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UNIDROIT Working Group on the Legal Nature of Voluntary Carbon Credits

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ISSUES PAPER

1. The International Institute for the Unification of Private Law (hereinafter "UNIDROIT" or "the Institute"), in collaboration with the World Bank Group (hereinafter "WBG"), has undertaken a project to analyse the Legal Nature of Voluntary Carbon Credits (hereinafter "VCCs").

2. This document provides a preliminary illustration of the issues that the UNIDROIT Working Group on the Legal Nature of VCCs may wish to consider at its First Session, to be held in Rome and online from 10 to 12 October 2023.

3. The issues considered in this document were identified by the participants to the First and Second Exploratory Consultative Workshops held in London on 27 March 2023 and in Vienna on 11 July 2023, respectively. Pursuant to a decision adopted at its 56th session, the United Nations Commission on International Trade Law (hereinafter "UNCITRAL") has requested its secretariat to prepare a detailed study on the aspects of international trade law related to VCCs, in coordination and collaboration with the United Nations Framework Convention on Climate Change (UNFCCC), UNIDROIT, the Hague Conference on Private International Law (HCCH), as well as with other organisations. With a view to operationalising the coordination and cooperation between both organisations, UNCITRAL, and UNCITRAL-appointed experts, will participate in the Working Group session. In light of this, the present document also incorporates several additional elements identified by two papers published by UNCITRAL, a complete version of which can be found as Annexe I to this document.

4. This document does not intend to provide an exhaustive list of issues nor a full legal analysis of each issue. Rather, its purpose is to provide a starting point for deliberations and a structure for discussions at the Working Group's First Session.

5. The document is divided into three sections: (i) preliminary matters; (ii) scope of the Project; and (iii) content of the future document.

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I. PRELIMINARY MATTERS

A. Background to the Project

6. On 24 January 2022, the International Swaps and Derivatives Association (hereinafter "ISDA") submitted a proposal to UNIDROIT recommending that UNIDROIT consider a project to analyse the legal nature of VCCs. ISDA's proposal was expressly supported by the Government of Paraguay in a letter received by the UNIDROIT Secretariat on 9 May 2022.

7. At its 101st Session (Rome, 8-10 June 2022), the UNIDROIT Governing Council unanimously recommended the inclusion of a project to analyse the legal nature and other private law aspects of VCCs (hereinafter "the VCCs Project" or "the Project") in UNIDROIT's 2023-2025 Work Programme, with high priority.[1] While the Governing Council recognised the similarities of the VCCs Project to the UNIDROIT Digital Assets and Private Law Principles (hereinafter the "DAPL Principles"), it identified sufficient distinct features to recommend that a separate Working Group be established for the VCCs Project. The Governing Council's recommendation was unanimously endorsed by the UNIDROIT General Assembly at its 81st session (Rome, 15 December 2022).[2]

8. Following receipt of the mandate, the UNIDROIT Secretariat organised a First Exploratory Consultative Workshop (hereinafter the "First Exploratory Workshop") in collaboration with the WBG and ISDA, held at ISDA's headquarters in London on 27 March 2023. The purpose of the First Exploratory Workshop was that of identifying relevant private law issues in the VCC field with a view to begin delineating, albeit preliminarily, the scope of the Project. A discussion paper was prepared by the Secretariat to guide the deliberations. The First Exploratory Workshop was attended by 24 participants, including representatives from international organisations, industry associations and academic institutions, as well as private practitioners and members of the UNIDROIT Secretariat. The First Exploratory Workshop sought to consider, among other matters, the following items:

(a) Key concepts;

(b) Key considerations regarding the legal nature of VCCs;

(c) Ownership, issuance, and transferability of VCCs;

(d) Secured transactions involving VCCs, including collateralisation;

(e) Custodians/intermediaries;

(f) Applicable law issues;

(g) Treatment in case of insolvency; and

(h) Local market regulatory oversight.

9. An update on the preparatory work of the VCCs Project, drawing on the conclusions of the First Exploratory Workshop as well as on the Secretariat's own research, was presented to the UNIDROIT Governing Council at its 102nd session (Rome, 10-12 May 2023). On this occasion, the Governing Council confirmed the authorisation to establish a Working Group (hereinafter the "VCCs Working Group") in collaboration with the WBG. The Council also encouraged further coordination in this area with other international organisations, such as UNCITRAL.

10. A Second Exploratory Consultative Workshop was held at WBG's office in Vienna on 11 July 2023 (hereinafter the "Second Exploratory Workshop"). The Second Exploratory Workshop was attended by 28 participants, including experts from international organisations, development banks, academic institutions and the private sector, as well as representatives from the UNIDROIT Secretariat.

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1 See UNIDROIT 2022, C.D. (101) 4 rev, paras 50-60.

2 See UNIDROIT 2022, A.G. (81) 3, paras 75-78.

The Second Exploratory Workshop built on the work of the First Exploratory Workshop and discussed, among other matters, the following items:

(a) Key concepts;

(b) Main actors involved in the VCC life cycle;

(c) Key considerations regarding the legal nature of VCCs;

(d) Ownership of VCCs;

(e) Transferability of VCCs;

(f) Secured transactions and collateralisation of VCCs;

(g) Retirement of carbon credits;

(h) VCC price;

(i) VCC accounting;

(j) Treatment in case of insolvency;

(k) Local market regulator oversight;

(l) Applicable law issues;

(m) Sector-specific carbon credits; and

(n) Relevant issues not to be included in the Project's scope.

11. The Second Exploratory Workshop closed with the participants noting that next steps might be delineated in coordination with UNCITRAL in light of UNCITRAL's 56th Commission Session held in Vienna on 3-21 July 2023 as well as the Colloquium on Climate Change and the Law of International Trade organised by the UNCITRAL secretariat in Vienna on 12-13 July 2023.[3] As a result, UNCITRAL mandated its secretariat to prepare a "detailed study on the aspects of international trade law related to voluntary carbon credits". UNICTRAL's secretariat defines the scope of the said study as purporting to cover: (i) the types and functions of emissions trading markets; (ii) a description of the negotiation and custodianship patterns (registries, block chains etc.); (iii) a discussion of the role and legal impact of digitalisation (including for purposes of determining applicable law and the rights of holders); and (iv) an analysis of the legal nature of VCCs (property/bundle of rights/tradable licenses/IP-type rights, etc.) and their implications from various international trade law points of view (contracting, electronic transactions, secured transactions, netting, insolvency).

12. Considerations relating to issues of applicable law would be further developed in close consultation with the Hague Conference on Private International Law (HCCH).

B. Composition of the Working Group

13. Consistent with UNIDROIT's established working methodologies, the VCCs Working Group is composed of experts selected for their expertise in the fields of carbon credit trading, environmental law, property law, contract law, secured transactions, and digital technology. Experts participate in a personal capacity and represent the world's different legal systems and geographic regions. Due to the specific nature of the Project, particular focus is placed to ensure representation from

[3] Following its 56th Session, UNCITRAL's Commission gave its Secretariat a mandate to conduct exploratory work in the area of VCCs in cooperation with UNIDROIT and other organisations. In this context, both Secretariats will seek to join efforts to most efficiently fulfil their respective mandates. For more information, see https://uncitral.un.org/en/commission.

developing economies, especially from the African, Latin American, and Asia-Pacific regions, where many of the projects underlying VCCs are situated.

14. The selection of experts has been made in consultation with UNCITRAL and the WBG.

15. A number of organisations, industry associations, legal practitioners, financial sector representatives and members of academic institutions with expertise in the field of VCCs and private law have been invited to participate as observers in the VCCs Working Group. It is expected that, in addition to contributing to the discussions of the Working Group, participation of these stakeholders will assist in the promotion, dissemination and implementation of any international instrument that is ultimately developed and adopted.

C. Methodology and timeline of the Project

16. The VCCs Working Group will undertake its work in an open, inclusive, and collaborative manner. As consistent with UNIDROIT practice, the VCCs Working Group will not adopt any formal rules of procedure and will seek to make decisions through consensus. Working Group meetings will be conducted under Chatham House rules in order to encourage open discussion.

17. The VCCs Working Group will meet at least twice a year for three days in Rome, Italy. Meetings will be held in English without translation. Remote participation will be possible, although experts will be expected to attend in person. In the interest of cooperation with UNCITRAL and in the context of the support provided by the WBG, other meetings may take place in different locations.

18. The documents for the VCCs Working Group meetings will generally be distributed at least ten days in advance of each session. After each session of the VCCs Working Group, the UNIDROIT Secretariat will share a summary report with all participants on a confidential basis, for internal purposes of the Working Group only. A separate, high-level summary of the meeting will be published on the UNIDROIT website.

19. The VCCs Project is a high priority project on the current UNIDROIT Work Programme for the period 2023-2025. The following would be a tentative work plan:

- Development of an international instrument on the Legal Nature of VCCs over four Working Group sessions:[4]
    - *First session*: October 2023
    - *Second session*: January/February 2024
    - *Third and following sessions*: to be determined based on possible joint work with UNCITRAL and HCCH
- Consultations and finalisation: to be determined.

D. Relationship with existing UNIDROIT instruments and initiatives

20. The VCCs Project is included in UNIDROIT's areas of work related to 'Sustainable Development' and 'Law and Technology'. The VCCs Project aligns with UNIDROIT's ongoing initiative to analyse the role private law plays in the achievement of the Sustainable Development Goals (SDGs), in particular towards the implementation of climate action (SDG 13). Because VCCs are often issued in the form of digital certificates, the VCCs Project is complementary to the recently adopted UNIDROIT DAPL

[4] Intersessional sub-group meetings may be conducted remotely when deemed necessary.

Principles and to the ongoing exploratory work currently being carried out by UNIDROIT and HCCH on the Law Applicable to Cross-Border Holdings and Transfers of Digital Assets and Tokens.[5]

21. UNIDROIT's previous work in the area of 'Capital Markets' and 'Intermediated Securities', in particular the Geneva Securities Convention, the Principles on Close-Out Netting and the Legislative Guide on Intermediated Securities may also be relevant to the analysis of the legal nature of VCCs. The Working Group may also wish to consider the Guide on Best Practices for Electronic Collateral Registries, developed by the Cape Town Convention Academic Project.

22. In addition, the UNIDROIT Principles for International Commercial Contracts may be relevant for any contract law analysis.

E. Relationship with existing UNCITRAL instruments and initiatives

23. The UNCITRAL Model Law on Secured Transactions deals with security interests in all types of tangible and intangible movable property, such as goods, receivables, bank accounts, negotiable instruments, negotiable documents, non-intermediated securities and intellectual property with few exceptions, such as intermediated securities. The UNCITRAL Model Law also includes a set of Model Registry Provisions that deal with the registration of notices of security interests in a publicly accessible Registry to make a security interest effective against third parties and to provide an objective basis for determining the priority of a security interest over the rights of competing claimants. Additional related documents include the 2017 Guide to Enactment as well as the 2019 Practice Guide to the Model Law on Secured Transactions.

24. The 1997 UNCITRAL Model Law on Cross-Border Insolvency is designed to assist States in developing a harmonised and fair insolvency framework to more effectively address instances of cross-border proceedings concerning debtors experiencing severe financial distress or insolvency. Related documents include the accompanying Guide to Enactment, providing background and explanatory information to make the Model Law a more effective tool, as well as the 2004 UNCITRAL Legislative Guide on Insolvency Law (hereinafter "UNCITRAL LGIL"), which assists with the establishment of an efficient and effective legal framework and may be used as a reference by national authorities and legislative bodies when preparing new laws and regulations or reviewing the adequacy of existing laws and regulations. The UNCITRAL LGIL addresses a number of issues potentially relevant to Section III.H of the present paper including, for example, the assets of the debtor, the insolvency estate, and the use and disposal of assets of the estate. In addition, the UNCITRAL secretariat continues to explore issues related to the applicable law in insolvency proceedings in the context of ongoing efforts of Working Group V.[6]

25. In 2021, the UNCITRAL Commission heard a proposal to examine (i) how existing UNCITRAL texts could be aligned with climate change mitigation, adaptation and resilience goals, and (ii) whether further work could be done by UNCITRAL to facilitate such goals in the implementation of those texts or the development of new texts. In furtherance of such a proposal and on the basis of expressions of interest by several of its member States, the UNCITRAL secretariat commissioned two studies on the private law aspects of climate change, the results of which have been summarized in Notes issued by the UNCITRAL secretariat (together, the "UNCITRAL Studies"). Specifically, the UNCITRAL Studies examine the scope for a contribution by UNCITRAL to climate change mitigation, adaptation and resilience by addressing: (i) private law issues relating to clean investments; (ii)

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[5] See UNIDROIT 2023, C.D. (102) 25, paras 168-178.

[6] For additional information, see Working Group V: Insolvency Law | United Nations Commission On International Trade Law. See also Section III.H below.

private law and the incorporation of climate considerations into business decisions; and (iii) UNCITRAL instruments and climate action.[7]

F. Relationship with existing WBG instruments and initiatives

26. The WBG has been focusing on Emission Reductions Purchase Agreements (ERPA), as well as carbon pricing and results-based climate finance projects. In particular, it is important to note the Climate Warehouse Project, which develops digital infrastructure to foster greater transparency, trust, and integrity in the carbon markets. Examples include the metadata global platform Climate Action Data Trust (CAD Trust).[8] The CAD Trust, a private-led initiative, has developed a decentralised and open-source metadata platform that links, aggregates and harmonises all major carbon credit registry data to enhance transparent accounting, in line with Article 6 of the Paris Agreement. The CAD Trust uses blockchain technology to create a decentralised record of carbon market activity, aiming to contain the risk of double counting, improve transparency, and increase trust in carbon credit data.

27. Further, the Scaling Climate Action by Lowering Emissions (SCALE) is an umbrella multi-partner trust fund within the results-based climate finance programs of the WBG.[9]

G. Relationship with other existing international initiatives

28. There are several additional international initiatives and studies relating to both compliance and voluntary carbon credits that may be relevant and should be taken into account by the Working Group when developing the international instrument to avoid duplication of efforts and overlap. The initiatives mentioned below are merely illustrative.

29. With respect to the regulatory infrastructure developed at the international and regional level for the compliance carbon market (hereinafter "CCM"), the Working Group could consider the following existing schemes:

- *The Paris Agreement to the United Nations Framework Convention on Climate Change (UNFCCC)*, and in particular the market mechanism provided by Article 6, which allows for the use of Internationally Transferred Mitigation Outcomes (ITMOs) to achieve Nationally Determined Contributions (NDCs) under the Agreement.
- *The United Nations Carbon Offsetting and Reduction Scheme for International Aviation* (CORSIA), developed by the United Nations International Civil Aviation Organization (ICAO) in relation to the aviation sector and providing for a carbon offset and reduction scheme for international flights.[10]

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[7] See UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022; UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1153, 10 May 2023. Both documents are available at: https://uncitral.un.org/en/climatechangecolloquium and are included herein as Annex I.

[8] For additional information, see https://climateactiondata.org/.

[9] In addition to those mentioned above, there are also a number of initiatives aimed at providing net zero corporate guidance, including in relation to the use of crediting and VCCs. These include, for example: (i) the Corporate Net-Zero Standard developed by the Science Based Targets initiative (SBTi)—a partnership between the Carbon Disclosure Project (CDP), the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF)—to provide guidance, criteria, and recommendations for companies to set science-based net-zero targets; (ii) the Carbon Market Platform launched in 2015 by the Organisation for Economic Cooperation and Development (OECD) to strengthen international cooperation in developing effective carbon pricing approaches; and (iii) the United Nations High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities established by the UN Secretary-General in March 2022 to develop standards for net-zero emissions pledges by non-State entities, including businesses, investors, cities, and regions.

[10] For additional information, see https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx.

30. In addition, the following ongoing initiatives could be instructive:

- *The Integrity Council for Voluntary Carbon Markets* (ICVCM) has developed Core Carbon Principles (CCPs) which set out key principles for high-integrity carbon credits, as well as an Assessment Framework which includes the detailed criteria the ICVCM will use to assess whether Carbon Standards and categories of carbon credits meet the CCPs.[11] Carbon Standards assessed as CCP-eligible will be able to use the CCP label on carbon credits from approved categories.
- *The Task Force on Scaling Voluntary Carbon Markets* (TSVCM), sponsored by the Institute of International Finance, works on scaling an effective and efficient voluntary carbon market (hereinafter "VCM").[12]
- *The United Nations Carbon Offset Platform* is an e-commerce international platform for carbon credits and a carbon footprint calculator for individuals to increase climate awareness.[13] The platform displays UNFCCC-certified climate friendly projects that reduce, avoid, or remove greenhouse gas (hereinafter "GHG") emissions from the atmosphere. These projects are implemented in developing countries and are rewarded with Certified Emission Reductions (CERs) for each tonne of GHG they help reduce, avoid, or remove.
- *The Voluntary Carbon Markets Integrity Initiative* (VCMI)[14] consists of a multi-stakeholder project bringing together representatives of civil society, businesses, local communities, and governments to establish guidance on how VCCs can be used and claimed as part of credible net-zero decarbonisation strategies. Alongside this work, the VCMI provides support to countries in building capacity to bring high-integrity carbon credits into the carbon market.

31. Finally, the following studies and discussion papers could provide helpful background information:

- The *International Emissions Trading Association* (IETA) has published a report addressing the evolution of the VCM.[15]
- The *International Organization of Securities Commissions* (IOSCO) published a Discussion Paper with the aim of advancing the discussion on voluntary carbon markets and the role financial regulators may play in promoting their integrity.[16]
- The *International Swaps and Derivatives Association* (ISDA) explored the specific issue of the legal nature of carbon credits in two papers: (i) Legal Implications of Voluntary Carbon

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[11] For additional information, see https://icvcm.org/the-core-carbon-principles/.

[12] See Taskforce on Scaling Voluntary Carbon Markets, Final Report, January 2021, available at https://www.iif.com/Portals/1/Files/TSVCM_Report.pdf.

[13] For additional information, see https://unfccc.int/climate-action/united-nations-carbon-offset-platform?gclid=Cj0KCQjwl8anBhCFARIsAKbbpyS2NRF8B4rCX645JOOvjTJxVhYteHA1QtTvtGnPs84GCMrpIP46NnYaAg96EALw_wcB.

[14] For additional information see https://vcmintegrity.org/.

[15] See IETA, *The Evolving Voluntary Carbon Market*, March 2023, available at https://www.ieta.org/resources/reports/the-evolving-voluntary-carbon-market-paper/.

[16] See IOSCO, *Voluntary Carbon Markets Discussion Paper*, CR/06/22, November 2022, available at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD718.pdf. IOSCO also published a Final Report on the compliance carbon market. See IOSCO, *Compliance Carbon Markets Final Report*, FR/09/23, July 2023, available at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD740.pdf.

Credits;[17] and (ii) the Legal Nature of Voluntary Carbon Credits: France, Japan and Singapore.[18]

32. It should be noted that the VCC field is a rapidly evolving space; government regulatory agencies are also exploring the use and legal nature of VCCs.[19]

Questions for the Working Group:

1. *Is the above a comprehensive overview of the existing international instruments and initiatives relevant to the VCCs Project?*
2. *Are there further international instruments and initiatives that need to be considered?*

II. SCOPE OF THE PROJECT

33. As noted above, the UNIDROIT Secretariat received a full mandate from its governing bodies to undertake legislative work on the legal nature of VCCs. Such work is expected to cover, at least, the matters addressed in the DAPL Principles, with the possibility of expanding where the special nature of VCCs—as compared to digital assets—so warrants.

34. The precise scope of the VCCs Project will need to be a matter of discussion for the Working Group. However, it may not be necessary or desirable for the scope to be definitively determined at the commencement of the Working Group's discussions; this is an issue which will need to be kept under constant review throughout the Working Group's deliberations. Indeed, it may be preferable for the detailed discussion of scope to take place after consideration of the more substantive issues has helped define the broad contours of the Project.

