the "rights of the basin populations" as including the right to water and sanitation, information and participation and to the acknowledgement and protection of local and traditional knowledge and know-how.[181] It also includes rules to support community organizations, develop and implement capacity-building activities and promote environmental education and awareness in local communities.[182] Consequently, the community of interests of the Senegal and Niger Rivers and of Lake Chad grants the basin populations a prominent legal status furthering in this way the protection of their rights. These communities of interests include therefore both state and non-state actors.

4.3 The interests of non-riparian states

Finally, another dimension that could be considered to be at an early stage of emergence is the acknowledgement of the interests of non-riparian states. The *River Oder* case addressed this in relation to the principle of freedom of navigation, stating that the interests of non-riparians in navigating the river should be recognized.[183] Concerning non-navigational uses, two of the treaties examined include these interests: the Water Charter of Lake Chad and the agreement between Namibia and South Africa. The Charter of Lake Chad considers different kinds of non-member states, namely associated states, observer states, and partial participation states,[184] which have different degrees of participation as authorized by the Commission.[185] It further provides for the protection of the legitimate interests of aquifer states that are not members of the Commission.[186] The agreement between Namibia and South Africa provides that the Commission shall have regard "for the interests any other State may have in any water resource of common interest to the Parties and that State".[187] Non-riparian states are not subject of the rights and duties recognized by the community of interests; however, these provisions indicate a certain awareness that the interests of non-riparians deserve to be taken into account.

In sum, two significant trends are identified in the treaties surveyed: a shift of environmental protection from the no-harm rule to the ecosystems approach, and a shift of the subjects of the common rights and duties from states to

180 Art. 4(k).
181 Ch. 12, Arts. 72, 73 and 75.
182 Arts. 78, 79 and 81.
183 (n. 30) p. 28.
184 Art. 2.
185 Art. 92.
186 Art. 20.
187 Art. 3(5).

include the basin populations. Based on these trends, the chapter argues that the principle of community of interests furthers the ecosystems approach and the rights of riparian populations. From the perspective of the exercise of sovereignty over shared water resources, community of interests promotes a change from protecting primarily state interests to protecting the environment as such – i.e. irrespective of whether harm is caused to other riparian states- and human rights. In addition, two of the treaties examined also indicate a nascent trend: the consideration of the interests of non-riparian states in the shared resource. This trend is just coming into existence; whether other communities of interests in shared drainage basins will adopt such an approach remains to be seen.

5 Conclusion

International water law recognizes the existence of a community of interests between states sharing freshwater resources. However, the legal nature of community of interests and its role in the exercise of sovereignty over the shared water resources remain unclear. For this reason, this chapter examined treaties expressly recognizing a community of interests or common interests between riparian states in order to identify the basic legal features of community of interests and thus establish its legal nature. The chapter also sought to establish the relationship between community of interests and the exercise of sovereignty over shared water resources. In addition, bearing in mind that community of interests is considered an emerging principle for transboundary water governance, the chapter tried to identify trends indicating the general direction in which the emerging principle of community of interests is evolving.

Based on an exhaustive analysis of the selected treaties, the chapter found that the common interests of the riparian states originate in the unity of the shared drainage basin. Nine of the eleven treaties examined clearly adopt the drainage basin as the basic unit for water governance.[188] The remaining two treaties, although not expressly referring to the drainage basin, nevertheless imply that the parties intended to regulate and protect not only the shared

188 The 1960 Indus Waters Treaty, the 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, the 1995 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region and the 2000 Revised SADC Protocol, the 2000 Agreement between Botswana, Lesotho, Namibia and South Africa on the Establishment of the Orange-Senqu River Commission (ORASECOM), the 2002 Water Charter of the Senegal River, the 2003 Protocol for Sustainable Development of Lake Victoria Basin, the 2008 Water Charter of the River Niger and the 2012 Water Charter of the Lake Chad Basin.

waters but also the related land as a whole.[189] The unity of the drainage basin is thus identified as the foundational legal element of the community of interests. Such a community of interests is in turn the basis of riparian states' common rights and duties. According to the treaties examined, said rights and duties include the right to an equitable and reasonable share, the duty of environmental protection and the duty to cooperate. The treaties examined include riparian solidarity as a factor in the community of interests related to the duty to cooperate. Riparians' common rights and duties constitute a community of law among riparian states established mainly through the harmonization of national laws and policies on water governance. Requiring unanimous approval of projects of a certain size, like in the legal regime of the River Senegal, has also contributed to the formation of a community of law. Based on the findings in this chapter, the legal nature of community of interest could be articulated as follows:

> Community of interests is a principle that, when provided for in a treaty or subsequently interpreted as such, governs riparian states' relations concerning the shared water resources. Its basic legal features are (1) the unity of the shared drainage basin; (2) riparian solidarity and cooperation; and (3) the harmonization of riparians' national laws and policies on water governance.

Community of interests is not yet part of customary international water law. Until now, all judicial decisions that have contributed to the evolution of the principle are based on the interpretation of one particular treaty or another and not on a rule of customary law. For this reason, community of interests is an element of the exercise of sovereignty over shared water resources only when included in treaty law or when the treaty is silent on the issue but has nevertheless been subsequently interpreted as establishing a community of interests. As such, the principle of community of interests influences and qualifies the way sovereignty is exercised. It does so mainly through emphasizing the unity of the shared resource and the consequent duty to cooperate and community of law. It also influences a change in the exercise of sovereignty towards implementing the ecosystems approach and recognizing the rights and duties of the riparian populations.

In essence, the principle of community of interests is based on the legal recognition of the unity of the shared drainage basin. It promotes riparian solidarity and cooperation as well as the formation of a community of law.

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189 In the 1950 Treaty concerning the Diversion of the Niagara River, Canada and the United States recognize 'their primary obligation to preserve and enhance the scenic beauty of the Niagara Falls and River'; while the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission provides that the Commission shall advise the parties on the prevention and control of soil erosion affecting the common water resources. The references to 'scenic beauty' and 'soil erosion' suggest an intention to regulate more than just the shared waters.

It also promotes a shift from protecting primarily state interests to protecting the environment irrespective of whether harm is caused to other riparian states (from the no-harm rule to the ecosystems approach) and the rights of the riparian populations (including the rights to water and to public participation). Community of interests thus promotes the harmonization of the pivotal dimensions of state sovereignty, environmental protection and human rights.

3 Why 'Common Concern Of Humankind' Should Return to the Work of the International Law Commission on the Atmosphere*

ABSTRACT

In 2015, the International Law Commission (ILC) removed from its Draft Guidelines on the Protection of the Atmosphere (Draft Guidelines) the concept that the degradation of atmospheric conditions is a 'common concern of humankind'. This decision was the result of objections by members of the Commission which included *inter alia* insufficient clarity of the concept and a lack of support in state practice for its inclusion. This article argues that atmospheric degradation is in fact a common concern of humankind and suggests reinstating the concept in the Draft Guidelines. Two main reasons support this argument. First, short-lived climate pollutants (SLCPs) such as black carbon both degrade the atmosphere and cause climate change. Since the UN Framework Convention on Climate Change recognizes climate change as an issue of common concern, atmospheric degradation necessarily also falls within this category. Second, several international instruments recognize issues of common concern as being those which affect human health and the environment and which require the concerted actions of all states to be effectively addressed. Atmospheric degradation shares these basic characteristics and is therefore a common concern of humankind. The author concludes that returning the concept to the Draft Guidelines would allow the International Law Commission the opportunity to contribute to elaborating on the meaning and scope of the rather controversial concept of common concern of humankind.

1 INTRODUCTION

In 2015, the International Law Commission (ILC) removed from its Draft Guidelines on the Protection of the Atmosphere (Draft Guidelines) the concept

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that the degradation of atmospheric conditions is a 'common concern of humankind'.[1] Former Draft Guideline 3 stated, 'The atmosphere is a natural resource essential for sustaining life on Earth, human health and welfare, and aquatic and terrestrial ecosystems, and hence the degradation of the atmosphere is a common concern of humankind'.[2] Following debate on the topic at the 2015 session, the ILC deleted Draft Guideline 3 and the concept of common concern of humankind from the project. The preamble to the Draft Guidelines recognizes instead that 'the protection of the atmosphere from atmospheric pollution and atmospheric degradation is a pressing concern of the international community as a whole'.[3] The ILC considered appropriate to 'express the concern of the international community as a matter of a factual statement, and not as a normative statement, as such, of the gravity of the atmospheric problem'.[4]

As reported to the UN General Assembly in 2015, the reason for the removal was that 'the legal consequences of the concept of common concern of humankind remain unclear at the present stage of development of international law relating to the atmosphere'.[5] ILC members worried that, as of yet, common concern of humankind 'might not be clear or established in international law and lack [sic] sufficient support in State practice' and that 'the link between the concept of common concern and *erga omnes* obligations needed further clarification'.[6] It was also doubted whether 'transboundary air pollution confined to a limited impact within the bilateral relations of states could be properly leveled as [a common concern of humankind].'[7] Delegates to the Sixth Committee of the General Assembly expressed similar views, with some delegations objecting to the use of common concern of humankind in the Draft Guidelines because 'the concept was vague and controversial, and […] its content was not only difficult to define but also subject to various interpretations'.[8]

Some conceptual clarifications are necessary from the outset. Firstly, the author uses the terms "air pollution" and "atmospheric pollution" indistinctly. Secondly, the terms "atmospheric pollution" and "atmospheric degradation" have the same meaning given to such terms in the Draft Guidelines. The Draft Guidelines define atmospheric pollution as 'the introduction or release by

1 Int'l Law Comm'n, Rep. on the Work of Its Sixty-Seventh Session, U.N. Doc. A/70/10, at 26-27 (2015).
2 Shinya Murase (Special Rapporteur), *2d Rep. on the Protection of the Atmosphere*, U.N. Doc. A/CN.4/681, at 49 (2015).
3 Int'l Law Comm'n, Protection of the Atmosphere: Texts and Titles of Draft Conclusions 1, 2 and 5, and Preambular Paragraphs Provisionally Adopted by the Drafting Committee on 13, 18, 19 and 20 May 2015, U.N. Doc. A/CN.4/L.851, at 1 (2015).
4 *Supra* note 1, at 27.
5 Int'l Law Comm'n, Rep. on the Work of Its Sixty-Seventh Session, *supra* note 1, at 26-27.
6 Murase, *supra* note 2, at 17.
7 *Id*.
8 *Id*. at 18.

humans, directly or indirectly, into the atmosphere of substances contributing to deleterious effects extending beyond the State of origin of such a nature as to endanger human life and health and the Earth's natural environment'.[9] This definition is based on Article 1(a) of the 1979 Convention on Long-Range Transboundary Air Pollution (Air Convention), which provides that:

> '"[a]ir pollution" means 'the introduction by man, directly or indirectly, of substances or energy into the air resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems and material property and impair or interfere with amenities and other legitimate uses of the environment, and "air pollutants" shall be construed accordingly.'[10]

"Atmospheric pollution" in the Draft Guidelines refers to transboundary air pollution.[11] Additionally, the Draft Guidelines define atmospheric degradation as 'the alteration by humans, directly or indirectly, of atmospheric conditions having significant deleterious effects of such a nature as to endanger human life and health and the Earth's natural environment.'[12] This definition refers to global atmospheric problems including ozone depletion and climate change.[13] In this way, air (or atmospheric) pollution is the anthropogenic introduction into the atmosphere of substances that endanger human life and health and the environment, while atmospheric degradation is the anthropogenic change of atmospheric conditions, causing them to become progressively worse and endanger human life and health and the environment. Consequently, atmospheric pollution contributes to atmospheric degradation. Based on these conceptualizations, Part 3 focuses on one type of particles that pollute the atmosphere: pollutants that contribute to climate change, also known as short-lived climate pollutants.

In view of the removal of the concept in question from the ILC Draft Guidelines, this article argues that atmospheric degradation is in fact a common concern of humankind and suggests reinstating this concept to the Draft Guidelines. Two main reasons support this argument. First, short-lived climate pollutants (SLCPs) such as black carbon both degrade the atmosphere and cause climate change. Since the UN Framework Convention on Climate Change recognizes climate change as an issue of common concern, the degradation of the atmosphere necessarily also falls within this category. Second, several international instruments recognize issues of common concern as being those which affect human health and the environment and which need the concerted action of all states to be effectively addressed. Atmospheric degradation shares

9 Int'l Law Comm'n, Rep. on the Work of Its Sixty-Seventh Session, *supra* note 1, at 23.
10 Convention on Long-range Transboundary Air Pollution, Nov. 13, 1979, 34 U.S.T. 3043, 1302 U.N.T.S. 217.
11 Int'l Law Comm'n, Rep. on the Work of Its Sixty-Seventh Session, *supra* note 1, at 29.
12 *Id*. at 23.
13 *Id*. at 29.

these basic characteristics and is, for this reason as well, a common concern of humankind. Because atmospheric degradation *is* a common concern of humankind, and considering that the concept continues to be regarded as lacking in clarity, the author concludes that the International Law Commission could contribute to a better understanding of its meaning and scope. In the author's view, the Draft Guidelines on the Protection of the Atmosphere present a unique opportunity for the ILC, as an authoritative body, to discuss the concept of common concern of humankind and, in that process, advance its conceptual development.

This chapter argues that atmospheric degradation should be considered a common concern of humankind. It begins with a discussion of the link between air pollution and climate change to show that, because climate change is an acknowledged common concern of humankind, atmospheric degradation is also a common concern. Section 4 surveys a number of international instruments containing the concept and draws attention to the distinguishing features shared by the issues currently considered by the international community as common concerns of humankind. A summary table is provided to highlight these features. The conclusion summarizes the line of argumentation and stresses the importance of discussing atmospheric degradation as a common concern of humankind in the context of the Draft Guidelines.

2 THE CONCEPT OF COMMON CONCERN OF HUMANKIND

Since the emergence of the concept of common concern of humankind,[14] scholars have tried to elucidate what an issue of "common concern of humankind" entails. Generally, they agree on several aspects. For instance, they agree that issues of common concern relate to the whole world and can only be effectively addressed through international cooperation.[15] Common concern is considered to be a globalizing concept, in the sense that it applies to issues which transcend state boundaries and sovereignty, requiring collective action

14 *See* G.A. Res. 43/53, Protection of Global Climate for Present and Future Generations of Mankind (Dec. 6, 1988). *See generally I Meeting of the UNEP Group of Legal Experts to Examine the Implications of the "Common Concern of Mankind" Concept on Global Environmental Issues*, 13 REVISTA IIDH 247 (1991); *II Meeting of the UNEP Group of Legal Experts to Examine the Implications of the "Common Concern of Mankind" Concept on Global Environmental Issues*, 13 REVISTA IIDH 253 (1991); *United Nations Decade of International Law Symposium on Developing Countries and International Environmental Law*, 13 REVISTA IIDH 259 (1991).

15 *See, e.g.*, Jutta Brunnée, *Common Areas, Common Heritage, and Common Concern*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 550, 553 (Daniel Bodansy et al. eds., 2008).

at the global level.[16] The Second Report of the Special Rapporteur on the protection of the atmosphere is in line with these basic ideas, submitting that common concern "implies, and provides a basis for, cooperation of all states on matters of a similar importance to all nations".[17] It is generally understood that common concern highlights the need to strike a balance between the interests of the international community as a whole, and national sovereignty.[18]

More specifically, various authors have submitted arguments that relate to particular aspects of the notion of common concern, such as its relationship to state sovereignty or its effects on state action. Regarding sovereignty, for instance, Scholtz argues that common concern "greens" the exercising of permanent sovereignty over natural resources,[19] while Bowman concludes that common concern allows the shared interests of the international community to be superimposed onto state sovereignty.[20] Regarding the effects of common concern on state action, French argues that common concern serves as a justification of global collective action,[21] while Brown Weiss submits that it is also a normative basis for action at the national level.[22] Cottier *et al*. go a step further in this regard, arguing that common concern also justifies unilateral action.[23] In a broader sense, Judge Cançado Trindade points out that the acknowledgement of certain issues as being common concerns of humankind is indicative of the widening scope of international law, which is no longer exclusively dedicated to the interests of states but has been expanded to include the protection of the environment and human rights.[24] Regarding

16 Duncan French, *Common Concern, Common Heritage and Other Global(-ising) Concepts: Rhetorical Devices, Legal Principles or a Fundamental Challenge?*, RESEARCH HANDBOOK ON BIODIVERSITY AND LAW 334 (Michael Bowman et al. eds., 2016); Werner Scholtz, *Greening Permanent Sovereignty through the Common Concern in the Climate Change Regime: Awake Custodial Sovereignty, in* 2 CLIMATE CHANGE: INTERNATIONAL LAW AND GLOBAL GOVERNANCE 201, 201 (Oliver C. Ruppel et al. eds., 2013); PATRICIA W. BIRNIE ET AL., INTERNATIONAL LAW AND THE ENVIRONMENT 129 (3d ed. 2009); Alexandre Kiss, *The Common Concern of Mankind*, 27 ENVIRONMENTAL LAW AND POLICY 244, 247 (1997).

17 Murase, *supra* note 2, at 17.

18 Michael Bowman, *Environmental Protection and the concept of common concern of mankind, in* RESEARCH HANDBOOK ON INTERNATIONAL ENVIRONMENTAL LAW 493, 501 (Malgosia Fitzmaurice et al. eds., 2010); Dinah Shelton, *Common Concern of Humanity*, 39 ENVIRONMENTAL POLICY AND LAW 83, 85 (2009); Kiss, *supra* note 16, at 247; BIRNIE ET AL., *supra* note 16, at 130.

19 Scholtz, *supra* note 16, at 202.

20 Bowman, *supra* note 18, at 511.

21 French, *supra* note 16, at 340.

22 Edith Brown Weiss, *The Coming Water Crisis: A Common Concern of Humankind*, 1 TRANSNATIONAL ENVIRONMENTAL LAW 153, 167 (2012).

23 Thomas Cottier *et al.*, *The Principle of Common Concern and Climate Change*, 52 ARCHIV DES VÖLKERRECHTS 293, 296 (2014).

24 Pulp Mills on the River Uruguay (Arg. v. Uru.), Separate Opinion of Judge Cançado Trindade, 2010 I.C.J. 135, at 194-95 (Apr. 20). *See also* A.A. Cançado Trindade, *International Law for Humankind: Towards a New Jus Gentium* (2013), 344-352.

the legal implications of the concept, Shelton submits that because issues of common concern no longer fall under the exclusive national jurisdiction of states, "new forms of law making, compliance techniques and enforcement" are required to regulate the international action that the issue demands.[25]

As discussed below, four issues are currently explicitly recognized in treaty law as common concerns of humankind: climate change, biodiversity conservation, plant genetic resources and the safeguarding of intangible cultural heritage. Recent publications suggest that other issues as well should be considered as common concerns of humankind. Brown Weiss argues that the availability and use of fresh water should be recognized as such,[26] while Jaeckel makes the case for the conservation of plant biodiversity to be acknowledged as being of common concern.[27] Although the efforts to explain the concept of common concern of humankind have shed light on its content, discussions at the ILC and the Sixth Committee of the General Assembly show that the concept is still generally perceived to be insufficiently clear. Scholars also observe that the notion needs further conceptual elaboration.[28]

3 Linkage between certain air pollutants and climate change shows that atmospheric degradation is a common concern of humankind

Long-term exposure to air pollutants causes death and health problems, such as cancer and heart failure, and has become a serious public health issue in many countries.[29] For instance, about 1.6 million people die each year in China because of diseases caused by air pollution, equivalent to 17% of all deaths in the country.[30] In addition, children living in heavily polluted cities, like New Delhi, are worryingly exposed to irreversible lung damage.[31] It is

25 Shelton, *supra* note 18, at 86.

26 Edith Brown Weiss, International Law for a Water-Scarce World 70-77 (2013).

27 Aline Jaeckel, *Intellectual Property Rights and the Conservation of Plant Biodiversity as a Common Concern of Humankind*, 2 Transnational Envtl Law 167, 167-68 (2013).

28 *See, e.g.*, Trindade, *supra* note 24, *International Law for Humankind*, at 352; Ben Boer, *Land Degradation as a Common Concern of Humankind*, *in* International Law for Common Goods 289, 90 (Frederico Lenzerini & Ana Filipa Vrdoljak eds., Hart Publ'g 2014); Brunnée, *supra* note 15, at 567; Birnie et al., *supra* note 16, at 129; Cottier *et al.*, *supra* note 23, at 323; Jaeckel, *supra* note 27, at 173; Weiss, *supra* note 26 at 70-72.

29 Org. for Econ. Cooperation and Dev. [OECD], *The Cost of Air Pollution: Health Impacts of Road Transport* (2014).

30 Robert A. Rhode & Richard A. Muller, *Air Pollution in China*: *Mapping of Concentrations and Sources*, Plos One 10(8), 8 (2015).

31 Aniruddha Ghosal & Pritha Chatterjee, *Landmark Study Lies Buried, How Delhi's Poisonous Air is Damaging its Children for Life*, The Indian Express (2015); see also Gardiner Harris, *Holding Your Breath in India,* N.Y. Times, May 29, 20152, 2015; *see also* Gardiner Harris, *Holding Your Breath in India,* N.Y. Times, May 29, 2015.

thus not surprising that the World Health Organization ("WHO") and the UN Environment Programme ("UNEP") consider air pollution to be the worst environmental health risk in the world today.[32] Air pollutants also have harmful effects on agriculture, with chronic exposure resulting in "growth and yield reductions, loss of viable seeds and decreased vitality".[33] It even harms our cultural heritage, with the surfaces of historical buildings and monuments deteriorating because of corrosion and soiling caused by air pollutants.[34]

Air pollution moves around in the atmosphere, crossing international borders. For example, in England in April, 2015, a cloud of smog from mainland Europe combined with the pollution produced locally to create dangerously high levels. [35]As a matter of fact, the above-cited Air Convention[36] originated in the scientific finding which established the connection between sulfur emissions in continental Europe and the acidification of Scandinavian lakes.[37] The Air Convention establishes a legal regime to combat transboundary air pollution that has been extended by eight protocols containing targets for emission reductions of specific pollutants. As discussed below, the recently amended 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) is of crucial importance for the legal recognition of the linkage between certain air pollutants and climate change.[38]

Research shows that short-lived climate pollutants (SLCPs) cause almost half of global warming.[39] SLCPs have atmospheric lifetimes of days to a decade

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32 U. N, Env't Programme [UNEP], *Air Pollution: World's Worst Envi. Health Risk*, UNEP YEAR BOOK 2014 EMERGING ISSUES UPDATE 43-47 (2014), http://www.unep.org/yearbook/2014/PDF/chapt7.pdf; Press Release, World Health Org., *7 Million Premature Deaths Annually Linked To Air Pollution* (Mar. 25, 2014), http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/.

33 Mike Ashmore, *Envi. And Health Impacts of Air Pollution*, *in* WORLD ATLAS OF ATMOSPHERIC POLLUTION 77, 80 (Ranjeet S. Sokhi ed., 2008).

34 *Air Pollution Puts Cultural Heritage at Risk*, UN ECON. COMM'N FOR EUROPE (2015), http://www.unece.org/info/media/news/environment/2015/air-pollution-puts-cultural-heritage-at-risk/air-pollution-puts-cultural-heritage-at-risk.html.

35 Karl Mathisen, *Air Pollution Spike Across England Sparks Warning From Health Charities*, THE GUARDIAN (Apr. 10, 2015, 1:00:00 AM), https://www.theguardian.com/environment/2015/apr/10/air-pollution-spike-across-england-sparks-warning-from-health-charities.

36 *Supra* note 10.

37 See *Convention on Long Range Transboundary Air Pollution, About the Convention,* UN ECON. COMM'N FOR EUROPE, http://www.unece.org/fileadmin/DAM//env/lrtap-new/about.html.

38 *See* Protocol to the 1979 Convention on Long-range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone, *opened for signature* November 30, 1999, T.I.A.S. No. 13,073, 2319 U.N.T.S. 80 [hereinafter 1999 Protocol]. See 1999 Protocol, amend. to Annexes II-IX and Addition of New Annexes X & XI, *adopted* May 4, 2012, 2319 U.N.T.S. 80.

39 See Durwood Zaelke & Nathan Borgford-Parnell, *The Importance of Phasing Down Hydrofluorocarbons and Other Short-lived Climate Pollutants*, 5 J. ENVTL. STUD. & SCI. 169 (2015); J.A. Burney, C.F. Kennel & D.G. Victor, *Getting Serious About the New Realities of Global Climate Change*, 69 BULL. ATOMIC SCIENTISTS 49 (2013); J.K. Shoemaker ET AL., *What Role for Short-*

and a half, in contrast to the primary climate pollutant carbon dioxide, which ranges from decades to centuries, with about 20 percent of it persisting for millennia.[40] SLCPs include black carbon, methane, tropospheric ozone, and hydrofluorocarbons.[41] Methane and hydrofluorocarbons are mentioned in Annex A of the Kyoto Protocol, but the efforts to mitigate the effects of climate change currently prioritize reducing carbon dioxide emissions. Although the latter is an essential task in addressing global warming, present knowledge indicates that reducing carbon dioxide emissions must be complemented by cutting SLCPs to deal effectively with the effects of climate change. [42]This hybrid approach to climate mitigation translates into concrete health benefits for populations exposed to SLCPs.[43] In line with this development, the Fifth Report of the Intergovernmental Panel on Climate Change (2014) acknowledges that cutting SLCP emissions plays a role in abating climate change, although it cautiously points out that further research is still necessary to determine the actual extent of the impact of SLCPs and the proper balance between the efforts to mitigate SLCPs and CO_2.[44] The science establishing the linkage between SLCPs and climate change has prompted actions on several fronts. These include the 2012 amendments to the Gothenburg Protocol and the establishment of the UNEP-endorsed Climate and Clean Air Coalition, the objective of which is to address SLCPs.[45] These developments acknowledge the scientifically proven linkage between certain components of air pollution and climate change at the legal and political level.

At the legal level, the parties to the Air Convention amended the Gothenburg Protocol to include, for the first time in treaty law, emission reduction commitments for one of the most harmful air pollutants: fine particulate matter ($PM_{2.5}$).[46] Indeed, the amendments added to Article 1 on definitions the following paragraphs:

Lived Climate Pollutants in Mitigation Policy? 342 SCIENCE 1323 (2013); D. Shindell ET AL., *Simultaneously Mitigating Near-Term Climate Change and Improving Human Health and Food Security* 335 SCIENCE 183 (2012).

40 United Nations Environment Programme, Near-term Climate Protection and Clean Air Benefits: Actions for Controlling Short-Lived Climate Forcers, ch. 2 at 3 (2011).

41 See, *e.g.*, Inst. for Governance & Sustainable Dev., *Primer on Short-Lived Climate Pollutants: Slowing the Rate of Global Warming over the Near Term by Cutting Short-Lived Climate Pollutants to Complement Carbon Dioxide Reductions for the Long Term* (November 2013).

42 *Supra* note 39; see also id.

43 *Supra* note 41, at 32-3.

44 DAVID G. VICTOR ET AL., CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE. CONTRIBUTION OF WORKING GROUP III TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 122 (Ottmar Edenhofer et al. eds. 2014).

45 See Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants, *About Us*, https://ccacoalition.org/en/content/about.

46 *Supra* note 38. In 2015, the World Health Assembly highlighted the health effects of fine particulate matter, urging member states to take action. See World Health Org. [WHO], *Health and the Environment: Addressing the Health Impact of Air Pollution,* at 1-2, A68/A/CONF./2 Rev.1 (May 26, 2015).

> '11 bis. "Particulate matter" or "PM" is an air pollutant consisting of a mixture of particles suspended in the air. These particles differ in their physical properties (such as size and shape) and chemical composition. Unless otherwise stated, all references to particulate matter in the present Protocol refer to particles with an aerodynamic diameter equal to or less than 10 microns (ìm) (PM_{10}), including those with an aerodynamic diameter equal to or less than 2.5 ìm ($PM_{2.5}$);
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> 11 ter. "Black carbon" means carbonaceous particulate matter that absorbs light'[47]

Fine particulate matter has a diameter of 2.5 microns or less, about 30 times smaller than the diameter of a human hair and, in cities, originates primarily from the burning of fossil fuels or biomass for domestic heating, vehicle exhaust fumes and the re-suspension of paved road dust.[48] In 2012, $PM_{2.5}$ concentrations were responsible for about 403,000 premature deaths in the European Union, originating from long-term exposure.[49] Scientists argue that an aggressive global program of $PM_{2.5}$ mitigation could avoid as many as 750,000 of the 3.2 million deaths per year attributable to $PM_{2.5}$.[50] The inclusion of the short-lived climate pollutant black carbon as a component of particulate matter in the Gothenburg Protocol is a remarkable step, which strengthens the legal recognition of the linkage between SLCPs and climate change. Black carbon is a particle formed through the incomplete combustion of fossil fuels (coal, petroleum), biofuel (ethanol, biodiesel), and biomass (wood, manure)[51]. Black carbon can constitute up to 10-15 percent of fine particulate matter.[52] It warms the Earth by absorbing heat in the atmosphere, and by reducing surface albedo (the ability of the Earth to reflect radiation from the sun) when black carbon is deposited on snow and ice.[53] Black carbon also affects human health, agriculture, and ecosystems.[54] Determined efforts to reduce this pollutant consequently benefit not only air quality but also climate, public health, and food security. By including black carbon as a component of particulate matter, the amendments to the Gothenburg Protocol legally acknowledge the soundness of current scientific knowledge on this matter and promote the harmonization of laws and policies on air pollution and climate change, such that even though these amendments are not yet in force, the importance of

47 See 1999 Protocol, amend., *supra* note 38 at Annex B3.
48 European Env't Agency, *Air quality in Europe*, at 20, EEA Report No. 5/2014 (2014).
49 European Env't Agency, *Air quality in Europe*, at 9, EEA Report No. 5/2015 (2015).
50 Joshua S. Apte et al., *Addressing Global Mortality from Ambient $PM_{2.5}$*, 49 ENVTL. SCI. & TECH. 8057, 8062 (2015).
51 UNEP & World Meteorological Org., *Integrated Assessment of Black Carbon and Tropospheric Ozone*, at 3 (2011).
52 *Id.*
53 *Id.*, at 4-5.
54 *Id.*, at 116-136.

this groundbreaking development cannot be overlooked.[55] At the legal level, therefore, the amended Gothenburg Protocol supports the argument that since climate change is a common concern of humankind (UNFCCC), and since SLCPs both pollute the atmosphere and cause climate change (Gothenburg Protocol), then atmospheric degradation – the deterioration of atmospheric conditions harmful to life on Earth-is a common concern of humankind.

At the political level, the governments of Bangladesh, Canada, Ghana, Mexico, Sweden, and the United States, along with UNEP, established the Climate and Clean Air Coalition (CCAC) in 2012.[56] This initiative focuses on reducing short-lived climate pollutants, among others, by raising awareness of their impact on health and climate, improving the scientific understanding thereof, and promoting best practices.[57] Its plan of action includes mitigating SLCPs from brick production, municipal solid waste, agriculture, household cooking, and domestic heating.[58] The CCAC began with six state partners and now has 50, with the addition of the European Commission, as well as 61 non-state partners, including the WHO, the World Meteorological Organization, and the World Bank.[59] The UN Economic Commission for Europe (UNECE) joined the CCAC in September 2015.[60] This significant growth in membership shows that the international community increasingly acknowledges the linkage between SLCPs and climate change and is taking action, at both the global and the local level, to address the effects of SLCPs on air quality and climate. In the lead-up to the 21st Climate Conference of the Parties to the UNFCCC (COP21) in Paris (December 2015), the CCAC encouraged states to include SLCPs in their Intended Nationally Determined Contributions (INDCs).[61] In this way, SLCPs are becoming related to climate change not only in science and law but also in concrete policies.

In sum, the inclusion of particulate matter – and black carbon as a component thereof-in the Gothenburg Protocol legally acknowledges that certain air pollutants also cause climate change. Simply stated, since SLCPs contribute to climate change, and climate change is a common concern of humankind, then the harmful deterioration of atmospheric conditions is also a common concern of humankind. The work of the CCAC is in line with the amendments

55 At the time Chapter 3 was published, the amendments were not yet in force. These entered into force on 7 October 2019. https://www.unece.org/info/media/presscurrent-press-h/environment/2019/entry-into-force-of-amended-gothenburg-protocol-is-landmark-for-clean-air-and-climate-action/doc.html

56 www.unep.org/ccac

57 *Id.*

58 *Id.*

59 CCAC, ANNUAL REPORT SEPTEMBER 2015 – AUGUST 2016, at 109-110 (2016).

60 Press Release, UNECE, 'UNECE Joins Climate and Clean Air Coalition' (Sept. 8, 2015), available at: http://www.unece.org/info/media/presscurrent-press-h/climate-change/2015/unece-joins-climate-and-clean-air-coalition/unece-joins-climate-and-clean-air-coalition.html.

61 In the INDCs, states that are party to the UNFCCC outline what post-2020 climate actions they intend to take under the Paris Agreement.

to the Gothenburg Protocol and is relevant because it brings together parties that are not signatories to the Air Convention, resulting in wider adhesion to the goal of tackling SLCPs emissions. Both efforts essentially work towards the same end, i.e., advancing awareness and action regarding the linkage between SLCPs and climate change and the consequent short-term benefits for health, climate and the environment. The International Law Commission could participate in and influence this process through the Draft Guidelines on the Protection of the Atmosphere. Should the Draft Guidelines acknowledge the link between SLCPs and climate change, thereby recognizing global atmospheric problems as being a common concern of humankind, it would not only provide benefits for life on Earth by tackling SLCPs, but would also advance the conceptual development of 'common concern of humankind', a notion still regarded as insufficiently clear and thus approached with caution.

4 ATMOSPHERIC DEGRADATION SHARES KEY CHARACTERISTICS WITH ACKNOWLEDGED ISSUES OF COMMON CONCERN OF HUMANKIND

Notwithstanding the link between certain air pollutants and climate change, the degradation of the atmosphere is an issue of common concern of humankind in its own right. This section identifies the characteristics shared by issues of common concern, and demonstrates that atmospheric degradation indeed shares such characteristics. It further examines the kinds of issues the international community values as being of common concern, the reasons why they are considered as such, the type of action required by states to address them, and the principles guiding such state actions. A study of ten international instruments containing the concept sheds light on these questions; five of these are international treaties, while the remaining five are other types of international instruments. The section also provides a table summarizing the key characteristics shared by the issues of common concern.

4.1 Common concern of humankind in international instruments

4.1.1 Issues of common concern in treaties

The concept of common concern of humankind currently appears in five international treaties, namely the UN Framework Convention on Climate Change (UNFCCC),[62] the Paris Agreement,[63] the Convention on Biological

62 1992 UN Framework Convention on Climate Change, *adopted* May 9, 1992, 1771 U.N.T.S. 107 [hereinafter *UNFCCC*].

63 Paris Agreement, *adopted*, December 12, 2015, FCCC/CP/2015/10/Add.1. https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-7-d&chapter=27&clang=_en.

Diversity (CBD),[64] the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA),[65] and the Convention for the Safeguarding of the Intangible Cultural Heritage (CICH).[66]

The Parties to the UNFCCC acknowledged that "change in the Earth's climate and its adverse effects are a common concern of humankind."[67] Climate change is considered to be a common concern because "additional warming of the Earth's surface and atmosphere . . . may adversely affect natural ecosystems and humankind."[68] As a result, and because of the global nature of climate change, all states are called upon to provide the widest possible cooperation to address the issue.[69] States are guided in this effort by the principles of intergenerational equity, common but differentiated responsibilities and respective capabilities, the precautionary principle, sustainable development, and cooperation.[70] The Paris Agreement-which builds upon the UNFCCC and aims to strengthen the global response to climate change[71]- reiterates the acknowledgment that climate change is a common concern of humankind. It includes an additional consequence of such status: climate action should respect, promote and consider Parties' human rights obligations.[72] This notably establishes a link between the status of climate change as an issue of common concern and the obligation of Parties, consequential to such status, to honor their human rights obligations. This adds a new element to the discussion of the legal consequences of acknowledging an issue as being of common concern. As summarized in Part 2, legal scholars have tried to elucidate what an issue of common concern entails and, in that process, have thrown light on its content. However, it appears that further conceptual elaboration of the notion is still required, particularly in light of the debate within both the ILC and the Sixth Committee of the General Assembly. As mentioned above, the reason given by the ILC for deleting the concept of common concern of humankind from the Draft Guidelines was that its legal

64 1992 Convention on Biological Diversity, *adopted* June 5, 1992, 1760 U.N.T.S. 79 [hereinafter *CBD*].

