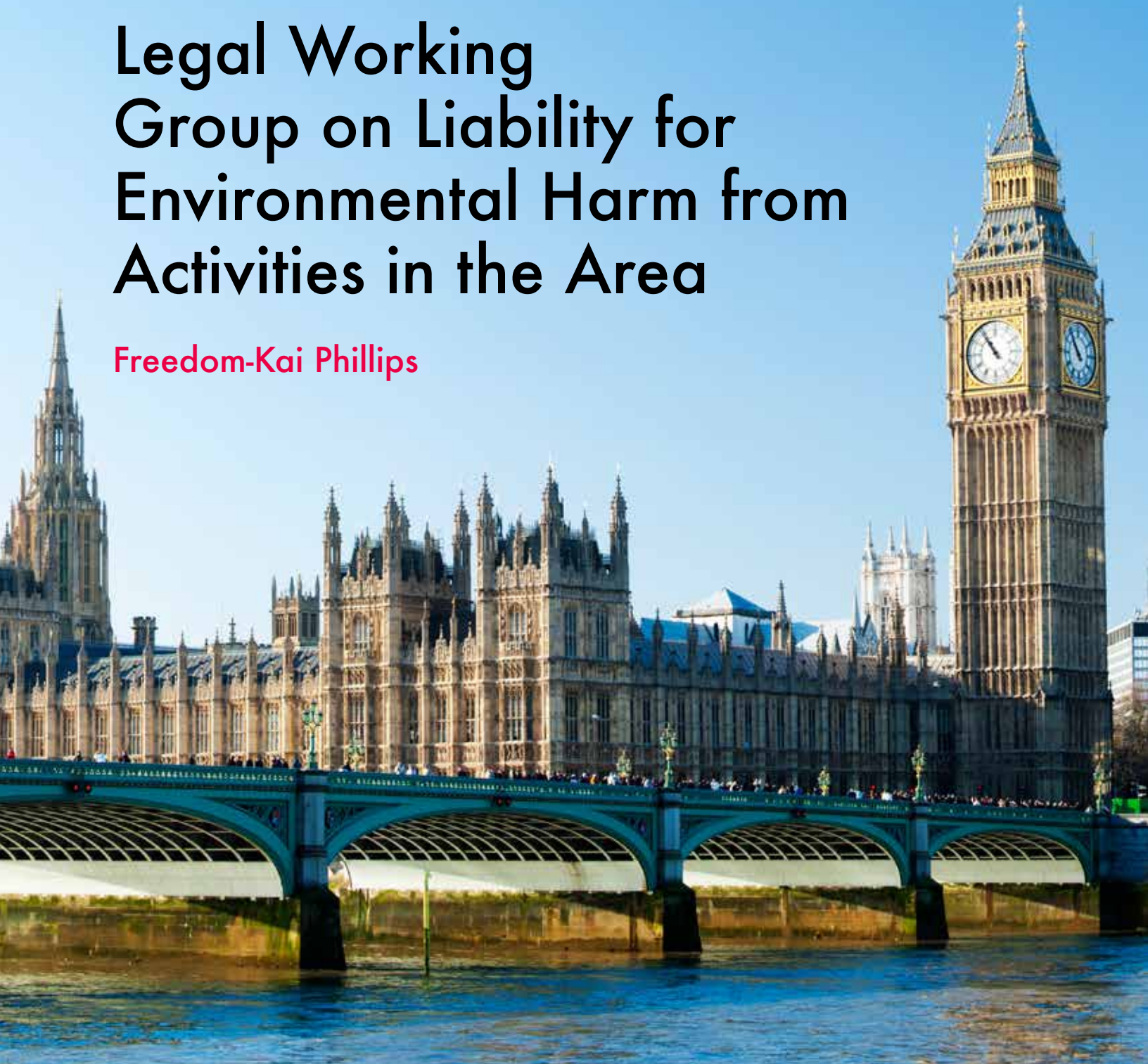

Centre for International
Governance Innovation

Conference Report – London, United Kingdom, September 2017

Legal Working Group on Liability for Environmental Harm from Activities in the Area

Freedom-Kai Phillips



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CIGI Masthead

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About the Authors

Freedom-Kai Phillips joined CIGI's International Law Research Program (ILRP) as a research associate in 2016. At CIGI, his research interests include international environmental law, with a focus on marine and terrestrial biodiversity, traditional knowledge and climate change.

Freedom-Kai provides legal research in support of the ILRP's international environmental law stream, examining law and governance innovations and tools for implementing the United Nations Sustainable Development Goals (SDGs). Specifically, Freedom-Kai is assessing law and governance innovations for realizing the SDGs, including but not limited to water, access to justice and biodiversity.

In addition to his work at CIGI, Freedom-Kai is a member of the International Union for Conservation of Nature's World Commission on Environmental Law, and a legal research fellow with the Centre for International Sustainable Development Law. Prior to that, Freedom-Kai served as interim executive director of the Centre for Law, Technology and Society at the University of Ottawa, Faculty of Law.

Freedom-Kai holds a master of laws from the University of Ottawa, a bachelor of laws from the Schulich School of Law at Dalhousie University, a master of arts in diplomacy and international relations from the John C. Whitehead School of Diplomacy and International Relations at Seton Hall University, and an honours bachelor of science from Eastern Michigan University.

About the International Law Research Program

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law.

The ILRP strives to be the world's leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program's mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world.

The ILRP focuses on the areas of international law that are most important to global innovation, prosperity and sustainability: international economic law, international intellectual property law and international environmental law. In its research, the ILRP is attentive to the emerging interactions among international and transnational law, Indigenous law and constitutional law.