35. With this in mind, and to provide context for the Working Group's substantive discussion, a brief high-level overview is provided below addressing: (i) the development of voluntary carbon markets (VCMs); (ii) the relationship with compliance carbon markets (CCMs); and (iii) the main actors in the VCC life cycle. The below overview is not meant to be exhaustive and is offered for discussion purposes only. Certain reflections are then provided on the purpose of the Project for the Working Group to consider in the course of its deliberations.

A. Development of Voluntary Carbon Markets

36. The concept of carbon credit was introduced by the UNFCCC in the Kyoto Protocol of 1997 with the purpose of reducing the emission of GHG into the atmosphere. Since then, international treaties and domestic laws have introduced related regulations seeking to fight global warming. Special reference is due to the Paris Agreement of 2015,[20] which provides for carbon trading as a key means of reducing carbon emissions globally. In particular, Article 6 of the Paris Agreement

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[17] See ISDA, *Legal Implications of Voluntary Carbon Credits*, December 2021, available at https://www.isda.org/a/38ngE/Legal-Implications-of-Voluntary-Carbon-Credits.pdf.

[18] See ISDA, *The Legal Nature of Voluntary Carbon Credits: France, Japan and Singapore*, November 2022, available at https://www.isda.org/a/PlcgE/Legal-Nature-of-Voluntary-Carbon-Credits-France-Japan-and-Singapore.pdf.

[19] For example, the US Commodity Futures Trading Commission (CFTC) established in 2021 a Climate Risk Unit (CRU) tasked with "accelerat[ing] early CFTC engagement in support of industry-led and market-driven processes in the climate—and the larger ESG—space critical to ensuring that new products and markets fairly facilitate hedging, price discovery, market transparency, and capital allocation"). For more information, see CFTC Acting Chairman Behnam Establishes New Climate Risk Unit | CFTC.

[20] For details on the Paris Agreement, see http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf.

allows countries to use the trading of emissions reductions—known as Internationally Transferred Mitigation Outcomes, or ITMOs—to meet each country's NDCs under the Agreement.[21]

37. While instruments such as the Kyoto Protocol and Paris Agreement have encouraged the development of an international market for the issuance and trading of carbon certificates, legislative action has, to date, been limited to the domestic and regional level. For example, CCMs have been established by law, securities regulation, statute, or other formal mechanism in Colombia[22], the European Union,[23] Singapore,[24] Switzerland,[25] the United Kingdom,[26] South Korea,[27] and the United States.[28]

38. Such CCMs often take the form of "cap-and trade" programmes, in which a State establishes a maximum level of emissions that can be emitted within a specified time period (this being the "cap"). On the basis of this cap, emitters receive, or are given the opportunity to purchase, from the government, a certain number of emission allowances. As explained in the UNCITRAL Studies, emission allowances can be traded between participants, and participants may also obtain offset credits to utilise for compliance purposes.[29]

39. In parallel with the development of CCMs, demand for carbon credits from entities that are not under an obligation to participate in carbon markets has also grown. Indeed, projects for the trading of non-mandatory credits—known as VCCs—developed almost simultaneously to the CCMs. VCCs represent a certification stating that the holder, either directly or indirectly, has reduced or removed from the atmosphere one metric tonne of carbon dioxide equivalent. In contrast to CCCs, however, VCCs typically are constituted outside of any regulatory or compliance framework.[30] Rather, VCM participants may choose to purchase VCCs to voluntarily offset their emissions and help meet their self-imposed net-zero goals.

B. Relationship with Compliance Carbon Markets

40. Participation in CCMs and VCMs is not mutually exclusive. Indeed, experience shows that many participants are active in both markets. What is more, a credit that starts off as a VCC may eventually evolve into a CCC, if the relevant market allows the credit to be qualified for use to meet existing compliance obligations.[31] Yet, in contrast to the regulated CCMs, VCMs currently do not involve government regulatory authorities, are often unsupervised, and legal requirements across jurisdictions are far from consistent.

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21 See Paris Agreement, Articles 6.2 and 6.4.

22 Law No. 2169 of 2021, "Por medio de la cual se impulsa el desarrollo bajo en carbono del país mediante el establecimiento de metas y medidas mínimas en materia de carbono neutralidad y resiliencia climática y se dictan otras disposiciones".

23 EU Emission Trading Scheme, European Parliament and the Council Directive 2003/87/CE.

24 See the regulated market exchange "Climate Impact X".

25 Switzerland emissions trading scheme for industrial installations and for aviation. See the Co2 Act (Federal law on the reduction of CO2 emissions of 23 December 2011, No. 641.71).

26 London Stock Exchange's Voluntary Carbon Market.

27 Act No. 11360, Feb. 22, 2012, as amended.

28 See, e.g., California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (Article 5 of 17 CA Adc D. 3, Ch. 1, Subch. 10, California Code of Regulations).

29 See, e.g., UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022, at para 12.

30 As noted in the UNCITRAL Studies, in the VCM "[t]here is no 'cap' and no centralized oversight by a public authority". UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022, at para 13.

31 For example, carbon offsets certified by the American Carbon Registry (a private VCC registry) are recognised by the California Air Resources Board within the California emission allowances market (a CCM). See https://americancarbonregistry.org/carbon-accounting.

41. Notwithstanding the above, participants to the Second Exploratory Workshop observed the increasing convergence between VCMs and CCMs. For example, it was observed that, in Colombia, VCCs that are produced in the country are accepted as alternative means of complying with the State's carbon tax requirements.[32] Carbon project developers in Colombia may thus choose whether to sell credits into the VCM or into the CCM. It was consequently noted that, given the evolving nature of carbon credits, defining the scope of the Project on the basis of a strict distinction between VCCs and CCCs might not serve the purpose of developing a future-proof instrument. As noted above, credits that start out as voluntary may end up subject to adjustments and used in a CCM, whether nationally or internationally in furtherance of, for example, a State's commitments under the Paris Agreement. As observed in the UNCITRAL Studies, such a potential convergence could increase the complexity of the market "as private companies could possess simultaneously State-issued carbon credits and carbon credits issued by carbon standards organizations".[33]

42. Thus, building a private law framework on the basis of strict distinctions between VCCs and CCCs may potentially increase, rather than decrease, market fragmentation, especially given the current lack of regulated CCMs in many of the developing economies trying to adhere to Article 6 of the Paris Agreement.

Questions for the Working Group

3. *In light of the observed convergence between VCMs and CCMs, the Working Group is invited to discuss the private law aspects common to both VCCs and CCCs, while also (i) identifying key distinctions in relation to specific issues such as, for example, the legal nature of the credit itself, as well as the holding and transfer of the credits; and (ii) deferring to national legislation where appropriate.*
4. *Does existing legislation relating to CCMs include private law rules governing the transfer of CCCs?*

C. Main actors in the life cycle of Voluntary Carbon Credits

43. To inform the analysis of the legal nature of VCCs, it is helpful to understand the VCC life cycle and identify the main actors involved therein.[34]

44. The generation of a carbon credit starts with the development of a "Carbon Project"; a project aimed at producing a positive environmental impact by mitigating GHG equivalent emissions. Carbon Projects generally fall into two categories: (i) projects that reduce emissions from current sources, such as renewable energy projects; or (ii) projects that remove or sequester GHG from the atmosphere, such as reforestation projects. Either type of Carbon Project may generate VCCs.

45. "Carbon Project Developers" are public or private entities responsible for developing the Carbon Projects underlying the VCC.

46. In order for a Carbon Project to generate VCCs, it must be certified by a private entity known as a "Carbon Standard". Carbon Standards are multiple distinct issuing bodies that set the rules and requirements for the issuance and certification of VCCs. Each Carbon Standard has unique rules that Carbon Projects must follow in order to be issued certified VCCs. Generally, for a Carbon Project to be issued VCCs under a Carbon Standard, the Carbon Project Developer must demonstrate that the

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[32] See, e.g., V. Battocletti, L. Enriques, A. Romano, *The Voluntary Carbon Market: Market Failures and Policy Implications* (March 7, 2023), European Corporate Governance Institute - Law Working Paper No. 688/2023, at page 24 (noting that, in Colombia "Verra's certifications can be used to offset up to *half* of their tax liability associated with the Colombian carbon tax").

[33] UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1153, 10 May 2023, at para 25.

[34] See ISDA, *Legal Implications of Voluntary Carbon Credits*, December 2021, at pages 25-28.

GHG reductions or removals are real, measurable, permanent, additional, independently verified, unique and traceable.[35] Examples of Carbon Standards include the Verified Carbon Standard[36] (VCS/Verra), the Gold Standard,[37] the American Carbon Registry,[38] or Climate Action Reserve.[39]

47. Carbon Standards usually rely on verification bodies, or "VCC Verifiers" to verify the Carbon Project's claimed climate impact. VCC Verifiers develop quality assurance programs to confirm that the activities of the Carbon Project have resulted in the emissions reductions or removals claimed. Typically, VCC Verifiers will be accredited by the Carbon Standard and hired by the Carbon Project Developer. VCC Verifiers issue verification or validation reports that lay out their findings and confirm whether the Carbon Project meets the applicable quality standards.

48. The certification process may be lengthy, meaning that VCCs may be issued years after the carbon reduction or removal occurred.[40] Once a Carbon Project has been certified by a Carbon Standard, the Carbon Project Developer can be issued tradable VCCs for each metric tonne of carbon dioxide equivalent reduced or removed.

49. Once issued, VCCs are generally added to a "VCC Registry". Registries are recordkeeping systems for registered Carbon Projects for which VCCs are issued. VCC Registries are typically operated by the Carbon Standard that has issued the VCC. Such registries store information and track the VCCs throughout their life cycle, *i.e.*, through the generation, issuance, transfer, retirement and cancellation of VCCs. The purpose of VCC Registries is to provide transparency to the market and reduce the risk of double counting of VCCs.

50. Once certified, issued, and registered, the VCCs can then be sold on the open market, either over the counter (OTC) or through intermediaries such as brokers or exchanges. Sellers of VCCs may include, but are not limited to, the Carbon Project Developers. Additional sellers may include, for example, financial institutions, traders, and corporate or other entities selling the VCCs on the secondary market. As to VCC buyers, these often include corporate entities or non-governmental organisations that purchase VCCs as a means to voluntarily offset their emissions and thus help meet the "net-zero" climate targets such entities have set for themselves.

51. VCC buyers may choose to retire the VCC or to further trade it on the secondary market. Once retired, a VCC is no longer tradable; by retiring the credit the VCC holder claims the underlying reduction towards its own emission reduction targets.

Questions for the Working Group

5. *Is the above a comprehensive and accurate description of the main actors in the VCC life cycle?*
6. *Are there any other relevant actors that should be identified including, for example, any specific intermediaries or custodians?*
7. *What is the legal nature of the relationship between these actors? In the context of VCCs, is it purely contractual (as opposed to CCCs, where the relationships are likely to be laid down by statute)?*
8. *Are VCC Verifiers truly independent of the Carbon Standard that engaged them? What private law tools, if any, can be used to ensure independence?*

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35 See, e.g., TSVCM, Public Consultation Report 3 (2021).

36 For additional information, see https://verra.org/programs/verified-carbon-standard/.

37 For additional information, see https://www.goldstandard.org/.

38 For additional information, see https://americancarbonregistry.org/.

39 For additional information, see https://www.climateactionreserve.org/.

40 IOSCO, *Voluntary Carbon Markets Discussion Paper*, CR/06/22, November 2022, at page 9.

D. Purpose of the Project

52. Investment and transactions concerning complex assets such as VCCs require legal certainty. As VCMs grow in size and complexity, the trading in VCCs would be significantly enhanced if steps were taken, both nationally and internationally, to better understand the legal nature of VCCs.

53. The legal nature of VCCs not only determines the registration, issuance, transfer, and retirement of VCCs, but also impacts broader considerations such as fungibility, collateralisation, and insolvency.[41] Ultimately, greater clarity on the legal nature of VCCs would significantly contribute to the development of an efficient and more robust global VCM.

54. The main objective of the VCC Project is thus to provide guidance on private law issues so as to enhance confidence in VCC transactions and support the development of a well-functioning VCM. A strong VCM could play a central role in fighting climate change, help achieve the goals of the Paris Agreement, and facilitate the fulfilment of the UN SDGs. Given that a significant share of the projects that generate VCCs are located in developing economies, a reliable VCM also provides an opportunity to increase capital flow to emerging markets and provide funding to desirable climate projects that may not otherwise receive adequate support.

55. Pursuant to the mandate received from UNIDROIT's Governing Council, and following the Exploratory Workshops, it was indicated that the VCCs Project would focus on the private law aspects of VCCs, with the possibility, subject to the views of the Working Group and approval of UNIDROIT's governing bodies, of extending the Project to cover the private law aspects of CCCs, given the extent of the instruments' shared characteristics. At this stage, excluded from the scope of the Project are regulatory issues relating to the secondary market for VCCs (especially in light of IOSCO's current efforts in this regard), as well as issues relating to the pricing and accounting of VCCs. Private law issues in the secondary market, such as the transfer of VCCs and collateralisation, are expected to fall within the scope of the Project.

56. While regulation *per se* is outside the scope of the Project, there are a number of aspects touched upon by the Project which border on regulatory issues. The Working Group may thus wish to take these into account to ensure coherence between the recommendations for private law and any regulatory approaches.

Question for the Working Group:

9. *Do you agree that the following should be excluded from the scope of the VCC Project: (i) issues relating to pricing of VCCs; and (ii) issues relating to accounting of VCCs?*

III. CONTENT OF THE FUTURE DOCUMENT

57. Given that VCCs may often be issued in the form of digital certificates, UNIDROIT's work on the DAPL Principles may provide a helpful starting point for analysis. The DAPL Principles cover a specific area of private law relating to digital assets, in particular proprietary rights. They address digital assets where they are the object of dispositions and acquisitions, and where interests in those assets are to be asserted against third parties. They do not cover regulation, or regulatory law,[42] and do not address many issues of national law relating to contract and private law.[43] Perhaps of

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41 See also ISDA, *Legal Implications of Voluntary Carbon Credits*, December 2021, at page 5.

42 Intended as rules that are to be enforced by public authorities.

43 Examples of issues not addressed by the DAPL Principles include whether a proprietary right in a digital asset has been validly transferred to another person, whether a security right in a digital asset has been validly created, the rights as between a transferor and transferee of a digital asset, the rights as between a grantor of a security right in a digital asset and the relevant secured creditor, many of the legal consequences of third-party effectiveness of a transfer of digital assets and some of the requirements for, and legal consequences of, third-

particular relevance to the present Project is DAPL Principle 6, which addresses the concept of "control" for purposes of the Principles, as well as DAPL Principle 4, which addresses the link between a digital asset and another asset where the digital asset purports to be linked to that other asset. The Working Group may wish to consider the extent to which VCCs can be considered as digital assets, as well as any specificities particular to VCCs, if any, that warrant departure from the DAPL Principles.

58. The discussion concerning the content of the future instrument is thus likely to start with consideration of key concepts, including what falls within the definition of carbon credit and consideration of the legal nature of VCCs. This inquiry would then guide discussion of related issues, including with respect to: (i) the issuance of VCCs; (ii) the ownership of VCCs; (iii) the transfer of VCCs; (iv) the fungibility of VCCs; (v) secured transactions and collateralisation; (vi) the role of custodians and other intermediaries; (vii) the treatment of VCCs in case of insolvency; and (viii) issues of applicable law, especially in the context of cross-border transactions.

Question for the Working Group:

10. *At this stage, do you agree with the potential inclusion of the above topics in the scope of the Project?*

11. *Are there any additional topics that should be considered?*

A. Definition of "carbon credit"

59. The term "carbon credit" may at times be used interchangeably by market participants to refer to different instruments. Each instrument may, however, raise distinctive legal issues from a private law perspective. These include:

- *Carbon credits* or *carbon offsets*: carbon credits or offsets represent a certification that a certain amount of GHG has been reduced, removed or captured from the atmosphere—typically one metric tonne of carbon dioxide or its GHG equivalent per quota.
- *Carbon emission allowances*: carbon emission allowances consist of tradable permits that allow the holder to emit a certain amount of GHG, when emissions are otherwise restricted by law.
- *Results-based climate finance*: this term refers to investments aimed at financing new or existing projects that reduce, avoid, or remove GHG. Results-based finance represents one way in which carbon credits may be used, but is separate from the carbon credits themselves.

60. With respect to carbon emission allowances, it was observed at the Second Exploratory Workshop that these instruments are, by definition, more heavily regulated than carbon credits, since emission allowances are regulatory constructs—*i.e.*, permits established by legislation when emissions are otherwise restricted by law. That being said, it was noted that, to the extent emission allowances are transferrable or tradable assets, they could fall within the scope of the Project.

61. As to results-based finance, it was observed that this could be considered as representing a stage prior to VCCs, the key distinguishing factor being that a Carbon Project receiving results-based finance has not yet necessarily gone through the verification process required for the certification and issuance of VCCs. In other words, results-based financing could, in principle, evolve into a credit if the Carbon Project obtains the target climate results, as certified by an independent verification body. It was also noted that results-based finance could be considered as distinguishable from both carbon credits and carbon emission allowances, in that it may not yet be fungible for trade, though

party effectiveness of a security right in a digital asset. See DAPL Principles, Commentary 0.10; see also DAPL Principle 3(3).

it could be in the future (to the extent that the financing evolves into a credit after the Carbon Project undergoes the relevant verification process). To that end, however, it was observed that the SCALE facility of the World Bank operates on the basis of results-based finance. Under the SCALE system, donors provide climate financing to developing countries with a view of helping such host countries develop additional results-based assets that could be put into the market.[44] Thus, in this context, results-based finance could potentially be deemed a transferable asset.

62. It follows that two key criteria emerged from the discussion of the Second Exploratory Workshop in relation to a potential definition of VCCs for purposes of the Project: (i) the transferability or tradability of the asset; and (ii) the existence of independent arms-length verification of the Carbon Project's claimed climate-related impacts.

63. As to transferability, it was observed that, if an asset or instrument can be transferred, then it is likely to fall within the scope of the Project, regardless of whether such asset or instrument currently has value, since value may change in the future depending on the evolution of the relevant market. Further, the distinction between transferability and tradability was noted, and it was suggested that the term "transferability" was likely more apt for purposes of the Project; transferability is a legal concept, while tradability of an asset or instrument is instead tied to the existence of a market. Thus, an asset may be transferrable, but perhaps not yet tradable based on the current evolution of the market.

64. As to verification, it was observed that a VCC constitutes an independently verified arms-length emission reduction or removal. As observed by ISDA, it could be claimed that the value of a VCC "derives from the finite nature of the resources represented by VCCs, which includes the independent verification of such claims, as set out in the relevant carbon standards framework".[45] A results-based payment does not yet fall within this category, independent of whether it is a transferable or tradable instrument.

Questions for Working Group

12. *Do you agree that the criteria of transferability should be used in determining what instruments fall within the scope of the Project?*

13. *In regards to emission allowances, if these are a regulatory construct, does the applicable regulation impose any limitations on their transfers? If so, how (if at all) should any future instrument apply to them?*

14. *Would the criteria of independent, arms-length verification constitute a (further) criteria to be used in determining what instruments fall within the scope of the Project? Or would this risk excluding relevant instruments?*

15. *Do you envisage any additional criteria to determine the scope of the Project?*

B. Legal nature of Voluntary Carbon Credits

65. As recognized by the UNCITRAL Studies, "[d]efining the exact legal nature of carbon credits is often considered a 'fundamental issue' in achieving an adequate level of legal certainty to encourage private entities to invest in offset credits or to be in a position to sell their emission allowances".[46]

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44 For more information, see https://www.worldbank.org/en/programs/scale/overview.