65 International Treaty on Plant Genetic Resources for Food and Agriculture, *adopted* Nov. 3, 2001, 2400 U.N.T.S. 303 [hereinafter *ITPGRFA*].

66 Convention for the Safeguarding of the Intangible Cultural Heritage, Oct. 17, 2003, 2368 U.N.T.S. 35 [hereinafter *CICH*].

67 UNFCCC, *supra* note 62, at Preamble, para. 1.

68 *Id.* para. 6.

69 *Id.*

70 *Id.* Art. 3.

71 Paris Agreement, *supra* note 63, Art. 2.

72 *Id*. Preamble, para. 11: "Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity"

consequences remained unclear.[73] In addition, some delegations of the Sixth Committee expressed the view that the concept was vague and controversial, and that its content was difficult to define and subject to various interpretations.[74] Paragraph 11 of the Preamble to the Paris Agreement brings about a new element which could move this debate forward.

The next international treaty containing the concept is the Convention on Biological Diversity. The Preamble to the CBD affirms that "the conservation of biological diversity is a common concern of humankind."[75] The reasons that make conserving biodiversity a common concern are a) its intrinsic value;[76] b) its ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values;[77] and c) its importance for evolution and for maintaining life sustaining systems.[78] Consequently, the CBD calls for a broad form of international cooperation at all levels of governance, including not only states but also intergovernmental and non-governmental organizations.[79] Like in the legal regime established by the UNFCCC and the Paris Agreement, the approach of the CBD towards the conservation of biological diversity is guided by the principles of intergenerational equity, common but differentiated responsibilities, the precautionary principle, sustainable development, and cooperation.[80] The climate change and biodiversity conservation regimes are typical examples of legal regimes organized around the recognition of an issue as a common concern of humankind.

Furthermore, the ITPGRFA recognizes plant genetic resources for food and agriculture as being a common concern of humankind, because all countries depend greatly on plant genetic resources originated elsewhere.[81] The contracting parties are expected to implement a global plan of action for the conservation and sustainable use of these resources through local and international action.[82] The ITPGRFA includes the same guiding principles as those found in the UNFCCC and in the CBD.[83]

Finally, for the parties to the Convention for the Safeguarding of the Intangible Cultural Heritage, the issue of common concern involves safeguarding the intangible cultural heritage of humanity, that is, "the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith- that communities,

73 Int'l Law Comm'n, Rep. on the Work of Its Sixty-Seventh Session, *supra* note 1, at 26-27.
74 Murase, *supra* note 2, at 18.
75 CBD *supra* note 64, at Preamble, para. 3.
76 *Id.* para. 1.
77 *Id.*
78 *Id.* para. 2.
79 *Id.*
80 *Id. See, e.g.*, Preamble, Arts. 1, 5, 6.
81 ITPGRFA, *supra* note 65, Preamble, para. 3.
82 *Id.*, Art. 14.
83 *Id.* See, e.g., Preamble, Arts. 5-8.

groups and, in some cases, individuals recognize as part of their cultural heritage."[84] This is because intangible cultural heritage plays an "invaluable role ... in bringing human beings closer together and ensuring exchange and understanding among them"[85] and is vulnerable to "deterioration, disappearance and destruction."[86] The CICH thus acknowledges the intrinsic value of intangible cultural heritage to humankind. The parties are required to cooperate at all levels of international governance in light of the principle of sustainable development.[87] One of the purposes of the CICH is to provide for international assistance[88] that will support states in their efforts to safeguard intangible cultural heritage,[89] thus acknowledging the different capabilities of states in addressing the issue of common concern.

In sum, the UNFCCC and the Paris Agreement, the CBD, the ITPGRFA, and the CICH respectively recognize climate change, the conservation of biodiversity, plant genetic resources for food and agriculture, and the safeguarding of the intangible cultural heritage as issues of common concern of humankind. These are seen as issues of common concern either because they affect the sustainment of life on earth (climate, biodiversity) or because they are otherwise essential to humanity (plant genetic resources, intangible cultural heritage). Five principles guiding state action in addressing the common concern appear repeatedly in these treaties, that is, intergenerational equity, common but differentiated responsibilities, sustainable development, the precautionary principle, and cooperation.

4.1.2 Issues of common concern in other international instruments

The concept of common concern of humankind also appears in the Earth Charter,[90] the Langkawi Declaration on the Environment,[91] the Hague Recommendations on International Environmental Law,[92] the International Law Association (ILA)'s New Delhi Declaration of Principles of International Law

84 CICH *supra* note 66, Art. 2, para. 1.
85 *Id.,* para. 13.
86 *Id.,* para. 4.
87 *Id.,* Art. 19(2), Preamble and Art. 2(1).
88 *Id.,* Art. 1(d).
89 *Id.,* Art. 19(1).
90 The Earth Charter Initiative, *The Earth Charter*, pmbl. (2000) [hereinafter *Earth Charter*], http://www.earthcharterinaction.org/invent/images/uploads/echarter_english.pdf.
91 The Commonwealth, *Langkawi Declaration on the Environment*, ¶ 2 (1989) [hereinafter *Langkawi*], http://www.thecommonwealth.org/sites/default/files/news-items/documents/Langkawi-declaration.pdf.
92 International Conference on Environmental Law, *The Hague Recommendations*, I.3f, II (1991) [hereinafter *Hague Recommendations*], *as reprinted in* 21 *Environmental Policy and Law* 242, 276.

Relating to Sustainable Development,[93] and the International Union for Conservation of Nature (IUCN)'s Draft Covenant on Environment and Development.[94]

According to the Earth Charter, the global environment is a common concern of all peoples because the resilience of life on Earth and the wellbeing of humanity 'depend upon preserving a healthy biosphere'.[95] Consequently, a global partnership needs to be formed 'to care for Earth and one another,'[96] for which foundational principles are provided in the Charter. These principles include four of the five above-mentioned guiding principles, i.e., the precautionary principle, sustainable development, intergenerational equity, and cooperation.[97] Although not legally binding, the Earth Charter has been endorsed by over six thousand organizations, including UNESCO and the IUCN,[98] and has gained moral authority.[99] Furthermore, the 1989 Langkawi Declaration on the Environment, made by the Heads of Government of the Commonwealth, recognizes environmental deterioration as a common concern of humankind because it threatens the wellbeing of present and future generations.[100] It also states that in many cases environmental problems require a coordinated global effort, mentioning atmospheric pollution as one example of such problems.[101] The Langkawi Declaration makes reference to the principles of intergenerational equity, common but differentiated responsibilities and capabilities, sustainable development, and cooperation.[102]

In addition, the 1991 Hague Recommendations on International Environmental Law consider two issues to be common concerns: the preservation of the global environment, and the conservation and sustainable use of biodiversity.[103] As stated in the Recommendations, considering the preservation of the environment to be a common concern of humankind enhances environmental protection and the sustainable use of natural resources.[104] The con-

93 70th Conference of the International Law Association, *ILA New Delhi Declaration of Principles of International Law Relating to Sustainable Development* (2002) [hereinafter *New Delhi*], *reprinted in* 2 *International Environmental Agreements: Politics, Law and Economics* 211. *See also* NICO SCHRIJVER, THE EVOLUTION OF SUSTAINABLE DEVELOPMENT IN INTERNATIONAL LAW: INCEPTION, MEANING AND STATUS 162-207, app. (Martinus Nijhoff Publishers 2008).

94 Int'l Union for Conservation of Nature [IUCN], *Draft International?Covenant on Environment and Development. Fifth edition: Updated Text*, at 44-46 (2015).

95 *Earth Charter*, *supra* note 90, pmbl.

96 *Id.*

97 *Id.*, pmbl. and principles 4, 6, 5, 8, 11, 14, 16.

98 *See History of the Earth Charter*, EARTH CHARTER, http://earthcharter.org/discover/history-of-the-earth-charter/

99 Scott Russell Sanders, *The Dawning of an Earth Ethic*, 28 ETHICS & INT'L AFFAIRS 317, 322 (2014).

100 *Langkawi, supra* note 91, pmbl.

101 *Id.* at ¶ 444

102 *Langkawi, supra* note 91, paras. 1, 4, 5, 6.

103 *Hague Recommendations*, *supra* note 88, at I.3f, II.

104 *Id.* at I.3 and 3.f.

servation and sustainable use of biodiversity is regarded as a common concern of humankind because biological diversity is essential for the wellbeing of present and future generations, highlighting the intrinsic value of biodiversity to humanity.[105] The Hague Recommendations also provide general principles of international law that should apply to enhancing environmental protection, including intergenerational equity, the principle of taking precautionary action, sustainable use of natural resources, cooperation, and common but differentiated responsibilities and respective capabilities.[106] Additionally, the 2002 ILA New Delhi Declaration of Principles of International Law Relating to Sustainable Development recognizes two issues of common concern: sustainable development, and 'the protection, preservation and enhancement of the natural environment.'[107] Sustainable development is a matter of common concern because it plays a pivotal role in addressing growing inequalities within and between states.[108] The New Delhi Declaration encourages states to integrate sustainable development into all relevant fields of policy and includes all five guiding principles.[109] Finally, the IUCN Draft Covenant on Environment and Development states that the global environment is a common concern of humankind because environmental harm resulting from human activities adversely affects all humanity.[110] In addition, 'the interdependence of the world's ecosystems and the severity of current environmental problems call for global solutions to most environmental problems'.[111] All five guiding principles again appear in this instrument.[112]

To sum up, these international instruments recognize the following as issues of common concern of humankind: 1) the environment as such (Earth Charter, IUCN Draft Covenant), 2) its deterioration (Langkawi Declaration), and 3) its preservation (New Delhi Declaration, Hague Recommendations). Essentially, the reason why these issues are considered common concerns is because the life and well-being of present and future generations depend on maintaining a healthy biosphere. The New Delhi Declaration also considers sustainable development to be a common concern, because it contributes to bridging inequalities within and between states, and because life as well as social and economic development depend on the sustainable use of natural resources. Like the treaties discussed previously, these international instruments emphasize the unity of the biosphere and the interdependence of humanity and the environment. Additionally, like the treaties examined, these instruments call for global cooperation in addressing issues of common concern. Finally,

105 *Id.* at II.
106 *Id.* at I.3d.
107 *New Delhi*, *supra* note 93, 1.3.
108 *Id.* at pmbl.
109 *Id.* Preamble and throughout its 7 Principles.
110 *IUCN Draft Covenant*, *supra* note 94, commentary to Art. 3, at 44.
111 *Id.*, at 45.
112 *Id.*, throughout the Covenant, see in particular Arts. 5, 7, 11 and 13.

the same guiding principles are found in both the treaties and these additional instruments, i.e., cooperation, intergenerational equity, common but differentiated responsibilities, sustainable development, and the precautionary principle. As a result, the concept of common concern of humankind in the treaties surveyed does not differ from that in these other international instruments.

Table: Summary of the essential characteristics shared by issues of common concern of humankind as stated in international treaties and other instruments. Abbreviations: IE: intergenerational equity; CBDR: common but differentiated responsibilities; SD: sustainable development.

	What	*Why*	*Action*	*Principles*
UNFCCC	Climate change	Adverse effects of global warming on ecosystems and humankind	Global cooperation	IE, CBDR Precaution SD Cooperation
Paris Agreement	Climate change	Same as UNFCCC	Same as UNFCCC *Climate action should respect human rights	Same as UNFCCC
CBD	Conservation of biological diversity	-Intrinsic value -Maintains life-sustaining systems	Global cooperation	IE, CBDR Precaution SD Cooperation
ITPGRFA	Plant genetic resources	Human dependency on such resources	Global cooperation	IE, CBDR Precaution SD Cooperation
CICH	Safeguarding intangible cultural heritage	-Intrinsic value -Risk of deterioration, disappearance and destruction	International cooperation	SD Cooperation
Earth Charter	Global environment	Life depends on a healthy biosphere	Global partnership	IE, Pre-caution SD Cooperation
Langkawi Declaration	Serious deterioration of the environment	Threat to the well-being of present and future generations	Coordinated global effort	IE, CBDR SD Cooperation

Hague Rec.	-Preservation of global environment -Conservation and sustainable use of biodiversity	-Recognition as common concern of humankind enhances environmental protection and the sustainable use of natural resources -Intrinsic value of biodiversity	International cooperation	IE, CBDR Precaution SD Cooperation
New Delhi Declaration	-Sustainable development -Protection, preservation and enhance-ment of the natural environment	- Growing economic and social inequalities within and between states - Nature and human life as well as social and economic devel-opment depend on the sustainable use of natural resources and the protection of the environment	Global partnership	IE, CBDR Precaution SD Cooperation
IUCN Draft Covenant	Global environment	Harm to the environment adversely affects all humanity	Worldwide cooperation to take con-certed action	IE, CBDR Precaution SD Cooperation

4.2 Key characteristics shared by issues of common concern

The summary table illustrates in a nutshell the distinctive elements of the issues currently recognized as common concerns of humankind. Two common features extracted from it capture the essence of the concept: the interest to protect humanity and the global environment from harm, and the need for international cooperation at a global scale to address the issue successfully.

Indeed, the instruments examined show that what the international community is trying to avoid by recognizing certain issues as common concerns of humankind is harm to humanity (human health and well-being, food security, cultural heritage) and to the global environment (changes in weather patterns due to global warming, and the loss of genetic, species and ecosystem diversity). Most instruments reflect the factual interaction and interdependence of humankind and the environment, addressing them as a whole. As a matter of fact, the harmful effects dealt with in the instruments are felt regardless of states' territorial boundaries, which stresses the unity of the biosphere. It is because of this unity that the second common feature comes into play: global

cooperation. The instruments surveyed indicate that international cooperation at a global level is a must regarding issues of common concern. This call for cooperative efforts is not only true between states but extends to other members of the international community as well, such as intergovernmental and non-governmental organizations. Such global action is guided by the principles of international law which appear repeatedly in the instruments examined, namely intergenerational equity, common but differentiated responsibilities, the precautionary principle, sustainable development, and international cooperation.[113]

4.3 Atmospheric degradation shares the key characteristics

Atmospheric degradation is of common concern not only because of its links to an acknowledged common concern in climate change, but also because it is the type of issue that the international community values as being a common concern of humankind. Atmospheric degradation shares the characteristics of issues of common concern as extracted from the international instruments surveyed in this section.

The first shared characteristic, the interest to protect humanity and the global environment from harm, indeed applies to atmospheric degradation. The atmosphere performs functions essential for sustaining life on Earth; deteriorated atmospheric conditions (e.g., due to climate change, air pollution, or stratospheric ozone depletion) place humanity and the global environment at risk. The IPCC defines the atmosphere as 'the gaseous envelope surrounding the earth,'[114] which is followed in the Draft Guidelines.[115] In addition to providing life-sustaining gases, essential functions of the atmosphere include keeping the temperature over the Earth's surface within certain limits and protecting the Earth from ultraviolet solar radiation. Indeed, the natural greenhouse effect of the atmosphere keeps the Earth's average surface temperature at about 15° Celsius (33° Celsius warmer than it would be without the atmosphere), and the ozone layer protects us from harmful solar radiation

113 Of the ten instruments surveyed, seven include all five guiding principles, i.e., the UNFCCC (and the Paris Agreement), the CBD, the ITPGRFA, the Hague Recommendations, the New Delhi Declaration and the IUCN Draft Covenant. Of the remaining three instruments, two include four of these principles. The Earth Charter includes all but the CBDR principle, while the exception in the Langkawi Declaration is the precautionary principle. Finally, the CICH includes sustainable development and international cooperation.

114 IPCC, 2013: Annex III: Glossary [Planton, S. (ed.)]. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)] Cambridge University Press, at 1448.

115 Int'l Law Comm'n, Rep. on the Work of Its Sixty-Seventh Session, *supra* note 1, at 27.

by absorbing the ultraviolet component of the radiation.[116] The atmosphere is also one of the primary components of the climate system.[117] It is clear that degraded atmospheric conditions endanger humanity and the global environment. This first common feature confirms the existence of an interest common to all in preserving a healthy biosphere in which humanity and the environment can thrive. In view of the essential functions that the atmosphere performs for sustaining life on Earth, preventing its degradation is as essential to protecting humanity and the global environment as many causes already supported by the notion of common concern of humankind. Consequently, the issue of atmospheric degradation shares the first key characteristic.

The second common feature, the need for international cooperation at a global scale in order to successfully address the issue of common concern, is also shared by atmospheric degradation. This is rooted in the fact that the atmosphere surrounds the entire planet; it is a unit, a whole that is in constant movement, oblivious of states' territorial boundaries. In this regard, the fact air pollution moves around in the atmosphere and across borders is an example of the need for worldwide cooperation to be able to effectively tackle the emission of degrading substances into the atmosphere. The same holds true for other atmospheric problems such as climate change and stratospheric ozone depletion. The interests protected by the notion of common concern in the instruments surveyed encourage states to act collectively in the long-term interest of the human race. They call for engagement and commitment in providing the best possible conditions for life on Earth to flourish, giving preponderance to the interests of humanity at large, both present and future. An interest protected by the notion of common concern is therefore one that lies above and beyond the local and regional interests of states. The notion of common concern thus raises awareness of the existence of a shared problem and of a common responsibility to take action. It gives a certain level of significance to the issues examined encouraging collaboration among the members of the international community. Like the acknowledged issues of common concern, the issue of atmospheric degradation requires global co-operation in order to be successfully addressed. Therefore, atmospheric degradation also possesses the second common feature.

In sum, atmospheric degradation shares both of the key features common to all currently acknowledged issues of common concern. Atmospheric degradation is indeed harmful to humanity as a whole and to the global environment, and it is an issue that requires collective action at the global level. Concerted action by all members of the international community is necessary not only because of the very nature of the atmosphere as an indivisible unit vulnerable to degradation, but also because the importance of having a healthy

116 Ranjeet S. Sokhi, *Introduction*, *in* WORLD ATLAS OF ATMOSPHERIC POLLUTION 1, 2-3 (Ranjeet S. Sokhi ed., 2008).

117 D. Randall, *Atmosphere, Clouds, and Climate (Princeton Primers in Climate)* (2012) 4.

atmosphere is such that it deserves the broadest and highest level of commitment.

5 Conclusion

In response to the removal of the concept that the degradation of atmospheric conditions is a common concern of humankind from the ILC Draft Guidelines on the Protection of the Atmosphere, this article argues that the degradation of the atmosphere is in fact a common concern of humanity and suggests its reinstatement.

The line of reasoning supporting the argument began with the linkage between certain air pollutants and climate change established both in science and in law and policy. From the legal point of view, atmospheric degradation is a common concern of humankind because treaty law states that climate change is a common concern of humankind (UNFCCC), and that short-lived climate pollutants both degrade the atmosphere and cause climate change (Gothenburg Protocol). Next, it was demonstrated that atmospheric degradation shares two key features characteristic of what the international community currently values as issues of common concern from treaties and other international instruments. First, atmospheric degradation endangers both humanity and the global environment. Second, action at a global scale is indispensable to addressing the issue in a manner that can reverse the damage, prevent further deterioration, and create adequate atmospheric conditions for all. For these reasons, atmospheric degradation is a common concern of humankind.

The above conclusion that atmospheric degradation is a common concern of humankind, along with the perception that the concept lacks clarity, leads the author to suggest reinstating the concept of common concern of humankind to the Draft Guidelines. Both the International Law Commission and the Sixth Committee of the General Assembly, as well as scholarly writing, have argued that the concept of common concern is insufficiently clear, however, its reinstatement would not only acknowledge the status of atmospheric degradation as an issue of common concern, but would also reopen the opportunity for the members of the ILC to exchange views about the notion and contribute to its conceptual development. Bearing in mind the nature of the Draft Guidelines as a set of recommendations, it is questionable whether that contribution should establish a normative framework or include a concrete definition of the legal consequences of the concept of common concern. Like *l'intérêt général* within states, common concern could arguably be seen as a concept that 'does not connote specific rules and obligations, but establishes the general basis for the community concerned to act.'[118] In any case, it is the author's

118 Kiss, *supra* note 16, at 246. *See also* Shelton, *supra* note 18, at 85.

view that if the Draft Guidelines acknowledge atmospheric degradation to be a common concern of humankind, discussions within the ILC on the topic could contribute to a better understanding of the meaning, scope and significance of the concept. More generally, the acknowledgement would promote awareness and recognition to what the international community values today regarding the protection of the atmosphere.

4 Observer Participation in International Climate Change Decision Making: A Complementary Role for Human Rights?*

ABSTRACT

Parties to the United Nations Framework Convention on Climate Change (UNFCCC) have acknowledged the need to further enhance the effective engagement of observer organizations as the UNFCCC process moves towards implementation of the Paris Agreement. This chapter explores whether and how international human rights law could complement climate law to enhance observer participation in the international UNFCCC decision-making processes. Its main proposition is that the human right to participate in public affairs could contribute to enhancing observer participation in processes reviewing the implementation of parties' commitments and in intergovernmental negotiations more generally. This proposition is based on the following argument. First, the right to participate in public affairs requires states to adopt measures that ensure effective participation in public interest decision making. Second, the right to participate in public affairs encompasses international decision-making processes. Third, although neither the UNFCCC nor the Paris Agreement expressly refer to ensuring effective observer participation, for UNFCCC parties that are also signatories to relevant human rights treaties, these treaties carry the obligation to ensure effective public participation. This obligation is reinforced by parties' acknowledgement in the Paris Agreement that they should honor their existing human rights obligations when taking action to address climate change. Consequently, the human right to participate in public affairs creates obligations for UNFCCC parties that are also signatories to relevant treaties, which could complement climate provisions and thus contribute to enhancing observer participation in international UNFCCC decision-making processes. This chapter concludes by exploring possible complementarities.

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1 INTRODUCTION

Public participation in international environmental governance has led to increased transparency, accountability, effectiveness, and legitimacy of decision-making processes.[1] Although objections have been raised,[2] global instruments and regional treaties show that the international community regards public participation to be fundamental to sustainable development. For instance, Principle 10 of the Rio Declaration proclaims "environmental issues are best handled with participation of all concerned citizens."[3] In addition, both Agenda 21 and *The Future We Want* affirm that broad public participation in decision-making is essential to achieving sustainable development.[4] The 2030 Agenda for Sustainable Development promotes a system of environmental governance in which public participation is integral to the governing process and necessary to ensure institutional transparency, accountability, and effectiveness.[5] Regional treaties on access to information, public participation in de-

1 See, e.g., J. Ebbesson, 'Principle 10: Public Participation' in Jorge E. Viñuales (ed) *The Rio Declaration on Environment and Development* (OUP 2015); T. Kramarz and S. Park, 'Accountability in Global Environmental Governance: A Meaningful Tool for Action?' (2016) *Global Environmental Politics* 16(1), 6; T. Bernauer and R. Gampfer, 'Effects of Civil Society Involvement on Popular Legitimacy of Global Environmental Governance' (2013) *Global Environmental Change* 23, 439.

2 See, e.g., C. Pahl-Wostl, 'A Conceptual Framework for Analysing Adaptive Capacity and Multi-level Learning Processes in Resource Governance Regimes' (2009) *Global Environmental Change* 19, 354, 357. See also Gemma Carr, Günter Blöschl and Daniel Peter Loucks, 'Evaluating Participation in Water Resource Management: A Review' (2012) *Water Resources Research* 48, W11401, 2, stating that it has been objected that public participation may decrease efficiency for being resource consuming in terms of time and money; N.P. Spyke, 'Public Participation in Environmental Decisionmaking at the New Millennium: Structuring New Spheres of Public Influence' (1999) *Boston College Environmental Affairs Law Review* 26(263), 273, affirming that public participation may result in "lowest-common-denominator solutions if decision-makers strive to accommodate as many views as possible".

3 United Nations Conference on Environment and Development (UNCED), 'Rio Declaration on Environment and Development', Principle 10. Rio Principle 10 has been subsequently developed into international law by the Aarhus Convention and the Escazú Agreement.

4 UNCED 'Agenda 21: Programme of Action for Sustainable Development', UN Doc A/CONF.151/26 (Vol. I) (14 June 1992) Chapter 23, para. 2. The Rio Declaration and Agenda 21 were not the first international instruments to address public participation in environmental matters; however, they were the first to have significant impact on international law and policy likely because of their timing. See Ebbesson (n 1) at 288-289. UNGA 'The Future We Want', UN Doc A/RES/66/288 (11 September 2012) para. 43.

5 See Transforming our world: the 2030 Agenda for Sustainable Development, UN Doc A/RES/70/1, 21 October 2015 ('2030 Agenda'), SDG 16. I discuss this at length in N. Sánchez Castillo-Winckels, 'How the Sustainable Development Goals Promote a New Conception of Ocean Commons Governance' in D. French and L. Kotzé (eds.) *Sustainable Development Goals: Law, Theory and Implementation* (Edward Elgar 2018). See also M. Orellana, 'Governance and the Sustainable Development Goals: The Increasing Relevance of Access Rights in Principle 10 of the Rio Declaration' (2016) 25 *RECIEL* 50, 51 – 52, for an account of how the sustainable development discourse has affirmed the centrality of access rights in governance.

cision making, and access to justice in environmental matters ("access rights") also highlight the importance of public participation. As stated in the Aarhus Convention, public participation enhances the quality and the implementation of decisions, promotes public awareness of environmental issues, empowers the public to express its concerns and the authorities to consider those concerns, furthers accountability and transparency in decision making, and strengthens public support for environmental decisions.[6] Parties to the Aarhus Convention must promote the application of the Aarhus principles in international environmental decision making processes.[7] The Escazú Agreement states that access rights contribute to the strengthening of democracy, sustainable development, and human rights.[8] Parties to the Escazú Agreement may educate the public about the Agreement's environmental provisions in international forums.[9] According to both the Aarhus Convention and the Escazú Agreement, access rights are instrumental in protecting the right to live in a healthy environment.[10]

Public participation in international decision-making processes under the United Nations Framework Convention on Climate Change ("UNFCCC")[11] adopts different forms. Non-state actors have been involved in various ways ranging from organizing activities in parallel to international negotiations, including arranging side-events, organizing exhibitions and protests to influence the climate agenda, submitting information and views on items under negotiation, and observing negotiations.[12] This chapter focuses on the participation of observer organizations in international UNFCCC decision-making processes. The term "international UNFCCC decision-making processes" refers to intergovernmental negotiations during sessions of the Conference of the Parties ("COP") and subsidiary bodies and open-ended contact groups (i.e., intergovernmental negotiations). The term also includes the process of reviewing the implementation of parties' commitments, namely those of the measure-

6 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (adopted in Aarhus, Denmark, 25 June 1998, entered into force 30 October 2001) 2161 U.N.T.S. 447 (Aarhus Convention) Preamble, paras. 9 and 10.

7 ibid. art 3(7).

8 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (adopted 4 March 2018, open for signature on 27 September 2018, not in force) available at https://treaties.un.org/doc/Treaties/2018/03/20180312%2003-04%20PM/CTC-XXVII-18.pdf, Preamble.

9 ibid art 4(10).

10 Aarhus Convention (n 6) art. 1.

11 United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107 (UNFCCC).

12 See, *e.g.* Harro van Asselt, 'The Role of Non-State Actors in Reviewing Ambition, Implementation, and Compliance under the Paris Agreement', 6 *Climate Law* (2016) 91, 94-6; JW Kuyper, B Linnér and H Schroeder 'Non-state actors in hybrid global climate governance: justice, legitimacy, and effectiveness in a post-Paris era' (2018) 9 WIREs Climate Change 1, 2-4.

ment, reporting, and verification framework ("MRV system"), which will eventually be superseded by the enhanced transparency framework ("ETF") established by the Paris Agreement.[13] Observer participation has increased and diversified over the years.[14] UNFCCC parties have repeatedly acknowledged the value of observer participation in the intergovernmental negotiation process, and of observer contributions to deliberations on substantive issues.[15] Parties have also acknowledged the need to further enhance the effective engagement of observer organizations as the UNFCCC process moves towards implementation and operationalization of the Paris Agreement.[16] This chapter explores whether and how international human rights law ("IHRL") could complement climate law to enhance observer participation in international UNFCCC decision-making processes.

This chapter's main proposition is that the human right to participate in public affairs, and the obligation to ensure effective participation arising from it, could enhance observer participation in MRV processes and intergovernmental negotiations. This proposition is based on the following argument. First, the right to public participation requires states to adopt legislative and other measures necessary to ensure effective participation in public interest decision making. Second, the right to participate in public affairs encompasses international decision-making processes. Third, although neither the UNFCCC nor the Paris Agreement expressly refer to ensuring effective observer participation, UNFCCC parties that are also signatories to relevant human rights treaties have the obligation to ensure effective participation, including at the international level. Parties reinforce this obligation by acknowledging in the Paris Agreement that they should honor their existing human rights obligations when taking action to address climate change. Consequently, the human right to participate in public affairs creates obligations for UNFCCC parties that are also signatories to relevant treaties, which could complement climate provisions and thus

13 Paris Agreement to the United Nations Framework Convention on Climate Change (adopted 12 December 2015, entered into force 4 November 2016) UNTS Registration No. 54113 (Paris Agreement) art 13; UNFCCC 'Decision 1/CP.21, Adoption of the Paris Agreement' UN Doc FCCC/CP/2015/10/Add.1 (29 January 2016) para 98. See also 'Decision 1/CP.24, Preparations for the implementation of the Paris Agreement and the first session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement' UN Doc FCCC/CP/2018/10/Add.1, preamble and para 39.

14 UNFCCC Secretariat 'Observer organizations in the intergovernmental process' (period 2014-2015) included in SBI 'Arrangements for Intergovernmental Meetings' UN Doc FCCC/SBI/2016/2 (14 March 2016) paras 36-45; UNFCCC Secretariat 'Engagement of observer organizations and non-Party stakeholders in the intergovernmental process' (period 2016-2017) included in SBI 'Arrangements for Intergovernmental Meetings' UN Doc FCCC/SBI/2018/7 (22 March 2018) paras 37-41.

15 SBI 'Report of the Subsidiary Body for Implementation on its forty-fourth session, held in Bonn from 16 to 26 May 2016' UN Doc FCCC/SBI/2016/8 (26 August 2016) paras 161-2. See also SBI, UN Doc FCCC/SBI/2016/2, ibid para 40; SBI, UN Doc FCCC/SBI/2018/7, ibid para 40.

16 SBI, UN Doc FCCC/SBI/2016/8 (n 15) para 162.

contribute to enhancing observer participation in international UNFCCC decision-making processes. This chapter concludes by exploring possible options for participation in discussions on climate change.

This chapter begins by looking into the obligation to ensure effective participation and by discussing the premise that the right to participate in public affairs encompasses international decision-making processes. This chapter subsequently examine observer participation in international UNFCCC decision-making processes and the significance of the parties' acknowledgement that they should respect human rights in the Paris Agreement. Finally, this chapter discusses how the right to participate in public affairs, and the obligation to ensure effective participation, could complement climate provisions on observer participation.

2 THE HUMAN RIGHTS OBLIGATION TO ENSURE EFFECTIVE PARTICIPATION

This section draws on a survey I conducted of universal and regional human rights agreements. The purpose was to identify the obligations derived from the right to participate in public affairs.[17] I focused on the relevant provisions of two agreements: the International Covenant on Civil and Political Rights ("ICCPR") and the American Convention on Human Rights ("ACHR"), including subsequent interpretations by the institutions that oversee their implementation. I excluded from this discussion other surveyed agreements because they focus on the rights to vote and be elected.[18] These rights do not apply to inter-

17 I surveyed the following human rights agreements: International Covenant on Civil and Political Rights, International Convention on the Elimination of All Forms of Racial Discrimination, Convention on the Elimination of All Forms of Discrimination against Women, International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, Convention on the Rights of Persons with Disabilities, American Convention on Human Rights, African Charter of Human and People's Rights, and Protocol No. 1 to the European Convention on Human Rights.

18 Art 13(1) of the African Charter of Human and People's Rights provides: 'Every citizen shall have the right to participate freely in the government of his country, either directly or through freely chosen representatives in accordance with the provisions of the law'. The phrase 'in the government of his country' found neither in the ICCPR nor in the ACHR, prima facie excludes participation in public affairs other than those related to the government of the respective state. Decisions of the African Court on Human and People's Rights (ACHPR) on cases alleging violations of Article 13 focus primarily on the right to vote and be elected in national elections and, consequently, do not shed light on whether states must ensure the right to participate in public affairs in decision-making processes occurring outside their territory. See *e.g. Actions Pour la Protection des Droits del L'Homme (APDH) v. The Republic of Cote D'Ivoire* (Merits) (ACHRP, 18 November 2016) App. No. 001/2014; *Tanganyika Law Society and Legal and Human Rights Centre and Reverend Christopher R. Mtikila v. United Republic of Tanzania* (Merits) (ACHRP, 14 June 2013) App. Nos. 009&011/2011. In addition, as provided by Article 3 of Protocol No. 1 to the European Convention on Human Rights, parties 'undertake to hold free elections at reasonable intervals by secret ballot, under conditions which will ensure the free expression of the opinion of the people

national decision-making processes and for this reason neither support nor contradict the premise that states should ensure effective participation in said processes.

2.1 The obligation to adopt measures that ensure effective opportunities to participate

As stipulated in Article 25(a) of the ICCPR, "[e]very citizen shall have the right and the opportunity, without any of the distinctions mentioned in article 2 and without unreasonable restrictions: (a) To take part in the conduct of public affairs, directly or through freely chosen representatives."[19] According to the General Comment No. 25 adopted by the Human Rights Committee ("HRC"), "the [ICCPR] requires States to adopt such legislative and other measures as may be necessary to ensure that citizens have an effective opportunity to enjoy the rights it protects."[20] Measures adopted in compliance with this obligation should not make any discriminatory distinctions.[21] In addition, any conditions applied to the exercise of the rights protected by Article 25 should be based on objective and reasonable criteria.[22] General Comment No. 25 also clarified that the right to participate in public affairs is not limited to certain forms of participation – such as voting in electoral processes or acting as members of legislative or executive bodies. The Comment states: "Citizens also take part in the conduct of public affairs by exerting influence through public debate and dialogue with their representatives or through their capacity to organize themselves."[23] This is the form of participation that takes place in UNFCCC processes.

The HRC has developed its interpretation in several decisions specifically concerning violations of the right to participate in public affairs. For instance, as stated in *Sudalenko v. Belarus*: "the exercise of the rights protected by article 25 may not be suspended or excluded except on grounds which are established

in the choice of legislature'. The right to participate in public affairs is in fact a right to free elections. Similarly to the jurisprudence of the African Court, that of the European Court of Human Rights focuses on the rights to vote and to stand for election, see European Court of Human Rights, Guide on Article 3 of Protocol No. 1 to the European Convention on Human Rights, Right to Free Elections (updated on 31 August 2018) <https://www.echr.coe.int/Documents/Guide_Art_3_Protocol_1_ENG.pdf>.

19 International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR) art 25(a).

20 HRC 'General Comment Adopted by the Human Rights Committee under Article 40, Paragraph 4, of the International Covenant on Civil and Political Rights' UN Doc CCPR/C/21/Rev.1/Add.7 (27 August 1996) para 1.