Acronyms and Abbreviations

CIL	Centre for International Law
CLC	Civil Liability Convention for Oil Pollution Damage
ComSec	Commonwealth Secretariat
EIA	environmental impact assessment
ILC	International Law Commission
IMO	International Maritime Organization
IOPC Funds	International Oil Pollution Compensation Funds
ISA	International Seabed Authority
ITLOS	International Tribunal for the Law of the Sea
LTC	Legal and Technical Commission
NUS	National University of Singapore
SDG	Sustainable Development Goals
SDR	Special Drawing Rights
UNCLOS	United Nations Convention on the Law of the Sea

Executive Summary

This research workshop was convened by the International Law Research Program of the Centre for International Governance Innovation (CIGI) in conjunction with the International Seabed Authority (ISA) and the Commonwealth Secretariat. Experts in the law of the sea and international environmental law were invited to sit as a working group to consider issues of liability for environmental harm resulting from deep seabed mining in the high seas.

Participants brought a broad set of expertise in international law, maritime practices and seabed mining activities to provide for a balanced

and informed discussion. The topics discussed included the current legal architecture for liability/responsibility under international law, including an update on the ISA mining code and existing domestic frameworks; operational factors that impact the interpretation of effective control and channelling of liability, sources of potential liability and the perspectives of both stakeholders and industry; legal and governance issues, such as the interpretation and application of the principle that the deep seabed is classified as the common heritage of mankind, the potential role of insurance for deep seabed mining activities and intersections with existing systems; and legal and policy constraints and opportunities relating to liability.

The working group will result in a collection of papers to be published by CIGI, which will look to support the efforts currently under way at the ISA toward the development of requirements clarifying the obligations and liability of authorized actors conducting and/or overseeing deep seabed mining in areas beyond national jurisdiction.

Introduction

The mining of mineral resources from the deep seabed has transitioned from being highly cost prohibitive and exploratory to being possibly commercially viable, with enhanced exploitation raising significant legal questions. The seabed and subsoil in areas beyond national jurisdiction (the Area) are classified as the “common heritage of mankind” under the United Nations Convention on the Law of the Sea¹ (UNCLOS), precluding states from asserting sovereign rights, with the governance of exploitation vested with the International Seabed Authority (ISA) for the benefit of mankind. Three main types of exploration have been identified: polymetallic nodules, potato-sized formations rich in manganese, iron, titanium, copper and cobalt found at a depth of 4,000–6,000 metres; massive sulfides, deposits of gold, silver, copper and zinc found on hydrothermal vents at depths of 100–4000 metres; and cobalt rich crusts, the mineral-rich skin containing tungsten,

¹ *United Nations Convention on the Law of the Sea*, 10 December 1982, 1833 UNTS 3, 21 ILM 1261 (entered into force 16 November 1994) [UNCLOS].

platinum, titanium and cerium, among others, found on the sides and summits of underwater mountains at depths of 800–2,500 metres.

Given the complexities of operating at such depths, risks to the marine environment are numerous, including those associated with the operation or failure of equipment and/or vessels conducting exploitative activities. The ISA is currently developing regulations for the exploitation of marine minerals in the Area, with a tentative timeline for adoption and approval by July 2020. While the basic legal architecture of a liability system has been addressed in the provisions of UNCLOS, and elaborated upon by the International Tribunal for the Law of the Sea (ITLOS) in its 2011 advisory opinion on activities in the Area,² there remain both substantive and procedural gaps that will need to be addressed as part of the regulatory development process.

The Legal and Technical Commission (LTC) of the ISA identified “responsibility and liability” as a priority deliverable in the development of the mining code for the exploitation stage of deep seabed mining.³ A key step identified by the LTC in order to move this item forward was the suitability of the establishment of a legal working group (the working group) to undertake research concerning the legal framework under which rules and processes for establishing liability and compensation mechanisms for damage to the environment may be developed. Additionally, the 2011 advisory opinion, in considering the scope of obligations for activities in the Area, opened the door for further development and clarification of liability rules. The scope of work would be preliminary in nature and directed to provide the ISA Secretariat and the LTC with a foundational understanding of the potential legal avenues for establishing a sector-specific liability regime for deep seabed mining.

A legal working group was convened for the above-noted purposes by the ILRP, in conjunction with the Commonwealth Secretariat (ComSec)

and the ISA. On September 28 and 29, 2017, a workshop was held in London, United Kingdom, for the purpose of developing a work plan to carry out the research. This report summarizes the presentations and discussions of the working group and presents the work plan as agreed upon by the members of the working group.

The Legal Working Group on Liability

The working group was co-convened by CIGI, ComSec and the ISA Secretariat, under the joint direction of Neil Craik of CIGI, Hannah Lily of ComSec and Alfonso Ascencio-Herrera of the ISA Secretariat. The other members of the working group were invited, based on their expertise in areas related to the international law of state responsibility and liability, the law of the sea and international environmental law. While contemplated under the ISA LTC key deliverables, the working group is an independent group of legal experts. Brief biographies of each of the working group members are set out at the end of this report.

Workshop Structure

The principal objective of the workshop was to develop a work plan for research activities. The first day of the workshop consisted of a number of presentations on legal and technical subjects related to deep seabed mining and liability rules. The second day was devoted to the issue of scoping and the finalization of a work plan.

2 *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Case No 17, Advisory Opinion (ITLOS Seabed Disputes Chamber, 1 February 2011), 50 ILM (2011) [Advisory Opinion 2011], online: <www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/adv_op_010211.pdf>.

3 ISA, *Report of the Chair of the Legal and Technical Commission on the work of the Commission at its session in 2016* (13 July 2016) at annex II, online: <www.isa.org.jm/sites/default/files/files/documents/isba-22c-17_1.pdf>.