45 ISDA, *Legal Implications of Voluntary Carbon Credits*, December 2021, at page 10.

46 UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022, at para 15.

66. It thus follows that the first, and very important, issue for discussion by the Working Group is whether a VCC can be the subject of proprietary rights.[47] A positive answer to this question will enable many of the secondary issues mentioned below to be determined, including, for example, the way in which VCCs are issued and circulated and, in particular, whether VCCs may be used as security and their treatment in case of insolvency. A negative answer could, on the other hand, prove problematic for the market. Given that every jurisdiction has limits on what can be the subject of proprietary rights, it is also necessary to provide reasoning and analysis to support the conclusion—if such a conclusion is indeed reached—that a VCC can be the subject of proprietary rights.

67. There are likely to be two primary ways of approaching this question: (i) to examine the substance of the VCC; and (ii) to examine the form of the VCC. Both are important and are examined below.

1. Bundles of contractual rights

68. This analysis examines the substance of a VCC and considers whether it can be seen as comprising, or representing, one or more contractual rights against one or more identified parties. If that is the case, then VCCs would be capable of being the subject of proprietary rights regardless of the form in which they are issued.

69. A series of contracts must generally be entered into in order for VCCs to be issued. These may include, for example:

- *Contract between the Carbon Project Developer and the Carbon Standard*: the Carbon Project Developer contractually undertakes to develop the Carbon Project in accordance with the applicable rules of the Carbon Standard. Typically, this is done through the execution of terms of use whereby the Carbon Project Developer agrees to comply with the standard and the specific applicable methodology pursuant to which compliance with the standard will be certified. The Carbon Project Developer typically pays a fee to the Carbon Standard that varies depending on the number of credits certified.[48]
- *Contract between the Carbon Project Developer and the VCC Verifier*: this concerns the hiring of the arms-length independent entity to verify the outcome of the Carbon Project in accordance with the rules and regulations of the Carbon Standard. Generally, it is the Carbon Project Developers who hire and pay the VCC Verifiers, which in turn have been chosen and accredited by the Carbon Standard.[49]
- *Contract between the Carbon Project Developer or VCC holder and the VCC Registries*: VCCs are recorded in VCC Registries and are subject to those registries' contractual frameworks and terms of use.

70. According to the UNCITRAL Studies, it may thus be possible to characterize a VCC as "a contractual right that an entity has to benefit from these credits by virtue of the different contracts it has concluded with the [C]arbon [S]tandard, the verifiers and/or the institution that operates the registry".[50]

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47 See DAPL Principle 3(1) ("A digital asset can be the subject of proprietary rights.").

48 See, e.g., Verra Program Fee Schedule available at Program-Fee-Schedule_v4.1.pdf (verra.org).

49 See V. Battocletti, L. Enriques, A. Romano, *The Voluntary Carbon Market: Market Failures and Policy Implications* (March 7, 2023), European Corporate Governance Institute - Law Working Paper No. 688/2023, at page 3.

50 UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022, para 22 (citing to ISDA, Legal Implications of Voluntary Carbon Credits, December 2021, at page 10).

71. Nonetheless, it was observed at the Second Exploratory Workshop that most, if not all, of the above-mentioned contracts are likely to have been performed upon the issuance of the VCC. If all the contracts have been fully performed without breach, then there are no remaining contractual obligations and no correlative contractual rights. If this is the case, the legal nature of a VCC cannot be that it is, or represents, one or more contractual rights. If, however, there are still contractual obligations owed by any of the parties listed above, then it is possible that the correlative contractual rights are, or are represented by, the VCC. This would be the case if (i) those rights are owed to the holder of the VCC, and (ii) those rights are transferrable.

72. At the First Exploratory Workshop, it was observed that considering VCCs as bundles of contractual rights could, however, be problematic under certain domestic law. For example, under English law, a contractual right may only be transferred through assignment or novation; each of these mechanisms requires certain formalities to be complied with, such as notice and consent. While domestic laws generally also impose formalities on the transfer of property, it may be easier for a prospective buyer to verify what it is that they are purchasing when the VCC is a piece of property that may even be negotiable, as opposed to a set of contractual rights that would bind the transferee.

Questions for the Working Group

16. *Once a VCC is issued, are there any obligations arising under the contracts listed above which are still to be performed?*
17. *If there are any such obligations, to whom are they owed? Are any of them owed to the holder of the VCC?*
18. *If so, are the rights which correlate to these obligations transferable by the transfer of the VCC?*
19. *Is the above an accurate list of the most relevant VCC-related contracts or should other types of contracts be considered?*

2. Intangible property

73. If the analysis above does not work, it may be considerably more difficult to determine the legal nature of the substance of a VCC in a way that enables it to be the subject of proprietary rights. One possible approach is that VCCs could be considered to be more akin to intangible property, with the concept of "property" understood as (at least) the right to exclude others from the use of the asset (*ius excludendi alios*).[51] Under this approach, VCCs could be seen as representing an exclusive right to a finite resource—*i.e.*, the certification that the VCC holder has, either directly (if the holder is the same as the Carbon Project Developer) or indirectly (if the holder is a buyer of the VCC), reduced or removed from the atmosphere one metric tonne of carbon dioxide equivalent. One potential problem with this analysis, though, is that the certification (in the absence of contractual rights or any relevant legislation) is merely information, which is not capable of being the subject of proprietary rights in many jurisdictions. However, it could be that the information in the certificate would be seen as being capable of proprietary rights in some jurisdictions.

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[51] In its report, the UK Law Commission noted that "the prevailing view in most jurisdictions (including under the law of England and Wales) is that VCCs are 'a form of intangible property'— they are capable at law of being things to which personal property rights can relate". See UK Law Commission Report on Digit Assets, available at https://www.lawcom.gov.uk/project/digital-assets/, at para 4.68. See also UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022, at para 21 (noting that in some countries, for a thing to be considered as property it must be established that it is "definable, identifiable by third parties, capable in its nature of assumption by third parties and [having] some degree of permanence or stability" while in other countries "the criteria traditionally used to define property tend to revolve around the questions of whether a thing has an economic value, whether it can be transferable, and whether a person can use it without interference by third parties"; in either case, it would seem these criteria could be met by VCCs).

74. Participants to the Second Exploratory Workshop noted that, although VCCs most often exist digitally—recorded on a VCC Registry with a unique serial number—the VCC itself may include certain physical elements, which could be relevant as to whether the substance of a VCC could be the subject of proprietary rights. These may include:

- *The physical act of verifying*: A VCC cannot exist without an independent arms-length verification of the claimed reduction or removal. In other words, a VCC has to be a verified emission reduction or removal.
- *The physical act of monitoring*: The underlying Carbon Projects in relation to which the VCCs are issued may often require ongoing monitoring to verify the claimed reductions or removals.
- *The actual emission reduction*: Although digital, the VCC represents an actual emission reduction (or removal).
- *The underlying Carbon Project*: The VCC is tied to the underlying Carbon Project which may consist of real property such as a forestry project or a photovoltaic plant, for example.

75. It was, however, observed that, from a private law perspective, the asset itself is the digital certificate, not the actual carbon reduction or removal. A comparison was made to the realm of the warehousing of goods: while the warehouse operator performs and chooses the quality and quantity of the goods, the receipt is the asset in itself. In other words, even though there may be other activities, that may be physical, such activities are unrelated to the credit itself from a private law perspective.

76. On the other hand, it was noted that the VCC is inextricably tied to the underlying process of verification that generates the digital asset and determines its continued existence. For example, the validity of a VCC may be challenged by claiming that the GHG removal or reduction it represents has not been properly verified. Lack of proper verification or non-compliance with the applicable standards could lead to the cancellation (*i.e.*, revocation) of the VCC.[52]

Questions for the Working Group

20. *If the substance of a VCC is not contractual rights, can it be analysed in any other way so that it can be viewed as being capable of being subject to proprietary rights?*
21. *Is the verification process required for the certification of a VCC relevant to the legal treatment of a VCC?*
22. *Relatedly, does the possibility of cancellation of the VCC (because of, for example, problems with the verification process) have any significance in relation to the qualification of the legal nature of a VCC?*
23. *Are there voluntary market standards that do not require verification?*
24. *To the extent VCCs may be defined as subject to proprietary rights, how can the existing link to actual real estate (i.e., to land or other physical assets used by the underlying Carbon Project) be clarified to avoid confusion in certain transactions, for example when using VCCs as collateral?*

[52] Several efforts are underway to examine and offer guidance on independent verification (as it is also a concern for compliance markets). See, e.g., World Bank publication: https://pmiclimate.org/index.php/publication/designing-accreditation-and-verification-systems-guide-ensuring-credibility-carbon.

3. Digital assets

77. Another way of approaching the question of whether VCCs can be the subject of proprietary rights (and their legal nature) is to look at their possible form. Thus, the VCC's form could be the subject of proprietary rights and could be transferred. Even if the legal substance is such that it cannot be the subject of proprietary rights, the transferee would receive proprietary rights in the form. If the legal substance can be the subject of proprietary rights, the issue then arises as to whether the transfer of proprietary rights in the form also transfers proprietary rights in the substance.

78. This is the same question that arises in relation to assets purportedly linked to digital assets, which is examined in DAPL Principle 4. It was indeed suggested that VCCs could be akin to "linked assets" under the DAPL Principles.[53] A VCC, depending on the analysis adopted, might comprise or represent rights against various people or entities, which are intangible assets linked to the electronic record. Under DAPL Principle 4 the existence and nature of the link are questions left up to the applicable national law,[54] but the commentary to DAPL Principle 4 sets out many examples of how a link can, depending on the facts and the national law, be effective or ineffective.

79. One (perhaps very unlikely) possibility is that the VCC is issued in the form of a paper certificate. There is then no doubt that it is "property" (a tangible) and that it can be transferred. Whether the transferee obtains a proprietary right in the substance depends on the answers to the questions raised in Sections III.B(1) and III.B(2), above.

80. In practice, however, VCCs often take the form of digital certificates with a unique identifier (*i.e.*, a serial number) that is generated by the Carbon Standard if the Carbon Project has met the applicable requirements. The digital certificate is then registered on a VCC Registry to track its future use and eventual retirement.

81. To the extent VCCs can be considered digital assets, UNIDROIT's DAPL Principles could provide guidance. As noted above, the DAPL Principles adopt a functional approach, providing a definition of "digital asset" for the sole purpose of the DAPL Principles.[55] DAPL Principle 2(2) defines "digital assets" as "electronic records that can be subject to control". Control is defined in DAPL Principle 6 and comprises three factual abilities: (i) the exclusive ability to prevent others obtaining the benefit of the digital asset; (ii) the ability to obtain that benefit; and (iii) the exclusive ability to transfer those two abilities to another person. The DAPL Principles further provide that digital assets can be the subject of proprietary rights (Principle 3(1)).[56]

82. Similarly, in the 2023 digital assets report of the UK Law Commission, it is suggested that digital assets are neither "a thing in possession" nor a "thing in action", but that the law of England and Wales treats them as essentially belonging to a third category—*i.e.*, as things "to which personal property rights can relate".[57]

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[53] DAPL Principle 4 provides that: "The digital assets to which these Principles apply include a digital asset linked to another asset. The other asset may be tangible or intangible (including another digital asset). Other law applies to determine the existence of, requirements for, and legal effect of any link between the digital asset and the other asset, including the effect of a transfer of the digital asset on the other asset".

[54] See DAPL Principles, Commentary 4.4 ("The operation of linked assets depends on two distinct questions: (1) whether there is any link at all between the digital asset and the other asset; and (2) whether the link has a legal effect on the parties' rights in relation to the other asset. Both questions depend on the other law of the State").

[55] See the above-mentioned DAPL Principle 2(2).

[56] As used in the DAPL Principles, the definition of proprietary rights intends to express that persons can have rights or interests in digital assets, which rights and interests can be asserted against third parties. See DAPL Principles, Commentary 3.4.

[57] See, e.g., UK Law Commission Report on Digit Assets, at paras 2.17, 2.45-2.46.

83. If, therefore, a VCC took the form of a "digital asset", as defined, it can be argued that the form of it could be the subject of proprietary rights. Again, whether the transferee obtains a proprietary right in the substance depends on the answers to the questions raised in Sections III.B(1) and III.B(2), above.

84. If a VCC took another form, then it is much less clear that it would be capable of being the subject of proprietary rights as a result of its form.

Questions for the Working Group

25. *Should the form of a VCC govern whether it is viewed as an asset that is capable of being the subject of proprietary rights?*

26. *If a VCC is in the form of a digital asset that is capable of being the subject of proprietary rights, and the substance of the VCC is such that it is capable of being the subject of proprietary rights, does this make the VCC a "linked asset"?*

27. *If so, related questions to explore may include how that link is established and how it is rendered effective. In other words, (i) how are the underlying rights created and extinguished; and (ii) how are those rights linked to the digital asset?*

C. Issuance of Voluntary Carbon Credits

85. Participants to the Second Exploratory Workshop largely agreed that a VCC is to be deemed "generated" via the registration of the underlying Carbon Project and the issuance of the credit by a Carbon Standard as reflected on a VCC Registry. These are steps that are likely to occur essentially simultaneously once the certification process is completed.

86. As noted above, for VCCs to be issued, the Carbon Project Developer must obtain certification through a Carbon Standard, such as Verra or Gold Standard. The Carbon Standard certifies that the Carbon Project meets certain specifications that vary depending on the characteristics of the Carbon Project. In particular, the Carbon Standard, through a VCC Verifier, will assess the climate impact of the Carbon Project by comparing it against a so-called "baseline scenario"—*i.e.*, the level of emissions that would have occurred absent the Carbon Project.

87. However, there currently is no standard methodology for the calculation of such baseline scenarios. Indeed, different methodologies apply to the calculation of the baselines applicable to different Carbon Projects developed in different sectors; for example, the methodology to calculate the relevant baseline for forestry projects will differ from that applicable to renewable energy projects. In addition, even methodologies applied to similar Carbon Projects are likely to differ across Carbon Standards and VCC Verifiers, with each body applying its own methodology to assess the baseline relevant to the Carbon Projects it assesses and certifies.

88. Such lack of uniform standards or criteria could affect the validity and integrity of VCCs, as well as their fungibility, as discussed in further detail below (see Section III.F). Indeed, to foster a strong VCM, market participants must be confident that each carbon credit they purchase accurately represents the stated GHG emissions reduction or avoidance. At the moment, it appears that VCC buyers have little visibility into what that process entails.

89. The lack of uniform and easily verifiable standards creates a risk of greenwashing; *i.e.*, a risk that VCM actors will overstate or misstate positive climate impacts. For example, a recent study that analysed 26 deforestation reduction projects in six countries found that, despite the existence of certification schemes, "currently used baseline methodologies do not guarantee additionality", meaning that, although certified, VCCs may not reflect actual emission reductions.[58] According to the

[58] West *et al.*, *Science* **381**, 873-877 (2023).

study's authors, likely reasons for the difference between the projected and the actual estimated offsets include the use of baselines that exaggerate the deforestation that would occur absent the Carbon Projects, as well as poor performance by the Carbon Projects.[59]

90. Though primarily a regulatory concern, the risk of greenwashing may also be partially tied to current market dynamics. As noted above, Carbon Standards are often paid on the basis of the number of credits they certify. In addition, it is the Carbon Project Developers who generally hire and pay the VCC Verifiers, which are, in turn, selected by the Carbon Standards.[60] Thus, it is usually the Carbon Project Developers who bear the cost of the verification and certification process. Because this process is voluntary, governments are unlikely to shoulder the financial burden, meaning that the responsibility to do so is left to those who benefit from the process.

91. As noted above, VCC buyers may not have access to complete information to verify the quality of the VCCs. The UNCITRAL Studies observe that "climate disinformation may hinder progress towards the achievement of the goals of the Paris Agreement by encouraging consumers and investors to rely on products and services that are not as climate-friendly as they think they are"; this in turn, "may create market distortions across several sectors of the economy".[61] In addition, VCC buyers may not be incentivised to verify the actual correspondence between what is stated in the certificate and what is actually realised by the Carbon Project Developer. For example, if a VCC buyer enjoys tax benefits from the purchase of carbon credits, the VCC buyer may not be particularly interested in verifying the carbon credit's actual compliance with applicable standards.[62]

Questions for the Working Group

28. *What role (if any) can private law play in encouraging use of uniform baselines for similar methodologies applied by different Carbon Standards? Is this a question better left to regulators?*

29. *How (if at all) is the risk of greenwashing relevant to the issuance, transfer and use of VCCs?*

30. *What private law tools (if any) can be used to mitigate the risks associated with greenwashing?*

D. Ownership of Voluntary Carbon Credits

92. A fundamental rule about VCCs is that a VCC should not be simultaneously listed in two different VCC Registries or held in two separate accounts within the same Registry. Indeed, as observed in the UNCITRAL Studies "an offset credit can only be used by its holder, and for its sole benefit".[63]

93. It was thus noted at the Second Exploratory Workshop that there should be a single holder of a VCC at any given moment; for more than one party to simultaneously hold a VCC it may be necessary for those parties to form a separate entity with its own individual account. The extent to which multiple parties may hold a VCC is also linked to the fundamental question of the legal nature

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[59] See West *et al.*, *Science* **381**, 873-877 (2023). See also V. Battocletti, L. Enriques, A. Romano, *The Voluntary Carbon Market: Market Failures and Policy Implications* (March 7, 2023), European Corporate Governance Institute - Law Working Paper No. 688/2023, at pages 24-25.

[60] See V. Battocletti, L. Enriques, A. Romano, *The Voluntary Carbon Market: Market Failures and Policy Implications* (March 7, 2023), European Corporate Governance Institute - Law Working Paper No. 688/2023, at page 3.

[61] UNCITRAL Secretariat*, Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1153, 10 May 2023, at page 11.

[62] See V. Battocletti, L. Enriques, A. Romano, *The Voluntary Carbon Market: Market Failures and Policy Implications* (March 7, 2023), European Corporate Governance Institute - Law Working Paper No. 688/2023, at page 29 ff.

[63] UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022, para 21.

of VCCs. For instance, a VCC holder might have a (transferrable) contractual right against the VCC Registry or other intermediary which could be said to constitute the VCC (and which could be the subject of proprietary rights). If that is correct, the VCC cannot be "owned" simultaneously by more than one party, as the contractual obligations can only be owed to one person at a time. In any event, the extent to which co-ownership of a VCC is possible, for example through the use of agents or other intermediaries who hold the asset on behalf of multiple parties, is an issue for the further consideration of the Working Group.

94. Following certification, the Carbon Standard will issue the credit and add it to a VCC Registry. VCC Registries are generally publicly accessible; their purpose is to increase transparency in the market and maintain a digital record of VCCs that are issued, transferred, retired or cancelled. A key function of VCC Registries is thus ensuring the uniqueness of the Carbon Project, as well as the ownership and retirement of the related credit.

95. However, there are a multitude of VCC Registries that operate independently of each other and under different rules and regulations. Some systems are centralised and publicly regulated, both at the national[64] and international[65] level. Other VCC Registries are established by the Carbon Standards themselves and operate on the basis of private voluntary market standards.[66]

96. This fragmentation and lack of interoperability across VCC Registries results in potential impediments to the development of a well-functioning VCM, including by: (i) creating a concrete risk of double counting[67] in the event that the same carbon offset is recorded by more than one VCC Registry, or in the event the credit is retired and then reissued as new; and (ii) not facilitating VCM participants' access to clear data regarding VCCs, including in relation to the quality of the credit as well as its ownership and transfer status.

97. Participants to the Exploratory Workshops observed that blockchain technologies and issuance of VCCs in the form of digital assets could represent an opportunity to improve the functionality of VCC Registries.[68] Indeed, the CAD Trust, mentioned above, attempts to address the issues created by the multiplicity of VCC Registries by offering a decentralised, blockchain-powered digital infrastructure that connects the various independent VCC Registries onto a single platform that is publicly accessible.[69]

98. In the context of the DAPL Principles, the questions of blockchain technologies and tokenisation, although relevant, are not expressly included in the Principles in order to ensure their technology neutral approach. It is also worth noting that the DAPL Principles focus on a functional concept of control, defined in DAPL Principle 6 as including at least: (i) the controller's exclusive ability to *prevent others* from obtaining substantially all of the benefit from the digital asset; (ii) the controller's ability to *obtain* substantially all of the benefit from the digital asset; and (iii) the

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64 Regulated markets have established specific platforms for the exchange of carbon credits. For example, the Singapore-based global carbon exchange and marketplace Climate Impact X (CIX), the Bursa Carbon Exchange in Malaysia, or the London Stock Exchange's Voluntary Carbon Market in the United Kingdom.