21 ICCPR (n 19) art 2 (1); ibid para 3.

22 General Comment No. 25 (n 20) para 4.

23 General Comment No. 25 (n 20) para 8.

by law and which are objective and reasonable",[24] a view reiterated in *Paksas v. Lithuania*.[25] Providing an example of unreasonable criteria, it stated in *Bwalya v. Zambia* held that "restrictions on political activity outside the only recognized political party amount to an unreasonable restriction of the right to participate in the conduct of public affairs."[26] According to the HRC's interpretation, Article 25(a) creates an obligation for states to adopt the necessary measures, legislative or otherwise, to ensure that right holders have effective opportunities to exercise their right to participate in public affairs without discrimination or unreasonable conditions. As discussed below, this obligation binds the ICCPR's 172 parties at both the national and the international level.[27]

In a wording similar to that of ICCPR Article 25(a), Article 23(1)(a) of the ACHR provides "1. Every citizen shall enjoy the following rights and opportunities: a. to take part in the conduct of public affairs, directly or through freely chosen representatives."[28] As the Inter-American Court of Human Rights ("IACtHR" or "the Court") contended in *Yatama v. Nicaragua*, the state must guarantee the enjoyment of political rights[29] in an equal and non-discriminatory manner, which "is not fulfilled merely by issuing laws and regulations that formally recognize these rights, but requires the state to adopt the necessary measures to guarantee their full exercise".[30] In addition, as the Court noted later in *Castañeda Gutman v. Mexico*, the term "opportunities" in the text of Article 23 "implies the obligation to guarantee with positive measures that every person who is formally the titleholder [sic] of political rights has the real opportunity to exercise them."[31] In both cases the Court asserted that states need to create optimum conditions and mechanisms to ensure that political rights can be exercised effectively.[32] Subsequent juris-

24 *Sudalenko v. Belarus* (HRC, 1 November 2010) Communication No. 1354/2005, CCPR/C/100/D/1354/2005 para 6.4.

25 *Paksas v. Lithuania* (HRC, 29 April 2014) Communication No. 2155/2012, CCPR/C/110/D/2155/2012 para 8.3.

26 *Bwalya v. Zambia* (HRC, 14 July 1993) Communication No. 314/1988, CCPR/C/48/D/314/1988 para 6.6.

27 The ICCPR currently has 172 parties. See UN Office of the High Commissioner for Human Rights <http://indicators.ohchr.org/>

28 American Convention on Human Rights (adopted 22 November 1969, entered into force 18 July 1978) 1144 UNTS 123 (ACHR) art 23(1)(a).

29 The rights to participate in public affairs, to vote and be elected, and to equal access to public service – all protected by ACHR Article 23- are collectively referred to in the jurisprudence of the IACtHR as 'political rights'.

30 *Yatama v. Nicaragua* (Preliminary Objections, Merits, Reparations and Costs) (IACtHR, 23 June 2005) Series C No. 127, para 201.

31 *Castañeda Gutman v. Mexico* (Preliminary Objections, Merits, Reparations and Costs) (IACtHR, 6 August 2008) Series C No. 184, para 145.

32 *Yatama v. Nicaragua* (n 30) para 195; *Castañeda Gutman v. Mexico*, ibid.

prudence confirms the view of the Court on the matter.[33] In a recent case, *San Miguel Sosa y Otras v. Venezuela*, the Court specifically identified the need for institutions and procedural mechanisms that allow and ensure the effective exercise of the rights protected by Article 23.[34] The decisions of the Inter-American Commission on Human Rights concerning violations of political rights are consistent with the Court's jurisprudence.[35] According to these judicial interpretations, ACHR Article 23(1)(a) binds its twenty-three parties to adopt the necessary measures to guarantee real opportunities to exercise the right to participate in public affairs.[36] This is essentially the same obligation derived from ICCPR Article 25(a).

Several decisions of the IACtHR concerning indigenous communities identify obligations that are complementary to the obligation arising from Article 23(1)(a) when indigenous peoples' rights are involved. As the Court recalled in *Kichwa Indigenous People of Sarayaku v. Ecuador*, there is an obligation to guarantee the rights of indigenous peoples to be consulted on any measure that may affect their rights and to participate in decision-making processes that concern their interests. This obligation entails "the duty to organize appropriately the entire government apparatus and, in general, all the organizations through which power is exercised, so that they are capable of legally guaranteeing the free and full exercise of those rights."[37] In addition, states must guarantee the right to consultation and participation at all stages of the planning and implementation of projects that may affect indigenous peoples' rights so that indigenous peoples "can truly participate in and influence the decision-making process."[38] The Court also stated in *Saramaka People v. Suriname* that, in order to guarantee the effective participation of the Saramaka people in development or investment plans within their territory, the state

33 *Luna López v. Honduras* (Merits, Reparations and Costs) (IACtHR, 10 October 2013) Series C No. 269, para 142; *Cepeda Vargas v. Colombia* (Preliminary Objections, Merits, Reparations and Costs) (IACtHR, 26 May 2010) Series C No. 213, para 172; *Chitay Nech et al. v. Guatemala* (Preliminary Objections, Merits, Reparations and Costs) (IACtHR, 25 May 2010) Series C No. 212, para 107; *Human Rights Defender et al. v. Guatemala* (Preliminary Objections, Merits, Reparations and Costs) (IACtHR, 28 August 2014) Series C No. 283, paras 185-6.

34 *San Miguel Sosa et al. v. Venezuela* (Merits, Reparations and Costs) (IACtHR, 8 February 2018) Series C No. 348, para 111.

35 See *e.g. Statehood Solidarity Committee v. United States* (Inter-American Commission on Human Rights (IACHR), 29 December 2003) Report No. 98/03, Annual Report of the IACHR 2003; *Andrés Aylwin Azócar et al. v. Chile* (IACHR, 27 December 1999) Report No. 137/99, Case 11863, Annual Report of the IACHR 1999; *Susana Higuchi Miyagawa v. Peru* (IACHR, 6 October 1999) Report No. 119/99, Case 11428, Annual Report of the IACHR 1999.

36 The ACHR has currently 23 parties. See Organization of American States <http://www.oas.org/dil/treaties_B-32_American_Convention_on_Human_Rights_sign.htm>

37 *Kichwa Indigenous People of Sarayaku v. Ecuador* (Merits and Reparations) (IACtHR, 27 June 2012) Series C No. 245, para 166.

38 ibid para 167.

must actively consult them[39] and ensure that environmental and social impact assessments are conducted prior to awarding a concession.[40] In the cases of *Kaliña and Lokono Peoples v. Suriname* and *Kichwa Indigenous People of Sarayaku v. Ecuador*, the IACtHR reiterated the relation between the states' obligation to supervise the execution of prior environmental and social impact assessments and their obligation to guarantee the effective participation of indigenous peoples.[41] Naturally, these decisions have no binding force except between the parties and in respect to those particular cases; however, they could be considered a subsidiary means for determining what the obligation to adopt the necessary measures guaranteeing the right to public participation entails regarding indigenous peoples.[42]

Other nonbinding yet influential sources could assist law makers in determining what measures to adopt to ensure effective opportunities to participate in public affairs entails. As stipulated in Article 8(1) of the United Nations General Assembly ("UNGA") *Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms* ("Declaration on Human Rights Defenders"): "Everyone has the right, individually and in association with others, to have effective access, on a non-discriminatory basis, to participation in the government of his of her country and in the conduct of public affairs."[43] Article 8(1) is similar to Article 25(a) of the ICCPR and Article 23(1)(a) of the ACHR. Article 8(2), however, provides examples of rights included within the right to participate in public affairs, illustrating how right holders can exercise said right. It reads:

> This includes, *inter alia*, the right, individually and in association with others, to submit to governmental bodies and agencies and organizations concerned with public affairs criticism and proposals for improving their functioning and to draw attention to any aspect of their work that may hinder or impede the promotion, protection and realization of human rights and fundamental freedoms.[44]

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39 *Saramaka People v. Suriname* (Preliminary Objections, Merits, Reparations, and Costs) (IACtHR, 28 November 2007) Series C No. 172, para 133.

40 *Saramaka People v. Suriname* (Interpretation of the Judgment on Preliminary Objections, Merits, Reparations, and Costs) (IACtHR, 12 August 2008) Series C No. 185, para 41.

41 *Kaliña and Lokono Peoples v. Suriname* (Merits, Reparations and Costs) (IACtHR, 25 November 2015) para 215; *Kichwa Indigenous People of Sarayaku v. Ecuador* (n 37) para 206.

42 Article 38 (1) of the Statute of the International Court of Justice, considered to contain the sources of international law, provides that the Court shall apply judicial decisions as subsidiary means for the determination of rules of law.

43 UNGA 'Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms' UN Doc A/RES/53/144 (8 March 1999) art 8(1).

44 ibid art 8(2).

Thus, according to Article 8(2), the right to participate in public affairs includes the right to submit criticism and proposals to entities concerned with public affairs – arguably including intergovernmental bodies such as those part of the UNFCCC process – for improving their functioning and the right to draw attention to any aspect of their work that may hinder human rights protection. Other sources contain a similar interpretation. In her report assessing the situation of human rights defenders in Armenia in light of the Declaration on Human Rights Defenders,[45] the Special Rapporteur on the situation of human rights defenders recommended that the Government of Armenia "[e]nsure[s] the right to have effective access, on a non-discriminatory basis, to participation in the conduct of public affairs, which includes the right to voice criticism and submit proposals to improve the functioning of governmental bodies, agencies and organizations concerned with public affairs."[46] In addition, the Office of the High Commissioner for Human Rights ("OHCHR") affirmed in its report *Factors that Impede Equal Political Participation and Steps to Overcome those Challenges* ("OHCHR Report"), referring to the Declaration on Human Rights Defenders, that "[e]ffective participation includes the right of civil society actors to have their views incorporated within legislative and policymaking processes and to freely voice criticism or to submit proposals to improve the functioning of public authorities."[47]

The Declaration on Human Rights Defenders is not legally binding. This does not, however, mean that it lacks the capacity to influence national and international law and policy.[48] The Declaration is grounded in international human rights treaties, and it reinforces states' legally binding obligations to protect human rights. Indeed, it refers specifically to the ICCPR as one of the "basic elements of international efforts to promote universal respect for and observance of human rights"[49] and to the importance of other human rights instruments adopted at the regional level.[50] If we agree that "contemporary international law is often the product of a complex and evolving interplay of instruments, both binding and non-binding,"[51] then the interplay between the binding human rights treaties discussed above and the non-biding Declaration on Human Rights Defenders can help determine what the right to

45 Human Rights Council 'Report of the Special Rapporteur on the situation of human rights defenders on her visit to Armenia' UN Doc A/HRC/16/44/Add.2 (23 December 2010), para 2.

46 para 106.

47 Human Rights Council 'Factors that impede equal political participation and steps to overcome those challenges: Report of the Office of the United Nations High Commissioner for Human Rights' UN Doc A/HRC/27/29 (30 June 2014) para 87.

48 I have previously discussed the value of UNGA resolutions in relation to the 2030 Agenda and its accompanying Sustainable Development Goals in N. Sanchez Castillo-Winckels (n 5).

49 Declaration on Human Rights Defenders (n 43) Preamble.

50 ibid.

51 A. Boyle and C. Chinkin, *The Making of International Law* (Oxford 2007) 210.

participate in public affairs entails and the states' obligations derived from it.

Finally, the 2018 OHCHR *Draft Guidelines for States on the Effective Implementation of the Right to Participate in Public Affairs* ("OHCHR Draft Guidelines") recommend measures to ensure "meaningful participation before, during and after decision-making."[52] The recommendations are, *inter alia*, that right holders should be able to participate in shaping the agenda of decision-making processes;[53] access adequate, accessible, and necessary information as soon as it is known;[54] participate in the decision-making process from an early stage;[55] submit any information, analyses, and opinions directly to the relevant public authority;[56] and access key information to allow effective participation in monitoring and evaluating progress in the implementation of decisions.[57] The Draft Guidelines were prepared by the OHCHR as requested by the Human Rights Council Resolution 33/22,[58] which emphasized the "critical importance of equal and effective participation in political and public affairs for democracy, the rule of law, social inclusion, economic development and advancing gender equality, and for the realization of all human rights and fundamental freedoms."[59] The Council took note of the Draft Guidelines, and presented them as a set of orientations for states and, where appropriate, other relevant stakeholders.[60]

2.2 The right to participate in public affairs encompasses international decision making

As stated by the HRC and the OHCHR, the right to participate in public affairs encompasses participation in international decision-making processes. In the HRC's General Comment No. 25, it clarified that the conduct of public affairs "is a broad concept which relates to the exercise of legislative, executive and administrative powers. It covers all aspects of public administration, and the formulation and implementation of policy at *international, national, regional*

52 Human Rights Council 'Draft guidelines for States on the effective implementation of the right to participate in public affairs: Report of the Office of the United Nations High Commissioner for Human Rights' UN Doc A/HRC/39/28 (20 July 2018) para 63.
53 ibid para 64.
54 ibid para 68.
55 ibid para 70.
56 ibid para 73.
57 ibid para 85.
58 Human Rights Council 'Equal participation in political and public affairs' Un Doc A/HRC/RES/33/22 (6 October 2016) para 8.
59 ibid Preamble
60 Human Rights Council 'Equal participation in political and public affairs' UN Doc A/HRC/RES/39/11 (5 October 2018) para 1.

and local levels."[61] In line with this interpretation, the above-mentioned OHCHR Report states that the right to participate in public affairs includes participation "at all levels, from the local to the international."[62] In a subsequent report, the OHCHR further stated that legal frameworks including the right of individuals and groups "to participate in the design, implementation and evaluation of any policy, programme or strategy that affects their rights, *at the local, national and international levels* are most conducive to the full realization of the right to participate in political and public affairs."[63]

In strong support of the right to participate in public affairs at the international level, the OHCHR Draft Guidelines advise that participation of civil society actors at all relevant stages of an international decision-making process "should be allowed and proactively encouraged."[64] As stated in the Draft Guidelines, "those who participate at the supranational level often bring local and national concerns to the attention of the international community, thus connecting the international and local levels."[65] Conversely, international decision-making has an impact on national legislation, policies, and practices, which warrant that decisions "are made in a transparent and accountable manner, with the participation of those who will be affected by those decisions."[66] According to General Comment No. 25 and the Draft Guidelines, the right to participate in public affairs covers international decision-making processes including MRV processes and intergovernmental negotiations under the UNFCCC.

It is worthy of mention that the right to participate in public affairs also covers the subjects considered in UNFCCC decision making. The OHCHR Report concluded that the right to participate in public affairs "may now be read as encompassing the rights to be consulted and to be provided with equal and effective opportunities to be involved in decision-making processes *on all matters of public concern*."[67] As stated by the UNGA resolution *Protection of Global Climate for Present and Future Generations of Humankind*, climate change is one

61 General Comment No. 25 (n 20) para 5, emphasis added by author.
62 OHCHR Report (n 47) para 89.
63 Human Rights Council 'Promotion, protection and implementation of the right to participate in public affairs in the context of the existing human rights law: best practices, experiences, challenges and ways to overcome them: Report of the Office of the United Nations High Commissioner for Human Rights' UN Doc A/HRC/30/26 (23 July 2015) para 72, emphasis added by author.
64 Human Rights Council 'Draft guidelines for States on the effective implementation of the right to participate in public affairs: Report of the Office of the United Nations High Commissioner for Human Rights' UN Doc A/HRC/39/28 (20 July 2018) para 100.
65 ibid para 97.
66 ibid para 96.
67 OHCHR Report (n 47) para 89. Emphasis added by author.

of the greatest challenges of our time.[68] Both the UNFCCC and the Paris Agreement acknowledge that climate change is "a common concern of humankind,"[69] which means that its harmful effects are of such magnitude that they can only be effectively addressed through international cooperation.[70] Furthermore, the gravity of the matter renders interstate cooperation alone insufficient. Therefore, states have called on non-state actors to actively engage in combatting climate change.[71] If the right to participate in public affairs covers decision making on all matters of public concern, it must cover decision-making on climate change.

To summarize, both the ICCPR and the ACHR require states to adopt measures that ensure effective opportunities to exercise the right to participate in public affairs. In addition, decisions of the IACtHR have identified several additional obligations related to the participation of indigenous peoples. Although only binding between the parties and with respect to those particular cases, these judicial decisions could help determine what the right to participate in public affairs entails with regard to indigenous peoples. Furthermore, as stated in the UNGA Declaration on Human Rights Defenders, the right to participate in public affairs includes the right to submit criticism and proposals to improve the functioning of organizations concerned with public affairs. Although not legally binding, the Declaration on Human Rights Defenders is grounded in international human rights law and may have an effect on the treaties with which it interacts. Also, the OHCHR Draft Guidelines provide guidance concerning, *inter alia*, measures that ensure meaningful participation and advise that states should allow public participation and proactively encourage participation at all stages of international decision-making processes. Finally, the right to participate in public affairs encompasses international

68 UNGA 'Protection of global climate for present and future generations of humankind' UN Doc A/RES/67/210 (12 March 2013) para 2. See also UNFCCC Decision 1/CP.16 'The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' UN Doc FCCC/CP/2010/7/Add.1 (15 March 2011) (Cancun Agreements) para 1.

69 UNFCCC (n 11) Preamble; Paris Agreement (n 13) Preamble.

70 I have previously discussed this point in N. Sanchez Castillo-Winckels, 'Why "common concern of humankind" should return to the work of the International Law Commission on the atmosphere' 29 *Georgetown Environmental Law Review* (2017) 131-151, which is Chapter 3 of this dissertation.

71 The UNGA recognized 'the need to engage a broad range of stakeholders at the global, regional, national and local levels' for effective climate action, including national, subnational and local governments, private businesses and civil society, youth and persons with disabilities, women and indigenous peoples (UN Doc A/RES/67/210, n 68, para 12). The Paris Agreement in turn recognizes the importance of public participation with respect to enhancing climate action (n 13 art 12) and Decision 1/CP.21 invites non-party stakeholders to scale up their efforts to combat climate change and support actions to reduce emissions and decrease vulnerability to its adverse effects (n 13 para 134). Decision 1/CP.21 also encourages parties to 'work closely with non-party stakeholders in order to catalyze efforts to strengthen mitigation and adaptation action' (n 13 para 118).

decision making as well as decision making on all matters of public concern, such as climate change, and consequently covers international UNFCCC decision-making processes.

3 Observer participation in international UNFCCC processes

Article 7(6) of the UNFCCC provides:

> Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by the Convention, and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.[72]

According to the UNFCCC Rules of Procedure, admitted observers "may, upon invitation of the President, participate without the right to vote in the proceedings of any session in matters of direct concern to the body or agency they represent, unless at least one third of the Parties present at the session object."[73] This includes participation in meetings of the COP and its subsidiary bodies,[74] including the Subsidiary Body for Scientific and Technological Advice ("SBSTA"), the Subsidiary Body for Implementation ("SBI"), and "any body, including committees and working groups, established pursuant to Article 7(2)(i) of the [UNFCCC],"[75] such as the Ad Hoc Working Group on the Paris Agreement ("APA").[76] In addition, upon invitation of the presiding officers, representatives of intergovernmental organizations ("IGO(s)") and non-governmental organizations (NGOs) may attend as observers any open-ended contact group established under the UNFCCC process, unless at least one-third of the parties present at the respective session object, "and on the understanding that the presiding officers of such contact groups may determine

72 UNFCCC (n 11) art 7(6).

73 UNFCCC 'Draft Rules of Procedure of the Conference of the Parties and its Subsidiary Bodies' UN Doc FCCC/CP/1996/2 (22 May 1996) rule 7(2).

74 ibid rule 30.

75 ibid rule 2(8). Article 7(2) provides that the COP shall keep under regular review the implementation of the UNFCCC and any related legal instruments and make the decisions necessary to promote the effective implementation of the UNFCCC. To this end, the COP shall: '(i) Establish such subsidiary bodies as are deemed necessary for the implementation of the [UNFCCC]'.

76 Decision 1/CP.21 established the Ad Hoc Working Group on the Paris Agreement (APA) to prepare for the entry into force of the Paris Agreement (n 13) paras 7-8.

at any time during their proceedings that they should be closed to intergovernmental and non-governmental organizations."[77]

The Paris Agreement affirms in its preamble the importance of public participation at all levels on the matters addressed in the Agreement. In addition, it introduces the notion of mutual assistance in working towards enhanced public participation. Article 12 reads, "[p]arties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement."[78] Therefore, parties have the obligation to work jointly in taking measures towards increasing and improving the quality of public participation. Interpreted in the light of the preamble to the Paris Agreement – that participation is important at all levels – this obligation may influence parties regarding public participation in international climate change decision making.

As of November 2017, 2,259 observer organizations had been admitted to the UNFCCC process.[79] Approximately ninety percent of the admitted observers are members of constituencies,[80] which are "loose groups of NGOs with diverse but broadly clustered interests or perspectives."[81] There are nine UNFCCC constituencies mirroring the nine major groups identified as stakeholders in Agenda 21 and reconfirmed in *The Future We Want*.[82] These are business and industry NGOs ("BINGO(s)"), environmental NGOs ("ENGO(s)"), local governments and municipal authorities ("LGMA(s)"), indigenous peoples' organizations ("IPO(s)"), research and independent NGOs ("RINGO(s)"), trade union NGOs ("TUNGO(s)"), a women and gender constituency ("WGC"), youth NGOs ("YOUNGO(s)"), and farmers. A recent study on the role of non-state actors in climate governance found that they are perceived as being particularly strong in certain governing activities.[83] For instance, BINGOs are regarded as strong in influencing decisions, policy makers, and agenda setting and in taking mitigation action, while ENGOs are perceived as strong in raising awareness and representing public opinion.[84] RINGOs are considered strong in providing expertise, evaluating consequences, and proposing solutions, and LGMAs

77 UNFCCC 'Decision18/CP.4, Attendance of intergovernmental and non-governmental organizations at contact groups' UN Doc FCCC/CP/1998/16/Add.1 (25 January 1999) at 66, para 1.

78 Paris Agreement (n 13) art 12.

79 UNFCCC Secretariat, UN Doc FCCC/SBI/2018/7 (n 14) para 39.

80 UNFCCC Secretariat 'Non-governmental organization constituencies' <http://unfccc.int/files/parties_and_observers/ngo/application/pdf/constituencies_and_you.pdf>

81 ibid.

82 Agenda 21 (n 4) Section III; The Future We Want (n 4) para 43.

83 N Nasiritousi, M Hjerpe and B Linnér, 'The roles of non-state actors in climate change governance: understanding agency through governance profiles' (2016) 16 *International Environmental Agreements* 109.

84 ibid. at 119.

in taking action, particularly in the field of climate adaptation. TUNGOs and IPOs are considered strongest in representing marginalized voices.[85] Although a large number of observers have significant resource implications for the UNFCCC secretariat,[86] and although several issues concerning non-state actor participation in UNFCCC processes have been raised, including representation,[87] legitimacy,[88] and conflict of interests,[89] parties nevertheless agree on the importance of further enhancing observer engagement as the UNFCCC process moves towards implementing the Paris Agreement.[90]

Still, UNFCCC parties close intergovernmental meetings to observers, for instance, towards the end of each negotiation period. Many criticized restricted access for observers and civil society during the last two days of COP 15 in Copenhagen as a practice that "undercut the role of civil society, legitimacy and democratic process of negotiations. It violated Article 6 of the UNFCCC and Rule 7 of the Rules of Procedure. It also failed to comply with the principles of access to information and public participation embodied in the Aarhus Convention."[91] Closing negotiating sessions to observers during COP 21 in Paris much earlier in the process than usual resulted in unnecessary speculation about a range of issues and made it more difficult for civil society "to play its role of holding obstructive delegations to account for their role in the negotiations."[92] A common explanation found in the literature on global environmental politics is the "functional efficiency hypothesis" that states hold meetings open to observers when it is convenient for their interests, particularly during the agenda-setting stage, and close meetings during the more sensitive decision-making stages.[93] However, a study examining why certain UNFCCC negotiations are open to observers while others are closed found that besides

85 ibid. at 120.

86 UNFCCC Secretariat, UN Doc FCCC/SBI/2018/7 (n 14) para 39.

87 See *e.g.* Kuyper et al (n 12) at 10-11.

88 See *e.g.* K Bäckstrand et al 'Non-state actors in global climate governance: from Copenhagen to Paris and beyond' (2017) 26 *Environmental Politics* 561, 570-572.

89 SBI 'Views on opportunities to further enhance the effective engagement of non-Party stakeholders with a view to strengthening the implementation of the provisions of decision 1/CP.21' UN Doc FCCC/SBI/2017/INF.3 (28 April 2017) paras 38-9; SBI 'In-session workshop on opportunities to further enhance the effective engagement of non-Party stakeholders with a view to strengthening the implementation of the provisions of decision 1/CP.21: Report by the secretariat' UN Doc FCCC/SBI/2017/INF.7 (12 May 2017) paras 16, 25, 29, 33 and 36.

90 UN Doc FCCC/SBI/2016/8 (n 15) para. 162.

91 S Kravchenko, 'Procedural Rights as a Crucial Tool to Combat Climate Change' (2010) Georgia Journal of International and Comparative Law 613, 643-4, referring to restricted access to observers and civil society during the last two-days of COP 15 in Copenhagen. See also DR Fisher, 'COP-15 in Copenhagen: How the Merging of Movements Left Civil Society Out in the Cold' (2010) 10 *Global Environmental Politics* 11, 14-15.

92 M Doelle, 'The Paris Agreement: Historic Breakthrough or High Stakes Experiment?' (2016) 6 *Climate Law* 1, 7.

93 Kuyper et al (n 12) at 3.

functional efficiency, "decisions on open/closed negotiations are also influenced by standard operating practices, habits, and routines."[94] For example, informal consultations are rarely open to observers as standard procedure and not necessarily because of high political stakes.[95] The study concluded that a large number of closed meetings could lead to unequal participation opportunities for non-state actors, depending on their available resources, and to the further disenfranchisement of particular non-state actors.[96]

After COP 15 in Copenhagen, the SBI identified the need to enhance the role and contributions of observer organizations and adopted conclusions on various ways to enhance their engagement in the intergovernmental process, including through inviting presiding officers to "seek opportunities for observer organizations to make interventions"[97] and to "make greater use of observer inputs in workshops and technical meetings."[98] Following the adoption of the Paris Agreement, the SBI acknowledged "the need to further enhance the effective engagement of observer organizations as the UNFCCC process moves forward into the implementation and operationalization of the Paris Agreement."[99] In an SBI workshop held in May 2017, parties and non-party stakeholders discussed opportunities to enhance the effective engagement of non-party stakeholders, including ways to expand the scope of their contributions, diversify modes of engagement, and facilitate participation at the intergovernmental level.[100] Proposals to engage non-party stakeholders included creating "new opportunities for non-party stakeholders to make substantive input to the intergovernmental negotiating process and better utilize their expertise."[101] Both the SBI's recommendation to "make greater use of observer inputs" and the proposal to "better utilize their expertise" suggest a gap between the opportunities to present submissions and the opportunities for those submissions to influence parties' decision making. They also suggest an intention to bridge said gap.

Observer participation in the MRV system established by the Cancun Agreements and the Durban Outcome consists of two parallel processes: the inter-

94 N Nasiritousi and B Linnér, 'Open or closed meetings? Explaining nonstate actor involvement in the international climate change negotiations' (2016) 16 *International Environmental Agreements* 127, 141.
95 ibid at 140.
96 ibid at 142.
97 SBI 'Report of the Subsidiary Body for Implementation on its thirty-four session, held in Bonn from 6 to 17 June 2011' UN Doc FCCC/SBI/2011/7 (12 August 2011) para 178(a)(i).
98 ibid para 178(a)(ii).
99 SBI, UN Doc FCCC/SBI/2016/8 (n 15) para 162.
100 SBI, UN Doc FCCC/SBI/2017/INF.7 (n 89).
101 SBI, UN Doc FCCC/SBI/2017/INF.3 (n 89) para 15 (b).

national assessment and review process ("IAR") for Annex I parties[102] and the international consultation and analysis process (ICA) for non-Annex I parties.[103] Both the IAR and the ICA follow a three-stage procedure of reporting, review, and multilateral assessment. Annex I parties under IAR submit biennial reports on their progress in achieving emission reductions,[104] which subsequently undergo a technical expert review of information followed by a multilateral assessment of the implementation of emission reduction targets.[105] Non-Annex I parties under ICA submit biennial update reports of national greenhouse gas inventories,[106] which subsequently undergo a technical expert analysis in consultation with the party concerned followed by a facilitative sharing of views.[107] Neither the IAR nor the ICA provides opportunities for active observer participation, and this has been criticized as "fail[ing] to acknowledge the crucial role that civil society can play in the context of this transparency mechanism."[108]

The Paris Agreement established the Enhanced Transparency Framework ("ETF"), which is intended to "build on and enhance the transparency arrangements under the [UNFCCC]",[109] and will eventually supersede the MRV system.[110] The ETF does not distinguish between Annex I and non-Annex I parties, but applies a single set of rules to all parties with built-in flexibility for those parties that need it in light of their capacities.[111] Like the MRV system, the ETF follows a three-stage procedure. The information submitted by each party at the reporting stage must undergo a Technical Expert Review ("TER"), followed by a Facilitative Multilateral Consideration of Progress ("FMCP").[112] In the review stage, a TER is conducted of the mandatory information provided by parties, such as a greenhouse gas inventory, information to track progress on Nationally Determined Contribution ("NDC") implementation, and information on support provided by developed country parties.[113] The TER must identify areas of improvement for the parties concerned, paying

102 Cancun Agreements (n 68) paras 44; UNFCCC 'Decision 2/CP.17, Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' UN Doc FCCC/CP/2011/9/Add.1 (15 March 2012) (Durban Outcome) paras 23-31 and Annex II Modalities and procedures for international assessment and review.

103 Cancun Agreements, ibid para 63; Durban Outcome, ibid paras 56-62 and Annex IV Modalities and guidelines for international consultation and analysis.

104 Cancun Agreements para 40(a); Durban Outcome paras 12-22 and Annex I.

105 Durban Outcome para 23 and Annex II.

106 Cancun Agreements para 60(c); Durban Outcome paras 39-44 and Annex III.

107 Durban Outcome para 58 and Annex IV.

108 S Duyck, 'MRV in the 2015 Climate Agreement: Promoting Compliance through Transparency and the Participation of NGOs' (2014) 3 *Carbon and Climate Law Review* 175, quote from the abstract.

109 Paris Agreement (n 13) art 13(3).

110 Paris Agreement, Decision 1/CP.21 and Decision 1/CP.24 (n 13).

111 Paris Agreement (n 13) art 13(1)(2); Decision 1/CP.21 ibid para 89.

112 Paris Agreement, ibid, art 13(11).

113 ibid.

particular attention to the respective national capabilities and circumstances of developing countries.[114] Following the TER, each party must participate in the FMCP, which concerns parties' efforts related to climate finance and toward implementing and achieving their NDCs.[115]

When the APA[116] was developing recommendations for modalities, procedures, and guidelines ("MPG(s)") to implement the Paris Agreement, including MPGs for the ETF, the OHCHR submitted that the ETF should "promote accountability through transparent and participatory processes in line with international norms and standards."[117] This accountability includes the ICCPR and "other human rights instruments [which] guarantee all persons the right to free, active, meaningful and informed participation in public affairs."[118] In addition, scholars suggested to the SBI that the ETF could strengthen the role of non-party stakeholders in review procedures by allowing them to submit written and/or oral questions and engaging them in the work of the expert review teams.[119] The TER procedures established by the MPGs, contained in the Katowice Climate Package (also known as the "Paris Agreement Rulebook"), do not provide opportunities for active public participation.[120] The procedure for the FMCP, which will consider *inter alia* the TER report,[121] provides that working group sessions "shall be open to observation by registered observers."[122] The MPGs thus provide for the same degree of observer participation found in the MRV system.

Although neither the UNFCCC nor the Paris Agreement refer expressly to ensuring effective observer participation, UNFCCC parties that also belong to the ICCPR and the ACHR nevertheless have the obligation to adopt measures that ensure effective participation, including at the international level. The

114 ibid art 13(12).
115 ibid art 13(11).
116 Ad Hoc Working Group on the Paris Agreement (n 76).
117 OHCHR 'Response to the Request of Ad Hoc Working Group on the Paris Agreement (APA) to provide information, views and proposals on any work of the APA before each of its sessions' (6 May 2017) <http://unfccc.int/files/parties_observers/submissions_from_observers/application/pdf/892.pdf> at 4.
118 ibid at 3.
119 'Submission by the Stockholm Environment Institute and the University of Oxford to the Subsidiary Body for Implementation on opportunities to further enhance the effective engagement of non-Party stakeholders with a view to strengthening the implementation of the provisions of Decision 1/CP.21' < https://unfccc.int/sites/default/files/818.pdf> at 2. See also H van Asselt and T Hale, 'How non-state actors can contribute to more effective review processes under the Paris Agreement' (2016) SEI policy brief, Stockholm Environment Institute <https://www.sei.org/publications/how-non-state-actors-can-contribute-to-more-effective-review-processes-under-the-paris-agreement> at 3.
120 'Decision 18/CMA.1, Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement' UN Doc FCCC/PA/CMA/2018/3/Add.2, paras 162-163.
121 ibid para 190.
122 ibid para 193(b).

Paris Agreement's acknowledgement that parties should respect, promote, and consider their respective human rights obligations when taking climate action reinforces the obligation derived from ICCPR Article 25(a) and ACHR Article 23(1)(a), bringing to the forefront the complementary role of human rights.

4 ACKNOWLEDGEMENT THAT PARTIES SHOULD COMPLY WITH HUMAN RIGHTS OBLIGATIONS

The Paris Agreement contains the first explicit reference to human rights in a climate change treaty. The seventh paragraph of its Preamble reads:

> Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity[123]

This paragraph is the result of a process which began in 2007 with the Malé Declaration on the Human Dimension of Global Climate Change ("Malé Declaration").[124] In this Declaration, representatives of the Small Island Developing States expressed concern that "climate change has clear and immediate implications for the full enjoyment of human rights,"[125] and requested that the COP assess such implications.[126] Two years later, Human Rights Council Resolution 10/4 noted that "climate change-related impacts have a range of implications, both direct and indirect, for the effective enjoyment of human rights,"[127] including the rights to life, health, food, water, adequate housing, and self-determination.[128] The resolution recognized that these implications affect most acutely those who are already vulnerable due to factors such as geography, gender, age, indigenous or minority status, or disability.[129] It also took note of an OHCHR report on the relationship between climate change and human rights, according to which the human rights framework "seeks to empower individuals and underlines the critical importance of effective

123 Paris Agreement (n 13) Preamble.
124 'Malé Declaration on the Human Dimension of Global Climate Change' (14 November 2007) <http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf>
125 ibid Preamble.
126 ibid para 3.
127 Human Rights Council 'Human rights and climate change' UN Doc A/HRC/RES/10/4 (25 March 2009) Preamble.
128 ibid.
129 ibid.

participation of individuals and communities in decision-making processes affecting their lives."[130] The Cancun Agreements (2010) from the COP – noting Resolution 10/4 – stated its vision for long-term cooperative action, emphasizing that "Parties should, in all climate change related actions, fully respect human rights."[131]

In 2014, special procedures mandate-holders of the Human Rights Council issued an open letter to the UNFCCC parties calling on them to "include language in the 2015 climate agreement that provides that the Parties shall, in all climate change related actions, respect, protect, promote, and fulfill human rights for all."[132] In the run-up to COP 21 in Paris, attention to the relationship between climate change and the enjoyment of human rights progressively increased. At the COP, the OHCHR presented a proposal that stated "climate change is a human rights problem and the human rights framework must be part of the solution."[133] According to the proposal, climate action "should be guided by relevant human rights norms and principles, including the rights to participation and information, transparency, accountability, equity, and non-discrimination."[134] Additionally, governments pledged to enable meaningful collaboration between national representatives to the UNFCCC process and to the Human Rights Council in order to "increase [their] understanding of how human rights obligations inform better climate action."[135] At the same time, intergovernmental organizations promoted awareness of the issue by publishing reports on climate change and human rights.[136] Thus, the process initiated with the Malé Declaration culminated in the formal acknowledgement in the Paris Agreement that parties should respect, promote, and consider their respective human rights obligations when taking action to address climate change.

130 Human Rights Council 'Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights' UN Doc A/HRC/10/61 (15 January 2009) para 81.

131 Cancun Agreements (n 68) para 8.

132 'A new climate change agreement must include human rights protections for all', An open letter from Special Procedures mandate-holders of the Human Rights Council to the State Parties to the UN Framework Convention on Climate Change on the occasion of the meeting of the Ad Hoc Working Group on the Durban Platform for Enhanced Action in Bonn (20-25 October 2014), 17 October 2014 <https://unfccc.int/resource/docs/2014/smsn/un/176.pdf>, at 1.