Session I: Overview of Existing Legal Instruments

The working group commenced with an overview of the existing legal regime applicable to deep seabed mining. First, a description of the applicable legal obligations under international law was provided by one of the participants. The starting point is UNCLOS. Article 139 provides that states or relevant international institutions shall ensure conformity with part XI of UNCLOS and shall be liable for any breach of its obligations that causes damage in the Area.⁴ Article 235 confirms that states are responsible for the fulfilment of their international obligations concerning the protection of the marine environment, that states shall ensure recourse is available for prompt compensation for damage caused by pollution, in line with their domestic systems, and that states shall cooperate in the development of international solutions to facilitate prompt compensation.⁵ Article 22 of annex III notes that the scope of responsibility applies to “wrongful acts” or omissions of the contractor in the conduct of its operations, with liability being for the actual amount of damages.⁶

Further clarification on sponsoring state responsibility was provided in the 2011 advisory opinion by the ITLOS Seabed Dispute Chamber, where it held that sponsoring states are subject to a due diligence standard, as opposed to being held strictly liable — defined as liability without fault — for environmental damage arising from activities under their jurisdiction.⁷ Specifically, the tribunal indicated that “this obligation may be characterized as an obligation ‘of conduct’ and not ‘of result,’ and as an obligation of ‘due diligence.’”⁸ The tribunal, in affirming the conduct-based approach, highlighted a gap in the current framework, whereby damages arising from unforeseen or purely accidental harm would not be compensable. Additional ambiguities include who has standing to recover for pure ecological damage, and concerns over the ability of sponsoring states

to pay the full extent of damages in the event of a serious incident. Where harm is occasioned to a non-state actor, which is recoverable under domestic law, issues included whether domestic laws would include the strict liability standard and whether sponsoring states might have different domestic standards, leading to a patchwork of liability rules and limitations in enforceability arising from private international law.

Two principal options remain to address the gaps in liability: the creation of minimum standards for domestic rules (as exemplified by the International Law Commission [ILC] draft articles on the allocation of loss⁹) and/or the further development of international rules, possibly including compensation funds, to fill the liability gaps. There appears to be sufficient plenary authority of the Assembly and Council of the ISA to enact rules, regulations, procedures and policies relating to liability under UNCLOS, regarding activities in the Area and the general provisions respecting liability under articles 235 and 304. However, it was noted that many boundary questions remain relating to jurisdictional competence to determine where activities in the Area start and end, the line between flag state and sponsoring state responsibility, the role of the ISA in relation to the sponsoring state, the responsibilities of subcontractors and the responsibilities of home states in relation to “effective control” of a commercial entity.

Both procedural and substantive issues remain to be addressed. Regarding the former, further clarity on who (ISA, states and private parties) has legal standing to bring claims for harm relating to the Area, who can be respondents (ISA, sponsoring states, contractors/state enterprises, flag states and the enterprise — an organ of the authority conducting activities in the Area) and the appropriate venue (the Seabed Dispute Chamber or domestic courts) is crucial. On the latter, it was highlighted that a lack of certainty remains over central factors: the fault requirements (fault-based or strict); the availability and scope of exceptions; the threshold, qualification factors and type of damages that can be claimed; how remoteness, causation and the burden of proof will be addressed; insurance and compensation,

4 UNCLOS, *supra* note 1, art 139.

5 *Ibid*, art 235.

6 *Ibid*, annex III, art 22.

7 Advisory Opinion 2011, *supra* note 2 at 189.

8 *Ibid* at para 110.

9 UNGA, Resolution 62/68 “Consideration of prevention of transboundary harm from hazardous activities and allocation of loss in the case of such harm” A/RES/62/68 (8 January 2008), online: <www.worldlii.org/int/other/UNGA/2007/116.pdf>.

including limits; and the availability of other forms of relief, such as injunctions and restoration.

A second participant provided an update on the current status of the draft mining code. The ISA adopted consolidated draft regulations in August 2017 with a deadline for comments set for the end of the year.¹⁰ The draft regulations incorporate the fault-based standard found in annex III, article 22 of UNCLOS, and provide for performance guarantees, mandatory insurance obligations, compliance with flag state conventions and standard contract clauses. Critical goals for the development of the liability rules include structuring rules so as to increase incentives for harm prevention and, where harm does occur, to ensure adequate access to funds for response, possible restoration and compensation. The allocation of responsibility and the determination of appropriate, fit-for-purpose mechanisms (for example, funds, bonds and insurance) and their relationship to broader liability rules remain key issues to be addressed.

An overview of relevant domestic legislation and practice was provided. As of autumn 2017, there were 27 ISA contracts for exploration, carried out by 20 contractors under the jurisdiction of 20 sponsoring states.¹¹ Of those 20 sponsoring jurisdictions, only half have relevant laws in place governing deep seabed mining activities, with an additional three pending. Only Belgium, Japan, Kiribati, Nauru, Singapore and Tonga have included liability provisions in their legislation. National approaches illustrate areas of convergence and divergence in domestic legislative practice.

Germany provides for due diligence prior to sponsorship and, while not including an express liability provision, does note that sponsorship may be subject to conditions. The United Kingdom recognizes, in domestic courts, decisions of the Seabed Dispute Chamber of ITLOS, relating to disputes between parties to a contract (the interpretation or application of the contract/work plan, acts or omissions of a party), the ISA and a prospective contractor (refusal of a contract or issues arising in negotiation) and the

ISA and a state party or contractor (allegations of contributory or wrongful act or omission).

Japan provides that the contractor bears responsibility for appropriate monetary compensation for pollution damage. Where the original state of the environment can be restored at a cost relative to the calculated compensation, restoration may be ordered as an alternative to compensation. When calculating the quantum of compensation, the court may consider contributory causes, natural disaster or other *force majeure* circumstances, with a national mediation process established for disputes relating to mining pollution damage. Belgium applies liability to the contractor for the cost of actual damage caused to the marine environment by unlawful acts or omissions, inclusive of the cost of reasonable measures to prevent the damage and considering any acts of failure by the ISA. Contractors may take out appropriate international insurance in accordance with accepted international practice. The Czech Republic similarly requires insurance for damage caused to the Area, but also defers dispute settlement to ITLOS.

It was noted that Nauru, Tonga and Kiribati all adopted similar approaches, applying liability to the contractor for wrongful acts or omissions, or for non-compliance with ISA rules. Contractors must provide broad indemnification to the sponsoring state against all proceedings, costs or third-party demands relating to activities in the Area, regardless of termination of the contract, and must maintain appropriate insurance policies to satisfy the financial and technical requirements of an incident. Dispute settlement in Nauru and Kiribati may be resolved through mediation, domestic arbitration or ITLOS, while Tonga restricts options to mediation or the Tongan courts. Singapore similarly applies a fault-based approach to the liability of contractors, requiring the contractor to provide an indemnification, and indicating that the liability for criminal and civil wrongdoing flows with the contractor post transfer or termination of activities. Decisions of the Seabed Dispute Chamber are treated as equivalent to domestic judgments with full force and effect. China requires contractors to compensate any loss for failure to comply with obligations, with the potential for criminal proceedings for less-than-nominal environmental damage. Overall, participants highlighted that jurisdictions have adopted a fault-based approach in line with UNCLOS; legislative practice has been developing in only a limited number of jurisdictions.