65 See, e.g., the United Nations Carbon Offset Platform, which displays UNFCCC-certified climate-friendly projects that reduce, avoid or remove greenhouse gas emissions from the atmosphere. These projects are implemented in developing countries around the world and are rewarded with Certified Emission Reductions (CERs) for each tonne of greenhouse gas they help reduce, avoid, or remove.

66 See, e.g., the Verified Carbon Standard (so-called "Verra Standard"), The Gold Standard, the Climate Action Reserve (CAR), Plan Vivo, the above-mentioned American Carbon Registry, or the Thailand Voluntary Emission Reduction Program (T-VER), among many others.

67 Meaning the issuance of two or more certificates representing the same carbon offset.

68 See the World Bank's Climate Warehouse Project that programmes prototypes, tests, and develops digital infrastructure to foster greater transparency, trust, and integrity in the carbon markets. Examples include the metadata global platform Climate Action Data (CAD) Trust.

69 For additional information, see https://climateactiondata.org/.

controller's exclusive ability to *transfer* those abilities to another person or entity.[70] This notion was developed to take into account the particular features of digital assets. Importantly, however, the DAPL Principles distinguish between a change of control from one person to another and a transfer of proprietary rights in the digital asset. Control of a digital asset is understood as a functional equivalent of possession; whether there is a valid transfer of proprietary rights in a digital asset is instead a matter not addressed by the DAPL Principles and left to national law.[71]

Questions for the Working Group

31. *What is the legal nature of the act of registration of a VCC? What is it that is being registered?*
32. *Is co-ownership of a VCC, including through the use of intermediaries or agents, possible?*
33. *Can VCCs exist outside of a VCC Registry; i.e., in a decentralised system where, for example, the holder itself may 'retire' the credit?*
34. *How can interoperability between VCC Registries be improved? Does this fall within the scope of the Project?*
35. *Given the importance of VCC Registries in the market for VCCs, should any guidance document provide for technology neutrality or would a more specialised approach be desirable?*

E. Transfer of Voluntary Carbon Credits

99. Essential to a well-functioning VCM is market participants' ability to easily transfer VCCs and obtain good title to the assets upon a transfer. Key questions that emerge are thus how and when a transfer is completed and what rights and responsibilities do VCC sellers and buyers, as well as intermediaries, have in relation to the transfer of the asset.

100. For example, issues related to the transfer of a VCC could arise in the context of:

- The insolvency of the VCC holder or of the VCC Registry (see also Section III.H, below).
- Flaws in the certification and verification process attesting to the climate qualities of the underlying Carbon Project, which could potentially lead to the cancellation of the credit.[72]
- The lack of permanence of the underlying Carbon Project's claimed emission reductions or removals; for instance, if trees planted as part of a reforestation project are later destroyed by wildfires, the climate benefit of the related VCC would no longer exist.[73] As noted by the UNCITRAL Studies, "carbon credits resulting from carbon sequestration projects only offset emissions as long as the carbon they represent remains stored in reservoirs"; however, "for a variety of natural and human-induced causes (e.g., wildfires, diseases, land exploitation, industrial accident) stored carbon can return to the atmosphere (a situation referred as reversal)".[74]

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70 See DAPL Principle 6 for a more detailed definition.

71 See DAPL Principles, Commentary 6.5.

72 For example, recent reporting and scientific studies have questioned the environmental worth of many VCCs. See Carbon credit speculators could lose billions as offsets deemed 'worthless' | Carbon offsetting | The Guardian; see also West *et al.*, *Science* **381**, 873-877 (2023) (finding that "[o]nly a minority" of the Carbon Projects studied by the authors "significantly reduced deforestation in the project areas compared with the ex post counterfactuals, and even those, with one exception, did not reduce deforestation to the extent claimed"; indeed, according to the authors' estimates "only 5.4 million (6.1%) of the 89 million expected offsets from the REDD+ projects would be associated with additional carbon emissions reductions").

73 See IOSCO, *Voluntary Carbon Markets Discussion Paper*, CR/06/22, November 2022, at para 3.1.1.2.

74 UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1153, 10 May 2023, at page 8.

- The risk of fraudulent transactions, including the selling of a VCC that does not exist or that belongs to someone else.

101. These issues are likely to be particularly acute in the context of VCCs given, among other factors, the current lack of complete and consistent data from the VCC Registries. The risk is further exacerbated in relation to cross-border transactions, especially given the lack of a global VCC Registry.[75]

102. In the absence of an express contractual provision (which appears to be rare in the current market), it is unclear whether a VCC seller has an obligation to guarantee the quality (or existence) of the underlying Carbon Project and which party bears the risk of the continued validity of the VCC. This might be particularly relevant for the secondary market, where the VCC seller is not the Carbon Project Developer and the affected VCC has been the subject of multiple transfers along the chain. In such an instance, it remains to be determined whether the VCC seller could be held liable for the shortfall in carbon offsets or other issues affecting the VCC.

103. While increasing contractual obligations could incentivise market actors to verify the integrity of the carbon credit, at the same time, the transfer of liability along the chain could affect the transferability of the asset and thus the liquidity of the related market. Moreover, the integrity of Carbon Projects could be adjusted by market forces, with carbon credit prices based on different projects varying according to project risk.

104. Indeed, it was observed during the Second Exploratory Workshop that, currently, the VCM operates largely on a "buyer beware" model, where VCC buyers are expected to carry out proper diligence on, for example, the Carbon Project Developer and its track record. However, the current lack of complete information may hinder a VCC buyer's ability to properly carry out such diligence.

105. To the extent VCCs are considered digital assets, the UNIDROIT DAPL Principles could provide guidance in relation to the example set forth above concerning the sale of a VCC by someone who does not have a proprietary right in it. In particular, DAPL Principle 9 states the *nemo dat quod non habet* rule (that one cannot give what one does not have), providing that:

> *(1) Subject to Principle 8, a person can transfer only the proprietary rights that it has in a digital asset, if any, and no greater proprietary rights.*
>
> *(2) A transferee of proprietary rights in a digital asset acquires all of the proprietary rights that its transferor had or had the power to transfer, except that the transferee acquires rights only to the extent of the rights that were transferred.*

106. DAPL Principle 8 addresses the exception to the above, *i.e.*, the circumstances in which a transferee can qualify as an "innocent acquirer" and the consequences flowing from an "innocent acquisition" (understood as an acquisition made in good faith). As set out in DAPL Principles 8(2) and 8(3), an innocent acquirer takes free of conflicting proprietary rights, and no rights based on a proprietary claim can be asserted against an innocent acquirer. It thus follows that, in some circumstances, a person with a proprietary claim who is the victim of wrongful activity will not be able to assert that claim successfully against the innocent acquirer. The victim would have a claim against the wrongful actor, but that may not be effective. In this situation, the innocent acquisition rule represents a policy balance in favour of an innocent acquirer in order to contribute to legal certainty and support efficient markets.[76]

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[75] See IOSCO, *Voluntary Carbon Markets Discussion Paper,* CR/06/22, November 2022, at para 3.1.2.1.

[76] See DAPL Principles, Commentary 8.3 and 8.4.

Questions for the Working Group

36. *Who bears the burden—and the risk—of a VCC's non-compliance with the applicable Carbon Standard rules and regulations? Should the law stipulate that the transferor provides a guarantee of compliance to the transferee?*

37. *Do the Carbon Standard and/or the VCC Verifier have continuing responsibility as to the quality of the VCC?*

F. Fungibility of Voluntary Carbon Credits

107. Related to the above issue of transferability is the question of whether VCCs may be considered fungible, or interchangeable, for purposes of satisfying obligations between market participants.[77] This, in turn, may necessitate determination of the minimum parameters required for VCCs to be considered equivalent for the purpose of discharging an obligation to transfer a VCC.

108. Because each VCC corresponds to one metric tonne of GHG reduced or removed from the atmosphere, there already exists a degree of uniformity in the way VCCs are measured. However, VCCs can be issued in relation to different types of Carbon Projects; for example, from reforestation efforts to the development of wind or solar farms, to projects involving biofuels. Such projects may be located in very different geographical areas and may vary widely in size or age.

109. In addition, as noted above, VCCs are certified and issued based on different standards, terms and conditions. It was thus noted that, at the moment, the question could arise as to whether a VCC issued by one Carbon Standard is fungible with that issued by a different and separate Carbon Standard. In the absence of independent threshold criteria, it is difficult to compare VCCs issued by different bodies. It follows that the role of Carbon Standards and VCC Verifiers in establishing and applying uniform or comparable criteria for Carbon Projects capable of generating VCCs may be key to avoiding market segmentation.

110. The point was also raised at the Second Exploratory Workshop that private law tends to think of fungibility not as something that is inherent in the asset itself, but as a trait that depends on (i) whether the asset is treated as fungible by the market, and (ii) the terms of the sale contract. Thus, the concept of fungibility may, to some extent, be relative. Private law principles could be developed that apply when an asset is treated as fungible and when it is not.

111. However, for a market to treat assets as fungible, they not only have to be deemed interchangeable from an economic point of view, but also in terms of the way in which they can be transferred. It was thus observed that a particular obstacle to fungibility from a private law perspective is if the assets manifested in different ways—if, for example, VCC Registries operated very differently affecting the transferability of the assets.

Questions for the Working Group

38. *Can private law assist in creating conditions of fungibility without stepping into regulation? How so?*

39. *In order for VCCs to be considered fungible, is it sufficient that each certificate represents one metric tonne of GHG removed or reduced from the atmosphere, or are further minimum parameters needed?*

40. *To the extent further parameters are needed, what should these include? Would the type and location of the Carbon Project be relevant? Would the body issuing the VCC and/or the entity providing the verification be relevant?*

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[77] See ISDA, *Legal Implications of Voluntary Carbon Credits*, December 2021, at page 16.

41. Can private law assist Carbon Standards and VCC Verifiers in developing and applying uniform or comparable criteria in relation to the issuance and verification of VCCs?

G. Secured transactions and collateralisation

112. A key concern for VCM participants is the extent to which a VCC can be the subject of security rights. For example, in the UNCITRAL Studies it was observed that "the commercial value of emission allowances tend[s] to increase when the law clearly provides that emission allowances are capable of supporting the existence of security rights and establishes a registration mechanism for such security".[78]

113. This, in turn, is linked to the fundamental question of the legal nature of VCCs discussed above and whether a VCC can be the subject of proprietary rights. In the context of digital assets, DAPL Principle 14(1) provides that "[d]igital assets can be the subject of security rights". This follows from DAPL Principle 3(1) which states that digital assets can be the subject of proprietary rights. Thus, Section V of the DAPL Principles applies to transactions under which a security right in a digital asset is granted to a secured creditor to secure the performance of any existing, future, or contingent obligations of the grantor or another person.[79]

114. A carbon credit (or a carbon credit account) could similarly operate as collateral to secure the loans or other obligations of the VCC holder. However, many of the problems and legal uncertainties afflicting VCC Registries may recur in the context of establishing security rights in carbon credits. For example, VCC Registries provide information necessary for prospective lenders to assess the value of a VCC. Registration in a VCC Registry has not, however, been recognised as a mechanism to render a security right effective against third parties. However, the steps performed may amount to "controlling" the VCC. Similar to security rights in digital assets, secured transactions law generally does not recognise "control" as a mechanism for perfection.

115. Further, most VCC Registries maintain standard form liability disclaimers and this may undermine the confidence of market participants.[80] Indeed, it can be noted that, in market practice, VCC Registries tend to adopt an inactive role, preferring not to be involved in the registration of anything other than the transferability of ownership. However, under the applicable law, registration in a secured transactions register may be necessary for the security right to be effective against third parties.

116. As noted in the DAPL Principles, the concept of secured transactions is broad and includes outright transfers of collateral.[81] DAPL Principle 15 states that a security right in a digital asset can be made effective against third parties by control of the digital asset if "(a) the secured creditor has control of the digital asset" or "(b) a custodian maintains the digital asset for the secured creditor".[82] The availability of third-party effectiveness by control does not prevent the secured creditor choosing, instead, to use another method of third-party effectiveness under the applicable national law. The

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[78] See, UNCITRAL Secretariat, *Work Programme: Possible future work on climate change mitigation, adaptation and resilience*, A/CN.9/1120, 15 May 2022, at para 28.

[79] DAPL Principles, Commentary 14.2. The types of rights which fall into the category of 'security right' will depend on the applicable domestic law. See DAPL Principles, Commentary 14.3.

[80] See, e.g., Verra's terms of use, September 2021, para 12, at page 14.

[81] See DAPL Principles, Commentary 14.1 ("Principle 14 reflects the general principle that secured transactions regimes should enable the use of any type of movable asset as collateral. This approach allows prospective secured creditors to decide for themselves which of the digital assets have any collateral value.").

[82] As noted above, "control" is defined in DAPL Principle 6 and comprises three factual abilities: the exclusive ability to prevent others obtaining the benefit of the digital asset, the ability to obtain that benefit, and the exclusive ability to transfer those two abilities to another person.

applicability of this guidance to a VCC is likely to depend on the form in which the VCC is issued, which will determine whether it can be subject to control.

117. Another relevant issue concerns the priority of security rights in VCCs. Due to the uncertainty concerning rules on third-party effectiveness, the rules for determining priority likewise may not provide predictability. In the context of digital assets, DAPL Principle 16 provides that, if a security right in a digital asset is "made effective against third parties by control in accordance with Principle 15[, it] has priority over a security right in the digital asset that is made effective against third parties only by a method other than control".[83] The priority rule in Principle 16 only applies to a priority conflict between a security right made effective against third parties by control and one made effective against third parties by another method. In any other situation, the priority rules of the applicable national law apply.

118. The retirement or cancellation of VCCs is also significant to the question of secured transactions. Currently, the retirement and cancellation of VCCs depends on the rules of the relevant Carbon Standard and/or VCC Registry, which are not uniform and sometimes not clearly specified. Clarity on the retirement and cancellation of carbon credits may become especially necessary when VCCs are used as collateral, to secure loans or similar obligations.

119. Finally, as to the enforcement of security rights, DAPL Principle 17 provides that generally available methods provided under other law would apply, including judicial enforcement.

Questions for the Working Group

42. *In the context of digital assets, control is one method of achieving third party effectiveness – is this concept applicable to VCCs issued in the form of digital assets, or are there any specificities that would justify deviating from DAPL Principle 6?*

43. *Would a registration in a VCC Registry be sufficient to achieve third-party effectiveness?*

44. *If VCCs are used as collateral, and multiple parties have secured their interests in the same VCC, what are the priority of security interests in the VCC?*

45. *How does uncertainty over the retirement or cancellation of a VCC affect its use as collateral? Is this an issue that is specific to VCCs?*

H. Treatment in case of insolvency

120. As with security, issues of the applicable treatment in case of insolvency are also closely related to the legal nature of VCCs. The relevant insolvency could be, for example, that of:

- A person with a proprietary right in a VCC, who may or may not have, as a debtor, granted to his or her creditor a security right in a VCC as collateral;
- The Carbon Project Developer that is still the VCC holder (at different stages of the Carbon Project);
- The Carbon Project Developer that is no longer the VCC holder (at different stages of the VCC circulation);
- The VCC holder that is not the Carbon Project Developer;
- Either of the Carbon Standard, the VCC Verifier, or the VCC Registry; or
- Enterprise group insolvency where VCCs are subject of different intra-group arrangements (e.g. substantive consolidation).

[83] The justifications for this approach are discussed in DAPL Principles, Commentary 16.2.

121. The UNCITRAL Model Law on Cross-Border Insolvency and related instruments could provide some guidance. The Model Law aims to assist States in more effectively addressing instances of cross-border proceedings concerning debtors experiencing severe financial distress or insolvency. In turn, the UNCITRAL Legislative Guide on Insolvency Law may be used as a reference by national authorities and legislative bodies when preparing new laws and regulations or reviewing the adequacy of existing laws and regulations.

122. In the context of digital assets, DAPL Principle 19 builds on DAPL Principle 3(1) (which provides that digital assets can be the subject of proprietary rights) and confirms that a proprietary right in a digital asset that is made effective against third parties is effective against relevant parties in an insolvency-related proceeding.[84]

123. Because VCC Registries are often owned and operated by private organisations, the risk of the insolvency of a VCC Registry and its consequences for a VCC holder are likely to be factors that are specific to VCCs. Indeed, the insolvency of a VCC Registry may lead to the "perishing" of the digital carbon credit. The Working Group is thus encouraged to take these issues, as well as the role of any custodians or intermediaries, into account (for issues relating to custodians or intermediaries, see Section III.I, below).

Questions for the Working Group

46. *What are the issues that arise in the event of the insolvency of the Carbon Project Developer that is no longer the VCC holder? Would the VCCs tied to that Carbon Project have to be cancelled? What recourse, if any, would the VCC holder have?*

47. *In the event of the insolvency of a VCC holder who is not the Carbon Project Developer, are there any specific considerations that arise with respect to the insolvency representative's options in relation to VCCs?*

48. *What are the implications for the tradability of VCCs in the event of the insolvency of either the Carbon Standard, the VCC Verifier, or the VCC Registry?*

49. *Is DAPL Principle 19 an appropriate rule for VCCs, or does it need to be adapted?*

50. *Can the UNCITRAL Model Law on Cross Border Insolvency and the related Legislative Guide on Insolvency Law provide guidance?*

51. *What options will the insolvency representative have in relation to any unused cap-and-trade credits? Would these options also be applicable to VCCs?*

52. *What options would the insolvency representative have in relation to VCC-related fraud in insolvencies? Do existing compliance market fraud rules provide guidance?*

53. *Are there any other relevant insolvency issues, other than those described above, that should be considered within the Project's scope?*

I. Role of custodians and intermediaries

124. VCM participants may act as custodians or as other types of intermediaries, each with potentially different legal rights and obligations vis-à-vis the asset.

[84] DAPL Principle 19 states: "(1) A proprietary right in a digital asset that has become effective against third parties under Principles law or other law is effective against the insolvency representative, creditors, and any other third party in an insolvency-related proceeding. (2) Paragraph (1) does not affect the application of any substantive or procedural rule of law applicable by virtue of an insolvency-related proceeding, such as any rule relating to: (a) the ranking of categories of claims; (b) the avoidance of a transaction as a preference or a transfer in fraud of creditors; or (c) the enforcement of rights to an asset that is under the control or supervision of the insolvency representative."

125. As to custodians, DAPL Principle 10 defines "custodian" as "a person who provides services to a client pursuant to a custody agreement as defined in paragraphs (3)[85] and (4),[86] and is acting in that capacity", by maintaining control of the digital asset (whether directly or through a sub-custodian). Thus, custody, broadly speaking, is where a legal person maintains a digital asset on behalf of and for the benefit of another—*i.e.*, a client—in a manner that gives the client special protection in the event of unauthorised dispositions of the asset and the insolvency of the custodian who maintains the digital asset.[87] Indeed, most importantly, DAPL Principle 13 provides that digital assets maintained for clients are not part of the assets available for distribution to the custodian's creditors if the custodian enters into an insolvency-related proceeding. DAPL Principle 13 thus reflects the baseline concept that digital assets belong to the clients, not to the custodian.