133 OHCHR 'Understanding Human Rights and Climate Change' <http://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf> at 6.

134 ibid.

135 'The Geneva Pledge for Human Rights in Climate Action' (13 February 2015) <https://carbonmarketwatch.org/wp-content/uploads/2015/02/The-Geneva-Pledge-13FEB2015.pdf> at 1.

136 See *e.g.* UNEP, *Climate Change and Human Rights* (2015) <https://wedocs.unep.org/handle/20.500.11822/9934>; UNICEF, *Unless we act now: The impact of climate change on children* (2015) <https://www.unicef.org/publications/index_86337.html>.

Numerous organizations have elaborated on the significance of this acknowledgement. The Human Rights Council affirmed that "human rights obligations … have the potential to inform and strengthen international, regional and national policymaking in the area of climate change, promoting policy coherence, legitimacy and sustainable outcomes."[137] In addition, as stated by the Special Rapporteur on human rights and the environment, explicitly acknowledging the relevance of human rights "signifies the recognition by the international community that climate change poses unacceptable threats to the full enjoyment of human rights and that actions to address climate change must comply with human rights obligations."[138] Scholars have also discussed the meaning of the parties' acknowledgement and they have emphasized that it draws attention to existing obligations. For instance, Mayer submits that the main added value of the preambular paragraph is "its insertion in a treaty rather than in a COP decision" allowing the interpretation that UNFCCC parties "must recognize an obligation to comply with their respective human-rights obligations when carrying out climate-change-related actions under the Agreement."[139] Duyck agrees, stating that referring to human rights in the Paris Agreement "do[es] not define new rights but, rather, simply highlight[s] the relevance of existing obligations." He adds that such a reference might help ensure that climate change processes do not remain insulated from developments in the field of human rights, and this reference "could potentially play a significant role in guiding the work of the bodies established under the UNFCCC and in framing the implementation of the Paris Agreement."[140]

In essence, parties to the Paris Agreement recognize that they should comply with their incumbent human rights obligations when they take climate action. This recognition shows that the parties have accepted that climate change jeopardizes the full enjoyment of human rights. It also highlights the potential for human rights obligations to inform the implementation of climate laws and policies. Although climate law does not expressly refer to ensuring effective participation, the right to participate in public affairs requires that parties to the relevant human rights treaties adopt measures that ensure effective public participation, including at the international level. The preamble to the Paris Agreement reinforces this obligation. Thus, the human right to participate in public affairs could complement climate provisions on observer participation in international decision-making processes. The following section explores possible options.

137Human Rights Council 'Human rights and climate change' UN Doc A/HRC/RES/32/33 (18 July 2016) Preamble.

138 Human Rights Council 'Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment' UN Doc A/HRC/31/52 (1 February 2016) para 22.

139 B Mayer, 'Human Rights in the Paris Agreement' (2016) 6 *Climate Law* 109, 113-4.

140 S Duyck, 'The Paris Climate Agreement and the Protection of Human Rights in a Changing Climate' (2015) 26 *Yearbook of International Environmental Law* 3, 42 and 44.

5 CONCLUSION: POSSIBLE COMPLEMENTARY ROLE FOR HUMAN RIGHTS

The right to participate in public affairs could complement climate rules on observer participation in the ETF.[141] As mentioned above, the recently adopted MPGs for the ETF do not provide opportunities for observer participation during the technical expert review stage. In addition, working group sessions of the FMCP are open to observation only by registered observers. These MPGs will come under review no later than 2028,[142] so it is worth considering what opportunities for public participation they could include in the future. As stated in the Declaration on Human Rights Defenders, the right to participate in public affairs includes the right to submit criticism and proposals to entities concerned with public affairs for improving their functioning. It also includes the right to draw attention to any aspect of their work that may hinder human rights protection.[143] Grounded in human rights law, and considering that international law is often the result of an interplay between binding and non-binding instruments,[144] the non-binding Declaration on Human Rights Defenders could influence implementation of the right to public participation by providing that the right includes the rights to submit criticism, submit proposals, and draw attention to any aspect that could stand in the way of human rights protection. The phrase "entities concerned with public affairs" should include UNFCCC bodies at the international level because climate change is a common concern of humankind – and therefore a 'public affair'- and because the right to participate in public affairs covers international decision-making.

In this light, during the review stage the ETF could allow observers to provide information and views concerning parties' national reports. Expert review teams could in turn be mandated to incorporate observers' input in their review reports. In this way, the expert review report would not only address the challenges faced and the progress made by the reporting party towards achieving emission reduction targets, but also take note of how those challenges and progresses affect the interests of specific groups represented by observers. The expert review report could thus provide a more comprehensive consideration of a party's implementation and achievement of its NDC in order to identify areas for improvement. In addition, the FMCP could allow observers to submit written questions electronically prior to the FMCP session. During the FMCP session, observers could ask oral questions to the party under FMCP or, similarly to the procedure of the Universal Periodic Review of the

141 Parties shall submit their first biennial transparency report in accordance with the MPGs for the ETF at the latest by 31 December 2024. Decision 18/CMA.1 (n 120) para 3.
142 Decision 18/CMA.1, ibid para 2.
143 Declaration on Human Rights Defenders (n 43) art 8(2).
144 Boyle and Chinkin (n 51).

Human Rights Council, they could be allowed to make general oral comments.[145] The UNFCCC secretariat could be mandated to include the questions submitted by observers, and the responses in the party's record.

More generally, the human rights obligation to ensure effective participation requires that states take specific action by adopting measures to attain the goal of effective participation. Thus, UNFCCC parties that are also signatories to the relevant treaties should comply with the obligation of observer participation in international UNFCCC decision-making processes. The preamble to the Paris Agreement encourages compliance with this obligation in the context of climate change, stating that parties should respect, promote, and consider their respective human rights obligations when taking climate action. While the UNFCCC does not refer to adopting measures that ensure effective participation, the Paris Agreement does require that parties "cooperate in taking measures, as appropriate, to enhance … public participation."[146] However, the action required (cooperate in taking measures) and the goal (enhanced public participation), although in alignment with the human rights obligation, are comparatively weaker in content. The phrase "cooperate in taking measures" requires parties to work jointly towards enhanced public participation but fails to oblige them to also work separately towards that end. The obligation to enhance public participation is required from parties acting as a group, not individually. This emphasis on collective action could lead to an understatement of individual state action and thus lessen the effectiveness of parties' efforts to achieve enhanced participation. The obligation to adopt measures that ensure effective participation could correct such an understatement since it obliges states party to the relevant treaties to take individual action as well. In this way, individual states' human rights duty to ensure effective participation could complement UNFCCC parties' collective duty to cooperate in taking measures to enhance public participation.

145 UNGA 'Human Rights Council' UN Doc A/RES/60/251 (3 April 2006) para 5(e); Human Rights Council 'Institution-building of the United Nations Human Rights Council' UN Doc A/HRC/RES/5/1 (18 June 2007) Annex para 31. See also Duyck (n 108) at 185, submitting that the procedures of the Universal Periodic Review (UPR) provide useful lessons for the MRV process with respect to stakeholder participation.

146 Paris Agreement (n 13) art 12.

5 How the Sustainable Development Goals Promote a New Conception of Ocean Commons Governance*

ABSTRACT

This chapter explores public participation in the governance of marine areas beyond national jurisdiction, also known as ocean global commons or ocean commons. In particular, the role of the Sustainable Development Goals (SDGs) is examined in enhancing public access to information and participation in institutions managing these resources: regional fisheries management organizations (RFMOs) and the International Seabed Authority (ISA). The argument is that the SDGs contribute to developing a new conception of ocean commons governance by emphasizing civil society participation in achieving sustainable development. This argument is based on two reasons. First, the SDGs encourage institutions at all levels to strengthen public access to information and participation in decision making in order to increase transparency, accountability and effectiveness of their administration. Second, the study of public participation in RFMOs and the ISA shows that the existing conception of ocean commons governance primarily involves states and industry organizations and restricts access to civil society. This chapter concludes that the SDGs promote a new understanding of ocean commons governance in which public participation is integral to the governing process and necessary to ensure institutional transparency, accountability and effectiveness for sustainable development.

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1 INTRODUCTION

Areas beyond national jurisdiction (ABNJ) – often referred to as the global commons[1] – are protected by the general obligation of states to prevent, reduce and control environmental harm resulting from activities within their jurisdiction or control.[2] The ocean global commons – the high seas and its resources and the deep seabed (known in international law as the 'Area') and its resources – are also protected by specific legal regimes, including those established to regulate fishing on the high seas and deep seabed mining. However, neither the general obligation nor the specific legal regimes have been able to prevent significant harm being caused to marine resources. The Global Ocean Commission (GOC)[3] recently concluded 'the high seas are facing a cycle of declining ecosystem health and productivity'.[4] Investigating the factors causing such decline, the GOC found that one of them is weak high seas governance.[5] In particular, it found that in the management regime for the high seas 'transparency, accountability and compliance-reporting are especially weak',[6] with 'very little accountability at the global level.'[7] Legal scholars also identify lack of effective compliance mechanisms as one of the factors contributing to degradation of the global commons,[8] and the ocean commons in particular.[9]

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1 See, e.g., K. Bosselmann, *Earth Governance: Trusteeship of the Global Commons* (Edward Elgar Publishing 2015) 71 – 75; N. Schrijver, 'Managing the Global Commons: Common Good or Common Sink?' (2016) *Third World Quarterly* 37(1252), 1252 – 1253.

2 Declaration of the United Nations Conference on the Human Environment, Stockholm, 16 June 1972, UN Doc A/CONF.48/14/Rev.1, Principle 21; Rio Declaration on Environment and Development, Rio de Janeiro, 14 June 1992, UN Doc A/CONF.151/26 (Vol. I) ('Rio Declaration'), Principle 2. See also UN Framework Convention on Climate Change (May 1992) 1771 U.N.T.S. 107, Preamble; Convention on Biological Diversity (5 June 1992) 1760 U.N.T.S. 79, article 3; Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996, 226, at 241 – 242, para. 29; Draft Articles on Prevention of Transboundary Harm from Hazardous Activities with commentaries, Yearbook of the International Law Commission, 2001, vol. II, Part Two, Draft article 3.

3 Independent commission established in 2013 to raise awareness and promote action to address ocean degradation. It was conceived by the Pew Charitable Trusts and hosted by Somerville College at the University of Oxford. Members of the GOC included José María Figueres (former President of Costa Rica), Vladimir Golitsyn (President of the International Tribunal for the Law of the Sea), and Pascal Lamy (Former Director-General of the WTO).

4 Global Ocean Commission, *From Decline to Recovery: A Rescue Package for the Global Ocean* (2014) <http://www.some.ox.ac.uk/research/global-ocean-commission/> at 16.

5 *Ibid.* at 16-18.

6 *Ibid.* at 7.

7 *Ibid.*

8 Schrijver, above n 1, 1261.

9 D. Bhomawat, 'Shark-finning: Damage to Global Commons' (2016) *Environmental Policy and Law* 46, 56, 61; S. Kopela, 'Port-State Jurisdiction, Extraterritoriality, and the Protection of Global Commons' (2016) *Ocean Development and International Law* 47, 89.

Public access to information and participation in global environmental governance has led to increased transparency, accountability, effectiveness and legitimacy of decision-making processes.[10] Thus, even though the engagement of civil society may decrease efficiency for being resource consuming (in terms of time and money),[11] and even may result in 'lowest-common-denominator solutions if decision-makers strive to accommodate as many views as possible',[12] public participation is desirable and actively promoted by the international community. Principle 10 of the 1992 Rio Declaration on Environment and Development adopted at the United Nations Conference on Environment and Development (UNCED), proclaims 'environmental issues are best handled with participation of all concerned citizens'.[13] It furthermore provides for access to information, public participation and access to justice in environmental matters. Agenda 21, the Plan of Action on Sustainable Development also adopted at UNCED, states that 'one of the fundamental prerequisites for the achievement of sustainable development is broad public participation in decision-making'.[14] Twenty years later, the UN Conference on Sustainable Development (Rio + 20) reconfirmed Principle 10 in its outcome document *The Future We Want*, underscoring participatory rights as an essential component in the promotion of sustainable development.[15] At the regional level, the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters,[16] and the Regional Agreement on Access to Information, Participation and Justice in

10 See, e.g., J. Ebbesson, 'Principle 10: Public Participation' in Jorge E. Viñuales (ed) *The Rio Declaration on Environment and Development* (OUP 2015); T. Kramarz and S. Park, 'Accountability in Global Environmental Governance: A Meaningful Tool for Action?' (2016) *Global Environmental Politics* 16(1), 6; T. Bernauer and R. Gampfer, 'Effects of Civil Society Involvement on Popular Legitimacy of Global Environmental Governance' (2013) *Global Environmental Change* 23, 439.

11 C. Pahl-Wostl, 'A Conceptual Framework for Analysing Adaptive Capacity and Multi-level Learning Processes in Resource Governance Regimes' (2009) *Global Environmental Change* 19, 354, 357. See also Gemma Carr, Günter Blöschl and Daniel Peter Loucks, 'Evaluating Participation in Water Resource Management: A Review' (2012) *Water Resources Research* 48, W11401, 2.

12 N.P. Spyke, 'Public Participation in Environmental Decisionmaking at the New Millennium: Structuring New Spheres of Public Influence' (1999) *Boston College Environmental Affairs Law Review* 26(263), 273.

13 Rio Declaration, above n 2.

14 Agenda 21: Programme of Action for Sustainable Development, UN Doc A/CONF.151/26 (Vol. I), Chapter 23, para. 2.

15 The Future We Want, UN Doc A/RES/66/288, para. 43. See also M. Orellana, 'Governance and the Sustainable Development Goals: The Increasing Relevance of Access Rights in Principle 10 of the Rio Declaration' (2016) 25 *RECIEL* 50, 51 – 52, for an account of how the sustainable development discourse has affirmed the centrality of access rights in governance.

16 'Aarhus Convention' (25 June 1998) 2161 U.N.T.S. 447.

Environmental Matters in Latin America and the Caribbean[17] constitute examples of the extensive support that the international community affords to Rio Principle 10.

The type of development envisioned by the 2030 Agenda for Sustainable Development is that it should not only be sustainable, but also inclusive. In the Agenda, states agree to foster peaceful, just and inclusive societies, declaring that this 'is an agenda of the people, by the people and for the people – and this, we believe, will ensure its success'.[18] In this chapter, I explore 'inclusiveness' from the perspective of civil society participation in the governance of marine areas beyond the limits of national jurisdiction also known as ocean global commons or ocean commons. In particular, I examine the role of the SDGs in enhancing public participation in institutions managing the ocean global commons: regional fisheries management organizations (RFMOs) and the International Seabed Authority (ISA). I focus for present purposes on two SDGs: SDG 14 'Conserve and sustainably use the oceans, seas and marine resources for sustainable development',[19] and SDG 16 'Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels'.[20] I argue that the SDGs promote a new conception of ocean commons governance by emphasizing civil society participation in achieving sustainable development. Prevailing practice primarily involves states and industry organizations (i.e. companies and industry associations) and restricts access to civil society. This reality is now being challenged by the SDGs, which encourage governing institutions at all levels to strengthen public participation in order to increase transparency, accountability and effectiveness of their administration. The SDGs thus promote a new understanding of ocean commons governance in which public participation is integral to the governing process and necessary to ensure institutional transparency, accountability and effectiveness for sustainable development.

The next section discusses the nature of the SDGs and their potential to influence national and international law and policy. The following section explains that public participation is not only a fundamental element in the drafting and subsequent implementation of the SDGs, but also a means to achieving the goal of building strong institutions at all levels set in SDG 16. Subsequently, section 4 provides an account of the current situation of the ocean global commons and relates it to the goal of sustainable use of marine

17 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (adopted 4 March 2018, open for signature on 27 September 2018, not in force) available at https://treaties.un.org/doc/Treaties/2018/03/20180312%2003-04%20PM/CTC-XXVII-18.pdf.

18 Transforming our world: the 2030 Agenda for Sustainable Development, UN Doc A/RES/70/1, 21 October 2015 ('2030 Agenda'), para. 52.

19 *Ibid.* at 23.

20 *Ibid.* at 25.

resources envisioned in SDG 14. Section 5 examines public participation in RFMOs and the ISA and shows that SDG 16 provides a guiding framework for achieving SDG 14 by way of building strong institutions, *inter alia*, via ensuring public access to information and participation in decision making. This chapter concludes with the argument that through this guiding framework, the SDGs promote a new conception of ocean commons governance.

Some terminological clarification is required before continuing to the next section. First, the term 'civil society' is used as defined by the Panel of Eminent Persons on United Nations – Civil Society Relations meaning 'the associations of citizens (outside their families, friends and businesses) entered into voluntarily to advance their interests, ideas and ideologies. The term does not include profit-making activity (the private sector) or governing (the public sector).'[21] Second, the term 'public participation' refers to civil society access to information and participation in decision-making processes within governing institutions. It does not include 'access to justice' (the third 'pillar' found in Rio Principle 10). This is because no institutionalized access to justice procedure open to civil society organizations currently exists within governance structures for the ocean global commons. Finally, the terms 'marine areas beyond national jurisdiction' 'ocean global commons' and 'ocean commons' are used interchangeably and refer to the high seas and its living resources and the Area and its resources.[22]

2 NON-BINDING, YET INFLUENTIAL

The SDGs, contained in a resolution of the United Nations General Assembly (UNGA), are not legally biding. This does not, however, mean that the SDGs lack the capacity to influence national and international law and policy.[23]

21 We the Peoples: Civil Society, the United Nations and Global Governance: Report of the Panel of Eminent Persons on United Nations – Civil Society Relations, UN Doc A/58/817 (11 June 2004), at 13.

22 This is based on the definitions and legal regimes established by the United Nations Convention on the Law of the Sea (UNCLOS, below n 55) discussed below. UNCLOS defines the high seas as all parts of the sea beyond national jurisdiction (article 86) and establishes a regime for the conservation and management of the living resources of the high seas (articles 116 – 120), which limits states' freedom of fishing (article 87). In addition, UNCLOS defines the Area as the seabed and its subsoil beyond national jurisdiction (article 1) and establishes a regime for the management of the Area and its resources based on the principle of common heritage of mankind (Part XI).

23 Several ways in which the SDGs could be 'non-binding yet influential' have been explored in the literature. See e.g., R.E. Kim, 'The Nexus Between International Law and the Sustainable Development Goals' (2016) *RECIEL* 25(15), 16, arguing that the SDGs are grounded in international agreements and are best conceptualized as a '*subset* of existing intergovernmental commitments'; O. Spijkers, 'The Cross-fertilization Between the Sustainable Development Goals and International Water Law' (2016) *RECIEL* 25(39), 40 – 41, stating that if states are influenced by the SDGs when applying a treaty, this could constitute relevant subsequent

Indeed, states are expected to take ownership and translate the SDGs into domestic public policies.[24] In addition, the 2030 Agenda is grounded in international human rights treaties[25] reinforcing states' international legally binding obligations to protect human rights. Furthermore, the Agenda encourages states to achieve the SDGs in accordance with existing international agreements, expressly mentioning World Trade Organization (WTO) agreements[26] and the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement),[27] the World Health Organization Framework Convention on Tobacco Control,[28] the Convention on the Rights of the Child,[29] the United Nations Framework Convention on Climate Change,[30] and the United Nations Convention on the Law of the Sea (UNCLOS).[31] Referring states and stakeholders to existing international agreements strongly suggests consensus on combining or integrating such agreements with the SDGs, as it were, in order to achieve the overarching goal of sustainable development.[32]

It follows from this interpretation that SDG 14 does not operate in a vacuum. In fact, SDG 14 directs efforts to enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS,[33] causing one to think that there was general agreement on combining UNCLOS and the SDGs to achieve sustainable oceans. Seen in this light, UNCLOS provides a normative framework for implementing SDG 14, while SDG 14 draws attention to priority areas regarding ocean sustainability. This potential for synergy between UNCLOS and the SDGs has been acknowledged by the ISA and is beginning to appear – albeit more timidly – in the work of the RFMOs. Indeed, the President of the ISA Council stated in 2015 that SDG 14 'goes to the heart of the responsibilities of the International Seabed Authority'[34] and that it 'will bring accountability to all organizations and agencies that play a role

practice of such treaty in accordance with the Vienna Convention on the Law of Treaties; Mallory Orme, Zoë Cuthbert, Francesco Sindico et al., 'Good Transboundary Water Governance in the 2015 Sustainable Development Goals: A Legal Perspective' (2015) 40 *Water International* 969, 970 – 971, stating that although the SDGs are not legally binding, they 'still have governing implications' because states must 'translate the SDGs into national targets, and develop and implement policies to achieve the SDGs' and 'engage not only across sectors but also across borders'.

24 Transforming our world, above n 18, para. 66.
25 *Ibid.* para. 10.
26 *Ibid.* SDG 10, target 10a.
27 *Ibid.* SDG 3, target 3b.
28 *Ibid.* SDG 3, target 3a.
29 *Ibid.* para. 67.
30 *Ibid.* SDG 13, target 13a.
31 *Ibid.* SDG 14, target 14c.
32 See Kim, above n 23, 16 – 17.
33 Transforming our world, above n 18, target 14c.
34 Opening Statement by President of the Council Ambassador Peter Thomson, International Seabed Authority, Kingston, Jamaica, 21st Session, 14 July 2015 <https://www.isa.org.jm/files/documents/EN/21Sess/CnclPres.pdf> at 2.

in the sustainability of [the] ocean's health'.[35] In addition, the Secretary-General of the ISA stated in May 2017 that 'deep seabed mining can be carried out sustainably in a manner that contributes to the realization of SDG 14'.[36] The 2030 Agenda and SDGs have also been acknowledged by member states in RFMO meetings,[37] possibly indicating that the SDGs could indeed influence the way RFMOs manage high seas fisheries.

The SDGs may not be legally binding in the strict sense of the word, but they are deeply rooted in international law and call on states to fulfil their legally binding obligations in the light of their vision and ambition to transform our world by 2030. As shown below, the interaction between the existing legal framework applicable to the ocean commons and the SDGs could have as a result that civil society organizations join states and industry organizations as principal actors in ocean commons governance. In section 5, I propose several ways through which increased public participation in ocean commons governance could be achieved. If we agree that 'contemporary international law is often the product of a complex and evolving interplay of instruments, both binding and non-binding',[38] the interplay between the binding legal framework and the non-binding SDGs could encourage and even facilitate these proposals, thereby promoting a new conception of ocean commons governance.

3 PUBLIC PARTICIPATION

In contrast to the Millennium Development Goals (MDGs), which were criticized for having been drafted behind closed doors without stakeholder consultations,[39] the SDGs were envisioned to be the result of an inclusive and trans-

35 *Ibid.* at 3.

36 Statement by Secretary-General Michael Lodge at the ISA/COMRA Contract Extension Signing Ceremony, 11 May 2017, Beijing <https://www.isa.org.jm/sites/default/files/documents/EN/SG-Stats/sg-comra.pdf> at 4.

37 See, e.g. Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC), Thirteenth Regular Session of the Commission, Denarau Island, Fiji, 5 – 9 December 2016, Summary Report of 2 March 2017 <https://www.wcpfc.int/system/files/WCPFC13%20Summary%20Report%20final_issued%202%20March%202017%20complete.pdf> Statement by the Minister for Fisheries of Papua New Guinea, para. 26, at 7-8; WCPFC, Twelfth Regular Session of the Technical and Compliance Committee, Pohnpei, Federated States of Micronesia, 21 – 27 September 2016, Report of 17 November 2016 <https://www.wcpfc.int/system/files/TCC12%20Summary%20Report%2017%20Nov%202016.pdf> Attachment A: Opening Remarks from the Federated States of Micronesia, at 70; Inter-American Tropical Tuna Commission (IATTC), 90th Meeting, La Jolla, California (USA) <http://www.iattc.org/Meetings/Meetings2016/June/pdf-files/IATTC-90-Minutes.pdf> Appendix 5b, Statement by Chile, at 99.

38 A. Boyle and C. Chinkin, *The Making of International Law* (Oxford 2007) 210.

39 UN System Task Team on the Post-2015 UN Development Agenda, *Review of the Contributions of the MDG Agenda to Foster Development: Lessons for the Post-2015 UN Development Agenda* <http://www.un.org/millenniumgoals/pdf/mdg_assessment_Aug.pdf> at 7; see

parent intergovernmental process open to all stakeholders.[40] In fact, the Open Working Group on Sustainable Development Goals (OWG) had the mandate to ensure the full involvement of expertise from civil society in order to provide a diversity of perspectives and experience.[41] Accordingly, a process of public consultations took place during the elaboration of the SDGs.[42] Additionally, civil society is called on to support implementation of the SDGs together with governments, the private sector and the UN system.[43] Indeed, the process of follow-up and review of implementation of the SDGs at all levels is to be 'open, inclusive, participatory and transparent for all people and will support reporting by all relevant stakeholders'.[44] Therefore, review of implementation progress at the national level is to draw on contributions from, among others, civil society.[45] At the global level, regular reviews are to include civil society and provide a platform for partnerships, including through the participation of 'major groups and other relevant stakeholders'.[46] Civil society organizations are called to contribute not only to follow-up and review processes, but also to SDG implementation in their areas of expertise.[47] In addition to being essential to the drafting and subsequent implementation of the SDGs, public participation is a means to achieve the specific goal of building strong institutions at all levels set in SDG 16.

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also S. Wisor, 'After the MDGs: Citizen Deliberation and the Post-2015 Development Framework' (2012) *Ethics and International Affairs* 26, 113, 119 – 120; V.P. Nanda, 'The Journey from the Millennium Development Goals to the Sustainable Development Goals' (2015 – 2016) *Denver Journal of International Law and Policy* 44(389), 398.

40 The Future We Want, above n 15, para. 248.

41 *Ibid.*

42 2030 Agenda, above n 18, para. 6. See also Synthesis Report of the Secretary-General on the Post-2015 Agenda, *The Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet* (December 2014) <http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf> para. 37(a). For an analysis of public participation in the drafting process of the SDGs see O. Spijkers and A. Honniball, 'Developing Global Public Participation (2): Shaping the Sustainable Development Goals' (2015) *International Community Law Review* 17, 251.

43 2030 Agenda, above n 18, paras 39 and 60.

44 *Ibid.* para. 74 (d).

45 *Ibid.* para. 79.

46 *Ibid.* paras 84 and 89. 'Major groups' refers to nine sectors of society that constitute the main channels for participation in UN activities related to sustainable development. These are women, children and youth, indigenous peoples, non-governmental organizations, local authorities, workers and trade unions, business and industry, scientific and technological community, and farmers. See Agenda 21, above n 14, Section III. 'Other relevant stakeholders' are also invited to participate in UN processes related to sustainable development. These include private philanthropic organizations, educational and academic entities, persons with disabilities and volunteer groups. See UN Doc A/RES/67/290 Format and organizational aspects of the high-level political forum on sustainable development (23 August 2013), para. 16.

47 2030 Agenda, above n 18, para 41. See also SDG 17, target 17.

Sustainable Development Goal 16 is to 'promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels'.[48] Strong institutions (effective, accountable and inclusive) are instrumental in promoting peaceful and inclusive societies and providing access to justice for all. Therefore, this chapter specifically focuses on the goal of building strong institutions and the role of public participation in achieving such a goal in the context of the ocean global commons. Three of the targets supporting the achievement of SDG 16 directly contribute to building strong institutions. Target 16.6 is to 'develop effective, accountable and transparent institutions at all levels'; target 16.7 is to 'ensure responsive, inclusive, participatory, and representative decision making at all levels'; and target 16.10 is to 'ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements'.[49]

As mentioned in the introduction, public access to information and participation in environmental matters increase transparency, accountability and effectiveness of decision making and are both widely supported by the international community. SDG 16 confirms this support, drawing attention to the role that public participation plays in achieving the goal of strong institutions for sustainable management. The goal is to build strong institutions *at all levels* of governance, therefore including institutions managing the ocean global commons. In addition, according to the three relevant targets, strong institutions are to be built through effectiveness, accountability, and transparency,[50] responsiveness, inclusiveness, participation and representation,[51] and through public access to information.[52] Bearing in mind that weak governing institutions have been found to be one of the factors causing ocean degradation,[53] and that ocean commons are currently managed with minimal public participation, SDG 16 promotes a new conception of ocean commons governance. It does so by aiming at building strong institutions through, *inter alia*, ensuring public access to information and public participation in decision making. As shown below, the existing conception of ocean commons governance features states and industry representatives as primary actors with civil society organizations – and the conservation interests they represent – playing a role of secondary importance. The new conception, based on SDG 16 and intending to achieve SDG 14, strengthens the role of civil society organizations in ensuring transparency, accountability and effectiveness of institutions managing the ocean commons.

48 2030 Agenda, above n 18, at 25.
49 *Ibid.* at 25-26.
50 Target 16.6.
51 Target 16.7.
52 Target 16.10.
53 Global Ocean Commission, above n 4.

4 Ocean commons and sustainable development goal 14

4.1 Ocean Commons

The ocean covers nearly three-quarters of the Earth's surface area.[54] The high seas, defined as 'all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State',[55] constitute 64 per cent of the total surface of the ocean.[56] High seas ecosystem services include air purification, waste treatment and lifecycle maintenance, carbon capture and storage, fisheries, genetic resources, and recreational benefits.[57] The high seas also provide non-living resources such as oil, gas and minerals.[58] The 1982 UNCLOS reserves the high seas for peaceful purposes[59] and guarantees 'freedom of the high seas' for all states, coastal or land-locked.[60] Freedom of the high seas comprises, *inter alia*, freedom of navigation and overflight, freedom to lay submarine cables and pipelines, to construct artificial islands and other installations, freedom of scientific research and freedom of fishing.[61] Despite efforts made by the international community to protect the marine environment, the ocean faces several challenges. These include overfishing, acidification, pollution and biodiversity loss.

The Food and Agriculture Organization of the United Nations' report *State of World Fisheries and Aquaculture 2016* (FAO Report) found that 31.4 per cent of the world's marine fish stocks were fished at a biologically unsustainable level and therefore overfished.[62] The report states further that most of the stocks of the 10 most productive fish species 'are fully fished with no potential for increases in production; the remainder are overfished with increases in their production only possible after successful stock restoration'.[63] In addition, the Intergovernmental Panel on Climate Change found that the ocean has absorbed 30 per cent of the emitted anthropogenic CO_2, increasing its acidity.[64] Ocean acidification has impacts on the physiology, behaviour and population

54 *Ibid.* at 4.
55 United Nations Convention on the Law of the Sea (10 December 1982) 1833 U.N.T.S. 3, Art. 86.
56 Global Ocean Commission, above n 4, at 4.
57 *Ibid.* at 5.
58 *Ibid.*
59 Above n 55, article 88.
60 *Ibid.* article 87.
61 *Ibid.* article 87(a) and (e).
62 Food and Agriculture Organization of the United Nations, *The State of World Fisheries and Aquaculture 2016: Contributing to Food Security and Nutrition for All* (Rome 2016) <http://www.fao.org/3/a-i5555e.pdf> at 5 – 6.
63 *Ibid.* at 6.
64 IPCC, *Climate Change 2014: Synthesis Report.* Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Geneva

dynamics of organisms, particularly those building a calcium carbonate shell (e.g., molluscs and reef-building corals).[65] Moreover, the warming of the global oceans, combined with overfishing, threatens the world's richest areas for marine biodiversity.[66] Furthermore, marine litter (or debris) – mostly made up of plastic polymers, the majority of which are not biodegradable and will persist for decades and probably centuries[67] – affects habitats, ecological function, and exposes marine fauna to entanglement, suffocation, and/or ingestion of debris.[68] Finally, marine biodiversity loss 'not only impairs the ability of marine ecosystems to feed a growing human population but also sabotages their stability and recovery potential in a rapidly changing marine environment'.[69]

Concerning marine mineral resources found in the seabed beyond national jurisdiction, the so-called Area,[70] three types are commercially viable: polymetallic manganese nodules, cobalt-rich ferromanganese crusts and polymetallic sulphides.[71] Polymetallic manganese nodules are found on or just below the surface of the deep seabed and contain manganese, nickel, cobalt and copper.[72] Cobalt-rich ferromanganese crusts are deposits formed from direct precipitation of minerals from seawater onto hard substrates (rock on seamounts and active mountain chains), containing minor but significant concentrations of cobalt, titanium, nickel, platinum, molybdenum, tellurium, cerium, other metallic and rare earth elements.[73] Polymetallic sulphides are

2014)<https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf> at 4.

65 *Ibid.* at 67.

66 F. Ramirez, Francisco Ramírez, Isabel Afán, Lloyd S. Davis and André Chiaradia, 'Climate Impacts on Global Hot Spots of Marine Biodiversity' (2017) *Science Advances* 3, 1 – 7.

67 UNEP and GRID-Arendal, *Marine Litter Vital Graphics* (2016) <http://staging.unep.org/docs/MarineLitter.pdf> at 7. See also David K.A. Barnes, Francois Galgani, Richard C. Thompson et al., 'Accumulation and Fragmentation of Plastic Debris in Global Environments' (2009) *Phil. Trans. R. Soc.* B 364(1985), 1992 – 1993.

68 UNEP and GRID-Arendal, above n 67, at 6, 8. See also Marcus Eriksen, Laurent C.M. Lebreton, Henry S. Carson et al., 'Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea' (2014) *PLoS ONE* 9: e111913, at 2, 11.

69 Boris Worm, Edward B. Barbier, Nicola Beaumont et al., 'Impacts of Biodiversity Loss on Ocean Ecosystem Services' (2006) *Science* 314 (787), 790. See also Douglas J. McCauley, Malin L. Pinsky, Stephen R. Palumbi et al., 'Marine Defaunation: Animal Loss in the Global Ocean' (2015) *Science* 347(247), 1255641 – 1255643.

70 UNCLOS defines the Area as 'the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction', above n 55, article 1(1) (1).

71 E. Ramirez-Llodra, A. Brandt, R. Danovaro et al., 'Deep, Diverse and Definitely Different: Unique Attributes of the World's Largest Ecosystem' (2010) *Biogeosciences* 7(2851), 2882.

72 Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, ISBA/19/C/17 (22 July 2013) hereinafter Nodules Exploration Regulations, Regulation 1(3)(d).

73 Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11 (27 July 2012) hereinafter Crusts Exploration Regulations, Regulation 1(3)(a).

hydrothermally formed deposits of sulphides and accompanying mineral resources, which contain concentrations of metals including, *inter alia*, copper, lead, zinc, gold and silver.[74] The Area not only yields significant mineral resources, but also 'is predicted to hold millions of yet-to-be described species'.[75] As an example, the Clarion-Clipperton Zone (CCZ), located in the Eastern Central Pacific, is not only known to have the richest deposits of polymetallic nodules in terms of nodule abundance and metal concentration,[76] but also holds rich and abundant megafauna.[77]

Deep seabed mining in ABNJ is currently in the exploration phase. As of February 2018, the ISA has entered into 15-year contracts for exploration for minerals in the Area with 28 contractors.[78] During its 22nd session (2016), the Council of the ISA approved six applications for extension of contracts for exploration,[79] four of which were signed during the 23rd session (2017).[80] Applications for exploitation licences are expected after the contracts or the extension periods expire.[81] More than half of the contracts are for exploration for polymetallic nodules in the CCZ.[82]

Nodule mining is expected to have long-lasting impacts.[83] A single nodule mining operation is projected to remove nodules and near-surface sediments from 300-700 km^2 of seafloor per year,[84] which would cause 'near total faunal

74 Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1 (7 May 2010) hereinafter Sulphides Exploration Regulations, Regulation 1(3)(d).

75 Kathryn J. Mengerink, Cindy L. Van Dover, Jeff Ardron et al., 'A Call for Deep-Ocean Stewardship' (2014) 344 *Science* 696, 696.

76 Environmental Management Plan for the Clarion-Clipperton Zone, ISBA/17/LTC/7 (13 July 2011) para. 16.

77 Diva J. Amon, Amanda F. Ziegler, Thomas G. Dahlgren et al., 'Insights into the Abundance and Diversity of Abyssal Megafauna in a Polymetallic-nodule Region in the Eastern Clarion-Clipperton Zone' (2016) *Scientific Reports* 6, 30492.