¹⁰ ISA, *Draft Regulations on Exploitation of Mineral Resources in the Area*, ISBA/23/LTC/CRP.3 (8 August 2017), online: <www.isa.org.jm/files/documents/EN/Regs/DraftExpl/ISBA23-LTC-CRP3-Rev.pdf>.

¹¹ Sponsoring states with approved exploration activities include Belgium, Brazil, Bulgaria, China, the Cook Islands, Cuba, Czech Republic, France, Germany, India, Japan, Kiribati, Nauru, Poland, Republic of Korea, Russia, Singapore, Slovakia, Tonga and the United Kingdom.

Session II: Key Issues

Following an overview of the legal framework, the participants proceeded to discuss several key issues.

One consideration in the liability context relates to effective control, that being one of two possible links between a sponsoring state and a contractor, the other being the nationality. The concept of effective control was identified by the LTC as an important consideration in the broader liability discussion.¹² In a presentation outlining the issues relating to effective control and channelling liability, a participant reviewed the key provisions with the deep seabed mining regime pertaining to effective control and emphasized that the sponsoring relationship is a principal factor of consideration in determining the appropriate jurisdiction that will determine the obligations of oversight.

The test for effective control has trended toward an assessment of regulatory or legal control over ownership and investment criteria. The ISA Council has identified as a priority issues that require further attention, including monopolization, effective control and abuse of dominant positions. The presenter stressed that significant questions remain regarding effective control, including who can define it, does it have a common meaning under UNCLOS, is it a fundamentally legal concept or practically an economic concept, what kinds of information assist in making a determination and what is the intersection with dominant position/monopolization.

One participant with expertise in operational risks associated with deep seabed mining provided an overview of the key sources of risks and the potential magnitude of those risks. Categories of environmental impact include the following: permitted impacts, which are environmental impacts identified during the environmental impact assessment (EIA) process and encompassed in normal operations; non-permitted impacts, which are impacts that exceed those predicted or permitted in normal operations; and accidental events, which are impacts resulting from unintentional or unforeseen human made or natural hazards.

The principal exploitation methods and environmental management measures associated were described. These include the use of technologies and methodologies to limit sediment, the establishment of set-aside areas, the order and style of extraction, the use of fully enclosed ore delivery systems, the application of environmental management and monitoring plans, the development of emergency response plans and the deployment of biodegradable fluids and oils in seabed equipment. Expected impacts are intended to be encompassed under the EIA. Unpredictable events, including accidental events or natural hazards, are addressed through regulations. Major accidents and worst-case scenario modelling is used to inform regulatory developments and planning.

One set of scenarios is derived from a failure of sea-floor tools during the operation. These events include hydraulic fluid leaks, loss of power to a machine or umbilical entanglement. Such situations could result in fluid loss and/or loss of a machine. Mitigation options such as the use of biodegradable fluids in subsea equipment, the use of umbilical management systems and recovery methods provide positive benefits. Similarly, failure of the lifting system or loss of a riser could result in material plumes or loss of the lifting system, with the inclusion of “failure mode” functionality and recovery methods providing mitigation options. A third scenario involves problems relating to the production vessel, such as a failure of the dynamic positioning system, spillage of materials, collision or sinking. Vessel issues could result in the dragging of subsea equipment along the sea floor, spills, loss of life and large-scale environmental impact. Mitigation options include an emergency break of the connection between subsea equipment and the vessel, active monitoring of material harvesting, a companion maintenance ship, application of exclusion zones and spill cleanup contingency planning.

A worst-case scenario might involve a collision of a production vessel and a transshipment vessel, both laden with fuel and ore, resulting in loss of life, the destruction of one or both vessels, or significant fuel and cargo loss. A range of key questions remain. What kind of events would an environmental liability fund or environmental bond cover? What does mine closure look like, and what would be the scope of coverage of a fund/bond? Can marine insurance cover all or most accidental events? An important step

¹² ISA, *Report of the Chair of the Legal and Technical Commission on the work of the Commission at its session in 2017*, ISBA/23/C/13 (9 August 2017) at para 23, online: <www.isa.org.jm/sites/default/files/files/documents/isba-23c-13_5.pdf>.

would be conducting a detailed risk assessment for each component of the production system.

The contractor's perspective on liability was explored to inform the consideration of commercial aspects. It was stressed that clarity is needed on the rules of liability and how they apply to contractors to allow for accurate valuation of the total regulatory cost of mining operations, and to position the seabed mining industry to address liability matters using a basket of appropriate measures. It was noted that applicable liability rules need to be developed to an adequate level to empower companies that are familiar with multi-tiered regulatory environments to have sufficient clarity to support market entry. Rules need universal and balanced administration, regardless of the sponsoring state or contractor status, with the tenets of procedural fairness and non-discrimination playing a key role and the ISA taking into account variance in sponsoring state administrative mechanisms when requiring security to address liability concerns. The interplay of rules relating to liability, the environment and fiscal compliance is used to determine the total regulatory cost.

The regulatory cost that is an essential element of both building and modelling the business case that entrants into a nascent industry must undertake to justify investment decisions was also noted. Both discrete costs (for example, royalty payments) and integrated costs (environmental rules that drive engineering trade-offs) must be viewed holistically, as the timing and quantum of costs will impact the business case for an organization. Predictability is of principal importance: as predictability decreases, the perception of risk and subsequent cost increases. Perceived gaps or instability in the regulatory framework inject uncertainty into the ongoing development of the industry. Available mechanisms — bonds, letters of credit, insurance and guarantees — each have different cost profiles and complexities of administration, and will invoke a range of responses from industry. Redress options could be modelled out to identify financial and economic consequences and to evaluate whether a standardized model or a tiered approach would be needed.