126. In the context of the VCM, trading centres opening custodian accounts in the name of specific clients (for subsequent custody transactions) appears to be a well-established market practice. For instance, as observed at the Second Exploratory Workshop, there is an advent of funds that are structured as a trust, and the trustee or fund manager will hold the credits pending certain events. Further, some buyers buy carbon credits and ask the seller to retire them on their behalf because the buyers do not want to open a registry account. In the latter practice, it is unclear what the legal status of the trading centre is and whether at any stage it acts as a custodian holding these assets on its own behalf or on behalf of the buyer.

127. As to other types of intermediaries operating in VCMs, these could include brokers, exchanges, VCC Registries, or marketing organisations. Under the DAPL Principles, the key differentiating factor between these types of intermediaries and intermediaries acting as custodians is that digital assets maintained by a custodian for clients are not part of the custodian's assets available for distribution to the custodian's creditors if the custodian enters into an insolvency-related proceeding.

Questions for the Working Group

54. Would the concept of custodian in DAPL Principle 10 be relevant for VCCs?

55. Are special provisions required to address the specific function of VCC Registries?

56. Are there any other intermediaries specific to the VCM that need to be addressed?

J. Issues of applicable law

128. Conflicts of applicable law are intrinsic to VCMs, considering that the law governing the Carbon Project is often different from that governing the resulting carbon credit (*i.e.*, the certificate). Even if, currently, registration systems in VCMs tend to be mostly domestic, the situation may change in the near future, with the development of the market and the tokenisation of VCCs. Additionally,

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[85] DAPL Principle 10(3) states: "Subject to paragraph (4), an agreement for services to a client in relation to a digital asset is a 'custody agreement' if: (a) the service is provided in the ordinary course of the service provider's business; (b) the service provider is obliged to obtain (if this is not yet the case) and to maintain the digital asset for the client; and (c) the client does not have the exclusive ability to change the control of the digital asset within the meaning of Principle 6(2)."

[86] DAPL Principle 10(4) states: "An agreement to which paragraph (3) applies is not a custody agreement if it is clear from the agreement that, if the service provider enters into an insolvency-related proceeding, the digital asset would be part of the service provider's assets available for distribution to its creditors."

[87] See DAPL Principles, Commentary 10.1. Under DAPL Principle 11, the custodian is under a duty to: (*i*) not transfer the asset or use it for its own benefit, except as permitted by the client or other law; (*ii*) comply with an instruction given by the client to transfer the digital asset, unless it is differently stated by law or by any agreement between the custodian and a third party to which the client is a party or has consented; and (*iii*) safeguard the digital asset. DAPL Principle 11(3) provides additional private law duties that a State may wish to be included.

some VCC Registries are actively involved in marketing themselves by declaring to operate under specific applicable law.

129. In light of potential institutional collaboration, consideration of matters regarding applicable law and jurisdiction will be postponed until HCCH's participation has been clarified.

ANNEXE I

UNCITRAL STUDIES

United Nations A/CN.9/1120

General Assembly

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United Nations Commission on International Trade Law
Fifty-fifth session
New York, 27 June–15 July 2022

Work Programme

Possible future work on climate change mitigation, adaptation and resilience

Note by the Secretariat

Contents

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I. Introduction

1. At its fifty-fourth session, in 2021, the Commission heard a proposal to examine (a) how existing UNCITRAL texts could be aligned with climate change mitigation, adaptation and resilience goals, and (b) whether further work could be done by UNCITRAL to facilitate those goals in the implementation of those texts or through the development of new texts. It was added that public-private partnerships could be an area of focus for stocktaking existing texts, while legal uncertainty regarding the legal status of carbon credits traded in voluntary carbon markets could be a focus for future legislative work.[1]

2. Broad support was expressed for the Commission to consider the proposal further, based on more precise information on the work involved. It was added that member States might need to carry out further internal consultations across different government agencies before a decision on future work could be taken, and that such work would need to be undertaken within existing public international law frameworks, such as the Paris Agreement on climate change of 2015.[2]

3. After discussion, the Commission requested the secretariat to consult with interested States with a view to developing a more detailed proposal on the topic for presentation to the Commission for its consideration at its next session, in 2022.[3]

4. The consultations carried out by the secretariat in response to that request have revealed considerable interest by various Member States for examining further how existing UNCITRAL texts could be applied to support achieving climate change mitigation, adaptation and resilience goals, and whether UNCITRAL could further contribute to facilitating those goals in the implementation of those texts or through the development of new texts.

5. In the light of those positive responses, the secretariat has commissioned a study on private law aspects of climate change ("the Study") by an outside expert, professor Géraud de Lassus St-Geniès, of Laval University in Québec (Canada). This note summarizes the findings and recommendations of the Study with a view to assisting the Commission consider the desirability and feasibility of undertaking work in this area.

II. Overview of the Study on Private Law Aspects of Climate Change

6. The Study examines the scope for a contribution by UNCITRAL to the climate change mitigation, adaptation and resilience by assessing: (a) private law issues relating to clean investments; (b) private law and the incorporation of climate considerations into business decisions; and (c) UNCITRAL instruments and climate action. The Study concludes by setting forth the possible scope of UNCITRAL contribution in this area.

A. Private law issues relating to clean investments

7. To avoid the most catastrophic adverse impacts of climate change, the world economy needs to drastically reduce its greenhouse gas (GHG) emissions and reach carbon neutrality around the mid-century.[4] This requires considerable investments, especially in the fields of clean technologies, infrastructure, and renewable energies.

[1] *Official Records of the General Assembly, Seventy-sixth Session, Supplement No. 17* (A/76/17), para. 244.
[2] Ibid., para. 245.
[3] Ibid., para. 246.
[4] Intergovernmental Panel on Climate Change (IPCC), *Global warming of 1.5 °C. An IPCC Special Report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global*

8. The critical role of "climate-friendly investment" in the fight against climate change is widely recognized. The Paris Agreement, for instance, mentions as its third objective, to make "financial flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development".[5]

9. An analysis of the legal literature reveals that private law could contribute to creating a more favourable environment for climate-friendly investment in various areas. Chief among them is carbon trading, but other areas such as carbon capture, utilization and storage are also mentioned in the literature. The following subsections present the main current private law issues that can be observed in these two areas, with an emphasis on carbon trading.

1. Private law issues relating to carbon trading

10. Carbon trading is the process of buying and selling so called "carbon credits", that is, tradable permits that entitle the holder to emit 1 ton of CO_2 equivalent. Carbon credits are traded through contractual arrangements, either over-the-counter or on futures exchange.

11. There are two different types of carbon credits: emission allowances and offset credits. Emission allowances are created by governments through their regulatory power. They are usually freely allocated by public authorities to entities that emit GHG, or sold, often by auction. An offset credit is created when a promoter carries out a project that avoids GHG emissions that would have otherwise occurred, or that absorbs GHG already present in the atmosphere.[6] Thus, while the creation of an offset credit always requires an initial investment, emission allowances may be obtained freely.

12. Carbon credits can be traded on two different types of carbon markets: the mandatory carbon markets and the voluntary carbon market. Mandatory carbon markets are created by governments and are governed by domestic laws and regulations or international agreements. They usually take the form of a cap-and-trade system, also known as an emissions trading system (ETS).[7] In an ETS, a government defines a carbon budget (the "cap") that can be emitted in its jurisdiction during a certain period. Based on that cap, the GHG emitters of this jurisdiction receive – and are given the opportunity to purchase – from the government a certain quantity of emission allowances. At the end of the period, these entities are legally obliged to surrender one allowance for each ton of CO_2 equivalent they have emitted during that period. As emission allowances can be traded between participants, entities that lower their emissions can sell their allowances to entities that are likely to emit more than the number of allowances they have received or have been able to purchase. In many ETS, entities can also carry out projects to obtain offset credits that can be used for compliance purposes. A key principle of the functioning of an ETS is that, over time, the "cap" declines and fewer emission allowances are allocated. As such, ETS are

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greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, 2018 (hereafter "IPCC, *Global warming of 1.5*"), p. 12.

[5] Paris Agreement, art. 2.1 (c) (United Nations, *Treaty Series*, vol. 3156). This treaty also refers, indirectly, to the need to stimulate private investment in its article 6.4 (b), which establishes a market-based mechanism to "incentivize and facilitate participation in the mitigation of greenhouse gas emissions by public and private entities authorized by a Party".

[6] Offset credits are sometimes referred to as "carbon certificates". However, the expression can also be used in a different context, as some institutions deliver "carbon certificates" to certify that companies have achieved carbon neutrality.

[7] Mandatory carbon markets may also take the form of purely offset programmes, such as the Clean Development Mechanism, which was created by the Kyoto Protocol to the United Nations Framework Convention on Climate Change ("Kyoto Protocol"), article 12 (United Nations, *Treaty Series*, vol. 2303, p. 162), or the Sustainable Development Mechanism which has been established by the Paris Agreement (article 6.4). Offset programmes have also been implemented in domestic jurisdictions. In that case, offset credits can be traded and used for compliance purposes by entities whose emissions have exceeded the threshold limits prescribed by regulations.

instruments that are designed to achieve GHG emissions reductions. Examples of ETS in operation can be found in nearly 70 jurisdictions around the world,[8] including in China, the European Union, New Zealand, the Republic of Korea, and the United Kingdom of Great Britain and Northern Ireland, and in different subnational jurisdictions in Canada and the United States of America.[9]

13. Unlike mandatory carbon markets, the voluntary carbon market is not governed by laws and regulations. There is no "cap" and no centralized oversight by a public authority. On the voluntary carbon market, the carbon credits that are traded are exclusively offset credits that have been generated through projects certified by private entities called carbon standards (e.g. The Verified Carbon Standard, The Gold Standard, Climate Action Reserve, American Carbon Registry). Carbon standards ensure that projects have resulted in GHG emissions reductions and "create" the corresponding amount of offset credits. These credits are located on registries that carbon standards operate, or that are operated by other entities with which they have concluded a partnership. Once created, offset credits can be traded and, at any moment, their holders can decide to "retire" them (i.e. to remove them from the market) to claim that they have offset their GHG emissions. Purchasing offset credits is part of the corporate social responsibility strategy of a growing number of companies that have set themselves a carbon neutrality target.[10] As a result, analysts anticipate that the demand for offset credits on the voluntary carbon market will increase in the coming years.[11]

14. The following paragraphs discuss three private law issues that relate to different aspects of carbon trading, namely: the lack of certainty in the legal treatment of carbon credits in domestic law; the divergences in the legal treatment of carbon credits across jurisdictions; and the exposure of market participants to regulatory risks.

(a) Lack of certainty in the legal treatment of carbon credits

15. Defining the exact legal nature of carbon credits is often considered a "fundamental issue"[12] in achieving an adequate level of legal certainty to encourage private entities to invest in offset credits or to be in a position to sell their emission allowances. For instance, in a jurisdiction covered by an ETS, market participants should be able to know whether the emission allowances represent a revocable administrative licence to emit GHG, an asset that is subject to property rights, or an administrative licence with certain property characters. On the voluntary carbon market, where the carbon credits are not issued by public authorities, a project developer whose offset credits are recorded on a registry located in a given jurisdiction should be able to know whether its offset credits constitute intangible property or have another legal status.

16. The legal qualification of carbon credits may determine: the rights that a holder can assert over these credits and the possibility to bring a claim against the government for interfering with its property rights if its credits are cancelled by public authorities; whether carbon credits can support security interests; the ways in which these credits are treated upon insolvency and bankruptcy, and in the event of succession;[13] or the tax and accounting rules that are applicable.

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[8] World Bank, *State and trends of carbon pricing 2021*, 2021, https://openknowledge.worldbank.org/handle/10986/35620.

[9] Quebec, California, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, and Virginia.

[10] As of April 2021, 482 companies accounting for an estimated annual revenue of USD 16 trillion have adopted some kind of neutrality target. Nicolas Kreibich, Lukas Hermville, "Caught in between: credibility and feasibility of the voluntary carbon market post-2020", *Climate Policy*, vol. 21, No. 7, 2021, p. 950.

[11] Taskforce on Scaling Voluntary Carbon Markets, *Final Report*, 2021, preface, www.iif.com/Portals/1/Files/TSVCM_Report.pdf.

[12] Kevin F.K. Low, Jolene Lin, "Carbon credits as EU like it: property, immunity, tragiCO2medy?", *Journal of Environmental Law*, vol. 27, No. 3, 2015, p. 378.

[13] In some ETS, market participants can be natural persons.

17. In most jurisdictions covered by an ETS, the statutory provisions that establish the scheme define emission allowances in a manner that does not specify their legal character.[14] Indeed, carbon credits are often defined "in relation to their objective features as opposed to the legal relationship they are capable of supporting".[15] The result is that these "schemes leave the relationship between the government and the holder of an emission entitlement unclear, as well as the rights of third-parties in relation to an entitlement".[16] Further clarity on the legal treatment of carbon credits is sometimes provided by other laws and legal documents than those establishing an ETS, for instance, in statutes or policy documents relating to securities markets.[17] While provisions of this kind can help in clarifying the rules applicable to carbon credits and offer valuable indications as to how carbon credits would likely be qualified by tribunals, they do not provide clear and comprehensive answers about the legal nature of these credits and the way in which they shall be treated under domestic law. The same goes with prospective legal analysis based on the interpretation of existing laws[18] or based on the interpretation of judicial decisions in which courts had to decide, for instance, whether an entitlement (e.g. milk quotas,[19] fishing permits,[20] waste management licence[21]) could be considered as intangible property or had to clarify the meaning of statutory provisions relating to bankruptcy and insolvency.[22]

18. The legal status of carbon credits has, in some jurisdictions, been clarified by courts. In the European Union, for instance, the Directive that established the ETS did not define the legal nature of emission allowances,[23] which was left to the discretion of the Member States. While some States have defined the legal status of the allowances in their legislation (such as France[24]) others have not done so, and the question was eventually examined by tribunals. In *Armstrong DLW GmbH v. Winnington Network Ltd.*, the High Court of Justice of England and Wales ruled that "an EU allowance is 'intangible' property".[25] Also, in a case before the Court of

[14] See, for instance *Environment Quality Act* (Quebec), art. 46.6; *Federal Act on the Reduction of CO_2 Emissions* (Switzerland), art. 2.c; or *Act on the Allocation and Trading of Greenhouse-Gas Emission Permits* (Republic of Korea), art. 2.3.

[15] Hope Johnson, Pamela O'Connor, Bill Duncan, et al., "Towards an international emissions trading scheme: legal specification of tradeable emissions entitlements", *Environment and Planning Law Journal*, vol. 34, No. 1, 2017, p. 13.

[16] Ibid., p. 18.

[17] The *Climate Change Response Act 2002* of New Zealand does not specify the legal character of carbon credits, but section 18(1A) of the *Personal Property Securities Act 1999*, expressly indicates that carbon credits can be subject to a security interest. Similarly, in Quebec, the authority responsible for financial regulation issued a policy statement in which carbon credits are qualified as intangible commodities that are excluded from the scope of application of some aspects of the legal framework relating to derivatives (*Policy Statement to Regulation 91-506 Respecting Derivatives Determination* (Quebec), Part 2, para. 2(d)).

[18] For instance, in Switzerland, it is considered that "As emission allowances are freely tradable, it can – at least *theoretically* – be *assumed* that the allowances may be pledged under Swiss law" (emphasis added). Evelyn Frei, Michael Lips, "Climate regulation in Switzerland", *Lexology*, 20 November 2019, www.lexology.com/library/detail.aspx?g=40dd7964-bd96-4b17-9660-7fd3c2f5c601.

[19] *Swift and Another v Dairywise Farms Ltd. and Others* [2003] 1 WLR 1606 (United Kingdom).

[20] *R. Baker Fisheries Ltd. v. Widrig*, 1998 NSCA 20 (Canada).

[21] *In re Celtic Extraction Ltd* [2001] ch 475 (United Kingdom).

[22] *Saulnier v. Royal Bank of Canada* [2008] 3 SCR 166 (Canada).

[23] *Directive 2003/87/EC of the European Parliament and of the Council of the 13 October 2003 establishing a scheme for greenhouse gas emission allowances trading within the Community and amending Council Directive 96/61/EC.*

[24] According to article L. 229-15 of the *Environment Code*, "Greenhouse gas emission allowances issued to the operators of facilities authorized to emit these gases are movable assets exclusively materialized by being listed on the account of their holder in the national register mentioned in Article L. 229-16. They are negotiable, transmissible by transfer from account to account, and confer identical rights upon their holders. They may be transferred as soon as they are issued, subject to the provisions of [para. II] of Article L. 229-12 and Article L. 229-18" [our translation].

[25] *Armstrong DLW GmbH v. Winnington Networks Ltd* [2012] EWHC 10 (United Kingdom), para. 52.

Justice of the European Union (CJEU), an advocate general held that while there is no statutory definition of the legal nature of allowances in Belgium, "they are considered to be intangible movable property".[26]

19. Leaving the determination of the legal status of carbon credits for courts may not be the best approach over the long term. As court rulings may evolve over time, an express provision in a legislative text is likely to provide greater legal stability and confidence to private actors. Moreover, court precedent clarifying the legal status of carbon credits may not dispel all uncertainties surrounding their legal treatment. For instance, despite the *Armstrong DLW GmbH v. Winnington Network Ltd.* ruling, in some European Union Member States there were still doubts as to whether law provided "adequate protection and enforceability for security interests over emission allowances"[27] and it was noted that "practical problems" could prevent the use of European Union ETS allowances as security interests.[28] Even if the legal status of carbon credits were specified by a statutory provision, uncertainties and practical legal issues could still arise in relation to the legal treatment of those credits.[29] Should carbon credits be qualified as property rights in the legislation, private actors would still have to know whether those credits must be treated as financial products and what rules regulate their trading. Likewise, if the law recognizes that carbon credits are capable of supporting security interests, practical difficulties could appear if a lender, who is not a registered participant to a mandatory carbon market and as such does not hold an electronic account, seeks to enforce its security over emission allowances.

20. Another reason for a specific characterization of the legal nature of carbon credits is their double nature, that is: as tradeable intangible property on the one hand; and as administrative permits issued under a regulatory scheme, to serve a public policy objective, on the other. In order to ensure that ETS yield concrete benefits for the climate, public regulators reserve the power to intervene in that market, when necessary, by cancelling carbon credits in circulation (sometimes even retroactively) to preserve the environmental integrity of the ETS.

21. Uncertainties about the legal nature of carbon credits and their possible legal treatment under domestic law can also be found on the voluntary carbon market. On the one hand, voluntary offset credits could be qualified as intangible property. In some countries (e.g. United Kingdom, New Zealand, Australia), for a thing to be considered as property it is usually necessary to establish that it is "definable, identifiable by third parties, capable in its nature of assumption by third parties and [that it has] some degree of permanence or stability".[30] In other legal systems (e.g. Canada, United States, France), the criteria traditionally used to define property tend to revolve around the questions of whether a thing has an economic value, whether it can be transferable, and whether a person can use it without interference from third parties.[31] In relation to voluntary offset credits, it seems that these criteria would be met. Voluntary offset credits are identifiable (they appear in an electronic registry), they have an economic value, and they are transferable. Moreover, an offset credit can only be used by its holder, and for its sole benefit.

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[26] Opinion of Advocate general Wathelet delivered on 7 September 2016, CJEU, Case C-453/15, para. 49 (EU).

[27] Marta Ballesteros, Matthieu Wemaëre, Leonie Reins, et al., *Legal nature of EU ETS allowances. Final report*, report prepared for the EU Commission, 2018, p. 65, https://op.europa.eu/en/publication-detail/-/publication/9d985256-a6a9-11e9-9d01-01aa75ed71a1.

[28] Ibid., p. 70.

[29] Ibid., p. 186.

[30] *National Provincial Bank v. Ainsworth* [1965] AC 1175, p. 1247–1248 (United Kingdom).

[31] Yaëll Emerich, "Les biens et l'immatérialité en droit civil et en common law", *Les Cahiers de droit*, vol. 59, No. 2, 2018, p. 401; *Caratun v. Caratun*, 1992 CanLII 7715 ONCA (Canada), *International News Service v. Associated Press* (1918) 248 US 215 (United States). See also: Thomas W. Merrill, "Property and the right to exclude", *Nebraska Law Review*, vol. 7, issue 4, 1998, pp. 730–755.