78 ISA, 'Deep Seabed Minerals Contractors' <https://www.isa.org.jm/deep-seabed-minerals-contractors>.

79 Report of the Secretary-General of the International Seabed Authority under article 166, paragraph 4, of the United Nations Convention on the Law of the Sea, ISBA/23/A/2 (5 June 2017) para. 67.

80 *Ibid.*, para. 71. See also ISA, Selected Decisions and Documents of the Twenty-Third Session, 07-18 August 2017, available at <https://www.isa.org.jm/sites/default/files/files/documents/en_3.pdf, at 17, para. 71.

81 Nodules Exploration Regulations, above n 72, Regulation 26; Crusts Exploration Regulations, above n 73, Regulation 28; Sulphides Exploration Regulations, above n 74, Regulation 28.

82 ISA, above n 78.

83 ISA, Towards an ISA Environmental Management Strategy for the Area, ISA Technical Study No. 17 (March 2017) <https://www.isa.org.jm/sites/default/files/files/documents/berlinrep-web.pdf> at 11.

84 Eva Ramírez-Llodra, Paul A. Tyler, Maria C. Baker et al., 'Man and the Last Great Wilderness: Human Impact on the Deep Sea' (2011) 6 PLoS ONE e22588, at 11. See also ISA, Biodiversity, Species Ranges, and Gene Flow in the Abyssal Pacific Nodule Province: Predicting and Managing the Impacts of Deep Seabed Mining, ISA Technical Study No. 3 (2008) <https://www.isa.org.jm/sites/default/files/files/documents/techstudy3.pdf> at 4.

mortality in the area directly mined'.[85] In addition, redeposition of sediments suspended by mining activities 'will disturb seafloor communities over an area perhaps two to five times greater'.[86] Experimental disturbances carried out to study possible impacts of mining operations showed that many nodule-attached organisms as well as mobile species 'did not reach pre-disturbance abundances decades after the disturbance took place'.[87] In addition, the biogeochemical functions of the sediments were affected, indicating impacts on the food web of the flora and fauna found on the seafloor.[88] Notwithstanding, deep seabed ecosystems remain poorly known[89] and, as acknowledged by the Environmental Management Plan for the CCZ, 'the degree of impacts raised by potential deep sea mining is still unknown'.[90] This uncertainty calls for a precautionary approach and constitutes a main challenge in the current process of developing a legal framework to regulate the exploitation phase.[91]

4.2 Sustainable Development Goal 14

Sustainable Development Goal 14 (SDG 14) is to 'conserve and sustainably use the oceans, seas and marine resources for sustainable development'.[92] Several of the targets under SDG 14 direct efforts towards tackling the main challenges faced by the ocean commons described above.[93] Target 14.1 sets the objective of preventing and significantly reducing marine pollution of all kinds, including marine debris pollution. Target 14.2 aims at achieving sustainable management and protection of marine and coastal ecosystems. Target 14.3 directs actions towards minimizing and addressing the impacts of ocean acidification. Particularly relevant to the argument in this chapter are targets 14.4 and 14.6, which aim at tackling overfishing. Target 14.4 draws attention to the ineffective regulation of fishing activities, calling on governance institutions to '*effectively* regulate harvesting and end overfishing, illegal, unreported

85 Ramírez-Llodra et al., above n 84.
86 *Ibid*.
87 ISA, above n 83, 11.
88 *Ibid.*
89 Amon et al., above n 77.
90 Environmental Management Plan for the Clarion-Clipperton Zone, above n 76, para. 25.
91 ISA, Developing a Regulatory Framework for Mineral Exploitation in the Area: Report to Members of the Authority and all Stakeholders (July 2016) containing a first working draft of the Regulations and Standard Contract Terms on Exploitation for Mineral Resources in the Area <https://www.isa.org.jm/files/documents/EN/Regs/DraftExpl/Draft_ExplReg_SCT.pdf>. See also ISA, 'Ongoing Development of Regulations on Exploitation of Mineral Resources in the Area' <https://www.isa.org.jm/legal-instruments/ongoing-development-regulations-exploitation-mineral-resources-area> for a chronological list of activities undertaken and documents issued in the drafting process.
92 2030 Agenda, above n 18, at 23.
93 *Ibid.* at 23-24.

and unregulated fishing and destructive fishing practices … in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics'.[94] Target 14.6 addresses the issue of subsidies granted to the fishing industry setting the objective of 'prohibit[ing] certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies'. Also relevant to the argument is target 14.c, which aims to 'enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea'. By referring to UNCLOS, SDG 14 highlights the critical role that the Law of the Sea – including the law applicable to high seas fisheries and deep seabed minerals – plays in the sustainable management of marine resources.

Regarding public participation, SDG 14 does not expressly mention public access to information and participation in decision making; however, it does contain an implicit reference by acknowledging the role of UNCLOS. As discussed below, the legal regime established by UNCLOS and its implementing agreements does include procedures – albeit modest – for the engagement of civil society in the management of the ocean global commons. In addition, target 14.a also makes an implicit reference to civil society participation by directing efforts to 'increase scientific knowledge, develop research capacity and transfer marine technology'. This calls attention to the role that civil society organizations engaged in ocean research play in improving ocean health.

5 Public participation in ocean commons governance

This section examines public participation in institutions managing high seas fisheries and seabed minerals in the Area -RFMOs and the ISA, also referred to as the Authority, respectively. Each subsection provides a brief introduction of the organization's roles, functions and competences especially regarding environmental protection, followed by a study of the legal framework for public participation and its implementation. Each subsection links this legal framework to the SDGs showing that SDG 16 provides a guiding framework for achieving SDG 14 through strong institutions. I propose several ways through which increased public participation in ocean commons governance could be achieved, namely (i) through making RFMO rules on NGO participation less restrictive, e.g., via substantially reducing or eliminating NGO participation fees; (ii) through including NGO representatives in RFMO performance reviews; (iii) through developing ISA procedures to determine confidentiality of data (such procedures are currently non-existent); (iv) through providing public

94 Emphasis added.

access to all environmental data available to the ISA; and (v) through ensuring public participation in all Legal and Technical Commission (LTC) meetings discussing environmental protection.

5.1 Public Participation in Regional Fisheries Management Organizations

5.1.1 Role of RFMOs in governance of high seas fisheries

According to UNCLOS all states have the right for their nationals to engage in fishing on the high seas provided that they observe their treaty obligations and the rights, duties and interests of the coastal states.[95] UNCLOS requires states to take measures for their respective nationals for the conservation of living resources,[96] and to cooperate with each other in the conservation and management of living resources, for instance through the establishment of fisheries organizations.[97] The Fish Stocks Agreement (FSA) elaborates states' duty to cooperate regarding two particular stocks: straddling and highly migratory fish stocks.[98] It provides for the establishment of RFMOs, which have become the principal institutions entrusted with the conservation and management of high seas fisheries at the regional level.[99]

RFMOs are intergovernmental organizations for the management of fisheries in specific areas of the high seas with a mandate to adopt measures that are binding upon their members. RFMOs essentially provide a forum for states to cooperate and adopt conservation and management measures. Where no RFMO exists for a particular fish stock, states must cooperate in order to establish one.[100] Where an RFMO does exist, states intending to fish for the resource under the jurisdiction of the RFMO must join it or, at least, follow its rules.[101] States having a real interest in the fisheries concerned are entitled to become a member of a relevant RFMO.[102] Only those states which are members of an RFMO, or which agree to follow its rules, have access to the fishery resources

95 UNCLOS, above n 55, article 116.
96 Article 117.
97 Article 118.
98 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (4 August 1995) 2167 U.N.T.S. 3, article 2 (FSA). Straddling fish stocks occur both within a country's exclusive economic zone and in the adjacent high seas (UNCLOS article 63) e.g., cod, jack mackerel and squid. Highly migratory fish stocks regularly travel long distances through both the high seas and areas under national jurisdiction (UNCLOS article 64 and Annex I), e.g., tuna, swordfish and oceanic sharks.
99 *Ibid.* FSA Part III.
100 FSA, above n 98, article 8(5).
101 *Ibid.* article 8(3).
102 *Ibid.*

to which those rules apply.[103] Most RFMOs manage specific fish stocks only, such as tuna and tuna-like species or deep-sea stocks.[104]

RFMO member states have the responsibility to agree on participatory rights such as allocations of allowable catch (fishing quotas), or levels of fishing effort (e.g. fishing days),[105] ensuring that these measures maintain or restore stocks at levels capable of producing maximum sustainable yield (also referred to as 'maximum sustainable catch').[106] In addition, members must ensure that said measures are based on the best available scientific information,[107] and apply the precautionary approach.[108] Measures should also take into account the interdependence of fish stocks and dependent and associated species as well as the special requirements of developing states.[109] Furthermore, members must adopt standards for the responsible conduct of fishing operations,[110] review the status of the stocks and assess the impact of fishing on non-target and associated or dependent species.[111] They must also ensure implementation of the recommendations and decisions of the organization.[112]

Notwithstanding this legal framework, unsustainable fishing practices in the high seas constitute a persisting cause of ocean degradation. Performance reviews conducted following the 2006 UNGA Resolution on Sustainable Fisheries[113] show that RFMOs have generally 'failed to live up to expectations'.[114] They reveal common problems such as poor data provision, failure to adopt appropriate conservation measures and inadequate compliance with manage-

103 *Ibid.* article 8(4).

104 Examples of RFMOs are: Northwest Atlantic Fisheries Organization (NAFO), Commission for the Conservation of Southern Bluefin Tuna (CCSBT), North Atlantic Salmon Conservation Organization (NASCO), International Commission for the Conservation of Atlantic Tunas (ICCAT).

105 FSA, article 10(b).

106 *Ibid.* article 5(b).

107 *Ibid.*

108 *Ibid.* article 5(c) and article 6.

109 *Ibid.* article 5(b).

110 *Ibid.* article 10(c).

111 *Ibid.* article 10(d).

112 *Ibid.* article 10(l).

113 Sustainable Fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments, UN Doc A/RES/61/105 (8 December 2006), para. 73.

114 Global Ocean Commission, above n 4, at 9. See also Kristina M. Gjerde, Duncan Currie, Kateryna Wowk et al., 'Ocean in Peril: Reforming the Management of Global Ocean Living Resources in Areas Beyond National Jurisdiction' (2013) *Marine Pollution Bulletin* 74(540), 541; S. Cullis-Suzuki and D. Pauly, 'Failing the High Seas: A Global Evaluation of Regional Fisheries Management Organizations' (2010) *Marine Policy* 34(1036), 1042; Michael W. Lodge, David Anderson, Terje Løbach et al., *Recommended Best Practices for Regional Fisheries Management Organizations*, 'Introduction and Overview' (Chatham House 2007) ix.

ment measures.[115] In addition, the GOC found that RFMOs are 'largely unaccountable'.[116] The above-cited FAO Report confirms that RFMOs face 'substantial challenges', including 'lack of political commitment and comprehensive compliance by members'.[117] It adds that regional fisheries bodies (including RFMOs) 'can only be as effective as member States allow' and their performance 'depends directly on their members' participation, engagement and political will'.[118] In light of this situation, and bearing in mind that public access to information and participation in decision making can improve transparency, accountability and effectiveness of governing institutions, the SDGs potentially could provide direction for achieving sustainable use of high seas fisheries. This is done, in part, through strengthening RFMOs by ensuring that civil society organizations have access to information and participation mechanisms.

5.1.2 *Public participation in RFMOs in the light of the SDGs*

Article 12 of the FSA stipulates that states must provide for transparency in the decision-making process and other activities of RFMOs.[119] It also states that representatives from NGOs concerned with straddling and highly migratory fish stocks shall be afforded the opportunity to take part in meetings as observers or otherwise.[120] NGOs must have timely access to records and reports of RFMOs, and procedures allowing their participation 'shall not be unduly restrictive'.[121] Rules of procedure on NGO participation differ from one RFMO to another. Generally, NGOs may attend meetings, make oral statements upon invitation of the presiding officer and distribute documents through the Secretariat.[122] Even though civil society organizations have played a role in 'pushing the RFMOs towards a more precautionary approach'[123] and 'contributed to raising political and public awareness of the need for change'[124] in the way RFMOs work, it has been documented that 'in most RFMOs [NGOs] struggle to have their views heard and discussed and are often frustrated that they are not taken seriously in the decision-making process'.[125]

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115 Global Ocean Commission, above n 4, at 36. See also Gjerde et al., above n 114, at 542.
116 Global Ocean Commission, above n 4, at 36.
117 FAO, *The State of World Fisheries and Aquaculture 2016*, above n 62, at 95.
118 *Ibid*. at 8.
119 FSA, above n 98, article 12(1).
120 *Ibid.* article 12(2).
121 *Ibid.*
122 M.T. Petersson, L.M. Dellmuth, A. Merrie and H. Österblom, 'Patterns and trends in non-state actor participation in regional fisheries management organizations', 104 *Marine Policy* (2019) 146-156, 154.
123 *Ibid.* at 152.
124 FAO Report, above n 62, at 95.
125 Report of the Independent Review, International Commission for the Conservation of Atlantic Tunas (ICCAT) PLE-106/2008, September 2008 ('ICCAT 2008 Report') at 71.

The participation of civil society organizations – mostly NGOs – in RFMOs indeed tends to be constrained.[126] Some RFMOs request a participation fee from NGOs, which is perceived as 'a way to effectively discourage observer participation'.[127] For example, the rules of procedure of the Northwest Atlantic Fisheries Organization (NAFO) provide that NGOs with observer accreditation may be required to pay a fee 'which will cover the additional expenses generated by their participation'.[128] The amount of the fee is to be determined annually by the Executive Secretary.[129] Considering that lack of financial resources was found to be the main reason for poor representation of NGOs from low-income countries in international environmental institutions,[130] charging a fee, which can reach up to 500 USD to attend each meeting,[131] could be interpreted as a practice that unduly restricts access for NGOs from low-income countries, which in turn is in contravention of Article 12 of the FSA. In addition, a study of more than 500 NGOs participating in procedures of five tuna RFMOs found that fishing industry representatives are far more numerous than civil society organizations.[132] This finding suggests that conservation interests – primarily put forward by NGOs – would be under-represented, at least in five tuna RFMOs. The study also found that NGOs from high-income countries participate far more often than NGOs from low-income countries, with possible implications for representational diversity.[133] In this regard, it should be noted that the decline in fish stocks due to overfishing impoverishes coastal fishing communities in many coastal and island developing countries,[134] and that many developing countries have difficulty covering the high cost of adequate fisheries governance regimes.[135] Less restrictive participation policies could give NGOs from low-income countries the opportunity to voice their concerns within the established governance structures.

Reviews of RFMO performance confirm that NGO participation is frequently restricted.[136] As a response, some performance reviews include general recommendations to make RFMOs more inclusive with respect to NGOs. For instance, the performance review of the Commission for the Conservation of Southern

126 See e.g., Gjerde et al., above n 114, at 543.
127 ICCAT 2008 Report, above n 125, at 29.
128 NAFO Rules of Procedure and Financial Regulations, December 2014, Rule 5(c).
129 *Ibid.*
130 A.N. Uhre, 'Exploring the Diversity of Transnational Actors in Global Environmental Governance' (2014) *Interest Groups and Advocacy* 3, 59.
131 Report of the Independent Performance Review of ICCAT 2016, <https://www.iccat.int/Documents/Other/0-2nd_PERFORMANCE_REVIEW_TRI.pdf> at 61.
132 Petersson *et al.*, above n 122, at 153.
133 *Ibid.*
134 World Bank, *The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries* (Washington DC 2017) <http://hdl.handle.net/10986/24056> at 7-8.
135 *Ibid.* at 18.
136 FAO Fisheries and Aquaculture Circular, *The Implementation of Performance Review Reports by Regional Fisheries Bodies 2004 – 2014*, FIPI/C1108 ('FAO Circular').

Bluefin Tuna (CCSBT) recommended 'creat[ing] rules that would allow NGOs easier access to CCSBT meetings',[137] while that of the North Atlantic Salmon Conservation Organization (NASCO) recommended that NASCO 'seek ways to increase NGO involvement'.'[138] In 2008, the first performance review of the International Commission for the Conservation of Atlantic Tunas (ICCAT) commented on concerns regarding 'a tendency for ICCAT to use more closed meetings with limited participation, and that this could lead to decisions that are not well understood or well considered, and could also decrease accountability'.[139] In addition, the review panel questioned ICCAT's practice of charging NGOs 500 USD for each meeting because of the 'broader role these groups have in representing special interest groups of importance in the ICCAT decision making process'.[140] The review panel recommended that ICCAT should 'review its policy on NGOs attendance at ICCAT meetings'.[141] In 2016, eight years after the first performance review, a second review found that ICCAT had not reviewed its policy on NGOs' attendance as recommended and that the participation fee, allowing attendance of two representatives, continued to apply with a supplemental 350 USD fee for each additional person in the observer delegation.[142] The reluctance to review public participation policies and the persistence of the participation fee suggest that RFMOs have little or no motivation to become more inclusive to NGOs and the public interest they represent.

A related issue is the lack of transparency in RFMO performance reviews. The 2006 UNGA Resolution on Sustainable Fisheries urged states to undertake performance reviews using transparent criteria and 'some element of independent evaluation'.[143] The GOC found that the reviews performed 'cannot be considered truly independent' because they were conducted by panels including members employed by either the RFMO or by member states.[144] Only a few RFMOs have involved NGO representatives in performance reviews.[145]

SDG 16 aims at building strong institutions, in part by ensuring 'responsive, inclusive, participatory and representative decision-making at all levels'. The FAO Report states 'governance of fisheries and aquaculture should be greatly influenced by the 2030 Agenda for Sustainable Development'.[146] In addition, the 2030 Agenda and SDGs are beginning to be acknowledged by member states

137 *Ibid.* at 14.
138 *Ibid.* at 37 – 38.
139 ICCAT 2008 Report, above n 125, at 29.
140 *Ibid.* at 71.
141 *Ibid.*
142 FAO Report, above n 62, at 61.
143 Above n 113, para 73.
144 GOC, above n 4, at 36. See also FAO Circular, above n 136, at 2.
145 FAO Circular, above n 136, at 3.
146 FAO Report, above n 62, at 7.

in RFMO meetings,[147] indicating that the SDGs could potentially influence the work of RFMOs. I submit that the interplay between UNCLOS, the FSA and the SDGs could (i) guide RFMOs' efforts towards making rules on NGO participation less restrictive, for instance through substantially reducing or eliminating NGO participation fees, and (ii) encourage more RFMO performance review procedures to include NGO representatives.

5.2 Public Participation in the International Seabed Authority

5.2.1 Role of the ISA in the governance of seabed minerals in the Area

The Area and its resources are the common heritage of mankind.[148] Consequently, claims of sovereignty over, or appropriation of, the Area or its resources are invalid and all rights in the resources are vested in mankind as a whole.[149] In addition, activities in the Area must be carried out for the benefit of mankind and the ISA, which acts on behalf of mankind,[150] must provide for the equitable sharing of financial and other economic benefits derived from such activities.[151] Furthermore, states have the responsibility to use the Area exclusively for peaceful purposes[152] and to ensure that activities are carried out in strict conformity with UNCLOS Part XI.[153] In its 2011 advisory opinion, the International Tribunal for the Law of the Sea stated:

> [T]he role of the sponsoring State is to contribute to the common interest of all States in the proper implementation of the principle of the common heritage of mankind by assisting the Authority and by acting on its own with a view to ensuring that entities under its jurisdiction conform to the rules on deep seabed mining.[154]

147 WCPFC, IATTC, above n 37.
148 UNCLOS, above n 55, article 136.
149 *Ibid.* article 137.
150 *Ibid.* article 137(2).
151 *Ibid.* article 140.
152 *Ibid* article 141.
153 *Ibid.* article 139.
154 Responsibilities and Obligations of States with respect to Activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011, 10, para. 226, see also para. 76. See also D. French, 'From the Depths: Rich Pickings of Principles of Sustainable Development and General International Law on the Ocean Floor – the Seabed Disputes Chamber's 2011 Advisory Opinion' (2011) *International Journal of Marine and Coastal Law* 26, 525, in particular pp. 544 – 546.

The principle of common heritage of mankind is central in the current negotiations on the draft text of a legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of ABNJ.[155]

States parties to UNCLOS established the ISA to 'organize and control activities in the Area, particularly with a view to administering [its] resources'[156] and entrusted it with the responsibility to adopt regulations necessary for conducting exploration and related exploitation activities.[157] Regarding the protection of the marine environment, the ISA must adopt rules, regulations and procedures for 'the prevention, reduction and control of pollution and other hazards … and of interference with the ecological balance of the marine environment'.[158] In doing so it must pay particular attention to 'the need for protection from harmful effects of certain activities such as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines, and other devices related to these activities'.[159] The ISA must also provide for 'the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment'.[160] In performing these functions, the ISA must address 'the harmful effects directly resulting from activities in the Area or from shipboard processing immediately above a mine site'.[161] To date, the ISA has adopted Regulations on Prospecting and Exploration for the three above-mentioned types of commercially viable minerals: polymetallic nodules, polymetallic sulphides and ferromanganese crusts (Exploration Regulations).[162] All Exploration Regulations contain environmental provisions, including the obligation of the ISA and sponsoring states to apply a precautionary approach. The regulatory framework for the protection of the marine environment in the Area also includes the Environmental Management Plan

155 Chair's non-paper on elements of a draft text of an international legally-binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (2017), at 23 – 24. See also Chair's overview of the third session (2017) of the Preparatory Committee, at 4 – 5. Both documents are available at <http://www.un.org/depts/los/biodiversity/prepcom.htm>.

156 UNCLOS, above n 55, article 157(1).

157 *Ibid.* articles 160 para. 2(f)(ii) and 162 para. 2(o)(ii); UNCLOS Annex III, Art. 17; 1994 Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, 1836 U.N.T.S. 3 (28 July 1994) Annex, Section 1, para. 5(f).

158 UNCLOS, article 145(a).

159 *Ibid.*

160 *Ibid.* article 145(b).

161 *Ibid.* Annex III, article 17(f).

162 Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, above n 72; Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, above n 73; and Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, above n 74.

for the Clarion-Clipperton Zone,[163] and recommendations for the guidance of contractors in the assessment of environmental impacts arising from exploration activities.[164]

The Legal and Technical Commission (LTC), one of the organs of the ISA Council,[165] plays a crucial role in implementing the ISA's mandate to protect the marine environment. According to UNCLOS, the LTC must formulate and submit to the Council rules, regulations and procedures for exploration and exploitation activities in the Area, taking into account 'assessments of the environmental implications of [such] activities'.[166] The LTC must also keep such rules, regulations and procedures under review.[167] In addition, the LTC is required to prepare environmental impact assessments of activities in the Area and make recommendations to the Council on the protection of the marine environment.[168] These recommendations include issuing emergency orders to prevent serious environmental harm,[169] disapproving areas for exploitation when 'substantial evidence indicates the risk of serious harm to the marine environment',[170] and directing inspections of activities in the Area to ensure compliance with applicable (environmental) rules and regulations.[171] UNCLOS also requires the LTC to coordinate monitoring of the risks and effects of pollution resulting from exploration and exploitation activities.[172] The Exploration Regulations confer additional functions and competences on the LTC for environmental protection. They require the LTC to make recommendations to the Council on the establishment and implementation of environmental rules, regulations and procedures, and on the application of a precautionary approach and best environmental practices by the ISA and sponsoring states.[173] In addition, the LTC must 'develop and implement procedures for determining … whether proposed exploration activities in the Area would have serious harmful effects on vulnerable marine ecosystems', ensuring that 'those activities are managed to prevent such effects or not

163 Environmental Management Plan for the Clarion-Clipperton Zone, above n 76.
164 Recommendations for the Guidance of Contractors for the Assessment of the Possible Environmental Impacts Arising from Exploration for Marine Minerals in the Area, ISBA/19/LTC/8 (1 March 2013).
165 UNCLOS, above n 55, articles 163 and 165.
166 *Ibid.* article 165(2)(f).
167 *Ibid.* article 165(2)(g).
168 *Ibid.* article 165(2)(d) and (e).
169 *Ibid.* article 165(2)(k).
170 *Ibid.* article 165(2)(l).
171 *Ibid.* article 165(2)(m).
172 *Ibid.* article 165(2)(h).
173 Nodules Exploration Regulations, above n 72, Regulation 31(3); Crusts Exploration Regulations, above n 73, Regulation 33(3); Sulphides Exploration Regulations, above n 74, Regulation 33(3).

authorized to proceed'.[174] Finally, the LTC must determine whether a proposed exploration plan 'provides for effective protection and preservation of the marine environment including … the impact on biodiversity'.[175] It must not recommend approval of an exploration plan covering an area that has been disapproved for exploitation due to substantial evidence indicating the risk of serious environmental harm.[176]

In view of the significant competences invested in the LTC for the protection of the marine environment and considering that 'lack of transparency of the work of the LTC has been heavily criticized',[177] the next section pays particular attention to public access to information and participation in the LTC.

5.2.2 *Public participation in the ISA in the light of the SDGs*

Although the number of observers has increased in recent years and civil society organizations have organized side events and workshops during the ISA's annual sessions,[178] challenges exist regarding access to information and public participation in decision-making processes at the Authority. Currently, representatives of accredited organizations may attend meetings of the Assembly and the Council as observers.[179] Accredited organizations include NGOs with consultative status,[180] and upon invitation, other NGOs which have a demonstrated interest in matters under the consideration of the ISA.[181] At the Assembly, observers may sit at public meetings, make oral statements upon invitation of the President approved by the Assembly,[182] and submit written statements through the Secretariat.[183] At the Council, observers may parti-

174 Nodules Exploration Regulations, above n 72, Regulation 31(4); Crusts Exploration Regulations, above n 73, Regulation 33(4); Sulphides Exploration Regulations, above n 74, Regulation 33(4).

175 Nodules Exploration Regulations, above n 72, Regulation 21(4)(b); Crusts Exploration Regulations, above n 73, Regulation 23(4)(b); Sulphides Exploration Regulations, above n 74, Regulation 23(4)(b).

176 Nodules Exploration Regulations, above n 72, Regulation 21(6)(c); Crusts Exploration Regulations, above n 73, Regulation 23(6)(c); Sulphides Exploration, Regulations, above n 74, Regulation 23(6)(c).

177 Periodic Review of the International Seabed Authority pursuant to UNCLOS Article 154, Final Report (30 December 2016) (Seascape Consultants Ltd.) <https://www.isa.org.jm/files/documents/EN/Art154/Rep/ISA154-FinalRep-30122016.pdf> at 2.

178 A. Jaeckel, 'Current Legal Developments International Seabed Authority' (2016) 31 *The International Journal of Marine and Coastal Law* 706, 717 – 718.

179 UNCLOS, above n 55, article 169.

180 *Ibid.*

181 Rules of Procedure of the Assembly of the International Seabed Authority ('ROP Assembly') <http://www.isa.org.jm/files/documents/EN/Regs/ROP_Assembly.pdf> Rule 82(1)(e); Rules of Procedure of the Council of the International Seabed Authority ('ROP Council') <http://www.isa.org.jm/files/documents/EN/Regs/ROP_Council.pdf> Rule 75.

182 ROP Assembly, *ibid.* Rule 82(5).

183 *Ibid.* Rule 82(6).

cipate in its deliberations upon invitation of the Council without the right to vote,[184] and submit written reports through the Secretariat.[185] The meetings of the LTC are held in private and are therefore closed to observers.[186] The LTC could decide to hold open meetings, for instance when discussing 'issues of general interest to members of the Authority, which do not involve the discussion of confidential information'.[187] In practice, however, the LTC rarely holds open meetings because of the confidentiality requirement.

Indeed, the Rules of Procedure require LTC members to sign a confidentiality agreement before assuming their functions.[188] The obligation not to disclose confidential information remains in place after the end of their duties.[189] Confidential information includes 'any industrial secret, proprietary data which are transferred to the Authority in accordance with annex III, article 14, of [UNCLOS], or any other confidential information coming to their knowledge by reason of their duties'.[190] Article 14 of Annex III provides '[t]he operator shall transfer to the Authority … all data which are both necessary for and relevant to the effective exercise of the powers and functions of the principal organs of the Authority in respect of the area covered by the plan of work'. However, the LTC does not have procedures in place to determine which of the data provided by contractors is confidential and consequently, the contractor determines confidentiality.[191] Currently, all data contained in contract applications and annual reports of contractors submitted to the LTC are treated as confidential.[192] As a result, environmental data provided by contractors is unavailable to the public and LTC meetings are held in private. This contravenes UNCLOS and the Exploration Regulations, which expressly provide that environmental data shall not be deemed confidential.[193]

A comparative assessment of transparency practices found that the ISA generally scored much lower than the RFMOs, especially regarding availability

184 ROP Council, above n 181, Rule 75.
185 *Ibid.* Rule 32(2).
186 Rules of Procedure of the Legal and Technical Commission ('ROP LTC') <http://www.isa.org.jm/files/documents/EN/Regs/ROP_LTC.pdf> Rule 6.
187 *Ibid.*
188 *Ibid.* Rule 11(2).
189 *Ibid.* Rule 12(3).
190 *Ibid.* Rule 12(1).
191 J.A. Ardron, 'Transparency in the Operations of the International Seabed Authority: An Initial Assessment', 95 *Marine Policy* (2018) 324-331. See also *Co-Chairs Report of Griffith Law School and the International Seabed Authority Workshop Environmental Assessment and Management for Exploitation of Minerals in the Area* (Surfer's Paradise, 23 – 26 May 2016) ('Co-Chairs Report') <https://www.isa.org.jm/files/documents/EN/Pubs/2016/GLS-ISA-Rep.pdf> at 23.
192 Ardron, above n 191, at 3. See also Co-Chairs Report, above n 191, at 23.
193 UNCLOS, above n 55, Annex III, article 14(2); Nodules Exploration Regulations, above n 72, Regulation 36(2); Crusts Exploration Regulations, above n 73, Regulation 38(2); Sulphides Exploration, above n 74, Regulation 38(1).

of information, participation in decision making and access to outcomes.[194] The same study concluded that '[p]ublic access to information, decision making, compliance reporting and justice, would greatly improve the chances of the ISA achieving long-term regulatory success'.[195] In 2016, the final report of the first Periodic Review of the ISA Pursuant to UNCLOS Article 154 (Periodic Review Report) documented the views that, although arrangements for consultation and cooperation with intergovernmental organizations and NGOs were in place, 'this is an area where improvements can be made'; that 'better dialogue and interaction with other sectoral UN agencies … is needed'; and that these efforts are 'highly relevant in the context of wider discussions related to … Sustainable Development Goal 14'.[196] The review committee made several recommendations based on the Periodic Review Report regarding transparency and access to information.[197] First, the LTC 'should be encouraged to hold more open meetings in order to allow for greater transparency in its work'.[198] Second, 'non-confidential information, such as [that] relating to the protection and preservation of the marine environment, should be shared widely and be readily accessible'.[199] Third, the review committee advised that 'the sharing and accessing of environmental data collected by contractors seems to require improvement'.[200]

In addition to SDG 14, SDG 16 is highly relevant to ocean sustainability, including the sustainable management of deep seabed minerals in the Area, for it aims at building transparent, accountable and effective institutions at all levels. Because of the interplay and potential for synergy between UNCLOS and the SDGs, which has been acknowledged by the ISA,[201] SDG 16 and targets 16.6 (institutional transparency), 16.7 (inclusive and participatory decision making) and 16.10 (access to information) could guide actions towards strengthening the LTC. I propose that such actions could include (i) creating procedures to determine confidentiality of data provided by contractors; (ii) providing public access to all environmental data available to the ISA; and (iii) ensuring public participation in all LTC meetings discussing environmental matters. Such improvements would strengthen the LTC – and the ISA in

194 Ardron, above n 191.
195 *Ibid.* at 7.
196 Above n 177, at 40.
197 Letter dated 3 February 2017 from the Chair of the Committee established by the Assembly to carry out a periodic review of the international regime of the Area pursuant to article 154 of the United Nations Convention on the Law of the Sea to the Secretary-General of the International Seabed Authority, ISBA/23/A/3 (8 February 2017). See Annex 'Final report on the periodic review of the International Seabed Authority pursuant to article 154 of the United Nations Convention on the Law of the Sea'.
198 *Ibid.* Recommendation 16.
199 *Ibid.* Recommendation 18.
200 *Ibid.* Recommendation 6.
201 Opening Statement by President of the Council Ambassador Peter Thomson, above n 34 and Statement by Secretary-General Michael Lodge, above n 36.

general – for sustainably managing the common heritage of mankind for the benefit of present and future generations.

6 Conclusion

Civil society organizations were not only engaged in the drafting of the SDGs but also are called on to contribute expertise to follow-up and review processes. SDG 16 specifically encourages public access to information and participation in decision making as a way of strengthening institutions at all levels. Transparent, accountable and effective institutions are crucial at a time in which unsustainable fishing practices and imminent exploitation of deep seabed minerals threaten to deepen the ocean's rate of ecological decline. SDG 16 thus supports the achievement of SDG 14 – conserve and sustainably use the ocean and marine resources – providing a guiding framework to construct the institutional strength necessary to achieve ocean sustainability.

Institutions managing the ocean commons face several challenges that weaken their performance, including ineffectiveness, unaccountability and lack of transparency. Public participation can contribute to solving these problems; however, both RFMOs and the ISA provide only restricted public access to information and participation in decision making. To be sure, this chapter has shown that RFMOs tend to be reluctant to include NGOs in their decision-making processes. In addition, the ISA keeps environmental information provided by contractors confidential and its LTC – the organ with the most significant role regarding environmental protection – holds most of its meetings as closed sessions. From the perspective of public participation, therefore, the existing conception of ocean commons governance is one in which states and industry organizations are the main actors and civil society organizations are relegated to a secondary role.

In line with Rio Principle 10 – and its elaboration in subsequent international agreements – and reflecting the increasing support it has gained since its adoption in 1992 (including by current negotiations on the draft text of a binding agreement on the conservation and sustainable use of marine biological diversity in ABNJ),[202] the SDGs promote a new conception of ocean commons governance through encouraging public participation in building effective, accountable and transparent institutions. In the new conception, civil society organizations join states and industry organizations as principal actors in achieving sustainable governance of high seas fisheries and deep seabed

202 Chair's non-paper on elements of a draft text of an international legally-binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, above n 155. The Chair's non-paper shows that public participation is being discussed as one of the guiding principles and approaches for the new regime (see e.g., pp. 18, 37 and 70).

minerals in the Area. Guided by the SDGs, governing institutions could take steps towards improving existing participation mechanisms. RFMOs could make rules on NGO participation less restrictive as well as include NGOs in performance reviews. The ISA in turn could develop procedures to determine confidentiality of data provided by contractors, provide public access to all environmental data, and ensure public participation in LTC meetings discussing the protection of the marine environment. Such measures could support RFMOs and the ISA in moving much closer to achieving SDG 14.

Conclusion: Principles for the sustainable governance of shared natural resources

This concluding chapter highlights the findings, answers to the research questions and conclusions in each of the five preceding chapters. These are addressed in sections 1 to 5 respectively. Each section's first paragraph summarizes the main conclusion in the corresponding chapter. Subsequently, each section repeats the research questions formulated in the introduction to the dissertation for ease of reference. Afterwards, each section highlights the chapter's findings, answers the research questions and sums up the conclusions.

Accordingly, Section 1 addresses the principle of permanent sovereignty over natural resources (PSNR) and the question of whether PSNR and the sovereignty exercised over resources that are shared by two or more states are distinct from each other, in the context of shared aquifer governance. Section 2 discusses the principle of community of interests and the question of its legal nature and role in the exercise of sovereignty over shared water resources. Section 3 addresses the principle of common concern of humankind and the question of its conceptualization and legal consequences in the context of atmospheric governance. Section 4 discusses the principle of public participation and the question of whether the human right to participate in public affairs could complement climate law and possibly contribute to enhancing observer participation in international climate change decision-making. Section 5 addresses the principle of sustainable development and the question of whether the Sustainable Development Goals (SDGs) could influence institutions governing high seas fisheries and deep seabed minerals and thus promote the sustainable governance of these resources.