Session III: Crucial Considerations

To build upon previous discussions, two further aspects of liability were addressed. First, a participant provided some initial thoughts on the common heritage status of the Area, and how this might impact the development of liability rules. UNCLOS affirms that the Area and its resources are classified as “common heritage of mankind,”¹³ which, pursuant to articles 140 and 150(i) are to be developed “for the benefit of mankind” as a whole. As such, any appropriation or assertion of sovereignty is prohibited. Defining “compensable damage” is of particular importance. ITLOS, in the 2011 advisory opinion, noted that damage could include impacts to the common heritage of mankind, the resources and the marine environment.¹⁴ This raises various questions relating to the sufficiency of baseline data, the use of protected marine areas or biologically significant marine areas, the application of the precautionary approach and the modalities for assessment and monitoring of the environmental impacts of activities in the Area.

In cases of damage to the marine environment, annex III, article 22 of UNCLOS notes that liability is to be calculated based on the actual damage. ITLOS provided an affirmation, noting that the form of reparations will be dependent upon the actual damage and the feasibility of restoration.¹⁵ Questions relating to the manner of assessing actual damages, the feasibility of restorative actions and modes of monitoring are crucial factors that remain unclear. Related is the question of who has the standing to bring forward a claim, and on what information. While the ISA or an impacted or coastal state would, in principle, have standing to protect the interests of mankind or the international community, questions remain whether an interested state or intergovernmental, non-governmental or civil society organization would have standing. Current interpretations suggest that actions prompted by factual submissions

13 UNCLOS, *supra* note 1, art 136.

14 Advisory Opinion 2011, *supra* note 2 at para 179.

15 *Ibid* at para 197.

of third parties would need to be reviewed and initiated by the ISA or an interested state.

The need to address perceived gaps in liability remains. ITLOS identified that, notwithstanding a sponsoring state taking all necessary measures, a contractor who had caused environmental damage could remain unable to meet the liability in full.¹⁶ The creation of a trust fund or other relevant models for compensation were identified by ITLOS as options,¹⁷ while the exact details of such an instrument remain unclear. Lastly, the issue of the appropriate forum requires scrutiny. The potential exists for a remedy to be sought in domestic courts and relevant international tribunals, including, but not limited to, ITLOS, or for the compliance regime of other multilateral environmental agreements to be utilized. Further inquiry is needed to analyze the possible legal barriers of each forum.

A participant was invited to describe the experiences of his organization in structuring compensation for harm arising from oil releases from ships, which could provide important insights to inform the development of any potential instrument relating to deep seabed mining. The International Oil Pollution Compensation Funds¹⁸ (IOPC Funds) were created under the international liability and compensation regime providing compensation (including the cost of preventative measures) for victims of pollution damage caused by persistent oil from tankers. Under the IOPC Funds, the recovery is applicable to the territory, the territorial waters and the exclusive economic zone of member states. The first regime was created by the 1969 civil liability convention¹⁹ and the 1971 fund convention,²⁰ which was dissolved in 2014. Currently, the regime is made up of the 1992 Civil Liability Convention²¹ (1992 CLC) with 136 member states, the 1992 fund convention with

115 member states, and the 2003 supplementary fund protocol²² with 31 member states.²³

The IOPC Funds operate on a three-tier system whereby shipowners contribute to the 1992 CLC through insurance premiums, and oil receivers in member-state jurisdictions contribute to the 1992 Fund and/or the 2003 supplementary fund via a levy on oil imports. A strict liability model is applied to the shipowners, with a limitation of liability provided, based on gross tonnage of the ship. Importantly, shipowners are required to have compulsory third-party insurance. The IOPC Fund, which has a maximum compensation cap of 203 million Special Drawing Rights (SDR),²⁴ pays compensation when the damage exceeds the shipowners' liability under the 1992 CLC, the shipowner is financially incapable to fulfill its obligations or where no liability is found under the 1992 CLC. Limited exceptions to liability are acts of war, damage caused by a state ship or where the claimant cannot prove that the damage was a result of the incident involving the ships. Where the cost of damage could or will exceed the initial cap, the supplementary fund can provide additional compensation up to, but not exceeding, a total of SDR750 million overall. In this way, the IOPC Funds work to backstop one another up to the SDR750-million overall liability cap.

Governance and operation of the IOPC Funds is carried out by the Assemblies (Administrative Council), the Executive Committee and the Secretariat. The Secretariat provides administration of the funds, including the establishment of criteria for admissibility of claims, processing of oil reports and contributions, assessment of claims and payment of compensation to victims when applicable. The IOPC Funds are governed by the conventions, rules and regulations, and decisions of the Assemblies. Operational aspects are administered by the Secretariat, supported by in-country claims-handling, legal and technical teams,

16 *Ibid* at para 203.

17 *Ibid* at para 205.

18 IOPC Funds, online: <www.iopcfunds.org/>.

19 *International Convention on Civil Liability for Oil Pollution Damage*, 29 November 1969, 973 UNTS 3, 9 ILM 45 (entered into force 19 June 1975).

20 International Maritime Organization (IMO), *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, 18 December 1971 (entered into force 16 October 1978), UNTS 17146, online: <<https://treaties.un.org/doc/Publication/UNTS/Volume%201110/volume-1110-I-17146-English.pdf>>.

21 *Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage of 29 November 1969*, 27 November 1992, 1956 UNTS 255 (entered into force 30 May 1996).

22 *Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, 27 November 1992 (entered into force 30 May 1996), online: <www.jus.uio.no/english/services/library/treaties/06/6-07/imo_compensation_fund.xml#history>.

23 *Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, 1992, 16 May 2003 (entered into force 3 March 2005), online: <www.jus.uio.no/english/services/library/treaties/06/6-04/imo_iopc_supplementary_fund.xml>.

24 SDR is an international reserve asset based on a basket of currencies (the US dollar, euro, Japanese yen, pound sterling and the Chinese renminbi).

an audit body and an investment advisory body. The Secretariat applies the adopted assessment criteria to manage and process claims previously triaged by the in-country legal and technical teams. In addition to any matter of principle, the appropriate governing body ultimately approves all claims processed by the Secretariat.