22. On the other hand, voluntary offset credits may also be regarded as a bundle of private law contractual rights. This possible qualification stems from the fact that the existence of the voluntary carbon market rests exclusively on a bundle of private law contracts. For instance, for a company to obtain voluntary offset credits through a mitigation project, several contracts must be concluded: one with a carbon standard to start the certification process of the project; one with a third-party verifier that will certify that the project meets the rules and requirements of the carbon standard; and one with another third party that will assess the quantity of GHG emissions that the project has avoided or sequestered and confirm the number of corresponding credits that can be issued. It is only through the existence of these contractual arrangements that voluntary offset credits come to life. Therefore, it may be possible to characterize offset credits as a contractual right that an entity has to benefit from these credits by virtue of the different contracts it has concluded with the carbon standard, the verifiers and/or the institution that operates the registry.[32]

23. Whether voluntary offset credits are treated as intangible property or a bundle of contractual rights may determine, like in the case of mandatory carbon markets, the legal treatment that will be reserved to these credits. The answer can thus affect how ownership rights in these credits can be transferred, whether these credits can be used for collateral purposes and how they "would be treated following insolvency (including with regard to netting)".[33] Yet, at the moment, it appears that the legal status of these credits has not been specified by legislative or judicial means in many jurisdictions, and some legal experts are of the view that greater certainty over the legal status of voluntary offset credits is desirable as it "would contribute to a more robust market".[34]

(b) Divergences in the legal treatment of carbon credits

24. In jurisdictions that have an ETS, significant divergences can sometimes be observed in the way in which carbon credits are treated under domestic law. This is the case, for instance, in Quebec and California, where the legal status conferred to carbon credits differ despite the fact that the ETS of these two jurisdictions are linked since 2014. While in Quebec the legal status of emission allowances is not defined in the law and the question of whether these allowances are capable of supporting propriety rights remains open, in California a statutory provision expressly clarifies the legal status of the emission allowances as "compliance instruments" that do not "constitute property or a property right",[35] thus giving more regulatory space for the public authority to intervene in that market. However, because the emission allowances issued by Quebec and California are fungible, the difference between the legal status of the allowances issued by each jurisdiction tend to generate legal uncertainty for private actors, in particular in cross-border trade.

25. Similar conclusions have been reached by analysts of the European Union ETS, where divergences over the legal status of emission allowances also exist. In certain Member States (e.g. France, Belgium), emission allowances are treated as intangible property, while in others (e.g. Germany, Poland) their legal status includes elements of both property and administrative rights.[36] Therefore, it has been suggested that these divergences "could significantly impede upon the development of the market"[37]

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[32] International Swaps and Derivatives Association (ISDA), *Legal implications of Voluntary Carbon Markets*, 2021, p. 10, www.isda.org/2021/12/01/legal-implications-of-voluntary-carbon-credits.

[33] Ibid., p. 16.

[34] Ibid.

[35] *California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms*, 17 CCR § 95820 (c).

[36] Ballesteros, et al., op. cit., p. 51.

[37] Ruth Fox, Habib Motani, Ed Murray, et al., *Emission allowances: creating legal certainty*, Financial Markets Law Committee, issue 116, 2009, p. 5, http://fmlc.org/wp-content/uploads/2018/02/Issue-116-Emission-allowances-1.10.2009.pdf.

and that "a clarification on a common legal definition would at least eliminate potential threat to market liquidity".[38]

26. Differences in the legal treatment of carbon credits across jurisdictions creates legal uncertainty not only for jurisdictions that participate in a regional carbon market or that have linked their respective ETS, but also among completely autonomous carbon markets, since the complexity and unpredictability of the regulatory environment is burdensome for private entities operating on a global scale. This could also hinder the interconnection of ETS, which are a cost-effective way to enable private actors to take advantage of cheaper mitigation options, as well as development of the cooperative approaches referred to in article 6.2 of the Paris Agreement which involve international transfers of mitigation outcomes. As pointed out by an author, for a global carbon market to emerge, "It is important for governments to seek consensus as to the legal characteristics of the basic unit of exchange in this market".[39]

27. As for voluntary offset credits, their legal nature remains at the moment unspecified in many jurisdictions. This situation creates a risk as these credits could eventually receive different legal qualifications across jurisdictions, which would be highly undesirable given the transnational dimension of the voluntary carbon market. The complex legal problems that could result can be illustrated by the following example: a project that led to the creation of offset credits can be located in one country different from the place of business of the investing company which has obtained the offset credits; the carbon standard that has certified and issued the offset credits can operate in a third country; and the entity that runs the offset credits registry can be located in yet another country. If the investing company enters into an insolvency proceeding, and if the question arises as to whether the offset credits that this company holds are an asset that may be liquidated, the legal status of these offset credits could be determined by reference to at least four different laws and difficulties could emerge in determining the applicable law.[40] Differences in the legal qualification of offset credits across jurisdictions could then result in legal uncertainties and potential disputes, which would likely have a "chilling" effect on the development of the voluntary carbon market. To avoid this situation, some legal experts have called "global legal standards setters such as the United Nations Commission on International Trade Law (UNICTRAL) and the International Institute for the Unification of Private Law (UNIDROIT) to produce legislative guidance on substantive legal issues – most importantly, on the legal nature of [voluntary carbon credits] – for states across all regions".[41]

28. Whether on the mandatory or voluntary carbon markets, the way in which carbon credits are treated under domestic law may influence their commercial value. For instance, in some countries carbon credits can support the existence of securities interest, while in others[42] carbon credits cannot be used for that purpose. However, it has been suggested that the commercial value of emission allowances tend to increase when the law clearly provides that emission allowances are capable of supporting the existence of security interests and establishes a registration mechanism for such interests.[43]

(c) Exposure of market participants to regulatory risks

29. In mandatory carbon markets, public authorities have the power to change the rules that govern this market at their discretion. A government may decide to reduce

[38] Ballesteros, et al., op. cit., p. 109.

[39] Jillian Button, "Carbon: commodity or currency? The case for an international carbon market based on the currency model", *Harvard Environmental Law Review*, vol. 32, issue 2, 2008, p. 572.

[40] ISDA, *Legal implications of Voluntary Carbon Markets*, p. 19.

[41] Ibid., p. 6.

[42] Ballesteros, et al., op. cit., p. 70; Jay Junyong Lee, Sangmin Kim, Tong Keun Seol, "In brief: GHG emission regulation and allowances in South Korea", *Lexology*, 24 September 2020, www.lexology.com/library/detail.aspx?g=6cbabd80-4cb8-4886-a9e9-97dab33be3fd.

[43] European Court of Auditors, *The integrity and implementation of the EU ETS*, European Union, 2015, p. 25, www.eca.europa.eu/Lists/ECADocuments/SR15_06/SR15_06_EN.pdf.

the quantity of allowances that are freely allocated, diminish the number of emission allowances that can be purchased through auction, or change the protocols that must be followed to obtain offset credits. A government can also take the more radical decision to dismantle its ETS and/or to put an end to a linkage agreement it has concluded with another jurisdiction.[44] In addition, some individual decisions that are taken by the regulator of a carbon market may have important adverse impacts for the market participants to which they apply. A regulator could also erroneously allocate too many emission allowances to an entity, or issue offset credits that do not satisfy the requirements prescribed by regulations, and thus retroactively hold these credits to be invalid.[45]

30. The way in which a public authority "governs" its carbon market can have important economic consequences for market participants and affect their ability to perform their contractual obligations. This is especially the case when "forward" contracts (i.e. a derivative contract between two parties to buy or sell an asset at a specified price on a future date) are used as sellers might become unable to deliver the amount of carbon credits that was agreed.

31. To facilitate the over-the-counter trading of carbon credits, various standardized carbon contracts have been developed by industry associations, such as the International Emissions Trading Association (IETA) and the International Swaps and Derivatives Association. In 2012, the IETA published the International Emissions Trading Master Agreement (IETMA), which is a standardized contract designed to be used for transactions in all ETS through a system of sub-schedules that can be added.[46] In the IETMA, as in other similar trading documents, the main tool through which regulatory risks are addressed is a *force majeure* clause. However, given the limited scope of the *force majeure* provision,[47] it remains unclear as to what set of facts will enable a party to successfully invoke this clause in the event of regulatory changes.

32. In the case of the IETMA, another element of complexity results from the parties' ability to choose the applicable law.[48] Over time, different jurisdictions may develop different interpretations about the applicability of the *force majeure* clause in the context of regulatory changes. Furthermore, the content of a carbon contract might not always provide a sufficient legal basis to solve the private law issues that may arise as a direct consequence of the intervention of the regulator on the market. For instance, if carbon credits that have been sold multiple times and across multiple jurisdictions were retroactively held to be invalid by the regulator, it would be difficult for private actors to anticipate how, and on the basis of what legal principles, such a situation would be resolved.

33. Regulatory risks also exist on the voluntary carbon market. As carbon standards represent "civil regulatory bodies",[49] the regulatory risks stem in this market from the unilateral decisions that these entities can take and that may adversely impact market participants. For instance, some carbon standards reserve the right to amend the rules of their programme,[50] or terminate an account "at any time, for any reason, and

[44] In June 2018, soon after a change of government following a provincial election, Ontario decided to dismantle its ETS and to withdraw from the linkage agreement it had concluded with California and Quebec.

[45] Peggy Rodgers Kalas, Alexia Herwig, "Dispute resolution under the Kyoto Protocol", *Ecology Law Quarterly*, vol. 27, No. 1, 2000, p. 111.

[46] International Emissions Trading Association, "Trading documents", International Emissions Trading Association website, www.ieta.org/Trading-Documents.

[47] Chester Brown, "International, mixed, and private disputes arising under the Kyoto Protocol", *Journal of International Dispute Settlement*, vol. 1, No. 2, 2010, p. 472.

[48] IETMA, art. 18.

[49] Lisa Hodes Rosen, Adrienne Bossi, "Due process rights in the carbon markets", *Sustainable Development Law and Policy*, vol. 11, issue 2, 2011, p. 12.

[50] Verified Carbon Standard, VCS registration deed of representation, para. 2.3.4, https://verra.org/project/vcs-program/rules-and-requirements. This provision is drafted as follows: "Verra has an absolute right to amend any of the VCS Program Rules at any time and shall not bear any liability for loss or damage or liability of any kind sustained by the

without advance notice".[51] Carbon standards may also issue less credits than that which a project developer had anticipated because of a change of policy. Moreover, as private entities, carbon standards are free to suspend their commercial activities and are exposed to the risk of bankruptcy. Thus, a range of factors beyond the control of the participants to the voluntary carbon market may affect their ability to perform their contractual obligations and lead to disputes. It should be noted that the Terms of Use of carbon standards and registry operators usually contain provisions that limit their liability.[52] If a market participant suffers economic losses or is held liable for breach of a carbon contract because of regulatory changes made by the carbon standard, its chances of bringing a successful claim against the carbon standard and to obtain compensation would be low.

34. To support the development of the voluntary carbon market, a private-led initiative, the Taskforce on Scaling Voluntary Carbon Markets, has been launched in 2020. This task force comprises a Working Group on Legal Principles and Contracts whose mandate is to "contribute to streamlining the legal landscape for Standards' Terms of Use and for trading" of voluntary carbon credits, by "providing clarity over use cases, operational requirements for Standards, as well as general trading terms".[53] An issue this group is currently working on is the development of "Standards terms which Parties may integrate in their trading documents" in order to reduce legal expenses and streamline processes.[54] Through this process, market participants could thus eventually have access to standardized provisions specifically designed to manage the regulatory risks to which they are exposed.

2. Private law issues relating to the commercial use of captured carbon

35. Given the worldwide GHG emissions trajectory and the current level of GHG concentration in the atmosphere, there is a growing consensus on the fact that achieving the mitigation goals of the Paris Agreement will likely require the use of technologies that capture carbon.[55] There are two main technological processes through which carbon can be captured. The first, called Carbon Capture and Sequestration (CCS), involves trapping the carbon at its emission source (like at a facility's exhaust stack) instead of releasing it in the atmosphere. Once trapped, the carbon is then transported and stored in underground geological structures. The other technology, known as Direct Air Capture (DAC), consists in capturing carbon directly from the ambient air (rather than from an emission source) and storing it underground. Given the risks associated with the storage of carbon, various legal frameworks have been established over the years, both at the international and domestic level, to regulate this activity,[56] also in view of the controversy that the technology generates.[57]

Registration Representor or any other party involved in the Project in any way under the VCS Program as a consequence of such amendment".

[51] Gold Standard, Terms and conditions, art. 13, www.globalgoals.goldstandard.org/standards/T-PreReview_V1.1-Terms_and_Conditions.pdf.

[52] Ibid., art. 3.3. Also: Verra, Terms of use, Verra registry, art. 12, https://verra.org/wp-content/uploads/2019/07/Verra-Registry-Terms-of-Use-FINAL.pdf.

[53] Taskforce on Scaling Voluntary Carbon Markets, *Phase II Report*, Taskforce on Scaling Voluntary Carbon Markets, 2021, p. 40, www.iif.com/Portals/1/Files/TSVCM_Phase_2_Report.pdf.

[54] Ibid., p. 43.

[55] IPCC, *Global warming of 1.5 C.*, pp. 14–15.

[56] Ian Havercroft, Richard Macrory, Richard Steward, eds., *Carbon capture and storage: emerging legal and regulatory issues*, Hart Publishing, 2018, p. 400.

[57] Some see it as "neither economically sound nor proven at scale", with "limited potential to deliver significant, cost-effective emissions reductions" (Christina E. Hoicka, Matthew Paterson, Angela Carter, et al., *Letter from scientists, academics, and energy system modellers: prevent proposed CCUS investment tax credit from becoming a fossil fuel subsidy*, 19 January 2022, https://cehoicka.lab.yorku.ca/files/2022/01/Letter-from-Academics-re-CCUS-tax-investment-credit_January-2022-4.pdf?x98920), whereas others opine that the commercial use of carbon is essential to decarbonizing the world economy (David Sandalow, quoted in Renee Cho, "Capturing carbon's potential: these compagnies are turning CO_2 into profits", *State of the*

36. The market of CO_2 utilization comprises four main categories of participants: emitters of CO_2, capturers of CO_2, transporters of CO_2 (which can be transported by pipelines or ships[58]), and users of CO_2. While one entity can perform several of these functions (e.g. an industrial facility may function as both an emitter and a capturer), the journey between the initial emission of CO_2 and its final utilization usually involves various participants that are linked through a chain of commercial arrangements. With the possibility to use CO_2 for commercial purposes, this substance (and thus the fact of emitting CO_2) has started to acquire an economic value and has become a "thing" that can be traded either domestically or across borders.

37. Although the international market for CO_2 utilization is still at its early stages, various private law issues regarding its functioning can already be identified. For instance, an important question relates to the way in which CO_2 is qualified under domestic law. This substance could indeed be considered as an ordinary commodity or be qualified as a hazardous waste. Yet, in the latter case, the international trade of CO_2 could fall under the scope of the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal which would have the effect of imposing stricter conditions on transporters of CO_2 that operate at the international level.[59] The tax and accounting rules that will apply to CO_2 and the question of whether CO_2 represents an asset capable of serving as security for a loan are also issues that may be influenced by the way in which CO_2 is qualified under domestic law. Thus, the legal qualification of CO_2, as well as the development of standardized sales contracts and commercial practices, are likely to have an impact on the development of an international market for this substance.

38. Another area of uncertainty relates to the legal treatment of situations of CO_2 leakage. In the jurisdictions that have established a carbon pricing mechanism, the amount of CO_2 that is captured will not be priced. However, the leak may occur in a jurisdiction that will not demand the entity responsible for the leak to pay for the CO_2 that has been emitted. Without appropriate standardization efforts, the CO_2 market could then have the unintended result of enabling the transfer of CO_2 emissions from jurisdictions where they would have normally been priced to jurisdictions where they are not priced, or less priced. In the case of leakages, the potential liabilities of the emitter, the capturer, the transporter, and the user of CO_2 would also have to be clarified.

Planet, Columbia Climate School, 29 May 2019, https://news.climate.columbia.edu/2019/05/29/co2-utilization-profits).

[58] Hisham Al Baroudi, Adeola Awoyomi, Kumar Patchigolla, et al., "A review of large-scale CO_2 shipping and marine emissions management for carbon capture, utilisation and storage", *Applied Energy*, vol. 287, 2021, pp. 1–42.

[59] Andy Raine, "Transboundary transportation of CO_2 associated with carbon capture and storage projects: an analysis of issues under international law", *Carbon and Climate Law Review*, issue 4, 2008, pp. 353–365.

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Work Programme

Possible future work on climate change mitigation, adaptation and resilience

Note by the Secretariat

Contents

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II Overview of the Study (*continued*)

B. Private law and the incorporation of climate considerations into business decisions[1]

1. Whether or not, and the extent to which, climate considerations are taken into account into business decisions is a key factor in addressing climate change. The private sector controls considerable financial, material, and engineering resources, and to achieve the goals of the Paris Agreement it is of crucial importance that these resources are mobilized and deployed in ways that support the transition towards a lower carbon economy as well as the enhancement of adaptive capacities.[2]

2. Over the years, the understanding of the business-climate nexus has evolved. Initially perceived as a purely environmental problem, climate change is now regarded by most economic analysts as an issue that "presents foreseeable financial and systemic risks (and opportunities) over mainstream investment horizons".[3]

3. While the decision to incorporate climate considerations into business operations and the importance to accord to these considerations were issues traditionally left at the discretion of companies, the dominant view today among States and legal scholars seems to be that this incorporation should be more systematic and, therefore, regulated and made mandatory. The current legal practice indicates that there is a range of legal steps involving private law tools, concepts, and structures that can be implemented to achieve that result. Such steps may consist in: obliging corporations to disclose climate-related financial information; interpreting fiduciary duties of corporate directors and officers as requiring to consider climate change; or holding the private actors that fail to adequately address climate change liable for breach of tort law duty of care or breach of a statutory duty of vigilance. The following section presents and discusses these three private law-based approaches which all aim at placing climate change at the heart of business decisions.

1. Disclosure of climate-related financial information

4. The disclosure of climate-related financial information by corporations aims at enabling shareholders to have a clear understanding of the financial implications of climate change for the companies in which they invest.[4] By having access to this information, shareholders have the possibility to use their influence to encourage companies to incorporate climate considerations into their business decisions and to adopt approaches that are more appropriate to managing the risks and opportunities presented by climate change. With the growing awareness of the financial risks posed by climate change, corporations have been facing increasing pressure from their shareholders since the mid-2000s to disclose their exposure to climate-related risks.[5]

5. While the disclosure of climate-related financial information was initially done on a purely voluntary basis and without any reference framework or harmonized standards,[6] initiatives were gradually put in place by the business sector and public authorities to encourage, facilitate, and regulate this practice. A turning point in this

[1] This section of the report was prepared with the valuable help of Ms. Camille D'Astous, LL.M. Candidate at the Law Faculty at Laval University who acted as research assistant.

[2] Craig A. Hart, *Climate change and the private sector. Scaling up private sector response to climate change*, Routledge, 2013, p. 296.

[3] Sarah Barker, Cynthia Williams, Alex Cooper, *Fiduciary duties and climate change in the United States*, Commonwealth Climate and Law Initiative, 2021, p. 1, https://ccli.ubc.ca/wp-content/uploads/2021/12/Fiduciary-duties-and-climate-change-in-the-United-States.pdf.

[4] Ans Kolk, David Levy, Jonatan Pinkse, "Corporate responses in an emerging climate regime: the institutionalization and commensuration of carbon disclosure", *European Accounting Review*, vol. 17, issue 4, 2008, pp. 719–745.