Sections 6 and 7 provide more general conclusions. Section 6 focuses on the general research questions posed in the Introduction, i.e. what principles of international law promote the reconcilement of the exercise of PSNR and the common interests of states sharing resources? And, what principles of international law promote the inclusion of non-state actors in the governance of shared natural resources? Section 6 answers these questions based on the findings, answers and conclusions in each of the five preceding chapters presented in sections 1 to 5. Finally, section 7 offers concluding remarks and places the conclusions of this dissertation in the context of two international instruments adopted during the course of this study that are of crucial importance to the sustainable governance of shared natural resources, namely the Paris Agreement and the 2030 Agenda for Sustainable Development.

1 SOVEREIGNTY

Sovereignty over exclusive resources and sovereignty over shared resources are conceptually different and constitute distinct legal regimes.

> *Research questions: Is the sovereignty exercised over natural resources under the exclusive jurisdiction of a state different from the sovereignty exercised over resources that are shared by two or more states? If that is the case, what distinguishes one from the other? What is the usefulness of differentiating between them from the perspective of transboundary cooperation and environmental protection?*

The International Law Commission's Draft Articles on the Law of Transboundary Aquifers (Draft Articles) recognise permanent sovereignty over natural resources (PSNR) over aquifers that are shared by two or more states. They do so by referring to UNGA Resolution 1803 (XVII) in the Preamble and by providing in Draft Article 3 that 'Each aquifer State has sovereignty over the portion of a transboundary aquifer or aquifer system located within its territory'. This recognition creates an overlap in which PSNR seems to encompass shared natural resources. Arguably, recognising PSNR over transboundary aquifers could help dissipate certain political concerns. For instance, it could protect aquifer states as a group from foreign intervention by third states or international organizations,[1] including environmental interventions,[2] and from the intention to make shared aquifers part of the common heritage of humankind.[3] Furthermore, PSNR could contribute to allocating responsibility to the aquifer states for complying with the duties inherent to the exercise of sovereignty over the shared resource.[4]

However, as discussed in Chapter 1, scholars point out that applying PSNR to shared aquifers might discourage transboundary cooperation and be in-

1 F. Sindico, 'The Guarani Aquifer System and the International Law of Transboundary Aquifers', 13:3 *International Community Law Review* (2011), 255, at 261 – 262.

2 F.X. Perrez, *Cooperative Sovereignty: From Independence to Interdependence in the Structure of International Environmental Law* (Kluwer Law International, 2000), at 95.

3 L. del Castillo Laborde, 'The Guaraní Aquifer Framework Agreement (2010)', in: L. Boisson de Chazournes, C. Leb and M. Tignino (eds.), *International Law and Freshwater: The Multiple Challenges* (Edward Elgar, 2013) 196, at 207.

4 The Argentinian member of the ILC stated that permanent sovereignty places 'the primary responsibility for the use and management of each transboundary aquifer on the State where the aquifer was located'. Report of the International Law Commission on the Work of its Fifty-eighth Session (2006), Topical Summary of the Discussion held in the Sixth Committee of the General Assembly During its Sixty-first Session, Prepared by the Secretariat (UN Doc. A/CN4/577, 19 January 2007), at paragraph 10. The same member had pointed out earlier that recognizing permanent sovereignty 'was consistent with … the crucial role assigned to aquifer States in the draft articles'. ILC, Summary Record of the 2834th Meeting (UN Doc. A/CN.4/SR.2834, 19 May 2005), at 15 – 16.

sufficient to effectively protect the environment. States would perceive any possible violation of their right to an equitable share as an infringement of their sovereignty and invoke PSNR in order to avoid it, bringing to the fore ideas of exclusive entitlement and protection of territorial interests that tend to deter joint action. In addition, scholars highlight that environmental protection under PSNR – based on the no-harm rule- does not address the environment as such but to the extent that significant harm is caused to the territory of another state. Furthermore, as shown by the *travaux préparatoires* of the Draft Articles and other international instruments examined in Chapter 1, applying PSNR over shared natural resources gives rise to controversy based on political concerns, making debates on this issue within UN organs more complex and negotiations less smooth. Essentially, scholarly writings reject PSNR over shared aquifers because it might discourage cooperation and offer insufficient environmental protection; while states invoke sovereignty in UN discussions to protect their national interests in the shared resource.

Chapter 1 explored the possibility of approaching the issue of sovereignty over transboundary aquifers from a different angle. Thus, instead of addressing the question of whether or not PSNR should apply – which is the question both academic writings and UN discussions try to answer, Chapter 1 asked whether PSNR is any different from the sovereignty exercised over resources that are shared by two or more states (referred to in this thesis as 'sovereignty over shared natural resources', SSNR), particularly in the context of transboundary aquifers. Chapter 1 set out to identify what distinguishes PSNR from SSNR and assess the usefulness of a differentiation from the perspective of transboundary cooperation and environmental protection.

Chapter 1 identified three main differences between PSNR and SSNR. First, PSNR is exercised exclusively by one state over the natural resources located entirely within its national boundaries and in areas under its exclusive economic jurisdiction (exclusive economic zone and continental shelf), while SSNR is exercised jointly by two or more states over resources distributed over their respective territories and where utilization by one state affects utilization by the other(s). Second, the original purpose of PSNR was to ensure political and economic self-determination of peoples and economic independence of newly independent states, while that of SSNR was to regulate the benefit sharing from, and the environmental protection of, shared resources. Third, the essential and characteristic right under PSNR to freely dispose of natural resources does not apply to resources that are shared, while the essential and characteristic duty under SSNR to cooperate does not apply to resources under exclusive jurisdiction.

Chapter 1 also found that the nature of the resource (exclusive or shared) determines the applicable legal regime (PSNR or SSNR), which confers distinguishing rights and duties. PSNR confers to a state the distinguishing right to freely dispose of natural resources under its exclusive jurisdiction. This right is not conferred over shared resources because, based on their very nature,

unilateral acts of disposition may affect the entitlements of the other state(s) sharing the resource and infringe the principle of equitable and reasonable utilisation. SSNR, in turn, requires states to comply with the distinguishing duty to cooperate in managing shared resources. The duty to cooperate does not apply to exclusive resources because they are managed to the exclusion of other states and cooperation only takes place if activities related to their utilization have transboundary impact.

Based on its findings – showing that PSNR and SSNR are different concepts and constitute distinct legal regimes- Chapter 1 suggests that understanding PSNR and SSNR as distinct sets of rules could promote that shared resource governance continues to be increasingly focused on cooperation and environmental protection, and less and less oriented towards protecting states' territorial interests. In addition, awareness of the differences between PSNR and SSNR could make debates about the issue of sovereignty over transboundary aquifers more straightforward and negotiations easier, particularly in the light of the ongoing discussions on the law of transboundary aquifers at the UNGA.[5]

2 Community of interests

The principle of community of interests stems from the legal recognition of the unity of the drainage basin and promotes riparian solidarity and cooperation as well as the formation of a community of law. Emerging trends show that the principle also advances the ecosystems approach and the rights of the riparian populations.

> *Research questions: What is the legal nature of the principle of community of interests? How does community of interests relate to the exercise of sovereignty over shared water resources? Does international water law show any trends indicating that the emerging principle of community of interests is evolving in a certain direction?*

International water law recognizes the existence of a community of interests between riparian states. However, the legal nature of such a community of interests and its role in the exercise of sovereignty over shared water resources remain unclear. For this reason, Chapter 2 examined eleven water treaties selected because they expressly recognize a community of interests or common

5 At its seventy-fourth session (2019), the UNGA decided to include in the agenda of its seventy-seventh session (2022) the topic of the law of transboundary aquifers. UNGA 'The law of transboundary aquifers' UN Doc A/RES/74/193 (30 December 2019), para. 3.

interests between riparian states[6] in order to identify the basic legal features of community of interests and thus establish its legal nature. Chapter 2 also sought to establish the relationship between community of interests and the exercise of sovereignty over shared water resources based on the selected treaties. In addition, bearing in mind that community of interests is considered an emerging principle for transboundary water governance, Chapter 2 tried to identify trends indicating the general direction in which the principle of community of interests is evolving.

Chapter 2 found that the initial conceptualization of the principle of community of interests in the *River Oder* case (1929) provided the following foundational features: (1) riparians' community of interests is the basis of a common right (of navigation); and (2) the essential features of said right are the perfect equality of all riparian states in the use of the whole (navigable) course of the river and the exclusion of any preferential privilege of any one riparian in relation to the others.[7] The principle subsequently evolved from encompassing only riparian states' common interests in navigation to include their common interests in non-navigational uses as well (e.g., consumption, irrigation and hydropower generation). Chapter 2 found that, throughout its evolution, the principle of community of interests has added to its initial conceptualization features such as the notion of drainage basin, riparian solidarity, community of law, the ecosystems approach and the inclusion of riparian populations in shared water resource governance.

Based on an exhaustive analysis of water treaties explicitly referring to 'community of interests' or 'common interests' between riparian states, Chapter 2 found, first, that said common interests stem from the legal recognition of the unity of the shared drainage basin. Nine of the eleven treaties examined clearly adopt the drainage basin as the basic unit for water governance.[8] The

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6 These are: the 1950 Treaty between Canada and the United States concerning the Diversion of the Niagara River, the 1960 Indus Waters Treaty, the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission, the 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, the 1995 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region and the 2000 Revised SADC Protocol, the 2000 Agreement between Botswana, Lesotho, Namibia and South Africa on the Establishment of the Orange-Senqu River Commission (ORASECOM), the 2002 Water Charter of the Senegal River, the 2003 Protocol for Sustainable Development of Lake Victoria Basin, the 2008 Water Charter of the River Niger and the 2012 Water Charter of the Lake Chad Basin.

7 Case Relating to the Territorial Jurisdiction of the International Commission of the River Oder (UK, Czech Republic, Denmark, France Germany and Sweden v. Poland), PCIJ, Judgment of 10 September 1929, PCIJ Series A. No. 23, p. 27. See Chapter 2, Section 2.1.

8 The 1960 Indus Waters Treaty, the 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, the 1995 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region and the 2000 Revised SADC Protocol, the 2000 Agreement between Botswana, Lesotho, Namibia and South Africa on the Establishment of the Orange-Senqu River Commission (ORASECOM), the 2002 Water Charter of the Senegal River, the 2003 Protocol for Sustainable Development of Lake Victoria

remaining two treaties, although not expressly referring to the drainage basin, nevertheless imply that the parties intended to regulate and protect not only the shared waters but also the related land as a whole.[9] Chapter 2 thus identified the unity of the drainage basin as the foundational legal element of the principle of community of interests. Second, the community of interests thus originated is the basis of riparian states' common rights and duties. Chapter 2 found that said rights and duties include the right to an equitable and reasonable share, the duty to cooperate and the duty of environmental protection. The treaties examined include riparian solidarity as a factor in the community of interests related to the duty to cooperate. Third, the common rights and duties are part of a community of law among riparian states. Chapter 2 found that such a community of law is established mainly through the harmonization of riparians' national laws and policies on water governance. Requiring unanimous approval of projects of a certain size, like in the legal regime of the River Senegal, has also contributed to the formation of a community of law.

Concerning the relationship between the principle of community of interests and the exercise of sovereignty over shared water resources, Chapter 2 found that the principle in question is an element of the exercise of sovereignty over shared waters only when included in treaty law or when the treaty is silent on the issue but has nevertheless been subsequently interpreted as establishing a community of interests.[10] This is because community of interests is not yet part of customary international water law. Until now, all judicial decisions that have contributed to the evolution of the principle are based on the interpretation of one particular treaty or another and not on a rule of customary law. Legal academic scholarship supports this interpretation.[11] Consequently, when a water treaty sets forth -or is interpreted as setting forth- a community of interests between riparians, the principle influences and qualifies the way sovereignty is exercised. It does so mainly through emphasizing the unity of the shared drainage basin and the resulting duty to cooperate, riparian solidarity and community of law.

Basin, the 2008 Water Charter of the River Niger and the 2012 Water Charter of the Lake Chad Basin.

9 In the 1950 Treaty concerning the Diversion of the Niagara River, Canada and the United States recognize 'their primary obligation to preserve and enhance the scenic beauty of the Niagara Falls and River'; while the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission provides that the Commission shall advise the parties on the prevention and control of soil erosion affecting the common water resources. The references to 'scenic beauty' and 'soil erosion' suggest an intention to regulate more than just the shared waters.

10 E.g., such is the case of the 1975 Statute of the River Uruguay as interpreted by the ICJ in the Pulp Mills case.

11 See, e.g., Owen McIntyre, *Environmental Protection of International Watercourses* (Ashgate 2007) p. 33-4; Christina Leb, *Cooperation in the Law of Transboundary Water Resources* (Cambridge University Press 2013) p. 55.

Based on these findings, Chapter 2 articulates the legal nature of the principle of community of interest as follows:

> Community of interests is a principle that, when provided for in a treaty or subsequently interpreted as such, governs riparian states' relations concerning the shared water resources. Its basic legal features are (1) the unity of the shared drainage basin; (2) riparian solidarity and cooperation; and (3) the harmonization of riparians' national laws and policies on water governance.

Additionally, Chapter 2 identified two emerging trends shedding light on the general direction in which the principle of community of interests is evolving. First, the treaties examined show a shift from the traditional approach to environmental protection based on the no-harm rule to the protection of the environment *per se*, i.e., irrespective of whether harm is caused to other riparian states, shown by the adoption of the ecosystems approach. In comparison, water law of global application shows a rather timid adherence to the ecosystems approach. The UNWC, for instance, provides for the protection and preservation of the ecosystems of international watercourses;[12] however, the governing approach to environmental protection continues to be the no-harm rule.[13] Water treaties acknowledging a community of interests or common interests between states adhere more decisively to the ecosystems approach thus furthering its application. Second, the treaties examined suggest an emerging trend to include the basin populations as subjects of rights and duties including the right to water and sanitation and the right to public participation in decision-making processes concerning shared drainage basins. Through providing for public access to information and participation in decision-making, the treaties involve populations not only in the use but also in the protection of the shared resource. In this way, community of interests influences a change in the way sovereignty is exercised towards implementing the ecosystems approach and recognizing the rights and duties of the riparian populations.

Two of the treaties examined also indicate a nascent trend: the consideration of the interests of non-riparian states in the shared resource. The Charter of Lake Chad considers different kinds of non-member states (associated states, observer states, and partial participation states[14]), which have different degrees of participation as authorized by the Commission.[15] It also provides for the protection of the legitimate interests of aquifer states that are not members of the Commission.[16] In addition, the agreement between Namibia and South

12 Convention on the Law of the Non-navigational Uses of International Watercourses (New York, 21 May 1997; in force 17 August 2014) Art. 20.
13 Ibid. Arts. 7, 21, and 22.
14 Art. 2.
15 Art. 92.
16 Art. 20.

Africa provides that the Commission shall have regard 'for the interests any other State may have in any water resource of common interest to the Parties and that State'.[17] This trend is just coming into existence; whether other communities of interests in shared drainage basins will adopt such an approach remains to be seen.

Based on its findings – showing that the principle of community of interests is based on the legal recognition of the unity of the drainage basin and promotes riparian solidarity and cooperation as well as the formation of a community of law- Chapter 2 submits that when provided for in a treaty or subsequently interpreted as such, community of interests is an element of the exercise of sovereignty over shares water resources and consequently governs riparian states' relations concerning the shared resource. Chapter 2 also submits that community of interests promotes a shift from protecting primarily state interests to protecting the environment irrespective of whether harm is caused to other riparian states (i.e. a shift from the no-harm rule to the ecosystems approach) and to protecting the rights of the riparian populations (including the rights to water and to public participation). In this way, community of interests advances the harmonization of the pivotal dimensions of state sovereignty, environmental protection and human rights.

3 Common concern of humankind

The principle of common concern of humankind applies to issues that affect human wellbeing and the environment and that require global cooperation to be effectively addressed. Therefore, the principle should also apply to the degradation of the atmosphere.

> *Research questions: What does the principle of common concern of humankind entail according to international law? What are the legal consequences of the principle? Is atmospheric degradation a common concern of humankind?*

In 2015, the International Law Commission (ILC) removed from its Draft Guidelines on the Protection of the Atmosphere (Draft Guidelines) the concept that the degradation of atmospheric conditions is a 'common concern of humankind'. This decision was the result of objections raised by ILC members concerning the insufficient clarity of the concept of common concern of humankind and its legal consequences.[18] For this reason, Chapter 3 aimed at establishing what the principle of common concern entails according to international law. To this end, the chapter examined ten international instruments containing

17 Art. 3(5).

18 Int'l Law Comm'n, Rep. on the Work of Its Sixty-Seventh Session, U.N. Doc. A/70/10 (2015), at 26-27.

the principle; five of these are the treaties that currently recognize issues of common concern, while the remaining five are non-binding -or soft law- international instruments.[19] Based on this analysis, the chapter identified the distinctive features shared by the issues currently considered as common concerns of humankind. It subsequently examined whether the issue of atmospheric degradation shares those distinctive features. Additionally, considering the scientific finding that short-lived climate pollutants (SLCPs) such as black carbon both degrade the atmosphere and cause climate change, and that climate change is a legally recognized issue of common concern, Chapter 3 examined the Air Convention[20] and the 2012 amendment to its Gothenburg Protocol[21] with the purpose of establishing the international legal recognition of the linkage between SLCPs and climate change.

Chapter 3 found that the concept of common concern of humankind currently appears in five international treaties, namely the UN Framework Convention on Climate Change (UNFCCC),[22] the Paris Agreement,[23] the Convention on Biological Diversity (CBD),[24] the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA),[25] and the Convention for the Safeguarding of the Intangible Cultural Heritage (CICH).[26] These treaties recognize as common concerns of humankind the following issues: climate change and its adverse effects,[27] the conservation of biological diversity,[28]

19 Treaties: UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement; the Convention on Biological Diversity (CBD); the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA); Convention for the Safeguarding of the Intangible Cultural Heritage (CICH).
Other instruments: the Earth Charter; the Langkawi Declaration on the Environment; the Hague Recommendations on International Environmental Law; the International Law Association (ILA)'s New Delhi Declaration of Principles of International Law Relating to Sustainable Development; and the International Union for Conservation of Nature (IUCN)'s Draft Covenant on Environment and Development.

20 1979 Convention on Long-Range Transboundary Air Pollution, Nov. 13, 1979, 1302 U.N.T.S. 217.

21 1999 Protocol to the 1979 Convention on Long-range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-level Ozone, opened for signature November 30, 1999, 2319 U.N.T.S. 80 (Gothenburg Protocol); Amendment of the text of and annexes II to IX to the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone and the addition of new annexes X and XI, adopted May 4, 2012, C.N.155.2013.TREATIES-XXVII.1.h (Depositary Notification).

22 1992 UN Framework Convention on Climate Change, *adopted* May 9, 1992, 1771 UNTS 107.

23 Paris Agreement, *adopted*, December 12, 2015, FCCC/CP/2015/10/Add.1, C.N.92.2016. TREATIES-XXVII.7.d (Depositary Notification).

24 1992 Convention on Biological Diversity, *adopted* June 5, 1992, 1760 U.N.T.S. 79.

25 International Treaty on Plant Genetic Resources for Food and Agriculture, *adopted* Nov. 3, 2001, 2400 U.N.T.S. 303.

26 Convention for the Safeguarding of the Intangible Cultural Heritage, Oct. 17, 2003, 2368 U.N.T.S. 35.

27 UNFCCC, n. 22 above, Preamble, para. 1.

28 CBD, n. 24 above, Preamble, para. 3.

plant genetic resources for food and agriculture[29] and the safeguarding of intangible cultural heritage.[30] Chapter 3 found that these issues are legally recognized as being of common concern essentially because they affect life on earth (human health, environmental integrity) or because they are otherwise considered essential to human wellbeing (plant genetic resources, intangible cultural heritage).[31]

Concerning the legal consequences of recognizing an issue as being of common concern, Chapter 3 found that all the treaties examined call on the parties to establish broad forms of international cooperation. The use of terms such as 'the widest possible cooperation by all countries',[32] 'global response' or 'global effort',[33] 'global cooperation',[34] 'global plan of action'[35] and cooperation at the 'bilateral, subregional, regional and international levels'[36] indicates that parties' efforts to address the issue of common concern are to be worldwide. In order to facilitate and concretize a form of international cooperation of global reach, parties have established global governance mechanisms, notably in the climate change and biodiversity regimes.[37] In addition, such a global cooperation is guided by certain principles. According to the treaties, these are the principles of intergenerational equity, common but differentiated responsibilities, the precautionary principle, sustainable development, and cooperation. Four of the five treaties explicitly provide for these principles.[38] The CICH expressly refers to sustainable development and co-

29 ITPGRFA, n. 25 above, Preamble, para. 3.

30 CICH, n. 26 above, Preamble, para. 6.

31 As stated in the treaties, the reasons that make these issues common concerns are: (1) climate change: the adverse effects of global warming on ecosystems and humankind; (2) the conservation of biological diversity: biological diversity's intrinsic value; its ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values; and its importance for evolution and for maintaining life sustaining systems; (3) plant genetic resources for food and agriculture: that all countries depend greatly on plant genetic resources originated elsewhere; (4) the safeguarding of intangible cultural heritage: its invaluable role in bringing human beings closer together and ensuring exchange and understanding among them as well as its vulnerability to deterioration, disappearance and destruction.

32 UNFCCC, n. 22, Preamble para. 6.

33 Paris Agreement, n. 23, Arts. 2, 3, 7, 9 and 10.

34 CBD, n. 24, Preamble para. 14.

35 ITPGRFA, n. 25, Art. 14.

36 CICH, n. 26, Article 19(2).

37 See, e.g, P.H. Pattberg and F. Zelli (eds.), *Encyclopedia of Global Environmental Governance and Politics* (Edward Elgar 2015); F. Biermann and P. Pattberg (eds.), *Global Environmental Governance Reconsidered* (MIT 2012); K. Bosselmann, *Earth Governance: Trusteeship of the Global Commons* (Edward Elgar 2015); O.C. Ruppel, C. Roschmann and K. Ruppel-Schlichting (eds.), *Climate Change: International Law and Global Governance* (Nomos 2013); J. Gupta, *The History of Global Climate Governance* (Cambridge 2014).

38 UNFCCC, n. 22, Art. 3; Paris Agreement, n. 23, Preamble, para. 3; CBD, n. 24, Preamble, Arts. 1, 5, 6; ITPGRFA, n. 25, Preamble, Arts. 5-8.

operation[39] while the principle of common but differentiated responsibilities is arguably implied. As stated in the CICH, international cooperation includes the establishment of a mechanism of assistance to parties in their efforts to safeguard the intangible cultural heritage.[40] The beneficiary state party shall 'within the limits of its resources, share the cost of the safeguarding measures for which international assistance is provided'.[41] The phrase 'within the limits of its resources' suggests that the different capabilities of states in addressing the issue of common concern – and thus the principle of common but differentiated responsibilities – were considered.

Chapter 3 also found that human rights obligations are relevant to the discussion on the legal consequences in respect of two issues of common concern, climate change and the safeguarding of intangible cultural heritage. According to the Paris Agreement, '*Acknowledging* that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights'.[42] As discussed in Chapter 4 of this dissertation, parties to the Paris Agreement acknowledge that they should comply with their existing human rights obligations when taking climate action, evidencing acceptance by the parties that climate change jeopardizes the full enjoyment of human rights. Such an acknowledgement reinforces human rights obligations and highlights the potential they have to inform and complement the implementation of climate laws and policies. In addition, the CICH seeks to harmonize the safeguarding of the intangible cultural heritage with human rights law. It refers to existing human rights instruments in the Preamble and provides that, for the purposes of the Convention, 'consideration will be given solely to such intangible cultural heritage as is compatible with existing international human rights instruments'.[43] Compliance with existing human rights obligations is thus an element to be considered in the discussion concerning the legal consequences of acknowledging an issue as being of common concern, at least with regard to climate change and the safeguarding of intangible cultural heritage.

In order to determine what the principle of common concern of humankind entails, Chapter 3 also examined five non-binding or soft law instruments, namely the Earth Charter,[44] the Langkawi Declaration on the Environment,[45]

39 CICH, n. 26, Preamble, Arts. 2(1), and 19.
40 Ibid. Art. 19(1).
41 Ibid. Art. 24(2).
42 Paris Agreement, n. 23, Preamble, para. 11.
43 CICH, n. 26, Art. 2 (1).
44 The Earth Charter Initiative, *The Earth Charter*, (2000), http://www.earthcharterinaction.org/invent/images/uploads/echarter_english.pdf.
45 The Commonwealth, *Langkawi Declaration on the Environment*, (1989), http://www.thecommonwealth.org/sites/default/files/news-items/documents/Langkawi-declaration.pdf.

the Hague Recommendations on International Environmental Law,[46] the International Law Association (ILA)'s New Delhi Declaration of Principles of International Law Relating to Sustainable Development,[47] and the International Union for Conservation of Nature (IUCN)'s Draft Covenant on Environment and Development.[48] Chapter 3 found that these instruments recognize the following as issues of common concern of humankind: 1) the global environment (Earth Charter, IUCN Draft Covenant);[49] 2) environmental deterioration (Langkawi Declaration);[50] and 3) environmental preservation (New Delhi Declaration, Hague Recommendations).[51] Chapter 3 also found that while the treaties recognize as common concerns specific issues, soft law instruments recognize as such the deterioration and preservation of the global environment in general, stressing in this way the unity of the biosphere and the interdependence of humanity and the environment. In essence, the reason why the deterioration and preservation of the global environment are considered common concerns of humankind is, according to the non-binding instruments examined, because the life and wellbeing of present and future generations depend on maintaining a healthy biosphere.[52]

Chapter 3 found that, like the treaties examined, the soft law instruments call for global cooperation in addressing issues of common concern. As stated in the Earth Charter, the Langkawi Declaration and the IUCN Draft Covenant, a global partnership needs to be formed 'to care for Earth and one another';[53] environmental problems that transcend national boundaries and interests require a 'co-ordinated global effort';[54] and 'the interdependence of the world's ecosystems and the severity of current environmental problems call for global solutions to most environmental problems'.[55] According to the Hague Recommendations, states should apply, inter alia, the duty to cooperate in good faith in developing environmental policies at the international level[56] and, as stated in the New Delhi Declaration, consideration should be given

46 International Conference on Environmental Law, *The Hague Recommendations*, (1991), *as reprinted in* 21 *Environmental Policy and Law* 242, 276.

47 70th Conference of the International Law Association, *ILA New Delhi Declaration of Principles of International Law Relating to Sustainable Development* (2002), as *reprinted in* 2 *International Environmental Agreements: Politics, Law and Economics* 211-216 (2002). *See also* N. Schrijver, *The Evolution of Sustainable Development in International Law: Inception, Meaning and Status* (Martinus Nijhoff Publishers 2008) 162-207.

48 Int'l Union for Conservation of Nature (IUCN), *Draft International?Covenant on Environment and Development. Fifth Edition: Updated Text*, (2015).

49 Preamble and Art. 3, respectively.

50 Para. 2.

51 Principle 1.3 and para. I.3f, respectively.

52 Earth Charter, n. 44, Preamble; Langkawi, n. 45, Preamble; Hague Recommendations, n. 46, at II; IUCN Draft Covenant, n. 48, commentary to Art. 3, at 44.

53 Earth Charter, n. 44, Preamble.

54 Langkawi, n. 45, para. 4.

55 IUCN Draft Covenant, n. 48, at 45.

56 Hague Recommendations, n. 46, at 3d.

to the interaction of states and non-state actors as participants in 'multilateral development co-operation'.[57] Acknowledging an issue as being of common concern thus calls for 'global partnership', 'global effort', 'global solutions', and for international and multilateral cooperation. The non-binding instruments also refer to principles that govern states' relations concerning the issue of common concern. These are the same principles found in the treaties, namely cooperation, intergenerational equity, common but differentiated responsibilities, sustainable development, and the precautionary principle.[58]

Based on the ten international instruments examined, Chapter 3 found two common features that capture the essence of the principle of common concern of humankind: the interest to protect humanity and the global environment from harm, and the need for international cooperation at a global scale to address the issue successfully. It also found that the issue of atmospheric degradation shares those two common features because, as scientific research discussed in Chapter 3 shows, the atmosphere performs essential functions for sustaining life on Earth and degraded atmospheric conditions endanger human health and environmental integrity. Preventing atmospheric degradation is thus as essential to protecting humanity and the global environment as many issues already acknowledged as common concern of humankind. The second common feature is also shared by atmospheric degradation, i.e. global cooperation is necessary because the atmosphere is an indivisible unit that is in constant movement disregardful of states' territorial boundaries. According to scientific research discussed in Chapter 3, air pollution moves around in the atmosphere and across borders and certain components of air pollution both degrade the atmosphere and cause climate change. Atmospheric degradation thus requires global cooperation in order to be successfully addressed.[59]

Chapter 3 found an additional reason why the principle of common concern of humankind should apply to atmospheric degradation. Short-lived climate pollutants (SLCPs) are components of air pollution responsible for almost half of global warming. The linkage between SLCPs and climate change is scientifically proven and is beginning to gain legal recognition. The parties to the Air Convention amended the Gothenburg Protocol to include, for the first time in treaty law, emission reduction commitments for one of the most harmful air pollutants: fine particulate matter ($PM_{2.5}$). The amendments to the Gothen-

57 New Delhi Declaration, n. 47, Preamble.

58 Earth Charter, n. 44, Preamble and principles 4, 5, 6, 8, 11, 14, 16; Langkawi, n. 45, paras. 1, 4, 5, 6; Hague Recommendations, n. 46, at I.3.d.; New Delhi Declaration, n. 47, Preamble and throughout its 7 Principles; IUCN Draft Covenant, n. 48, throughout the Covenant, see in particular Arts. 5, 7, 11 and 13.

59 The unity of the atmosphere makes global cooperation necessary, which is coherent with the finding in Chapter 2 that the unity of the drainage basin prompts riparian cooperation and solidarity.

burg Protocol, which entered into force on 7 October 2019,[60] legally acknowledge the soundness of scientific knowledge on this matter. Consequently, because climate change is a common concern of humankind (UNFCCC), and because SLCPs both pollute the atmosphere and cause climate change (Gothenburg Protocol), atmospheric degradation – the deterioration of atmospheric conditions harmful to life on Earth- is a common concern of humankind.

Based on its findings – showing that common concern of humankind applies to issues that affect human wellbeing and the environment and that require global cooperation to be effectively addressed- Chapter 3 submits that the principle of common concern of humankind should apply to the degradation of the atmosphere and suggests returning 'common concern of humankind' to the International Law Commission's Draft Guidelines on the Protection of the Atmosphere. Bearing in mind that the principle continues to be regarded as lacking in clarity, the ILC could contribute to a better understanding of its meaning and scope. The Draft Guidelines thus present a unique opportunity for the ILC, as an authoritative body, to discuss the principle of common concern of humankind and, in that process, advance its conceptual development.

4 PUBLIC PARTICIPATION

The human right to participate in public affairs could complement climate law in such a way as to contribute to enhancing observer participation in international climate change decision-making processes.

> *Research questions: What characterizes observer participation in international climate change decision-making processes? What does the acknowledgement in the Paris Agreement that parties should comply with human rights obligations mean? What does the human right to participate in public affairs entail? Does it encompass decision-making processes at the international level? How could the right to participate in public affairs complement climate law and possibly contribute to enhancing observer participation in international climate change decision-making?*

Parties to the United Nations Framework Convention on Climate Change (UNFCCC) acknowledged the need to further enhance the effective engagement of observer organizations as the UNFCCC process moves towards implementation of the Paris Agreement. However, climate law does not stipulate *how*

60 Amendment to the 1999 Gothenburg Protocol, n. 21. At the time Chapter 3 was published, the amendments were not yet in force. See, e.g., https://www.unece.org/info/media/presscurrent-press-h/environment/2019/entry-into-force-of-amended-gothenburg-protocol-is-landmark-for-clean-air-and-climate-action/doc.html

parties are to ensure effective observer participation. For this reason, Chapter 4 of this dissertation explored whether and how the human right to participate in public affairs, and the obligations derived therefrom, could complement climate law in such a way as to contribute to enhancing observer participation in international UNFCCC decision-making processes. Chapter 4 examined observer participation in 'international UNFCCC decision-making processes'. This term refers to intergovernmental negotiations during sessions of the COP, subsidiary bodies and open-ended contact groups (intergovernmental negotiations) and to processes reviewing the implementation of parties' commitments, namely those of the measurement, reporting and verification framework (MRV system), which will eventually be superseded by the enhanced transparency framework (ETF) established by the Paris Agreement.

Chapter 4 described observer participation in international UNFCCC decision-making processes. As of November 2017, 2,259 observer organizations had been admitted to the UNFCCC process.[61] Although a large number of observers have significant resource implications for the UNFCCC secretariat,[62] parties nevertheless agree on the importance of further enhancing observer engagement.[63] Notwithstanding, Chapter 4 found that UNFCCC parties close intergovernmental meetings to observers, for instance, towards the end of each negotiation period. This practice has been criticized as undermining the role of civil society.[64] In addition, certain UNFCCC negotiations are open to observers while others are closed because of what is known as functional efficiency;[65] however, they are also closed because of standard operating practices, habits, and routines and not necessarily due to high political stakes.[66] A large number of closed meetings could lead to unequal participation opportunities for non-state actors, depending on their available resources,

61 UNFCCC Secretariat 'Engagement of observer organizations and non-Party stakeholders in the intergovernmental process' (period 2016-2017) included in SBI 'Arrangements for Intergovernmental Meetings' UN Doc FCCC/SBI/2018/7 (22 March 2018) para 39.

62 Ibid.

63 SBI 'Report of the Subsidiary Body for Implementation on its forty-fourth session, held in Bonn from 16 to 26 May 2016' UN Doc FCCC/SBI/2016/8 (26 August 2016) para. 162.

64 S Kravchenko, 'Procedural Rights as a Crucial Tool to Combat Climate Change' (2010) Georgia Journal of International and Comparative Law 613, 643-4, referring to restricted access to observers and civil society during the last two-days of COP 15 in Copenhagen; M Doelle, 'The Paris Agreement: Historic Breakthrough or High Stakes Experiment?' (2016) 6 Climate Law 1, 7.

65 According to the functional efficiency hypothesis, states hold meetings open to observers when it is convenient for their interests, particularly during the agenda setting stage, and close meetings during the more sensitive decision-making stages. See JW Kuyper, B Linnér and H Schroeder 'Non-state actors in hybrid global climate governance: justice, legitimacy, and effectiveness in a post-Paris era' (2018) 9 WIREs Climate Change 1, at 3.

66 N Nasiritousi and B Linnér, 'Open or closed meetings? Explaining nonstate actor involvement in the international climate change negotiations' (2016) 16 International Environmental Agreements 127, 140-141.

and to the further disenfranchisement of particular non-state actors.[67] Concerning the MRV system, Chapter 4 found that neither the international assessment and review process (IAR) nor the international consultation and analysis process (ICA) provides opportunities for active observer participation, which has been criticized as 'fail[ing] to acknowledge the crucial role that civil society can play in the context of this transparency mechanism'.[68] In addition, the modalities, procedures and guidelines (MPGs) to implement the Paris Agreement, contained in the Katowice climate package (also known as the Paris Agreement rulebook), do not provide opportunities for active public participation in the enhanced transparency framework (ETF) established by the Paris Agreement. Therefore, both the current MRV systems and its future replacement -the ETF- provide for the same degree of observer participation.

In addition, Chapter 4 explored the parties' acknowledgement in the Paris Agreement that they should honour their existing human rights obligations when taking climate action in order to ascertain the meaning of said acknowledgement for public participation. Chapter 4 found that such an acknowledgement basically shows acceptance by the parties that climate change jeopardizes the full enjoyment of human rights. It also highlights the potential that human rights obligations have to inform implementation of climate laws and policies. Although climate law does not expressly refer to ensuring effective participation, the human right to participate in public affairs requires parties to the relevant human rights treaties to adopt measures that ensure effective public participation, including at the international level. The acknowledgement in the Paris Agreement reinforces this obligation. The human right to participate in public affairs could thus complement climate provisions on observer participation in UNFCCC international decision-making processes.