General criteria are established in the claims manual and guidelines.²⁵ Key criteria are the following: any expense or loss claimed must have been incurred, any expense claimed for measures taken must be for measures that are reasonable and justifiable, loss or damage caused by contamination require a causal linkage, loss must be economically quantifiable and the claimant must prove loss or damage. Compensation is paid for damages within the scope of the IOPC Conventions, which includes clean-up and preventative measures, property damage as a result of the tanker spill, economic loss (both consequential and pure economic loss) and environmental damage covering reasonable reinstatement measures, both scheduled or actually taken. Each year by mid-January, member states are required to request from oil receivers a report on consumption, for submission to the Secretariat by the end of April. Following the annual meetings of the governing bodies, an agreed annual budget and levy are established, with invoices issued to oil recipient organizations. Contributions are required to be paid by the end of February of the following year.

Overall, the IOPC Funds have proven successful. Annual reports and contribution levels from 1996 to 2015 are nearly universal at 97.2 percent and 99.8 percent, respectively. The annual levy is calculated based on estimated expenditures of the IOPC Funds minus the sum of the balance available and estimated revenue. Over the period of 1978 to 2016, the funds have made a wide range of payments for compensation. Under the old regime, the 1971 fund covered 107 incidents and paid an estimated £331 million to claimants. The 1992 fund has covered 43 incidents, paying £269 million in compensation, with the supplementary fund remaining untouched. Combined, 150 incidents totalling £600 million in compensation have been addressed by the IOPC Funds. The approach adopted under the IOPC Funds to require contributions from

both shipowners (through insurance) and oil recipients (through an annually adjusted levy) has proven successful at disseminating the cost evenly across the industry and providing a functional modality to compensate losses due to oil pollution. While some procedural and evidentiary requirements could result in uncompensated claims, the IOPC Funds provide a starting point for consideration on how to address this issue.

Session IV: Liability Scenario Exercise

The final segment of the workshop saw breakout groups examine a case-study scenario to identify liability-related issues and events, applicable legal regimes and potential gaps or overlapping legal regimes. The scenario outlined a serious unplanned incident resulting in severe environmental harm. Critical questions and issues were identified by participants in the round table discussion that followed. Among the many key points that were elicited by the exercise were: the possible complexities that arise from the underlying ownership structure of the participating actors, including the contractor, the production vessel owner, the transshipment vessel owner and subcontractors; the potential interplay between the deep seabed mining rules and other IMO rules respecting shipping, requiring a clear understanding of the interface of deep seabed mining and the range of pre-existing legal instruments; and the importance of sound baseline information as a significant factor in quantifying the damage.

25 IOPC Funds, *Claims Manual* (London, UK: IOPC Funds, 2016), online: <www.iopcfunds.org/uploads/tx_iopcpublishations/IOPC_Funds_Claims_Manual_ENGLISH_WEB_01.pdf>.

The Work Plan and Time Frame

Arising out of the presentation and discussion, the working group identified the following six distinct bundles of issues.

Purpose and Scope of the Regime

- What is the principal role and objective of a liability mechanism? (Designing a liability regime that incentivizes damage prevention as part of an overall regulatory package.)
- What are “Activities in the Area,” in other words, activities under the ISA jurisdiction?
- What is the division between the ISA, flag state and sponsoring state responsibilities and liability?
- Does the enterprise need to be specifically addressed as part of the liability regime?
- Are there clear boundaries between deep seabed mining regimes and other international regimes, such as IMO conventions?

Harm to the Area (the environment and resources) from causes other than Activities in the Area, and due regard for other marine activities, were identified as issues relevant to this bundle, but it was decided that these issues could be addressed at a later time.

Channelling Liability/Effective Control

- How is effective control defined, and what responsibilities are associated with effective control?
- How do different effective control arrangements affect contractor/sponsoring state liability?
- Liability of home state (state of meaningful residence) and its relationship to effective control?
- What are sponsoring states currently doing, what is the status of their liability regimes in law, and what is a list of minimum requirements on sponsoring states (and

should ISA issue minimum standards — to avoid different responses in different national courts — and how would this be enforced)?

- What is the appropriate use of indemnities?

In subsequent discussion, it was felt that this bundle of issues addressed two related sets of questions — one focusing on effective control and the other on sponsoring state regulatory activities. Given the LTC’s interest in the first issue, it was determined that this issue (captured in the first three bullet points) would be addressed as a priority, with the subsequent issue being addressed subsequently.

Actionable Damage

- What categories of damage will be the subject of a liability regime?
- How will pure ecological loss be claimed for?
- Is serious harm a relevant threshold for a liability claim? (Are there forms of non-actionable environmental harm?)
- Is there damage other than environmental harm?
- Is there damage to the resources of the Area, specifically, the ability to mine them?
- Quantification of damages, and use of recovered funds?
- Costs of assessing harm?

Procedures

- Who can bring a claim, including non-state parties and intergovernmental agencies?
- Against whom would claims be brought? (How to bring a claim for damages to the common heritage of mankind, with the ISA as a respondent)?
- Venues for actions?
- Transparency/disclosure?
- Limitation periods?
- Remedies?

Standard of Liability

- Strict liability versus a due diligence (conduct-based) standard? (Does the UNCLOS preclude a strict-liability approach?)
- Can approaches from other regimes be drawn on?
- Exceptions/defences to liability?
- Financial cap to liability?
- Would the approach differ depending on the type of event giving rise to liability?

Form of the Regime

- Are there existing mechanisms within the ISA or other related frameworks that could be developed to implement liability rules?
- Would the liability rules require a new treaty/protocol?
- Implications for the exploitation regulations? (How to ensure that liability rules are integrated into the mining code?)

This issue, while important, was thought to be premature at this stage, pending further understanding of the substantive and procedural requirements of the liability rules.

Approach of the Regime/ Compensation Mechanisms

- Use of trust funds/compensation tools?
- What is the role of insurance and does it exist?
- Interplay with the financial regime?
- Administrative liability approach?