[5] Philipp Pattberg, "The emergence of carbon disclosure: exploring the role of the governance entrepreneurs", *Environment and Planning C: Politics and Space*, vol. 35, issue 8, 2017, p. 1444.

[6] Jeffrey A. Smith, Matthew Morreale, Michael E. Mariani, "Climate change disclosure: moving towards a brave new world", *Capital Markets Law Journal*, vol. 3, issue 4, 2008, p. 470.

process was the creation, in 2015, of the Task Force on Climate-Related Financial Disclosure (TCFD) by the Financial Stability Board established by the G20. In 2017, the Task Force published a report containing a set of recommendations on how to disclose climate-related financial information applicable to organizations across sectors and jurisdictions. These recommendations are structured around four core elements: the organization's governance around climate-related risks; the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning; the processes used by the organization to identify, assess, and manage climate-related risks; and the metrics and targets used to assess and manage relevant climate-related risks and opportunities.[7] The report also recommended that "preparers of climate-related financial disclosures provide such disclosures in their mainstream (i.e., public) annual financial filings".[8]

6. Even in the absence of specific domestic rules imposing mandatory climate-related disclosure requirements, it should be noted that corporations may still expose themselves to legal actions by not disclosing appropriate information on how climate change affects their activities and assets. In many jurisdictions (including in most of the G20 jurisdictions), companies with public debt or equity have legal obligations to disclose material information in their financial filings, and it seems increasingly likely that courts would be willing to consider climate risks as material information and treat situations of non-disclosure as potential securities fraud. In recent years, issues relating to climate disclosure have been at the heart of several court cases or complaints to regulatory bodies initiated by State attorneys, company shareholders or interested non-governmental organizations alleging failure to disclose relevant climate change information and misrepresentation of the effects of climate change on certain company assets.[9]

7. Those examples illustrate that climate litigation can be a useful tool to encourage companies to disclose climate-related financial information even in the absence of specific regulations requiring it. In the jurisdictions where such regulations do not exist, a key and often discussed question is whether companies failing to disclose climate-related information would be considered to be in violation of securities and corporate laws.[10]

2. Fiduciary duties of directors and officers regarding climate change

8. Whether in common law or in civil law jurisdictions, corporate directors and officers usually owe fiduciary duties to the corporation and its stakeholders for the breach of which they may be held personally liable. At the moment, corporate duties mandating greater attention to climate change are, by and large, non-existent in domestic legislations.[11] In some jurisdictions, statutory provisions do however require directors and officers to consider the environment when acting in the company's best interests.

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[7] Task Force on climate-related financial disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures*, 2017, v, https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf.

[8] Ibid., iv.

[9] *Pedro Ramirez Jr. v. Exxon Mobil Corporation et al*., No. 3:16-CV-3111-K (N.D. Tex. 2016) (United States); *Guy Abrahams v. Commonwealth Bank of Australia*, VID879/2017 (Australia); Cynthia A. Williams, Disclosure of information concerning climate change: liability risks and opportunities, Commissioned Reports, Studies and Public Documents, Osgoode Hall Law School of York University, Paper 206, 2018, p. 34, https://digitalcommons.osgoode.yorku.ca/cgi/viewcontent.cgi?article=1207&context=reports; Stephen Erlichman, Sophie Langlois, "ESG disclosure in Canada: legal requirements, voluntary disclosure and potential liability", Mondaq, 25 February 2021, www.mondaq.com/canada/climate-change/1039490/esg-disclosure-in-canada--legal-requirements-voluntary-disclosure-and-potential-liability.

[10] Anik Bhaduri, "Taking the heat: (non)disclosure of climate change risks in India", *Business Law Review*, vol. 41, issue 3, 2021, pp. 152–158.

[11] Rolf H. Weber, Andreas Hösli, "Corporate climate responsibility – The rise of a new governance issue", *Sui generis,* 2021, p. 90.

9. Whether or not such provisions exist in domestic laws, a survey of the recent legal literature reveals an emerging body of opinion holding that corporate directors and officers have a fiduciary duty to identify and address climate-related risks.[12] While these findings all point in the same direction, there also seems to be a consensus in the legal literature on the fact that the existence of a duty to consider climate-related financial risks for corporate directors should be made explicit in the law, either by amending existing statutes or judicial interpretation.[13] To further promote the incorporation of climate considerations into business decisions, more clarity should also be provided on the exact legal implications of this duty. Corporate directors and officers may indeed be declared legally obliged to consider climate-related financial risks, but uncertainties could remain as to what "considering" these risks really entails in practice and about the corporate governance practices that should be put in place to discharge the duty.

10. To govern climate risks in a way that is in compliance with the fiduciary duties, it is often argued that directors and officers have to deploy procedural efforts, such as making relevant inquiries and seeking advice about the materiality of the risks posed by climate change, assessing the exposure of the company to these risks, and monitoring the company's compliance with climate law and regulations.[14] However, it is unclear whether fiducial duties would go as far as requiring directors and officers to release a public climate change strategy containing mitigation and/or adaptation goals, and to achieve those goals. As evidenced by the numerous international corporate social responsibility standards that have been developed over the years,[15] there is an increasing social expectation that companies – especially those responsible for large emissions of GHG – act as "good" and "responsible"[16] corporate citizens. There is also a global trend in domestic legislations to transforming voluntary endeavours into mandatory ones.[17]

3. Climate lawsuits against corporations for alleged breach of tort law duty of care or breach of statutory duty of vigilance

11. As evidenced by the landmark judgement rendered by the Hague District Court in May 2021 in the case *Milieudefensie et al. v. Royal Dutch Shell plc*, tort law is also a private law tool that may be mobilized to foster the incorporation of climate considerations into business decisions. This class action lawsuit against Royal Dutch Shell (RDS) was brought by various non-governmental environmental organizations which claimed that RDS had an obligation to reduce its GHG emissions ensuing from the tort law duty of care laid down in Book 6 section 162 of the Dutch Civil Code, according to which acting in conflict with what is generally accepted according to unwritten law is unlawful.[18] To fulfil its duty of care, the plaintiffs contended that

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[12] Sarah Barker, *Directors' liability and climate risk: Australia – Country Paper*, Commonwealth Climate and Law Initiative, 2018, p. 17, www.smithschool.ox.ac.uk/research/sustainable-finance/publications/CCLI-Australia-Paper-Final.pdf; Janis Sarra, *Duty to protect: corporate directors and climate-related financial risk*, C.D. Howe Institute, 2021, p. 9, www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/e-brief_310.pdf; Barker, Williams, Cooper, op. cit., p. 4; Chapman Tripp, "Climate change obligations for directors and scheme managers: legal opinion", Aotearoa Circle, 2019, para. 67.1; Yoshihiro Yamada, Janis Sarra, Masafumi Nakahigashi, "Directors' duties regarding climate change in Japan", Commonwealth Climate and Law Initiative, 2021, p. 1, https://law-ccli-2019.sites.olt.ubc.ca/files/2021/02/Directors-Duties-Regarding-Climate-Change-in-Japan.pdf.

[13] Sarra, op. cit., p. 9.

[14] Barker, Williams, Cooper, op. cit., pp. 21 and 46.

[15] E.g. OECD Guidelines for multinational enterprises (2011), UN Guiding Principles on Business and Human Rights (2011), UN Principles for Responsible Investments (2006), United Nations Global Compact (2000).

[16] *BCE Inc. v. 1976 Debenturelholders* [2008] 3 SCR 560, paras. 66 and 82 (Canada).

[17] Evguenia Paramonova, "Steering toward 'true north': Canadian corporate law, corporate social responsibility, and creating shared value", *McGill Journal of Sustainable Development Law and Practice*, vol. 12, issue 1, 2016, p. 35.

[18] *Milieudefensie et al. v. Royal Dutch Shell plc.*, District Court of the Hague, C/09/571932/HA ZA 19-379, 2021, para. 4.4.1, (Netherlands).

RDS had an obligation to reduce the GHG emissions attributable to the Shell group by at least 45 per cent relative to 2019 levels at the end of 2030. Consequently, the plaintiffs required the court to order RDS to achieve this GHG emission reduction goal.

12. To interpret the duty of care and determining the concrete legal implications attached to this duty in the circumstances of the case, the court considered a range of different factors, such as the Shell group's CO_2 emissions and their consequences for the Netherlands and their citizens, the relevant regulatory frameworks (like the European Union ETS and the human rights standards, notably the right to life and the right to respect for private and family life), the United Nations Guiding Principles as well as the science and what is needed to prevent dangerous climate change.[19] The court also considered the onerousness of imposing the reduction obligation that was requested by the plaintiffs on RDS. In discussing this point, the court acknowledged that the reduction obligation would require changes in the climate policy of RDS which could "curb the potential growth of the Shell group" but considered that "the interest served with the reduction obligation outweigh[ed] the Shell group's commercial interests".[20]

13. While an appeal against the decision of the Hague District Court is still pending, the Study indicates that the case has attracted great interest also in other jurisdictions and that the Shell case could "signal a movement towards an increased willingness of the courts to find that companies may become liable to third parties for the wider effects of climate change caused by their emissions".[21] This interest is strengthened by the fact that courts in other countries have also found parent companies to be liable for the actions of their subsidiaries.[22] Moreover, claims against corporations for failure to adequately address climate change can also in some countries be based on an alleged violation of a "statutory duty of vigilance", which obliges them to deploy reasonable efforts to prevent serious damage to human rights, the health and safety of humans and the environment throughout their supply chain.[23] In 2019, a group of plaintiffs comprised of non-governmental environmental organizations and local governments filed a lawsuit against a large French energy group for breach of its duty of vigilance by failing to provide sufficient information about the identification of the risks inherent to climate change in its vigilance plan, as well as to include adequate measures to reduce and prevent the damage caused by climate change.[24]

14. In the years to come, more jurisdictions could implement similar domestic measures to enforce international human rights and environmental standards through business organizations. In 2014, the United Nations Human Rights Council launched an intergovernmental negotiation process for the elaboration of legally binding instruments to regulate, in international human rights law, the activities of transnational corporations and other business enterprises. While this process is still ongoing, the latest version of the negotiation text states that "States Parties shall take

[19] Ibid., para. 4.4.2.

[20] Ibid., para. 4.4.53.

[21] Cinthia A. Williams, Ellie Mulholland, "What the Shell judgement means for US directors", *Harvard Law School Forum on Corporate Governance*, 22 July 2021, https://corpgov.law.harvard.edu/2021/07/22/what-the-shell-judgment-means-for-us-directors.

[22] *Vedante Resources Plc and anothers v. Lungowe and others* [2019] UKSC 20 (United Kingdom); *Okpabi and others v. Royal Dutch Shell Plc and another* [2021] UKSC 3 (United Kingdom).

[23] In France, for instance, Parliament adopted in 2017 a law that imposes a duty of vigilance on large French companies (Law No. 2017-399 concerning the duty of parent companies and contracting companies). Any company whose head office is located in France and that employs at least 5,000 employees (including the company and its direct and indirect subsidiaries, or 10,000 employees in its service and in its direct or indirect subsidiaries) is required to establish, publish and implement an effective vigilance plan. This plan must identify the risks of serious harm to human rights, the health and safety of humans and the environment that may result from the activities of the company and include reasonable measures to prevent those risks.

[24] Notre Affaire à tous, et al., *Summons before le Tribunal Judiciaire de Nanterre*, 2019, http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2020/20200128_NA_complaint-2.pdf.

appropriate legal and policy measures to ensure that business enterprises, including transnational corporations […] within their territory, jurisdiction, or otherwise under their control, respect internationally recognized human rights and prevent and mitigate human rights abuses throughout their business activities and relationships"[25]. Thus, as human rights abuse is defined in the negotiation text as including actions or omissions that impede the enjoyment of "the right to a safe, clean healthy and sustainable environment", such a provision – if it ever becomes treaty law – could have an important impact on domestic legislations and on how corporations operating at a global scale take climate change into consideration.

15. While many uncertainties remain about the precise results that may be achieved when tort law or duty of vigilance laws are used against corporations in the context of climate change, the overall conclusion is that these areas of law increasingly appear as offering valid legal grounds for holding corporations liable for the consequences of not adequately incorporating climate considerations in business decisions. As this liability risk increases, it has been held that boards should "think expansively about potential tortious liability risks relating to climate change and ensure that they have systems in place to avoid being sued".[26] This may require that corporations adopt and implement climate strategies that are aligned with the goals of the Paris Agreement and the science, and that cover their entire supply chain.

C. UNCITRAL instruments and climate action

16. Although UNCITRAL texts do not explicitly refer to climate change or climate-related issues, some of these texts do nevertheless have a relevance from a climate change perspective. In some cases, this relevance is due to the fact that these texts may be used to regulate the trading of "things" that have a link with climate change. For instance, the United Nations Convention on Contracts for the International Sale of Goods, or the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, could be (or perhaps are already being) used to regulate the trading of what could be called climate-friendly products (such as electric cars or solar panels), or the trading of CO_2. However, in other cases, the nexus with climate change stems from the fact that UNICTRAL texts, when interpreted and applied in certain ways, can become effective legal tools in the fight against climate change. The following section will focus on this latter case by providing examples of UNCITRAL texts that could be used to encourage or facilitate climate action.

1. International commercial arbitration

17. As evidenced by several recent cases, the domestic measures that States adopt to fight climate change can be challenged before arbitral tribunals by foreign investors for alleged violations of the rights protected by the international investment agreements those States have concluded. For instance, in the Netherlands, two energy corporations have filed claims against the government on the basis of the Energy Charter Treaty to obtain compensation for the loss of value of their investments resulting from the government's regulations on coal.[27] Likewise, under the North American Free Trade Agreement, a company registered in the United States brought a claim against Canada following the decision of the government of Quebec to revoke all rights to mine for oil and gas under the St. Lawrence River to obtain compensation for the money already invested and for anticipated future profits.[28] As States face

[25] *Legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other business enterprises*, Open-ended intergovernmental working group Chairmanship, 17 August 2021, www.ohchr.org/Documents/HRBodies/HRCouncil/WGTransCorp/Session6/LBI3rdDRAFT.pdf.

[26] Williams and Mulholland, op. cit.

[27] *RWE v. Kingdom of the Netherlands*, ICSID Case No. ARB/21/4; *Uniper v. Netherlands*, ICSID Case No. ARB/21/22.

[28] *Lone Pine v. Canada*, ICSID Case No. UNCT/15/2.

more pressure to implement ambitious measures against climate change in their territory, these kinds of climate-related Investor-State disputes which are submitted to arbitration tend to become more frequent.[29]

18. With the increased use of Investor-State arbitration to resolve climate-related disputes, the UNCITRAL Rules on Transparency in Treaty-based Investor-State Arbitration is an instrument whose implementation could support climate action in different ways. A key aspect of these rules that is of particular interest in the context of climate change is the obligation to make available to the public the documents relating to arbitral proceedings that are set out in article 3.1. This obligation could help putting climate-related Investor-State disputes in the public spotlight and, placed under public scrutiny, arbitrators could be more receptive to arguments relating to the importance of protecting the regulatory space that States need to adopt ambitious climate measures. In addition, the publication of awards confirming the compatibility of domestic climate measures with international investment agreements could provide examples of successful legal arguments for defending States involved in similar Investor-State disputes and give arbitrators acting on other cases more legitimacy to reach similar conclusions.

19. The possibility for third parties and non-disputing treaty parties to make submissions under certain circumstances (articles 4 and 5) is also an aspect of the Rules that is worthy of mention. According to legal scholars, the fact that most arbitrators are trained in commercial law and have relatively narrow expertise about climate change and climate law is something that could naturally lead them to be less receptive to legal arguments based on those grounds.[30] The submission of amicus curiae briefs by non-governmental environmental organizations, climate scientists and legal experts in the field of climate law could be a way to mitigate these risks and to facilitate the consideration of external (i.e. non-commercial) interests by arbitrators.[31] In the way forward, a possible avenue would be to complement the UNCITRAL Arbitration Rules with guidelines specifying that relevant expertise in climate/environmental law should be an element to take into consideration for the appointment of arbitrators in cases involving climate-justified measures.

2. Public procurement

20. Public procurement can play a significant role in addressing climate change. When purchasing goods and services governments have indeed the opportunity to guide public expenditures towards efficient low-carbon choices, or choices that increase the adaptation and resilience capacities of human communities. While analysts consider that the integrity and economic efficiency of public procurement remain critical, they are also of the view that it is now crucial that climate considerations are taken into account to award public contracts.[32]

21. Several provisions of the UNCITRAL Model Law on Public Procurement could be used as a tool in the fight against climate change. This is notably the case of article 9.2, which identifies the criteria against which procuring entities can ascertain that suppliers and contractors are eligible to bid for a specific public procurement

[29] Catherine Higham, Joana Setzer, “Investor-State dispute settlement as a new avenue for climate litigation”, Grantham Research Institute on Climate Change and the Environment website, 2 June 2021, www.lse.ac.uk/granthaminstitute/news/investor-state-dispute-settlement-as-a-new-avenue-for-climate-change-litigation.

[30] Mala Sharma, “Earth to exist and money to live – Integrating climate change goals and investor state arbitration for a sustainable future”, *The Journal of World Investment and Trade*, special issue: International investment law and climate change, 2022, forthcoming.

[31] Esmé Shirlow, “Dawn of a new era? The UNCITRAL Rules and UN Convention on Transparency in Treaty-based Investor-State Arbitration”, *Foreign Investment Law Journal*, vol. 31, No. 3, 2016, p. 644.

[32] Richard Baron, *The role of public procurement in low-carbon innovation*, OECD, 2016, p. 4, www.oecd.org/sd-roundtable/papersandpublications/The%20Role%20of%20Public%20Procurement%20in%20Low-carbon%20Innovation.pdf.

contract. To be eligible to bid, the Model Law provides that suppliers and contractors may have to demonstrate that they have the necessary environmental qualifications, the professional and technical competence, and the equipment to perform the procurement contract.[33] They may also need to "meet ethical and other standards applicable"[34] in the State in which the contract is to be performed. Thus, a procuring entity would presumably be allowed to verify that suppliers and contractors have, for instance, access to low-carbon technologies, or that they comply with the domestic climate regulations. Article 10 is also a provision that enables procuring entities to take climate change into consideration. This article provides that a procuring entity "shall set out in the solicitation documents the detailed description of the subject matter of the procurement that it will use in the examination of submissions",[35] and that this description may include specifications and requirements[36] and "shall set out the relevant technical, quality and performance characteristics of that subject matter".[37] As can be seen, these provisions give ample authority to a procuring entity to embed climate-related conditions in the description of the subject matter of the procurement.

22. In recent years, the issue of how to turn public procurement into an efficient tool in the fight against climate change has elicited considerable interest among governments and public policy experts. Many observers are of the view that climate-related issues should now be systematically considered in public procurement, and some countries have already taken – or are taking – steps to move towards public procurement practices that include climate-related criteria.[38] Under the current UNCITRAL Model Law on Public Procurement, procuring entities have a level of discretion that enables them to include climate considerations when they apply the rules. However, the elaboration of specific indications on the best practices that exist on that matter could facilitate a more systematic incorporation of climate considerations into public procurement.

3. Public-private partnerships

23. Public infrastructure (transport, energy, waste management, buildings) are a crucial lever in the fight against climate change, both in terms of mitigation and adaptation. On the mitigation side, building and operating infrastructure are activities that can generate large amounts of GHG. In addition, because of the extended lifetime of infrastructure, decisions in that area that are not aligned with climate goals can contribute to lock societies into carbon-intensive emissions pathway for decades. As for adaptation, public infrastructure can have a decisive impact on the exposure and vulnerability of human communities to the physical impacts of climate change, such as heatwaves, hurricanes, sea-level rise, and flooding. As highlighted in a recent report, "infrastructure is at the heart of climate compatible development" and actions to ensure that the right infrastructure is done well "can enable unprecedented progress towards the Paris Agreement and the [Sustainable Development Goals]".[39]

24. Because infrastructure projects are primarily carried out through public-private partnerships (PPP), it appears essential that the legal frameworks governing PPP contain provisions expressly aiming at supporting the implementation of low-carbon

[33] UNCITRAL Model Law on Public Procurement Art. 9.2 (a).