Indeed, Chapter 4 studied in detail the human right to participate in public affairs in order to determine whether and how it could complement climate law in such a way as to contribute to enhancing observer participation in international UNFCCC decision-making processes. It focused on the relevant provisions of the International Covenant on Civil and Political Rights (ICCPR) and the American Convention on Human Rights (ACHR), including subsequent interpretations by the institutions in charge of overseeing their implementation. Chapter 4 found that both the ICCPR and the ACHR require states to adopt measures that ensure effective opportunities to exercise the right to participate in public affairs. Parties to the UNFCCC that are also party to those treaties are bound by this obligation. In addition, decisions of the Inter-American Court of Human Rights have identified several additional obligations related to the participation of indigenous peoples. Although only binding between the state

67 ibid at 142.

68 S Duyck, 'MRV in the 2015 Climate Agreement: Promoting Compliance through Transparency and the Participation of NGOs' (2014) 3 Carbon and Climate Law Review 175, quote from the abstract.

parties and in respect of those particular cases, these judicial decisions could be considered as subsidiary means for determining what the right to participate in public affairs entails with regard to indigenous peoples. Furthermore, as stated in the UNGA Declaration on Human Rights Defenders, the right to participate in public affairs includes the right to submit criticism and proposals to improve the functioning of organizations concerned with public affairs.[69] Although not legally binding, the Declaration on Human Rights Defenders is grounded in international human rights law and may have an effect on the treaties it interacts with.[70] Also in a non-binding way, the 2018 OHCHR *Draft Guidelines for States on the Effective Implementation of the Right to Participate in Public Affairs* provide guidance concerning, *inter alia*, measures that ensure meaningful participation[71] and advise that public participation should be allowed and proactively encouraged at all stages in international decision-making processes.[72] Finally, Chapter 4 found that the right to participate in public affairs encompasses international decision-making processes as well as decision-making on all matters of public concern (connecting to the issue of climate change as a common concern of humankind discussed in Chapter 3) and consequently covers international UNFCCC decision-making processes.

Based on its findings – showing that the human right to participate in public affairs could complement climate law – Chapter 4 answers the research question 'How could the right to participate in public affairs complement climate law and possibly contribute to enhancing observer participation in international climate change decision-making?' by suggesting possible complementarities. First, Chapter 4 suggests that the human rights obligation to adopt measures that ensure effective opportunities to participate could complement the climate obligation to cooperate in taking measures to enhance public participation stipulated in Article 12 of the Paris Agreement.[73] It submits that the phrase 'cooperate in taking measures' requires parties to 'work jointly' towards enhanced public participation but fails to oblige them to also 'work separately' towards said end. The obligation to enhance public participation is required from parties acting as a group, not individually. This emphasis on collective action could lead to an understatement of individual state action and thus lessen the effectiveness of parties' efforts to achieve enhanced public

69 UNGA 'Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms' UN Doc A/RES/53/144 (8 March 1999) art 8.

70 It refers specifically to the ICCPR as one of the 'basic elements of international efforts to promote universal respect for and observance of human rights' and to the importance of other human rights instruments adopted at the regional level. Ibid., Preamble.

71 Human Rights Council 'Draft guidelines for States on the effective implementation of the right to participate in public affairs: Report of the Office of the United Nations High Commissioner for Human Rights' UN Doc A/HRC/39/28 (20 July 2018) paras. 63, 64, 68, 70, 73 and 85.

72 Ibid., para. 100.

73 Paris Agreement, n. 23, art 12.

participation. The human rights obligation to adopt measures that ensure effective participation could correct such an understatement since it obliges state parties to the relevant treaties to take individual action as well. In this way, individual states' human rights duty to ensure effective participation could complement UNFCCC parties' collective duty to cooperate in taking measures to enhance public participation.

Second, concerning processes reviewing the implementation of parties' commitments, Chapter 4 suggests that the review stage of the ETF established by the Paris Agreement could allow observers to provide information and views concerning parties' national reports. In this way, the expert review report would not only address the challenges faced and the progress made by the reporting party towards achieving emission reduction targets, but also take note of how those challenges and progress affect the interests of specific groups represented by observers. The expert review report could thus provide a more comprehensive consideration of the party's implementation and achievement of its NDC in order to identify areas for improvement. In addition, the facilitative multilateral consideration of progress (FMCP) could allow observers to submit written questions electronically prior to the FMCP session. During the FMCP session, observers could be allowed to ask oral questions to the party under FMCP or, similarly to the procedure of the Universal Periodic Review of the Human Rights Council, they could be allowed to make oral general comments.[74] Finally, the UNFCCC secretariat could be mandated to include the questions submitted by observers and the responses thereto in the party's record.

5 SUSTAINABLE DEVELOPMENT

The SDGs could guide institutions governing the ocean commons towards becoming more effective, accountable and inclusive. The SDGs promote a new conception of ocean commons governance through encouraging public participation in decision-making as a way of strengthening institutions at all levels.

Research questions: What is the state of affairs regarding the use and protection of high seas fisheries and deep seabed minerals? What is the situation of public participation in institutions governing these resources and the legal framework applicable thereto? What role for public participation in the Sustainable Development Goals (SDGs)? What is the legal nature of the SDGs? In what way could

74 UNGA 'Human Rights Council' UN Doc A/RES/60/251 (3 April 2006) para 5(e); Human Rights Council 'Institution-building of the United Nations Human Rights Council' UN Doc A/HRC/RES/5/1 (18 June 2007) Annex para 31. See also Duyck (n 68) at 185, submitting that the procedures of the Universal Periodic Review (UPR) provide useful lessons for the MRV process with respect to stakeholder participation.

SDG 14 (sustainable use of marine resources) and SDG 16 (building strong institutions at all levels) influence institutions governing high seas fisheries and deep seabed minerals for sustainable resource governance?

Despite the fact that the international community has actively promoted public participation in environmental governance since the 1992 Rio Declaration and its Principle 10, the existing conception of ocean commons governance primarily involves states and industry organizations and restricts access to civil society. Chapter 5 examined public participation in institutions governing the use and protection of high seas fisheries and deep seabed minerals -i.e. regional fisheries management organizations (RFMOs) and the International Seabed Authority (ISA, Authority)- and explored whether and how the Sustainable Development Goals (SDGs) could guide the actions of these institutions towards becoming more effective, accountable and inclusive.

Chapter 5 described the state of affairs regarding the use and protection of high seas fisheries and deep seabed minerals. It found that notwithstanding the efforts made by the international community to protect the marine environment, the ocean faces several challenges including overfishing, acidification, pollution and biodiversity loss. This situation has been described as 'a cycle of declining ecosystem health and productivity'[75] and found to be caused by, inter alia, weak high seas governance.[76] This is reflected in inadequate transparency and compliance-reporting mechanisms and very little accountability at the global level.[77] In addition, Chapter 5 found that public access to information and participation in global environmental governance has led to increased transparency, accountability, effectiveness and legitimacy of decision-making processes,[78] and has been actively promoted by the international community since the 1992 Rio Declaration and its Principle 10, which the Aarhus Convention and the Escazú Agreement converted to international law. Furthermore, Chapter 5 found that the type of development envisioned by the 2030 Agenda for Sustainable Development and its accompanying SDGs is that it should not only be sustainable, but also inclusive. In the Agenda, states agree to foster peaceful, just and inclusive societies, declaring that this

75 Global Ocean Commission, *From Decline to Recovery: A Rescue Package for the Global Ocean* (2014) <http://www.some.ox.ac.uk/research/global-ocean-commission/> at 16

76 Ibid. at 16-18.

77 Ibid. at 7. See also D. Bhomawat, 'Shark-finning: Damage to Global Commons' (2016) *Environmental Policy and Law* 46, 56, 61; S. Kopela, 'Port-State Jurisdiction, Extraterritoriality, and the Protection of Global Commons' (2016) *Ocean Development and International Law* 47, 89.

78 See, e.g., J. Ebbesson, 'Principle 10: Public Participation' in Jorge E. Viñuales (ed) *The Rio Declaration on Environment and Development* (OUP 2015); T. Kramarz and S. Park, 'Accountability in Global Environmental Governance: A Meaningful Tool for Action?' (2016) *Global Environmental Politics* 16(1), 6; T. Bernauer and R. Gampfer, 'Effects of Civil Society Involvement on Popular Legitimacy of Global Environmental Governance' (2013) *Global Environmental Change* 23, 439.

'is an agenda of the people, by the people and for the people – and this, we believe, will ensure its success';[79] while SDG 16 sets the goal of building effective, accountable and inclusive institutions at all levels.

Chapter 5 examined the situation of public participation in institutions governing high seas fisheries (RFMOs) and deep seabed minerals (ISA) as well as the legal framework applicable thereto. It found that public participation in RFMOs and the ISA is restricted. Concerning public participation in RFMOs, although civil society organizations have played a role in 'pushing the RFMOs towards a more precautionary approach'[80] and 'contributed to raising political and public awareness of the need for change'[81] in the way RFMOs work, it has nevertheless been documented that 'in most RFMOs [NGOs] struggle to have their views heard and discussed and are often frustrated that they are not taken seriously in the decision-making process'.[82] Some RFMOs request a participation fee from NGOs, which is perceived as 'a way to effectively discourage observer participation'.[83] Article 12 of the Fish Stocks Agreement[84] provides that the procedures for the participation of NGOs in RFMOs 'shall not be unduly restrictive'.[85] Bearing in mind that lack of financial resources was found to be the main reason for poor representation of NGOs from low-income countries in international environmental institutions,[86] charging a fee, which can reach up to 500 USD to attend each meeting,[87] could be interpreted as a practice that unduly restricts access for NGOs from low-income countries, and thus contravenes Article 12 of the FSA. In addition, NGOs from high-income countries

79 Transforming our world: the 2030 Agenda for Sustainable Development, UN Doc A/RES/70/1, 21 October 2015 ('2030 Agenda'), para. 52.

80 *Ibid.* at 13.

81 Food and Agriculture Organization of the United Nations, *The State of World Fisheries and Aquaculture 2016: Contributing to Food Security and Nutrition for All* (Rome 2016) <http://www.fao.org/3/a-i5555e.pdf>, at 95.

82 Report of the Independent Review, International Commission for the Conservation of Atlantic Tunas (ICCAT) PLE-106/2008, September 2008 ('ICCAT 2008 Report') at 71.

83 Ibid., at 29.

84 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (4 August 1995) 2167 U.N.T.S. 3, article 2 (FSA). Straddling fish stocks occur both within a country's exclusive economic zone and in the adjacent high seas (UNCLOS article 63) e.g., cod, jack mackerel and squid. Highly migratory fish stocks regularly travel long distances through both the high seas and areas under national jurisdiction (UNCLOS article 64 and Annex I), e.g., tuna, swordfish and oceanic sharks.

85 *Ibid.*

86 A.N. Uhre, 'Exploring the Diversity of Transnational Actors in Global Environmental Governance' (2014) *Interest Groups and Advocacy* 3, 59.

87 Report of the Independent Performance Review of ICCAT 2016, <https://www.iccat.int/Documents/Other/0-2nd_PERFORMANCE_REVIEW_TRI.pdf> at 61.

dominate participation leading to a relatively limited diversity.[88] Considering that many developing countries have difficulty covering the high cost of adequate fisheries governance regimes,[89] less restrictive participation policies could give NGOs from low-income countries the opportunity to voice their concerns within the established governance structures. Furthermore, fishing industry representatives are far more numerous than civil society organizations[90] indicating that conservation interests – primarily put forward by NGOs – are under-represented.

Concerning participation in the ISA, Chapter 5 found that although the number of observers has increased in recent years and civil society organizations have organized side events and workshops during the ISA's annual sessions,[91] challenges nevertheless exist regarding access to information and public participation in decision-making processes at the ISA. Chapter 5 pays particular attention to public access to information and participation in the Legal and Technical Commission (LTC), one of the organs of the ISA Council.[92] This is because of the significant competences invested in the LTC for the protection of the marine environment and because 'lack of transparency of the work of the LTC has been heavily criticized'.[93] Chapter 5 found that although the LTC could decide to hold open meetings, for instance when discussing 'issues of general interest to members of the Authority, which do not involve the discussion of confidential information',[94] in practice, however, the LTC rarely holds open meetings because of the confidentiality required of LTC members.[95] Because the LTC does not have procedures in place to determine which of the data provided by contractors is confidential, the contractor determines confidentiality.[96] Currently, all data contained in contract applications and annual reports of contractors submitted to the LTC are

88 M.T. Petersson, L.M. Dellmuth, A. Merrie and H. Österblom, 'Patterns and trends in non-state actor participation in regional fisheries management organizations', 104 *Marine Policy* (2019) 146-156.

89 World Bank, *The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries* (Washington DC 2017) <http://hdl.handle.net/10986/24056> at 18.

90 Petersson *et al.*, n. 88, at 153.

91 A. Jaeckel, 'Current Legal Developments International Seabed Authority' (2016) 31 *The International Journal of Marine and Coastal Law* 706, 717 – 718.

92 United Nations Convention on the Law of the Sea (10 December 1982) 1833 U.N.T.S. 3, arts. 163 and 165.

93 Periodic Review of the International Seabed Authority pursuant to UNCLOS Article 154, Final Report (30 December 2016) (Seascape Consultants Ltd.) <https://www.isa.org.jm/files/documents/EN/Art154/Rep/ISA154-FinalRep-30122016.pdf> at 2.

94 Rules of Procedure of the Legal and Technical Commission ('ROP LTC') <http://www.isa.org.jm/files/documents/EN/Regs/ROP_LTC.pdf> Rule 6.

95 *Ibid.* Rule 11(2).

96 J.A. Ardron, 'Transparency in the Operations of the International Seabed Authority: An Initial Assessment', 95 *Marine Policy* (2018) 324-331. See also *Co-Chairs Report of Griffith Law School and the International Seabed Authority Workshop Environmental Assessment and Management for Exploitation of Minerals in the Area* (Surfer's Paradise, 23-26 May 2016) ('Co-Chairs

treated as confidential including environmental data.[97] This contravenes UNCLOS and the Exploration Regulations, which expressly provide that environmental data shall not be deemed confidential.[98]

Chapter 5 examined the role of public participation in the SDGs. SDG 16 is to 'promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels'.[99] Strong institutions (effective, accountable and inclusive) are instrumental in promoting peaceful and inclusive societies and providing access to justice for all. Therefore, Chapter 5 specifically focused on the goal of building strong institutions and the role of public participation in achieving such a goal in the context of the ocean global commons. Three of the targets supporting the achievement of SDG 16 directly contribute to building strong institutions. Target 16.6 is to 'develop effective, accountable and transparent institutions at all levels'; target 16.7 is to 'ensure responsive, inclusive, participatory, and representative decision making at all levels'; and target 16.10 is to 'ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements'.[100] In this way, SDG 16 highlights the role that public participation plays in achieving the goal of strong institutions for sustainable governance. The goal is to build strong institutions *at all levels* of governance, therefore including institutions managing the ocean global commons. In addition, according to the three relevant targets, strong institutions are to be built through effectiveness, accountability, and transparency,[101] responsiveness, inclusiveness, participation and representation,[102] and through public access to information.[103]

With regard to the legal nature of the SDGs, Chapter 5 found that although not legally binding, the SDGs have nevertheless the capacity to influence national and international law and policy. Indeed, states are expected to take ownership and translate the SDGs into domestic public policies.[104] In addition,

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Report') <https://www.isa.org.jm/files/documents/EN/Pubs/2016/GLS-ISA-Rep.pdf> at 23.

97 Ardron, n. 96, at 326. See also *Co-Chairs Report of Griffith Law School and the International Seabed Authority Workshop Environmental Assessment and Management for Exploitation of Minerals in the Area* (Surfer's Paradise, 23 – 26 May 2016) ('Co-Chairs Report') <https://www.isa.org.jm/files/documents/EN/Pubs/2016/GLS-ISA-Rep.pdf> at 23.

98 UNCLOS, n. 92, Annex III, article 14(2); Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, ISBA/19/C/17 (22 July 2013), Regulation 36(2); Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11 (27 July 2012), Regulation 38(2); Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1 (7 May 2010), Regulation 38(1).

99 2030 Agenda for Sustainable Development, n. 79, at 25.

100 *Ibid.* at 25 – 26.

101 Target 16.6.

102 Target 16.7.

103 Target 16.10.

104 2030 Agenda, n. 79, para. 66.

as stated in paragraph 10, the 2030 Agenda is grounded in international human rights treaties[105] arguably reinforcing states' international legally binding obligations to protect human rights.[106] Furthermore, the Agenda encourages states to achieve the SDGs in accordance with existing international agreements,[107] which strongly suggests consensus on combining or integrating such agreements with the SDGs in order to achieve the overarching goal of sustainable development.[108] Specifically, SDG 14 directs efforts to enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS,[109] suggesting that there was general agreement on combining UNCLOS and the SDGs to achieve sustainable oceans. Seen in this light, UNCLOS provides a normative framework for implementing SDG 14, while SDG 14 draws attention to priority areas regarding ocean sustainability. As discussed in Chapter 5, this potential for synergy between UNCLOS and the SDGs has been acknowledged by the ISA and is beginning to appear – albeit more timidly – in the work of the RFMOs. Because the SDGs are deeply rooted in international law and call on states to fulfil their legally binding obligations in the light of their vision and ambition to transform our world by 2030, including those derived from the Law of Sea, SDGs 14 and 16 could guide institutions managing high seas fisheries and deep seabed minerals in the direction of becoming more effective, accountable and inclusive and thus promote a more sustainable use of marine resources in areas beyond the limits of national jurisdiction.

Based on its findings – showing that the SDGs could guide institutions governing the ocean commons towards a more effective, accountable, inclusive and sustainable use of marine resources- Chapter 5 suggests that the interplay between UNCLOS, the FSA and the SDGs could guide RFMOs' efforts towards making rules on NGO participation less restrictive, for instance through substantially reducing or eliminating NGO participation fees. In addition, such interplay could encourage more RFMO performance review procedures to include NGO representatives. Furthermore, Chapter 5 submits that the interplay

105 *Ibid.* para. 10, which reads: 'The new Agenda is guided by the purposes and principles of the Chapter of the United Nations, including full respect for international law. It is grounded in the Universal Declaration of Human Rights, international human rights treaties, the Millennium Declaration and the 2005 World Summit Outcome. It is informed by other instruments such as the Declaration on the Right to Development.'

106 In this regard, it has been submitted that '[m]any SDGs are weaker than their human rights counterparts, and many fail to reference specific, binding human rights standards and instruments.' See L.M. Collins, 'Sustainable Development Goals and human rights: challenges and opportunities' in D. French and L. Kotzeì (eds.), *Sustainable Development Goals: Law, Theory and Implementation* (Edward Elgar 2018).

107 Agenda 2030, n. 79, para. 67; SDG 3, target 3b; SDG 3, target 3a; SDG 10, target 10a; SDG 13, target 13a; SDG 14, target 14c.

108 See R.E. Kim, 'The Nexus Between International Law and the Sustainable Development Goals' 25 *RECIEL* (2016), 16 – 17.

109 Agenda 2030, n. 79, target 14c.

between UNCLOS, the ISA Exploration Regulations and the SDGs could guide actions towards strengthening the LTC for instance through creating procedures to determine confidentiality of data provided by contractors; providing public access to all environmental data available to the ISA; ensuring public participation in all LTC meetings discussing environmental matters.

From the perspective of public participation, the existing conception of ocean commons governance is one in which states and industry organizations are the main actors and civil society organizations are relegated to a secondary role. SDG 16 specifically encourages public access to information and participation in decision making as a way of strengthening institutions at all levels. Transparent, accountable and effective institutions are crucial at a time in which unsustainable fishing practices and imminent exploitation of deep seabed minerals threaten to deepen the ocean's rate of ecological decline. SDG 16 thus supports the achievement of SDG 14 – conserve and sustainably use the ocean and marine resources – providing a guiding framework to construct the institutional strength necessary to achieve ocean sustainability. Consequently, Chapter 5 submits that the SDGs promote a new conception of ocean commons governance through encouraging public participation in building the necessary strong institutions. In the new conception, civil society organizations join states and industry organizations as principal actors in achieving sustainable governance of high seas fisheries and deep seabed minerals in the Area. The actions proposed in Chapter 5 could support RFMOs and the ISA in moving much closer to achieving SDG 14.

6 Overarching conclusions

The principles of community of interests and common concern of humankind promote the reconcilement of PSNR and the common interests of states sharing natural resources. The principles of public participation and sustainable development promote the inclusion of non-state actors. The principles discerned, examined and evaluated in this dissertation are interrelated as well as interact with other principles of international law and should be interpreted in context.

Based on the problems identified and discussed in the Introduction – namely (1) the reconcilement of the exercise of permanent sovereignty over natural resources and the equitable use and protection of resources that are shared by two or more states; (2) the insufficient legal conceptualization of the common interests and concerns that exist between states sharing natural resources; and (3) the inclusion of non-state actors in governing processes – this dissertation examined, in addition to the research questions specific to each chapter, the following general research questions:

> *What principles of international law promote the reconcilement of the exercise of permanent sovereignty over natural resources and the common interests of states*

sharing natural resources? How are such common interests conceptualized in international law?

What principles of international law promote the inclusion of non-state actors in the governance of shared natural resources?

The purpose was to discern, examine and assess principles of international law that could address the problems identified. Principles that could promote coherence in state practice by guiding states' action regarding the equitable utilization and environmental protection of shared resources. The 1978 UNEP Draft Principles, which remain the most influential effort to provide principles applicable to all shared natural resources,[110] do not address the exercise of sovereignty over shared resources, community of interests and common concerns among states, or non-state actor participation in shared resource governance. Building on the 1978 UNEP Draft Principles, the principles discerned in this dissertation reflect subsequent developments in international law as well as current trends relating to shared resource governance.

Accordingly, the answers to the general research questions are as follows. Based on the findings and conclusions in Chapters 2 and 3, I submit that the principles of community of interests and common concern of humankind promote the reconcilement of the exercise of permanent sovereignty over natural resources and the common interests between states sharing natural resources. Community of interests does so through stressing the unity of the shared drainage basin, the duty to cooperate as well as riparian solidarity, and the harmonization of riparians' national laws and policies on water governance. Common concern of humankind promotes such a reconcilement through emphasizing the unity of the biosphere, the interdependence of humanity and the environment, and the need for international cooperation at a global scale to address issues of common concern successfully.

In addition, based on the findings and conclusions in Chapters 4 and 5, I submit that the principles of public participation and sustainable development promote the inclusion of non-state actors in the governance of shared natural resources. The normative content of the human right to public participation could complement climate rules on observer participation and thus contribute to enhancing the effective engagement of observer organizations in international climate change decision-making processes. Sustainable development, as conceived in the SDGs, promotes the inclusion of non-state actors in the governance of shared natural resources through encouraging public participation in decision-making as a way of strengthening governing institutions at all levels.

110 UNEP Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States, 17 I.L.M. 1091 (1978).

Furthermore, based on the findings and conclusions in Chapter 1, the first step in search of an answer to the first general question, I submit that approaching the issue of sovereignty over shared natural resources mindful of the differences between PSNR and SSNR could promote that shared resource governance remains increasingly focused on cooperation and less oriented towards protecting states' territorial interests. Concerning transboundary aquifer governance in particular, Chapter 1 submitted that awareness of the differences between PSNR and SSNR could also contribute to making debates about sovereignty over transboundary aquifers – characterized at the time Chapter 1 was published by the expression of firmly held opinions both in academia and within UN organs – less complex.

The principles discerned must not be seen in isolation since they interact with other applicable principles of international law. For this reason, in addition to the principle in focus in each chapter – namely sovereignty (Chapter 1), community of interests (Chapter 2), common concern of humankind (Chapter 3), public participation (Chapter 4) and sustainable development (Chapter 5) – , the chapters discussed related principles applicable to the governance of the resource at issue. Therefore, in the context of transboundary waters, Chapters 1 and 2 discuss the principle of transboundary cooperation and equitable and reasonable utilization. Chapter 2 also discusses the principle of PSNR. In the context of atmospheric governance, Chapter 3 discusses the principle of international cooperation while Chapter 4 brings forward a human rights approach to public participation in climate change decision-making, implying the principle of respect for human rights. Finally, in the context of ocean commons governance, Chapter 5 also discusses the principle of public participation. The interaction between the principles discerned and other applicable principles of international law strengthens the principle in focus and its potential to guide states in achieving sustainable governance of shared natural resources.

The principles discerned also relate to one another. The overarching principles are PSNR and sustainable development. Although not a principle in focus in this dissertation, the principle of international cooperation appears throughout. As I submit in Chapter 1, PSNR should be seen, as regards shared resources, in the light of the differences between PSNR and SSNR found in Chapter 1. In this light, SSNR regulates the benefit sharing from, and the environmental protection of, shared resources through international cooperation. The principle of sustainable development in turn guides the international community in harmonizing economic development, environmental protection and human rights for present and future generations. International cooperation is pivotal in achieving sustainable development. Each of the discerned principles relates to sovereignty; each chapter approaches the problem, research questions, argument and proposals from the perspective of sustainable development. How are the principles discerned interrelated?

The principle of community of interests – when set forth in a water treaty or interpreted as such – relates to PSNR because it influences and qualifies the way sovereignty over shared water resources is exercised. It does so mainly through emphasizing the unity of the shared drainage basin and the resulting duty to cooperate, riparian solidarity and community of law. Community of interests also relates to the principle of public participation by promoting the inclusion of the riparian populations as subjects of rights and duties, including the right to water and sanitation, and the right to public participation in decision-making processes concerning shared drainage basins. Concerning sustainable development, as discussed in Chapter 2, community of interests promotes the sustainable governance of shared water resources through furthering the protection of ecosystems – ecosystems approach – and the rights of the riparian populations.

The principle of common concern of humankind applies to issues which transcend state boundaries and sovereignty, requiring collective action at the global level. It calls on states to establish broad forms of international cooperation and strike a balance between the competing demands of community interest and PSNR. Because climate change is a legally acknowledged common concern of humankind, the principle of common concern also relates to public participation in climate change decision-making processes, as discussed in Chapter 4. In addition, as discussed in Chapter 3, sustainable development is one of the five principles that guide states' actions concerning issues of common concern. The principle in question is arguably also related to that of community of interest. As discussed in Chapter 2, it has been argued that the availability and use of fresh water should be recognized as a common concern of humankind.[111]

Finally, the principle of public participation relates to sovereignty through promoting the inclusion of non-state actors in the governance of shared natural resources. As discussed in Chapter 4, states parties to the relevant human rights treaties have the obligation to adopt measures that ensure effective opportunities to participate in public affairs – which include climate change – and including at the international level. In addition, as discussed in Chapter 5, the principle of public participation relates to that of sustainable development through the inclusion in the SDGs of public participation in decision-making as a way of strengthening institutions at all levels. Public participation relates to the principles of community of interests and common concern of humankind in the ways described in the previous two paragraphs.

The interrelationship between the discerned principles and other principles of international law, as well as that of the discerned principles among themselves, suggests that the role of the discerned principles could be strengthened if interpreted in an integrated way. According to the Vienna Convention on the Law of Treaties, a treaty shall be interpreted in context and in the light

111 Edith Brown Weiss, International Law for a Water-scarce world (2013) 70-77.

of its object and purpose.[112] Together with the context, there shall be taken into account 'any relevant rules of international law applicable in the relations between the parties'.[113] The discerned principles – which are contained in treaties – must therefore be interpreted in context, considering all relevant principles and rules of international law relating to the sustainable governance of shared natural resources. From a broader perspective, the discerned principles should also be interpreted in the light of the constant and progressive development of international law in the field of sustainable development, acknowledging that economic development, environmental protection and respect for human rights are interrelated and should be addressed in an integrated manner,[114] also as regards shared natural resources.

7 Concluding remarks

The sustainable governance of shared natural resources is essential to protect ecosystems and human rights as well as to promote peaceful relations among states sharing resources. As demonstrated in this thesis, shared natural resource governance – i.e. the norms, institutions, and processes that determine how state sovereignty over shared natural resources is exercised, how decisions are made, and how non-state actors have access to, participate in, and are affected by the management of said resources – [115] presents problematic areas concerning mainly the reconcilement of state sovereignty and the common interests of states sharing resources, and the inclusion of non-state actors in governing processes. The principles discerned, examined and evaluated in this thesis – community of interests, common concern of humankind, public participation and sustainable development – could contribute to addressing these problems. In addition, approaching the issue of sovereignty over shared natural resources mindful of the differences between PSNR and SSNR could promote state cooperation and facilitate negotiations.

Treaty regimes and soft law international instruments dealing with shared natural resources increasingly recognize the interconnectedness of the earth's biosphere as well as the linkage between a healthy environment and the protection of human rights. They also acknowledge the need to engage non-state actors in the governance of transboundary and global natural resources. Two crucial international instruments adopted during the course of this study,

112 Vienna Convention on the Law of Treaties, adopted 23 May 1969, in force 27 January 1980, 1155 UNTS 331, Art. 31(1).

113 Ibid. Art. 31(3)(c).

114 New Delhi Declaration, n 47, Principle 7.

115 As mentioned in the Introduction, this definition is adapted from that of natural resource governance in IUCN, *Natural Resource Governance Framework Assessment Guide: Learning for improved natural resource governance* (2016) <https://www.iucn.org/sites/dev/files/content/documents/the_nrgf_assessment_guide_working_paper.pdf> at 1.

namely the Paris Agreement and the 2030 Agenda for Sustainable Development, are shaping the way states approach the governance of shared waters, the atmosphere and the ocean commons. The Paris Agreement reiterates the recognition in the UNFCCC that climate change is a common concern of humankind along with the need for international cooperation. In the context of the topics discussed in this thesis, the Paris Agreement reinforces the UNFCCC by laying down the obligation to strengthen cooperative action in certain areas, providing for enhanced public participation, acknowledging that parties should comply with their existing human rights obligations when taking climate action, and by placing the global response to climate change in the context of sustainable development.[116] The Paris Agreement is particularly relevant to the issues concerning the atmosphere discussed in Chapters 3 and 4 of this dissertation. To date, 187 of the 197 Parties to the UNFCCC have ratified the Paris Agreement showing that it will continue to have a great influence on atmospheric governance.

In the 2030 Agenda for Sustainable Development, the international community agreed to 'transforming our world' including through sustainably managing natural resources.[117] As stated in the Agenda, natural resource depletion and adverse impacts of environmental degradation including freshwater scarcity, climate change and ocean degradation, add to and exacerbate the list of challenges that humanity faces.[118] States envisage a world in which the 'use of all natural resources – from air to land, from rivers, lakes and aquifers to oceans and seas – [is] sustainable'[119] and commit, by 2030, to 'achieve the sustainable management and efficient use of natural resources.'[120] Three of the 17 Sustainable Development Goals relate specifically to the governance of the resources examined in this thesis, namely SDG 6 'Ensure availability and sustainable management of water and sanitation for all', SDG 13 'Take urgent action to combat climate change and its impacts', SDG 14 'Conserve and sustainably use the oceans, seas and marine resources for sustainable development'. In addition, SDG 15 'Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss' is relevant to the sustainable governance of transboundary ecosystems and biodiversity. As argued in Chapter 5 of this dissertation, SDG 16 supports the achievement of SDG 14 through providing a guiding framework to build the institutional strength necessary to attain ocean sustainability. In a similar way, SDG 16 could support the achievement of SDGs 6, 13 and 15.

116 Paris Agreement, n. 23, Preamble, Arts. 2 (1), 10, and 12.
117 Agenda 2030, n. 79, Preamble, para. 6, at 2.
118 Ibid. para. 14.
119 Ibid. para. 9.
120 Ibid. SDG 12, target 12.2.

The SDGs are increasingly being considered in governing processes regarding shared waters, the atmosphere and the ocean commons. UNGA resolutions on the law of transboundary aquifers adopted after the adoption of the 2030 Agenda acknowledge SDG 6 in the Preamble.[121] Concerning climate change, Decision 1/CP.24 of the Conference of the Parties to the UNFCCC notes that the high-level ministerial dialogue on climate finance 'underscored the urgent need to […] align financial flows with the objectives of the Paris Agreement and the [SDGs]'.[122] In addition, Decision 9/CP.24 encourages parties to strengthen adaptation planning taking into account linkages with the SDGs[123] and invites parties and relevant entities working on national adaptation goals and indicators to 'strengthen linkages with the monitoring systems of the [SDGs]'.[124] Finally, as discussed in Chapter 5, both RFMOs and the ISA have acknowledged the relevance of the SDGs for the governance of high seas fisheries and deep seabed minerals respectively.

The SDGs, contained in a UNGA resolution, are not legally biding. However, as discussed in Chapter 5, this does not mean that the SDGs lack the capacity to influence national and international law and policy.[125] The same holds true for other soft law instruments examined in this thesis, e.g., intergovernmental conference declarations such as the 1992 Rio Declaration on Environment and Development; and guidelines and recommendations such as the 1978 UNEP Draft Principles on shared resources, and the ILC Draft Articles on the Law of Transboundary Aquifers. Instruments of such a kind are grounded in international law. They refer to principles and rules of international law in their preambles and embody them in the main text (principles, guidelines,

121 UNGA 'The law of transboundary aquifers', UN Doc A/RES/71/150 (20 December 2016), Preamble, para. 4; UNGA 'The law of transboundary aquifers', UN Doc A/RES/74/193 (30 December 2019), Preamble, para. 4.

122 Decision 1/CP.24 'Preparations for the implementation of the Paris Agreement and the first session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement', UN Doc FCCC/CP/2018/10/Add.1 (19 March 2019) para. 10.

123 Decision 9/CP.24 'Report of the Adaptation Committee', ibid. para. 6.

124 Ibid. para. 14.

125 Several ways in which the SDGs could be 'non-binding yet influential' have been explored in the literature. See e.g., R.E. Kim, 'The Nexus Between International Law and the Sustainable Development Goals' (2016) *RECIEL* 25(15), 16, arguing that the SDGs are grounded in international agreements and are best conceptualized as a '*subset* of existing intergovernmental commitments'; O. Spijkers, 'The Cross-fertilization Between the Sustainable Development Goals and International Water Law' (2016) *RECIEL* 25(39), 40 – 41, stating that if states are influenced by the SDGs when applying a treaty, this could constitute relevant subsequent practice of such treaty in accordance with the Vienna Convention on the Law of Treaties; Mallory Orme, Zoë Cuthbert, Francesco Sindico et al., 'Good Transboundary Water Governance in the 2015 Sustainable Development Goals: A Legal Perspective' (2015) 40 *Water International* 969, 970 – 971, stating that although the SDGs are not legally binding, they 'still have governing implications' because states must 'translate the SDGs into national targets, and develop and implement policies to achieve the SDGs' and 'engage not only across sectors but also across borders'.

recommendations). Some soft law instruments encourage states to comply with their existing treaty obligations. For instance, the SDGs encourage states to achieve the SDGs in accordance with existing international agreements,[126] which strongly suggests consensus on combining or integrating such agreements with the SDGs in order to achieve sustainable development.[127] If we agree that 'contemporary international law is often the product of a complex and evolving interplay of instruments, both binding and non-binding',[128] the interplay between the binding legal framework and the non-binding international instruments could encourage and even facilitate the proposals in this dissertation, thereby promoting sustainable shared resource governance.

In a context steadily more permeated by states' commitment to implementing the 2030 Agenda, the principles of community of interests, common concern of humankind, public participation and sustainable development, along with awareness of the differences between PSNR and SSNR, could contribute to the sustainable governance of shared natural resources as proposed in each of the five chapters of this dissertation.

The principle of community of interests could contribute to the sustainable governance of shared water resources by promoting riparian cooperation and solidarity, the formation of a community of law among riparian states, the ecosystems approach and the rights of the riparian populations. The principle of common concern of humankind could contribute to the sustainable governance of the atmosphere by stressing the essentiality of a healthy atmosphere to human wellbeing and environmental integrity, and the need for global cooperation to effectively address atmospheric degradation. The principle of public participation could contribute to the sustainable governance of the atmosphere, high seas fisheries and deep seabed minerals. As a human right, public participation could complement climate law and thus contribute to enhancing observer participation in international climate change decision-making processes. As a means to achieving sustainable development, public participation could contribute to strengthening institutions at all levels of governance in order for them to become more effective, accountable and inclusive. Finally, the principle of sovereignty over natural resources is a fundamental overarching principle. The notion of sovereignty over shared natural resources (SSNR) developed in this thesis draws attention to the differences between PSNR and SSNR – based on the nature of the resources over which they are exercised (exclusive versus shared), their original purpose (strengthening political and economic self-determination versus benefit sharing and

126 Expressly mentioning World Trade Organization (WTO) agreements and the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), the World Health Organization Framework Convention on Tobacco Control, the Convention on the Rights of the Child, the United Nations Framework Convention on Climate Change, and the United Nations Convention on the Law of the Sea (UNCLOS).