The working group determined that it would commence research and study on six work bundles (numbers one to five and seven), with an intention to prepare draft papers for January 2018. The drafts will be the subject of another workshop group meeting to be held in late January/early February 2018. The papers will be finalized shortly thereafter. The working group discussed dissemination strategies, and it was determined that specific outreach activities would be identified at the working group's next meeting.

Conclusions

Given the preliminary and exploratory nature of the workshop, no conclusions or recommendations respecting the design of the liability rules arose out of the workshop discussions. However, there was some consensus on the approach to be adopted. First, the initial round of research and analysis to be undertaken will be directed primarily toward generating a foundational understanding of the legal issues associated with the development of liability rules and potential substantive directions and institutional requirements that the ISA ought to consider in its future deliberations respecting liability. As such, it is not anticipated that the contemplated research outputs from this workshop will result in specific and detailed policy prescriptions, although papers may well identify best practices or avenues of legal development that are more likely to meet the intent of UNCLOS and the requirements of international law, while providing fair and effective compensation for environmental harm from deep seabed mining activities in the Area. Second, the working group acknowledged that the development of liability rules will involve multiple stakeholders. A principal objective of this project is to contribute to this dialogue through the provision of rigorous academic research and analysis (including the practical considerations of anticipated effects) that can inform policy discussions.

Agenda

September 28–29, 2017

Commonwealth Secretariat, Marlborough House, London, United Kingdom

September 28, 2017

- 8:30–9:00 a.m. Registration and Coffee
- 9:00–9:15 a.m. Welcome and Introductions
- Session I: Overview of Existing Legal Instruments**
- 9:15–9:40 a.m. Basic Legal Architecture for Liability/Responsibility in International Law
- 9:40–10:00 a.m. Mining Code Update
- 9:40–11:00 a.m. Existing Domestic Frameworks for Liability
- 10:20–10:50 a.m. Health Break
- Session II: Key Issues**
- 10:50–11:20 a.m. Effective Control and Channelling Liability
- 11:20 a.m.–12:00 noon Operational Risks/Sources of Potential Liability
- 12:00 noon–12:30 p.m. Contractors' Perspectives on Liability
- 12:30–1:30 p.m. Lunch
- Session III: Crucial Considerations**
- 1:30–1:50 p.m. Common Heritage and Liability Round Table Discussion
- 1:50–2:30 p.m. The Potential Role of Insurance
- 2:30–3:00 p.m. Round Table Discussion
- 3:00–3:30 p.m. Health Break
- 3:30–5:30 p.m. **Session IV: Liability Scenario Exercise**
- 6:00–8:00 p.m. Private Dinner for Round Table Participants

September 29, 2017

- 8:30–9:00 a.m. Registration and Coffee
- 9:00–10:00 a.m. Issue Identification and Structuring
- 10:00–11:00 a.m. Work Plan Development Session
- 11:00–11:20 a.m. Health Break
- 11:20 a.m.–12:30 p.m. Concluding Round Table: Final Comments and Next Steps
- 12:30–1:30 p.m. Lunch
- 2:00 p.m. End of Meeting

Biographies of Working Group Members

Alfonso Ascencio-Herrera is legal counsel and deputy to the secretary-general of the ISA. Alfonso previously worked as deputy head of mission at the embassy of Mexico to the Republic of Korea. He has worked with the Mexico Ministry of Foreign Affairs since 1995, serving in various capacities in Mexico, New York and Thailand. Alfonso holds an LL.M. (master of public international law), King's College, University of London (1993) and an LL.B., Faculty of Law, National Autonomous University of Mexico (Universidad Nacional Autónoma de México) with a thesis on "The Regulation of Biological Diversity in International Law."

Christopher Brown is a legal officer at ISA. He holds an LL.B. from Queen Mary University and an LL.M. from the University of Cape Town, and has taught international law and the law of the sea. Christopher has authored numerous reports relating to the financial and environmental aspects of regulating deep seabed mining.

Aldo Chircop is professor of law and Canada Research Chair in Maritime Law and Policy at the Schulich School of Law, Dalhousie University, in Halifax, Nova Scotia. He is the chair of the International Working Group on Polar Shipping of the Comité Maritime International and a research fellow at the Ocean Frontier Institute. Aldo's teaching and research interests are in the fields of Canadian and international maritime law, the international law of the sea, regulation of Arctic shipping and comparative coastal and ocean law and policy. He is a member of the Nova Scotia bar and recipient of several academic and professional awards. Aldo's numerous publications include Aldo Chircop, A. William Moreira, Hugh M. Kindred & Edgar Gold, eds, *Canadian Maritime Law*, 2nd ed (Toronto, ON: Irwin Law, 2016); Aldo Chircop & Olof Linden, eds, *Places of Refuge for Ships: Emerging Environmental Concerns of a Maritime Custom* (Leiden, Netherlands: Martinus Nijhoff Publishers, 2006); Aldo Chircop, Theodore McDorman & Susan Rolston, *The Future of Ocean Regime-Building* (Leiden, Netherlands: Martinus Nijhoff Publishers, 2009); and Aldo Chircop et al, eds, *The International Regulation of Shipping: International and Comparative Perspectives* (Leiden, Netherlands: Martinus Nijhoff

Publishers, 2012). Aldo has also been a co-editor of the *Ocean Yearbook* (Leiden, Netherlands: Brill) since volume 13 and, most recently, of volume 30 (2016).

Neil Craik is a CIGI senior fellow with the International Law Research Program. He is an associate professor at the University of Waterloo with appointments to the Balsillie School of International Affairs and the School of Environment, Enterprise and Development, where he teaches and researches in the fields of international and Canadian environmental law. His current research examines the role of procedural obligations in governance structures addressing transboundary and global commons environmental issues. He has particular interests in the intersection of international and domestic environmental policy, climate and geoengineering governance and EIA. Neil is the author of several books, including *Climate Change Policy in North America: Designing Integration* (Toronto, ON: University of Toronto Press, 2013) and *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (New York: Cambridge University Press, 2008), in addition to numerous book chapters and journal articles. Since 2011, Neil has served as director of the School of Environment, Enterprise and Development at the University of Waterloo.

Tara Davenport holds a bachelor of laws from the London School of Economics, a master of laws (Maritime Law) from the National University of Singapore (NUS), and a master of laws from Yale Law School. She has worked previously as a shipping lawyer in Singapore and as a research fellow at the Centre for International Law (CIL) at NUS. She has co-taught the law of the sea at NUS and at Yale Law School, and has published several articles on oceans law and policy, as well as editing two books. Tara is presently an instructor at NUS, pursuing a doctorate at Yale Law School and is a non-resident research fellow at CIL. She is also a Fulbright Scholar and recipient of the NUS Overseas Graduate Scholarship.

Elie Jarmache is a special adviser on the law of the sea to the Secretariat General of the Sea of France, and a member of the Legal and Technical Commission of the ISA. He serves as an assistant professor in public law, University of Bordeaux, France, director of International and European Relations of the French Institute for the Exploration of the Sea, chair of the Advisory

Body of Experts on the Law of the Sea of the Intergovernmental Oceanographic Commission and head of the French delegation to the Commission on the Limits of the Continental Shelf.

Hannah Lily is a British lawyer at ComSec in London, providing legal advice to Commonwealth governments on ocean governance and natural resources law. Hannah was previously legal adviser to the Pacific Community-European Union Pacific Islands Deep Sea Minerals Project, based in Fiji, and has assisted in drafting a number of national seabed mining policies and laws in the Pacific Islands region. These include legislation that has been enacted in Fiji, Tonga, Tuvalu, Nauru, Kiribati and the Cook Islands. Hannah also previously worked for the private sector, the United Nations and the UK government.

Ruth Mackenzie is a reader in international law at the University of Westminster. Prior to joining Westminster Law School, she was the principal research fellow and deputy director of the Centre for International Courts and Tribunals at University College London, and director of the Biodiversity and Marine Resources Programme at the Foundation for International Environmental Law and Development. She qualified as a solicitor (not practising) with a large commercial law firm in London. Ruth was associated with the Project on International Courts and Tribunals since its inception, has authored and co-authored numerous articles and books addressing aspects of the functioning of international courts and has acted as a consultant to the United Nations Environment Programme and the United Nations University Institute of Advanced Studies on issues related to biodiversity and biotechnology. She was a member of the International Law Association Committee on Biotechnology and International Law and is a member of the International Union for Conservation of Nature Commission on Environmental Law. At Westminster Law School, Ruth teaches LL.M. modules on peaceful settlement of international disputes, the international law of the sea and international energy and climate change law.

Steve Roady holds a joint appointment as a professor of the practice of law at Duke Law School and as a faculty fellow in the Nicholas Institute for Environmental Policy Solutions. Prior to his appointment, he devoted more than three decades to litigation and administrative advocacy, defending

and enforcing the public health and environmental protections contained in federal statutes enacted originally in the United States between 1970 and 1990. His work focused on protecting air and water quality, mountains and streams, and ocean and coastal resources. Steve is a graduate of Davidson College (A.B., 1971) and Duke Law School (J.D., 1976). He has been teaching a course on ocean and coastal law and policy at Duke Law School and at Duke's Nicholas School of the Environment since 2003. He received a professor of the year award from the Duke School of the Environment in 2008, and that same year was named a public interest fellow by Harvard Law School. Steve has been a visiting professor at the William S. Richardson School of Law at the University of Hawaii and a professorial lecturer at the Johns Hopkins School of Advanced International Studies. Steve's most recent writings focus on ocean stewardship duties under the public trust doctrine, including a chapter in Donald C. Baur, ed, *Ocean and Coastal Law and Policy*, 2nd ed (Chicago, IL: American Bar Association, 2015). Other published work includes articles explaining key federal statutes and doctrines that protect ocean life and articles that detail the legislative history of permitting and enforcement provisions of the Clean Air Act amendments of 1990.

Andres Rojas has worked at the Ministry of Foreign Affairs and Worship, Argentina, as a diplomat (third secretary of the embassy) since 2016. He was a member of the Argentine delegation to the meeting of the Intergovernmental Committee for the River Paraguay-Paraná, August 2015. Andres was also a member of the Argentine delegation to the Youth20 Summit in Istanbul, Turkey.

Zoe Scanlon is a research associate at the CIL at NUS of Singapore, where she works in the ocean law and policy team. Prior to joining CIL, Zoe was a senior legal adviser in the Office of International Law within the Australian government. During her time in the Office of International Law, Zoe advised on a variety of public international law issues. Zoe also previously taught public international law at the Australian National University. She is on the editorial committee of the Australian and New Zealand Society of International Law and is admitted to practice in the Australian Capital Territory Supreme Court of Australia. Zoe holds an LL.M. (specializing in public international law) from the University of Sydney, where she was awarded the Nancy Gordon-Smith Postgraduate Prize for Most Proficient Candidate for LL.M.

Zoe also holds a bachelor's degree in arts and law from the University of Melbourne and is a graduate of the Rhodes Academy, where she was awarded the prize for best oral exam grade.

Dire Tladi is a South African professor of international law. He has served as the principal state legal adviser for international law for the South African Department of International Relations and Cooperation and the South Africa Mission to the United Nations. His main academic specializations are in public international law, international environmental law and international criminal law. From 2012 to 2017, Dire was a member of the United Nations International Law Commission.

Julia Xue is a professor at Shanghai Jiao Tong University, where she is chair professor of international law at the KoGuan Law School. She serves as the director of the Centre for Rule of Ocean Law Studies and the Centre for Polar and Deep Ocean Development, chief expert and executive director of the Shanghai Social Science Innovation Research Base and executive director to the Shanghai-based think tank, Research Base on National Marine Rights and Strategy. Throughout her career, she has worked extensively on law of the sea issues and China's practice in this area. From December 2004 to June 2013, Julia served as the director of the Institute for the Law of the Sea, the first of its kind in China, at the Ocean University of China, where she chaired projects for drafting and revising national legislation governing ocean-related subjects.

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