127 See Kim, above n 23, 16 – 17.

128 A. Boyle and C. Chinkin, *The Making of International Law* (Oxford 2007) 210.

environmental protection) and their distinctive rights and duties (right to freely dispose of exclusive resources versus duty to cooperate in managing shared resources). The notion of SSNR promotes awareness of said differences and emphasizes international cooperation in the governance of natural resources that are shared by two or more states.

Principles promote coherence and consistency in international law and provide a guiding framework for its implementation.[129] As suggested in the Introduction, the principles discerned, examined and assessed in this thesis could serve as the initial foundation for a set of principles on sustainable shared resource governance. Such a set of principles could offer a general framework to guide states in an integrated way regarding the equitable utilization and environmental protection of their shared resources and promote coherence in state practice. Based on the findings, answers to the research questions and conclusions in each of the five preceding chapters, which have been summarized in the present concluding chapter, I submit that the discerned principles could, in the proposed ways, contribute to the sustainable governance of shared natural resources.

129 Final Report of the Expert Group Workshop on International Environmental Law Aiming at Sustainable Development, Washington DC, 30 September-4 October 1996, UN Doc UNEP/IEL/WS/3/2 (4 October 1996) Annex I at para. 29; P. Sands and J. Peel, *Principles of International Environmental Law* (CUP 2018, 4th ed.) at 392; D. Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary' 18 *Yale Journal of International Law* 2 (1993), at 501; P. Birnie, A. Boyle and C. Redgwell, *International Law & the Environment*, (OUP 2009, 3rd ed.) at 28.

Samenvatting – Dutch summary

INTERNATIONAAL RECHT EN HET DUURZAME BEHEER VAN GEDEELDE NATUURLIJKE HULPBRONNEN

Een principiële aanpak

Zowel internationale milieuverdragen als soft law-instrumenten benadrukken internationale samenwerking als een fundamenteel beginsel bij het beheer van natuurlijke hulpbronnen die door twee of meer staten worden gedeeld. Door spanningen tussen de nationale belangen en de gemeenschappelijke belangen van staten die natuurlijke hulpbronnen delen, kunnen staten echter moeilijk samenwerken. Gehinderde samenwerking kan leiden tot problemen zoals langdurige conflicten (bijv. tussen de oeverstaten van de Nijl), trage ratificatieprocessen van gezamenlijke beheersovereenkomsten (bijv. de Guaraní Aquifer-overeenkomst tussen Argentinië, Brazilië, Paraguay en Uruguay) of gerechtelijke procedures (bijv. verschillende zaken voor het Internationaal Gerechtshof betreffende gedeelde hulpbronnen, waaronder de historische zaken Gabčíkovo-Nagymaros tussen Hongarije en Slowakije en Pulp Mills tussen Argentinië en Uruguay). Ondertussen kan het duurzame beheer van de betrokken hulpbron en de mensenrechten van de betrokken bevolking worden aangetast.

Dit proefschrift behandelt de beginselen van internationaal recht die van toepassing zijn op het beheer van natuurlijke hulpbronnen die worden gedeeld door twee of meer staten. De term 'gedeelde natuurlijke hulpbronnen' wordt in ruime zin gebruikt en verwijst naar zowel grensoverschrijdende als mondiale hulpbronnen. Het proefschrift richt zich speciaal op natuurlijke hulpbronnen die belangrijk zijn voor de wereldbevolking, die potentieel een bron van conflict zijn (tussen de staten die de hulpbron delen en/of tussen de staten en de getroffen bevolking) en wier beheer problemen kan geven. Het proefschrift bestaat uit vijf hoofdstukken. Vier hoofdstukken zijn gepubliceerd in peer-reviewed tijdschriften over internationaal recht en één hoofdstuk is een gepubliceerd boekhoofdstuk dat door de redacteuren werd beoordeeld. Alle vijf de hoofdstukken vormen samen een coherent geheel (dit proefschrift) en zijn tegelijkertijd op zichzelf staande stukken, elk met hun individuele en onafhankelijke *raison d'être*.

De meest prominente problemen met betrekking tot het beheer van gedeelde bronnen in dit doctoraatsonderzoek zijn: (1) de afstemming van de uitoefening van permanente soevereiniteit over natuurlijke hulpbronnen (PSNH) en

het rechtvaardige gebruik en de bescherming van hulpbronnen die worden gedeeld door twee of meer staten; (2) de onvoldragen conceptualisering van de gemeenschappelijke belangen en zorgen die bestaan tussen staten die natuurlijke hulpbronnen delen; en (3) het betrekken van niet-statelijke actoren in bestuursprocessen. Het doel van dit proefschrift is het onderscheiden, onderzoeken en evalueren van beginselen van internationaal recht die deze problemen zouden kunnen aanpakken. Elk hoofdstuk identificeert een specifiek probleem of 'gat in de kennis' met betrekking tot deze drie meest prominente problemen en brengt een origineel en overtuigend argument naar voren om dit aan te pakken. De problemen die in elk hoofdstuk worden geïdentificeerd, zijn:

Hoofdstuk 1: De erkenning van PSNH over grensoverschrijdende watervoerende bodemlagen is controversieel. De belangrijkste bezwaren zijn dat de volledige uitoefening van PSNH over grensoverschrijdende watervoerende bodemlagen grensoverschrijdende samenwerking zou kunnen ontmoedigen en ongeschikt zou zijn om het milieu van gedeelde zoetwatervoorraden te beschermen.

Hoofdstuk 2: Het juridische karakter van de gemeenschap van belangen en haar rol in de uitoefening van soevereiniteit over gedeelde watervoorraden blijven onduidelijk.

Hoofdstuk 3: De International Law Commission (ILC) heeft het concept dat de aantasting van atmosferische omstandigheden een 'gemeenschappelijke zorg van de mensheid' is uit haar ontwerprichtlijnen voor de bescherming van de atmosfeer verwijderd. Dit vanwege bezwaren van ILC-leden met betrekking tot onvoldoende duidelijkheid over het concept van gemeenschappelijke zorg van de mensheid en de juridische gevolgen ervan.

Hoofdstuk 4: Partijen bij het VN-klimaatraamwerkverdrag (UNFCCC) erkenden de noodzaak om de effectieve betrokkenheid van waarnemersorganisaties verder te versterken naarmate het UNFCCC-proces op weg is naar de uitvoering van de Overeenkomst van Parijs. Het internationaal klimaatrecht bepaalt echter niet hoe partijen moeten zorgen voor een effectieve deelname van waarnemers.

Hoofdstuk 5: Hoewel bindende en niet-bindende internationale rechtsinstrumenten voorzien in publieke participatie in milieubeheer en deze wijze ook aanmoedigen, zijn bij de bestaande opvatting van gemeenschapsbestuur over de zeeën en oceanen in de eerste plaats staten en industriële bedrijven betrokken en wordt de toegang voor het maatschappelijk middenveld beperkt.

Op basis van de geïdentificeerde problemen behandelt dit proefschrift de volgende algemene onderzoeksvragen:

Welke beginselen van internationaal recht bevorderen het naar elkaar toegroeien en de convergentie van de uitoefening van permanente soevereiniteit over natuurlijke hulpbronnen en de gemeenschappelijke belangen van staten die natuurlijke hulpbronnen delen?

Hoe worden dergelijke gemeenschappelijke belangen in het internationaal recht geconceptualiseerd? (Hoofdstukken 1-3)

Welke beginselen van internationaal recht bevorderen de participatie van niet-statelijke actoren in het bestuur en beheer van gedeelde natuurlijke hulpbronnen? (Hoofdstukken 4 en 5)

De algemene onderzoeksvragen zijn onderverdeeld in de volgende sets subvragen per hoofdstuk:

Hoofdstuk 1: Is de soevereiniteit die wordt uitgeoefend over natuurlijke hulpbronnen onder de exclusieve nationale jurisdictie van een staat anders dan de soevereiniteit die wordt uitgeoefend over hulpbronnen die worden gedeeld door twee of meer staten? Als dat het geval is, wat onderscheidt de een van de ander? Wat is het nut om deze te onderscheiden vanuit het perspectief van grensoverschrijdende samenwerking en milieubescherming?

Hoofdstuk 2: Wat is de juridische status van het beginsel van gemeenschap van belangen? Hoe verhoudt dit zich tot de uitoefening van nationale soevereiniteit over gedeelde watervoorraden? Kenmerkt het internationale waterrecht zich door trends die erop wijzen dat het zich ontwikkelende beginsel van gemeenschap van belangen zich in een bepaalde richting ontwikkelt?

Hoofdstuk 3: Wat houdt het beginsel van gemeenschappelijke zorg van de mensheid in volgens internationaal recht? Wat zijn de juridische gevolgen van dit beginsel? Is aantasting van de atmosfeer een gemeenschappelijke zorg van de mensheid?

Hoofdstuk 4: Wat kenmerkt de deelname van waarnemers aan internationale besluitvormingsprocessen over klimaatverandering? Wat betekent de erkenning in de Overeenkomst van Parijs dat partijen de mensenrechtenverplichtingen moeten nakomen? Wat houdt het mensenrecht tot deelname aan publieke aangelegenheden in? Omvat dit ook besluitvormingsprocessen op internationaal niveau? Hoe kan het recht om deel te nemen aan publieke aangelegenheden het klimaatrecht aanvullen en mogelijk bijdragen tot een grotere deelname van waarnemers aan de internationale besluitvorming over klimaatverandering?

Hoofdstuk 5: Wat is de stand van zaken met betrekking tot het gebruik en de bescherming van de visserij op volle zee en diepzeebodemmineralen? Hoe zit het met de inspraak van het publiek in de instellingen die deze hulpbron-

nen beheren en het toepasselijke rechtskader? Welke rol speelt publieke deelname aan de Sustainable Development Goals (SDG's)? Wat is het juridische karakter van de SDG's? Op welke manier kunnen SDG 14 (duurzaam gebruik van zeehulpbronnen) en SDG 16 (het bouwen van sterke instituties op alle niveaus) instellingen beïnvloeden die de visserij op volle zee en diepzeebodemmineralen beheren ten bate van een duurzaam beheer van deze hulpbronnen?

Elk hoofdstuk beantwoordt de daarop betrekking hebbende reeks subvragen die zich richten op één bepaald internationaal rechtsbeginsel dat relevant is voor het beheer van gedeelde natuurlijke hulpbronnen, namelijk soevereiniteit (hoofdstuk 1), gemeenschap van belangen (hoofdstuk 2), gemeenschappelijke zorg van de mensheid (hoofdstuk 3), publieke participatie (hoofdstuk 4) en duurzame ontwikkeling (hoofdstuk 5). Naast het beginsel in kwestie, besteden de hoofdstukken aandacht aan daaraan gerelateerde beginselen die van toepassing zijn op het beheer van de gedeelde bron die wordt besproken. Het afsluitende hoofdstuk belicht de bevindingen in de hoofdstukken 1-5, geeft antwoorden op de onderzoeksvragen en bespreekt de onderlinge relatie tussen de verschillende beginselen onderling en ook in relatie tot andere beginselen van het internationaal recht. Voorts evalueert het slothoofdstuk de vooruitzichten voor het beheer van gedeelde wateren, de atmosfeer en de oceaan als global commons op basis van de besproken beginselen. Dit proefschrift hanteert daarbij een klassieke juridische normatieve onderzoeksmethodologie. Waar nodig en mogelijk zijn primaire en secundaire bronanalyse gecombineerd met praktische ervaring of 'in situ observatie' om de problemen volledig te begrijpen en de onderzoeksvragen te beantwoorden, daarbij rekening houdend met de praktische implicaties van de voorstellen in het proefschrift.

Elk hoofdstuk is als volgt opgebouwd. Als eerste identificeert elk hoofdstuk een probleem of hiaat in de kennis met betrekking tot het beginsel in kwestie en de toepassing ervan op een bepaalde gedeelde natuurlijke hulpbron. Elk hoofdstuk brengt vervolgens een origineel en overtuigend argument naar voren om het geïdentificeerde probleem aan te pakken. Ten slotte doet elk hoofdstuk voorstellen om de rol van het onderzochte beginsel in het beheer van de desbetreffende gedeelde hulpbron te versterken.

Hoofdstuk 1 identificeert het probleem dat de erkenning van PSNH over grensoverschrijdende watervoerende bodemlagen controversieel is, voornamelijk omdat PSNH grensoverschrijdende samenwerking zou kunnen ontmoedigen en onvoldoende zou zijn om het milieu van gedeelde zoetwatervoorraden te kunnen beschermen. Het hoofdstuk stelt dat PSNH en 'soevereiniteit over gedeelde natuurlijke hulpbronnen' (SGNH) van elkaar verschillen. Als eerste presenteert het de controverse die wordt veroorzaakt door het beginsel van PSNH toe te passen op hulpbronnen die worden gedeeld door twee of meer staten. Vervolgens analyseert het de relevante internationale rechtsinstrumenten om kenmerken te identificeren die soevereiniteit over exclusieve hulpbronnen

onderscheiden van soevereiniteit over gedeelde hulpbronnen. Deze vergelijkende analyse identificeert drie belangrijke verschillen. Ten eerste wordt PSNH uitsluitend uitgeoefend door één staat over de natuurlijke hulpbronnen die zich volledig binnen zijn nationale grenzen bevinden en in gebieden die onder zijn exclusieve economische jurisdictie (zoals ter zee de exclusieve economische zone en het continentaal plat), terwijl SGNH gezamenlijk wordt uitgeoefend door twee of meer staten over hulpbronnen verdeeld over elk van hun territoria en waar het gebruik door de ene staat het gebruik door de andere(n) beïnvloedt. Ten tweede was het oorspronkelijke doel van PSNH om politieke en economische zelfbeschikking van het betrokken volk en hun staat te waarborgen, terwijl het doel van SGNH is het delen van de voordelen en het reguleren van de milieubescherming van gedeelde natuurlijke hulpbronnen. Ten derde is het essentiële en kenmerkende recht van de PSNH om vrijelijk over de eigen natuurlijke hulpbronnen te beschikken niet van toepassing op gedeelde bronnen, terwijl de essentiële en karakteristieke verplichting onder de SGNH om samen te werken niet van toepassing is op hulpbronnen onder exclusieve jurisdictie. Op basis van deze bevindingen concludeert het hoofdstuk dat PSNH en SGNH conceptueel verschillend zijn en afzonderlijke rechtsregimes vormen. Het hoofdstuk suggereert dat het begrijpen van SGNH als een reeks regels die verschillen van die van PSNH zou kunnen bevorderen dat het beheer van gedeelde hulpbronnen steeds meer gericht wordt op samenwerking en milieubescherming, en steeds minder gericht op het bevredigen van de territoriale belangen van de staat. Bovendien zou een groter bewustzijn van de verschillen tussen soevereiniteit over exclusieve en gedeelde hulpbronnen de onderhandelingen kunnen vergemakkelijken, met name in het licht van de lopende discussies over het recht inzake grensoverschrijdende watervoerende bodemlagen bij de Algemene Vergadering van de Verenigde Naties.

Hoofdstuk 2 identificeert het probleem dat de juridische aard van de gemeenschap van belangen en haar rol in de uitoefening van soevereiniteit over gedeelde watervoorraden onduidelijk blijft. Hoofdstuk 2 onderzoekt verdragen die uitdrukkelijk 'gemeenschappelijke belangen' of een 'gemeenschap van belang' tussen oeverstaten erkennen om de juridische conceptualisering van gemeenschap van belangen en de fundamentele elementen ervan in kaart te brengen. Voorts geeft het hoofdstuk de trends aan van de algemene richting waarin het beginsel van de gemeenschap van belangen evolueert. Op basis van deze analyse stelt het hoofdstuk dat de gemeenschap van belangen een beginsel is dat de relaties tussen de oeverstaten met betrekking tot de gedeelde watervoorraden regelt, hetzij omdat hierin is voorzien in een verdrag dan wel omdat dit als zodanig wordt geïnterpreteerd. Basiskenmerken zijn: (1) de eenheid van het gedeelde afvoerbekken; (2) solidariteit en samenwerking tussen de oeverstaten; en (3) de harmonisatie van de nationale wetten en beleid van de oeverstaten op het gebied van waterbeheer. Daarnaast identificeert hoofdstuk 2 twee trends die licht werpen op de algemene richting waarin het op-

komende beginsel van gemeenschap van belangen evolueert: een verschuiving van de traditionele benadering van milieubescherming op basis van de no-harm-regel naar de ecosysteembenadering, en de integratie van de bekkenpopulaties als houders van rechten en plichten met betrekking tot gedeelde afvoerbekken. Hoofdstuk 2 suggereert dat de gemeenschap van belangen een verschuiving bevordert van de bescherming van primair de staatsbelangen naar de bescherming van het milieu – ongeacht of wel of niet schade wordt toegebracht aan andere oeverstaten – en de rechten van de oeverbevolking. De gemeenschap van belangen draagt aldus bij tot de harmonisatie van de centrale dimensies van de moderne soevereiniteit van de staat, te weten milieubescherming en mensenrechten.

Hoofdstuk 3 handelt over het probleem dat de ILC uit zijn ontwerprichtlijnen voor de bescherming van de atmosfeer het concept verwijderde dat degradatie van de atmosfeer een 'gemeenschappelijke zorg van de mensheid' is. Deze beslissing was het gevolg van bezwaren van diverse ILC-leden over het bestaan van onvoldoende duidelijkheid over het concept van gemeenschappelijke zorg van de mensheid en de juridische gevolgen ervan. Het hoofdstuk stelt dat de aantasting van de atmosfeer in feite een gemeenschappelijke zorg van de mensheid is en stelt voor om het beginsel wel in de ontwerprichtlijnen op te nemen. Twee redenen onderbouwen dit voorstel. Ten eerste erkennen verschillende internationale rechtsinstrumenten kwesties van gemeenschappelijk belang als zijnde van invloed op de menselijke gezondheid en het milieu en die gecoördineerde en effectieve acties van alle staten vereisen. Het probleem van atmosferische degradatie deelt deze basiskenmerken en is daarom een gemeenschappelijke zorg van de mensheid. Ten tweede, kortstondige klimaatverontreinigende stoffen zoals zwarte koolstof tasten de atmosfeer aan en veroorzaken klimaatverandering. Aangezien het VN-Raamverdrag inzake Klimaatverandering (UNFCCC) klimaatverandering erkent als een probleem van gemeenschappelijk belang, valt de aantasting van de atmosfeer logischerwijs ook onder deze categorie. Het hoofdstuk suggereert dat het terugbrengen van 'gemeenschappelijke zorg van de mensheid' naar de ontwerprichtlijnen de ILC de mogelijkheid zou geven om bij te dragen aan de uitwerking van de betekenis en de reikwijdte van dit nog steeds wat omstreden beginsel.

Hoofdstuk 4 bespreekt effectieve participatie van waarnemers in internationale klimaatonderhandelingen. Weliswaar hebben de partijen bij het UNFCCC de noodzaak erkend om de effectieve betrokkenheid van waarnemersorganisaties verder te versterken naarmate er vooruitgang wordt geboekt bij de uitvoering van de Overeenkomst van Parijs, maar het internationale klimaatrecht bepaalt niet hoe partijen effectieve participatie van waarnemers moeten garanderen. Het hoofdstuk stelt dat erkenning van het mensenrecht om deel te nemen aan publieke aangelegenheden en de verplichting om ervoor te zorgen dat dit recht daadwerkelijk wordt geëerbiedigd zou kunnen bijdragen tot een grotere

deelname van waarnemers aan internationale besluitvormingsprocessen in het kader van het UNFCCC. Dit argument stoelt op de volgende gronden. Ten eerste vereist het recht om deel te nemen aan publieke aangelegenheden dat staten wetgevende en andere maatregelen nemen die nodig zijn om daadwerkelijke deelname aan de besluitvorming van algemeen belang te waarborgen. Ten tweede is het recht om deel te nemen aan publieke aangelegenheden ook van toepassing op internationale besluitvormingsprocessen. Ten derde, hoewel noch het UNFCCC noch de Overeenkomst van Parijs uitdrukkelijk verwijzen naar het waarborgen van effectieve deelname van waarnemers, hebben UNFCCC-partijen die ook partij zijn bij de relevante mensenrechtenverdragen niettemin ook op die grond de verplichting om te zorgen voor hun effectieve deelname, ook op internationaal niveau. Deze verplichting wordt versterkt door de erkenning door de partijen in de Overeenkomst van Parijs dat zij hun bestaande mensenrechtenverplichtingen moeten nakomen wanneer zij maatregelen nemen om de klimaatverandering aan te pakken. Om deze redenen voorziet het mensenrecht om deel te nemen aan publieke aangelegenheden in verplichtingen voor UNFCCC-partijen die ook partij zijn bij de mensenrechtenverdragen. Deze kunnen de klimaatbepalingen aanvullen en aldus bijdragen tot een grotere deelname van waarnemers aan internationale UNFCCC-besluitvormingsprocessen.

Hoofdstuk 5 handelt over het probleem dat de bestaande interpretatie over het beheer van de oceanen in de eerste plaats staten en industriële ondernemingen betreft en de toegang van het maatschappelijk middenveld beperkt. Hoofdstuk 5 stelt dat de Sustainable Development Goals (SDG's) bijdragen aan de ontwikkeling van een nieuwe opvatting over het beheer van de zeeën en oceanen door de nadruk te leggen op de deelname van het maatschappelijk middenveld aan het bereiken van duurzame ontwikkeling. Dit argument is gebaseerd op twee redenen. Ten eerste moedigen de SDG's instellingen op alle niveaus aan om de toegang van het publiek tot informatie en deelname aan de besluitvorming te versterken om de transparantie, verantwoordingsplicht en doeltreffendheid van hun beheer en bestuur te vergroten. Ten tweede toont de studie van publieke participatie in regionale organisaties voor visserijbeheer (ROVB's) en de Internationale Zeebodemautoriteit (ISA) aan dat de bestaande opvatting daarover in de eerste plaats staten en industriële ondernemingen betreft en de toegang van het maatschappelijk middenveld beperkt. Het hoofdstuk suggereert dat de SDG's een nieuw begrip van oceaanbestuur als global commons bevorderen, waarbij publieke participatie een integraal onderdeel is van het bestuursproces en noodzakelijk is om institutionele transparantie, verantwoordingsplicht en effectiviteit voor duurzame ontwikkeling te waarborgen.

Het *afsluitende hoofdstuk* belicht de bevindingen, antwoorden op de onderzoeksvragen en conclusies in elk van de vijf voorgaande hoofdstukken. Het geeft

ook meer algemene conclusies die antwoord geven op de algemene onderzoeksvragen uit de inleiding van het proefschrift. Deze geven aanleiding tot een aantal afsluitende opmerkingen. De overkoepelende conclusies zijn dat de beginselen van gemeenschap van belangen en de gemeenschappelijke zorg van de mensheid het naar elkaar toebrengen van PSNH en de gemeenschappelijke belangen van staten die natuurlijke hulpbronnen delen bevorderen. Voorts stimuleren de beginselen van publieke participatie en duurzame ontwikkeling het betrekken van niet-statelijke actoren. Daarnaast concludeert het hoofdstuk dat de beginselen die in dit doctoraatsonderzoek worden onderscheiden, onderzocht en geëvalueerd met elkaar samenhangen en ook wisselwerking hebben met andere beginselen van internationaal recht en in context moeten worden geïnterpreteerd.

De onderscheiden beginselen mogen inderdaad niet los van elkaar worden gezien, aangezien deze ook raken aan andere toepasselijke beginselen van het internationaal recht. De interactie tussen de onderscheiden beginselen en andere toepasselijke beginselen van het internationaal recht versterkt de focus en het potentieel van al deze beginselen om staten te begeleiden bij het bereiken van een duurzaam bestuur over hun gedeelde natuurlijke hulpbronnen. De onderscheiden beginselen hebben ook betrekking op elkaar. Elk van deze heeft immers betrekking op soevereiniteit en elk hoofdstuk benadert het probleem, de onderzoeksvragen, de argumenten en de voorstellen vanuit het perspectief van duurzame ontwikkeling. Het onderlinge verband tussen de onderscheiden beginselen en andere beginselen van het internationaal recht suggereert dat de rol van de onderscheiden beginselen zou kunnen worden versterkt als deze op een geïntegreerde manier worden geïnterpreteerd. Dit overeenkomstig artikel 31 van het Verdrag van Wenen inzake het verdragenrecht dat bepaalt dat een verdrag wordt uitgelegd in zijn context en in het licht van zijn doelstellingen. Samen met de context moet bovendien rekening worden gehouden met 'alle relevante regels van internationaal recht die van toepassing zijn in de betrekkingen tussen de partijen'. De onderscheiden beginselen – die veelal in verdragen zijn vervat – moeten daarom in hun context worden geïnterpreteerd, rekening houdend met alle relevante beginselen en regels van het internationaal recht met betrekking tot het duurzame beheer van gedeelde natuurlijke hulpbronnen. Vanuit een breder perspectief moeten de onderscheiden beginselen ook worden geïnterpreteerd in het licht van de voortdurende en geleidelijke ontwikkeling van het internationaal recht op het gebied van duurzame ontwikkeling, waarbij wordt erkend dat economische ontwikkeling, milieubescherming en eerbiediging van de mensenrechten met elkaar samenhangen en op een geïntegreerde manier, ook wat betreft gedeelde natuurlijke hulpbronnen. Het afsluitende hoofdstuk plaatst de conclusies van dit proefschrift ook duidelijk in de context van twee internationale documenten die tijdens deze studie zijn aangenomen en die van cruciaal belang zijn voor het duurzame beheer van gedeelde natuurlijke hulpbronnen, namelijk

de Overeenkomst van Parijs en de VN-Agenda 2030 voor duurzame ontwikkeling.

Beginselen bevorderen de coherentie en consistentie in het internationale recht en bieden een leidend kader voor de uitvoering ervan. Zoals in de inleiding wordt gesuggereerd, zouden de in dit doctoraatsonderzoek onderscheiden, onderzochte en beoordeelde principes de eerste basis kunnen vormen voor een reeks beginselen over duurzaam beheer van gedeelde hulpbronnen. Een dergelijke reeks beginselen biedt een algemeen kader om staten op een geïntegreerde manier te begeleiden met betrekking tot het rechtvaardige gebruik en de milieubescherming van hun gedeelde hulpbronnen en de samenhang in de statenpraktijk te bevorderen. De bevindingen, antwoorden op de onderzoeksvragen en conclusies in elk van de vijf hoofdstukken van dit proefschrift, leiden tot de hoofdconclusie dat de geïdentificeerde beginselen op de voorgestelde manieren wezenlijk kunnen bijdragen tot het duurzame beheer van gedeelde natuurlijke hulpbronnen.

List of Treaties and other International Instruments

Treaties

- 1950 Treaty between Canada and the United States of America concerning the Diversion of the Niagara River
- 1960 Indus Waters Treaty between the Government of India, the Government of Pakistan and the International Bank for Reconstruction and Development, 419 UNTS 124
- 1966 International Covenant on Civil and Political Rights 999 UNTS 171
- 1969 American Convention on Human Rights 1144 UNTS 123
- 1979 Convention on Long-range Transboundary Air Pollution 1302 UNTS 217
- 1982 United Nations Convention on the Law of the Sea 1833 UNTS 3
- 1992 United Nations Framework Convention on Climate Change 1771 UNTS 107
- 1992 Convention on Biological Diversity 1760 UNTS 79
- 1992 United Nations Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1936 UNTS 269
- 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks 2167 UNTS 3
- 1995 Agreement on Cooperation for the Sustainable Development of the Mekong River Basin
- 1995 Protocol on Shared Watercourses in the Southern African Development Community (SADC) Region (Maseru, 16 May 1995; in force 29 September 1998)
- 1997 Convention on the Law of the Non-navigational Uses of International Watercourses 2999 UNTS
- 1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters 2161 UNTS 447
- 1999 Protocol to the 1979 Convention on Long-range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone 2319 UNTS 80
- 2000 Agreement between Namibia and South Africa and the Agreement on the establishment of the Orange-Senqu River Commission (ORASECOM)
- 2001 International Treaty on Plant Genetic Resources for Food and Agriculture 2400 UNTS 303
- 2002 Charte des Eaux du Fleuve Sénégal
- 2003 Convention for the Safeguarding of the Intangible Cultural Heritage 2368 UNTS 35
- 2015 Paris Agreement to the United Nations Framework Convention on Climate Change UNTS Registration No. 54113

- 2018 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean

Other International Instruments

UNGA Resolutions

- Integrated Economic Development and Commercial Agreements (UNGA Resolution A/RES/523(VI), 12 January 1952)
- The Right to Exploit Freely Natural Wealth and Resources (UNGA Resolution A/RES/626(VII), 21 December 1952)
- Recommendations Concerning International Respect of the Right of the Peoples and Nations to Self-determination (UNGA Resolution A/RES/1314(XIII), 12 December 1958)
- Concerted Action for Economic Development of Economically Less Developed Countries (UN Doc. A/RES/1515(XV), 15 December 1960)
- Permanent Sovereignty over Natural Resources (UNGA Resolution A/RES/1803(XVII), 14 December 1962)
- Permanent Sovereignty over Natural Resources (UNGA Resolution A/RES/2158(XXI), 25 November 1966)
- Cooperation between States in the Field of the Environment (UNGA Resolution A/RES/2995(XXVII), 15 December 1972)
- Permanent Sovereignty over Natural Resources (UNGA Resolution A/RES/3171(XXVIII), 17 December 1973)
- Cooperation in the Field of the Environment Concerning Natural Resources Shared by Two or More States (UNGA Resolution A/RES/3129(XXVIII), 13 December 1973)
- Declaration on the Establishment of a New International Economic Order (UNGA Resolution A/RES/3201(S-VI), 1 May 1974)
- Charter on the Economic Rights and Duties of States (UNGA Resolution 3281 (XXIX), 12 December 1974) ('CERDS')
- Cooperation in the Field of the Environment Concerning Resources Shared by Two or More States (UNGA Resolution A/RES/34/186, 18 December 1979)
- Protection of Global Climate for Present and Future Generations of Mankind, UN Doc A/RES/43/53 (6 December 1988)
- Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms' UN Doc A/RES/53/144 (8 March 1999)
- The law of transboundary aquifers, UN Doc A/RES/63/124 (15 January 2009).
- The law of transboundary aquifers, UN Doc A/RES/66/104 (13 January 2012).
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- Protection of global climate for present and future generations of humankind, UN Doc A/RES/67/210 (12 March 2013)
- The law of transboundary aquifers, UN Doc A/RES/68/118 (19 December 2013).
- Transforming our world: the 2030 Agenda for Sustainable Development, UN Doc A/RES/70/1, 21 October 2015

- The law of transboundary aquifers, UN Doc A/RES/71/150 (20 December 2016)
- The law of transboundary aquifers, UN Doc A/RES/74/193 (30 December 2019)

International Law Commission

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- Draft Articles on the Law of Transboundary Aquifers with Commentaries, in: Yearbook of the International Law Commission, Volume II, Part Two (UN Doc. A/CN.4/SER.A/2008/Add.1, 2008)
- Protection of the Atmosphere: Texts and Titles of Draft Conclusions 1, 2 and 5, and Preambular Paragraphs Provisionally Adopted by the Drafting Committee on 13, 18, 19 and 20 May 2015, U.N. Doc. A/CN.4/L.851 (2015)

Human Rights Council

- Human Rights Council 'Draft guidelines for States on the effective implementation of the right to participate in public affairs: Report of the Office of the United Nations High Commissioner for Human Rights' UN Doc A/HRC/39/28 (20 July 2018)
- Human Rights Council 'Equal participation in political and public affairs' Un Doc A/HRC/RES/33/22 (6 October 2016)
- Human Rights Council 'Equal participation in political and public affairs' UN Doc A/HRC/RES/39/11 (5 October 2018)
- Human Rights Council 'Promotion, protection and implementation of the right to participate in public affairs in the context of the existing human rights law: best practices, experiences, challenges and ways to overcome them: Report of the Office of the United Nations High Commissioner for Human Rights' UN Doc A/HRC/30/26 (23 July 2015)
- Human Rights Council 'Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights' UN Doc A/HRC/10/61 (15 January 2009)
- Human Rights Council 'Human rights and climate change' UN Doc A/HRC/RES/32/33 (18 July 2016)
- Human Rights Council 'Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment' UN Doc A/HRC/31/52 (1 February 2016)

International Seabed Authority

- Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, ISBA/19/C/17 (22 July 2013)

- Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11 (27 July 2012)
- Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1 (7 May 2010)
- Environmental Management Plan for the Clarion-Clipperton Zone, ISBA/17/LTC/7 (13 July 2011)
- Report of the Secretary-General of the International Seabed Authority under article 166, paragraph 4, of the United Nations Convention on the Law of the Sea, ISBA/23/A/2 (5 June 2017)
- Towards an ISA Environmental Management Strategy for the Area, ISA Technical Study No. 17 (March 2017)
- Biodiversity, Species Ranges, and Gene Flow in the Abyssal Pacific Nodule Province: Predicting and Managing the Impacts of Deep Seabed Mining, ISA Technical Study No. 3 (2008)
- Recommendations for the Guidance of Contractors for the Assessment of the Possible Environmental Impacts Arising from Exploration for Marine Minerals in the Area, ISBA/19/LTC/8 (1 March 2013)
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- Rules of Procedure of the Council of the International Seabed Authority
- Rules of Procedure of the Legal and Technical Commission of the International Seabed Authority

Conference of the Parties to the UNFCCC

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- Decision18/CP.4, Attendance of intergovernmental and non-governmental organizations at contact groups' UN Doc FCCC/CP/1998/16/Add.1 (25 January 1999)
- 'Decision 2/CP.17, Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' UN Doc FCCC/CP/2011/9/Add.1 (15 March 2012) (Durban Outcome)
- Decision 18/CMA.1, Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement' UN Doc FCCC/PA/CMA/2018/3/Add.2

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Curriculum vitae

Nadia Sánchez Castillo-Winckels (Combarbalá, Chile, 1978) is a lawyer specializing in public international law. She obtained her undergraduate law degree (LL.B. equivalent) from the Pontificia Universidad Católica de Chile. Nadia received her Juris Doctor degree from the Supreme Court of Chile in 2003. After practicing law for two years, Nadia was awarded a scholarship by the China Scholarship Council to study Chinese language and culture in Beijing. After successfully completing these studies, she worked as lecturer in public international law at the China Youth University of Political Studies and the University of International Business and Economics (UIBE), both in Beijing. She also coached teams of students participating in the Jessup International Law Moot Court competition at these universities. Additionally, Nadia worked as analyst at ProMexico and as research intern at ProChile, the export promotion bureaus of the Mexican and Chilean governments respectively located in Beijing.

In 2010, Nadia was awarded a scholarship by the Agencia Nacional de Investigación y Desarrollo (ANID, former CONICYT) to study the Advanced LL.M. in Public International Law at the Grotius Centre for International Legal Studies of Leiden University, specializing in Peace, Justice and Development. During this period, Nadia was a research intern at the IHE Delft Institute for Water Education. Her LL.M. thesis on the legal regime of the Nile River was published by the Netherlands International Law Review. In 2012, Nadia was awarded a scholarship by ANID to conduct PhD research at Leiden Law School. In the course of her PhD, Nadia served as research assistant to the International Law Commission Special Rapporteur on the Protection of the Atmosphere Professor Shinya Murase, became a member of the International Law Association's committee on the role of international law in sustainable natural resource management for development, and was a guest lecturer at UIBE. Nadia is author of solo and joint publications on issues relating to natural resource governance and sustainable development. She has presented her work at universities, conferences and workshops around the world.

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