[34] Ibid., art. 9.2 (b). As indicated in the Guidance on procurement regulations to be promulgated in accordance with article 4 of the UNCITRAL Model Law on Public Procurement, compliance with such standards may involve environmental considerations.

[35] Ibid., art. 10.1(b).

[36] Ibid., art. 10.3.

[37] Ibid., art. 10.4.

[38] Beatriz Martinez Romera, Roberto Caranta, "EU public procurement law: purchasing beyond price in the age of climate change", *European Procurement and Public Private Partnership Law Review*, vol. 12, No. 3, 2017, pp. 281–292.

[39] United Nations Office for Project Services, United Nations Programme for the Environment, University of Oxford, *Infrastructure for climate action*, 2021, p. 9, https://content.unops.org/publications/Infrastructure-for-climate-action_EN.pdf?mtime=20211008124956&focal=none.

and climate resilient infrastructure. When such provisions do not exist, these legal frameworks should be interpreted and applied in ways that could be the most beneficial for the achievement of climate goals. In the case of the UNCITRAL Model Legislative Provisions on Public-Private Partnerships, even if none of the provisions refer to climate change,[40] several of them can nevertheless be interpreted and applied so as to promote low-carbon and climate resilient infrastructure.

25. For instance, Model provision 5 provides that a contracting authority envisaging to develop infrastructure through a PPP shall carry out or procure a feasibility study. The provision further specifies that this feasibility study shall identify "how the project meets relevant national or local priorities for the development of public infrastructure".[41] In assessing this element, a contracting authority could be required to take into consideration the nationally determined contribution of the State to verify the extent to which the infrastructure considered is aligned with the domestic climate agenda.

26. Paragraph 3 of Model provision 5, which specifies that the request for approval of a PPP project shall assess the project's social, economic, and environmental impact, is also of direct relevance in the context of climate change. The authority responsible for approving a proposed PPP could indeed consider that assessing the environmental impact of the project requires assessing its impact in terms of GHG emissions. While such an assessment may pose practical challenges, it should be noted that various methodological tools have been developed in the context of environmental impact assessment procedures. In many countries, considering climate-related issues when the environmental impacts of a proposed project are assessed is now mandatory and how this should be done is often detailed in regulations. The elaboration of an UNCITRAL document providing precise methodological guidelines about how the assessment of the climate impact of a PPP project should be carried out could be contemplated. In addition to mitigation, the reference to social impact in paragraph 3 provides a legal basis on which an authority responsible for approving a proposed PPP could rely to require that the potential adverse effects that the project could have on human health, in case of extreme weather events, are analysed. For instance, for infrastructure projects such as roads, bridges, or tunnels, it could be asked that the extent to which these projects could contribute to the urban "heat-island" effect is documented.

27. The model provisions that govern the contract award procedure also offer various points of entry for climate considerations. This is notably the case of Model provision 10, which provides that interested bidders must have the necessary environmental qualifications, and professional and technical competence,[42] and must meet ethical and other standards applicable in the State.[43] Model provision 19, according to which the evaluation of the technical elements of the proposals shall be based on their technical soundness and compliance with environmental standards,[44] is also a provision that enables the consideration of climate issues.

D. Conclusions of the Study

28. The Study stresses that the discussion on legal measures to steer a transition toward a low-carbon and climate resilient society has usually focused on solutions that involve areas of law such as international law, constitutional law, administrative law, human rights law as well as energy and environmental law. The Study finds, however, that private law, too, can play a significant role in the fight against climate

[40] The Model Provision 1 does however refer to "long-term sustainability" in both Option I and Option II.

[41] UNCITRAL Model Legislative Provisions on Public-Private Partnerships, Model provision 5, para. 2(a).

[42] Ibid., Model Provision 10 (a).

[43] Ibid., Model Provision 10 (c).

[44] Ibid., Model Provision 19.1, para. (a) and (b).

change and in the achievement of the goals of the Paris Agreement. Contract law, tort law, property law, corporate law and trade law are all levers that can be used to tackle the climate crisis.

29. The Study finds, for instance, that private law could help create a more favourable environment for climate-friendly investment by providing more clarity, uniformity, and predictability in the area of carbon trading. At the moment, uncertainties remain in many jurisdictions about the legal status of carbon credits and their legal treatment under domestic law. Issues on which more clarity is often deemed desirable include questions such as whether carbon credits can be used as collateral security and whether they represent estate assets in the case of insolvency proceedings. In addition, the divergences that may exist in the legal treatment reserved to carbon credits across jurisdictions tend to generate uncertainties and create a complex regulatory framework for private actors. Contractual tools to manage the regulatory risks to which participants in mandatory and voluntary carbon markets are exposed in a more predictable way is also an issue on which further reflection is considered welcome.

30. The Study also finds that private law could also help create a more favourable environment for climate-friendly investment by addressing some of the legal issues that can currently be observed in the still emerging, but growing, international market of CO_2 utilization. Such issues concern the legal status under domestic law of the CO_2 that is captured and that is sold for commercial purposes, as well as the liability of private entities in case of CO_2 leakage. The Study strikes however a note of caution in that respect since the idea of encouraging the commercial use of CO_2 to accelerate the decarbonization of the world economy is not free of controversy.

31. Developments in private law, and more specifically in corporate law, could also serve to promote a more systematic incorporation of climate change considerations into business decisions. Many jurisdictions are already in the process of implementing domestic measures to oblige corporations to disclose their exposure to climate-related financial risks and fiduciary duties of corporate directors and officers are increasingly interpreted by legal scholars as requiring the consideration of climate change. In addition, there is a growing reflection about the necessity to impose a duty of vigilance on large corporations to encourage them to deploy the adequate efforts to mitigate the GHG emissions of their supply chain. However, to scale-up the pace of these evolutions, and to ensure a certain level of uniformity in future domestic legal developments, new texts such as model legislations or guides could be elaborated at the international level.

32. The Study concludes that, as a global standard setter, UNCITRAL could play a key role in the area of climate change mitigation, adaptation and resilience. While the adoption of legal texts on new topics could be contemplated, it should be noted that existing UNCITRAL texts – even though they do not explicitly refer to climate considerations – can already be interpreted and applied in ways that are beneficial for the climate. This is notably the case with the UNCITRAL texts relating to commercial arbitration, public procurement, and public-private partnerships. To facilitate and encourage the utilization of these texts as effective legal tools in the fight against climate change, guidelines could be adopted to specify how certain provisions contained in these texts could be applied to support the achievement of climate goals.

III. Remarks for consideration by the Commission

33. Climate change action has become a central concern of the United Nations system, and in his coordinating role the Special Envoy on Climate Action and Finance pays special attention to significantly shifting public and private finance markets and mobilizing private finance to the levels needed to achieve the 1.5°C goal of the Paris Agreement. This includes building the frameworks for financial reporting, risk management and corporate returns in order to bring the impacts of climate change to

the mainstream of private financial decision-making and to support the transition to a net zero carbon economy.

34. Most measures to achieve the goals of the Paris Agreement are of a policy, regulatory or technical nature, or require financial investment from the public and the private sector. The Study has nevertheless identified a few areas in which private law can facilitate climate change mitigation, adaptation and resilience and generally supports the idea that it would be desirable and feasible for the Commission to undertake work in those areas. While climate change action and finance are not as such directly related to the Commission's mandate, the Commission may nevertheless wish to consider that it could offer its own contribution to the broader climate goals embraced by the international community with respect to climate change mitigation, adaptation and resilience. Climate action is one of the 13 Sustainable Development Goals which all United Nations bodies are called upon to integrate as much as possible in their mandate. The Commission, which has consistently highlighted the relevance of its work programme for the promotion of the rule of law and the implementation of the Sustainable Development Goals,[45] may therefore wish to consider the proposed work on climate change mitigation, adaptation and resilience from that perspective and regard it as one additional contribution to the overall climate action agenda of the United Nations. The secretariat has transmitted the Study to interested United Nations bodies, namely the Office of the Special Envoy on Climate Action and Finance and the Secretariat of the Intergovernmental Panel on Climate Change (IPCC) and will transmit to the Commission any comments it receives from them.

35. In light of the above, the Commission may wish to consider the following:

(a) Whether it wishes to undertake work on private law aspects of climate change mitigation, adaptation and resilience identified in sections A ("Private law issues relating to clean investments") and B ("Private law and the incorporation of climate considerations into business decisions") of the overview of the Study;

(b) The scope of such work (for example, whether to address all areas identified in the Study, or only some of them, or whether the secretariat should be tasked with identifying possible additional areas relevant for the Commission's mandate);

(c) If so, how such work should be undertaken (for example, referring it to a Working Group or to the secretariat), resources permitting;

(d) Whether the secretariat should be requested to prepare guidance documents, for review by the Commission in due course, on the practical application and interpretation of existing UNCITRAL instruments (primarily those identified in section C ("UNCITRAL instruments and climate action"), but possibly others as well);

(e) Whether the secretariat should carry out, with the help of experts, a systematic review of private law issues arising in connection with climate action, in the form of a taxonomy or additional study to further enable the Commission to decide on the desirability of formulating concrete guidance on private law and climate action.

36. If the information provided above is not sufficient for the Commission to decide on whether to refer the work to a Working Group or if there is no available Working Group to undertake work, the Commission may wish to request the secretariat to conduct further research in the area, in consultation with outside experts and interested organizations from both within and outside the United Nations system. It may also consider requesting the secretariat to organize a colloquium or an expert group meeting on the various legal issues surrounding climate change mitigation, adaptation and resilience in conjunction with relevant and interested international

[45] *Official Records of the General Assembly, Seventy-sixth Session, Supplement No. 17* (A/76/17), paras. 370–374.

organizations, the results of which would facilitate its consideration at a future session.

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Work Programme

Possible future work on climate change mitigation, adaptation and resilience

Note by the Secretariat

Contents

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I. Introduction

1. At its fifty-fourth session, in 2021, the Commission heard a proposal to examine (a) how existing UNCITRAL texts could be aligned with climate change mitigation, adaptation and resilience goals, and (b) whether further work could be done by UNCITRAL to facilitate those goals in the implementation of those texts or through the development of new texts. It was added that public-private partnerships could be an area of focus for stocktaking existing texts, while legal uncertainty regarding the legal status of carbon credits traded in voluntary carbon markets could be a focus for future legislative work.[1]

2. Broad support was expressed for the Commission to consider the proposal further, based on more precise information on the work involved. It was added that member States might need to carry out further internal consultations across different government agencies before a decision on future work could be taken, and that such work would need to be undertaken within existing public international law frameworks, such as the Paris Agreement on climate change of 2015.[2]

3. After discussion, the Commission requested the secretariat to consult with interested States with a view to developing a more detailed proposal on the topic for presentation to the Commission for its consideration at its next session, in 2022.[3]

4. The consultations carried out by the secretariat in response to that request have revealed considerable interest by various Member States for examining further how existing UNCITRAL texts could be applied to support achieving climate change mitigation, adaptation and resilience goals, and whether UNCITRAL could further contribute to facilitating those goals in the implementation of those texts or through the development of new texts.

5. In the light of those positive responses, the secretariat commissioned a study on private law aspects of climate change ("the Study") by an outside expert, professor Géraud de Lassus St-Geniès, of Laval University in Québec (Canada). The findings and recommendations of the Study were summarized in a note by the Secretariat with a view to assisting the Commission consider the desirability and feasibility of undertaking work in this area (A/CN.9/1120 and A/CN.9/1120/Add.1).

6. The Commission considered the summary of the Study at its fifty-fifth session (New York, 27 June–15 July 2022). There was wide agreement within the Commission on the importance of the topic and on the usefulness of exploring how UNCITRAL could offer its own contribution to the international community's efforts to combat climate change and mitigate its effects by updating existing private law instruments and developing new enabling legal mechanisms, if necessary. It was observed that global efforts to combat climate change were an integral part of the agenda of the United Nations. Therefore, as a subsidiary body of the General Assembly, UNCITRAL was well placed to undertake work on those aspects of climate change falling within its mandate, and it would indeed be expected that UNCITRAL would provide its own contribution to support the efforts of other United Nations bodies and Secretariat units in that respect.[4]

7. It was stressed that some regions of the world were likely to be seriously affected by climate change and that developing countries in particular would suffer from its impact and the resulting challenges to their economic and development trajectory. UNCITRAL, it was said, could also play a role in the fight against climate change and that there would be benefits to greater legal certainty in that area. There was strong support for the suggestion that any work to be carried out should be consistent with existing international law and treaties on climate change, where relevant. It was

[1] *Official Records of the General Assembly, Seventy-sixth Session, Supplement No. 17* (A/76/17), para. 244.
[2] Ibid., para. 245.
[3] Ibid., para. 246.
[4] Ibid., *Seventy-seventh Session, Supplement No. 17* (A/77/17), para. 212.

also emphasized that such work should have due regard for the principle of the common but differentiated responsibilities and respective capabilities of States. It was therefore noted that any such work should be guided by the principle of equity, in the light of different national circumstances, and be based upon respect for countries' sovereignty over their natural wealth and resources. Finally, it was said that no measures, including unilateral ones, should constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. [5]

8. The views differed, however, as to the scope and focus of such work. The importance of corporate responsibility was highlighted by examples of recent changes in legislation to strengthen obligations on the disclosure of climate-related information, an area in which important standards had been set by the International Sustainability Standards Board, and which should be reflected in any UNCITRAL work. At the same time, however, there were expressions of caution as to the feasibility of work in that area, calling for the Commission not to focus work on tools to facilitate litigation against corporations for climate change-related damages. Instead, it was suggested that focus be placed on private law issues relating to clean investments. In particular with respect to private law issues relating to carbon trading, the Commission's attention was drawn to various international initiatives and regulatory activities that called for close cooperation and a precise delineation of possible UNCITRAL work. The Commission was also informed that the UNIDROIT Governing Council, at its 101st session (Rome 8–10 June 2022) had recommended to the UNIDROIT General Assembly the inclusion of a project to analyse the private law aspects, and determine the legal nature, of voluntary carbon credits in the work programme for the period 2023–2025. The Commission heard expressions of concern about the possible overlap between the proposed UNIDROIT work and its own work in that area. The Commission agreed that any duplication should be avoided and expressed its confidence that all interested organizations would coordinate their respective activities. [6]

9. The Commission also heard several suggestions for improvements to and requests for clarification of the study commissioned by the secretariat (A/CN.9/1120 and A/CN.9/1120/Add.1), which the secretariat was asked to take note of and reflect in any revised version of the study that it might publish in the future. It was also stated that nothing in that study document should be interpreted as implying a change in the rights and obligations of a State party under any existing international agreement. [7]

10. In conclusion, the Commission agreed to request the secretariat to conduct further research in the area, in consultation with outside experts and interested organizations from both within and outside the United Nations system. It also requested the secretariat to organize a colloquium or an expert group meeting on the various legal issues surrounding climate change mitigation, adaptation and resilience, in conjunction with relevant and interested international organizations, the results of which would facilitate its consideration at a future session. [8]

11. This note contains an update to the Study considered by the Commission at its fifty-fifth session, which was prepared by the same outside expert [9] for further consideration by the Commission. The Annex to this note sets out the provisional programme of the colloquium "Climate Change and the Law of International Trade" to be held on 12–13 July in conjunction with the fifty-sixth session of the Commission in Vienna in a hybrid format.

[5] Ibid., para. 213.
[6] Ibid., para. 214.
[7] Ibid., para. 215.
[8] Ibid., para. 216.
[9] Professor Lassus St-Geniès acknowledges the valuable contribution of Mr. Camille Martini (LL.M.), doctoral candidate at the Faculty of Law at Laval University and at the Faculty of Law and Political Science at Aix-Marseille University (France).

II. Update of the Study on Private Law Aspects of Climate Change

12. The following sections, which supplement the analysis and discussion contained in documents A/CN.9/1120 and A/CN.9/1120/Add.1, examine additional issues that the Commission may wish to consider when determining the scope of the contribution that it may decide to make to climate change mitigation, adaptation and resilience. They set out observations on the nexus between climate change and private law/international trade law with a view to identifying potential areas where UNCITRAL could, should it wish to undertake work in this area, contribute to the achievement of the goals of the Paris Agreement.

A. The trading of internationally transferred mitigation outcomes under the Paris Agreement: legal issues and opportunities

13. An important breakthrough in the world of international carbon markets has been the adoption, at the United Nations Climate Change Conference in Glasgow (COP 26), in 2021 and the United Nations Climate Change Conference in Sharm el-Sheikh (COPP 27), in 2022, of the implementation's rules of the two market mechanisms set out in Article 6 of the Paris Agreement.[10] This step has opened a new era for carbon trading which has various implications from an international trade law perspective. The first of these mechanisms is referred to as "cooperative approaches" (Article 6.2). It allows Parties to trade on a direct bilateral basis "internationally transferred mitigation outcomes" (ITMOs), which may be used for compliance purposes under the Paris Agreement. ITMOs represent the new intangible unit that will be traded across jurisdictions from now on. Several countries have already concluded bilateral climate agreements, or are in the process of doing so, to detail how the trading of ITMOs will take place between them.[11] Under Article 6.2, private entities located in different jurisdictions are allowed to exchange ITMOs among them when authorized by their respective States. However, States engaged in cooperative approaches remain responsible to track and account for the transfers of ITMOs, including when ITMOs are traded by private entities. The second mechanism (Article 6.4) is a baseline-and-credit mechanism similar to the former Clean Development Mechanism of the Kyoto Protocol. Under Article 6.4, mitigation activities that result in emission reductions may generate offset credits, which are known as A6.4 emission reduction certificates (A6.4ERs). These credits are issued by a centralized institution, the Supervisory Body, established under the Paris Agreement. When transferred from one country to another, A6.4ERs are considered as ITMOs. It is expected that these two mechanisms will play an important role in the near future as most Parties to the Paris Agreement have expressed some interest in using them.[12] In addition, because ITMOs may be used for other mitigation purposes than the achievement of national determined contributions (NDCs),[13] corporations that have pledged to achieve carbon neutrality could seek to obtain ITMOs by entering into cooperative approaches with States to

[10] United Nations, *Treaty Series*, vol. 3156.

[11] See for instance: Federal Office of the Environment (Switzerland), "Bilateral climate agreements", www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate--international-affairs/staatsvertraege-umsetzung-klimauebereinkommen-von-paris-artikel6.html; Swedish Energy Agency, "Bilateral climate agreements", www.energimyndigheten.se/en/cooperation/swedens-program-for-international-climate-initiatives/paris-agreement/bilateral-climate-agreements.

[12] 55 per cent of the Parties to the Paris Agreement have indicated in their nationally determined contributions their intention to use, or the possibility of using, cooperative approaches to fulfill their mitigation objective. The share for the Article 6.4 mechanism is 36 per cent. UNFCCC, *Nationally determined contributions under the Paris Agreement. Synthesis report by the Secretariat*, UN Doc. FCCC/PA/CMA/2022/4, 2022, p. 19.

[13] Decision 2.CMA.3, *Guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement*, UN Doc. FCCC/PA/CMA/2021/10/Add.1, 2022, Annex, para. 1(f) (hereinafter "Decision 2/CMA.3").

use them in the Voluntary Carbon Market (VCM). The paragraphs below discuss various legal issues related to ITMO trading.

1. Domestic legal frameworks

14. States interested in participating in ITMO trading may have to modify – or clarify some aspects of – their domestic legal framework to comply with the requirements set forth under the Paris Agreement and to create a predictable legal environment for the private sector. To illustrate this point, one may take the case of a company located in State A that achieves a mitigation outcome (e.g., a reduction of an amount of CO_2) and that wishes to sell it abroad to a company located in State B.

15. A first element to consider is that ITMOs must be "real, verified and additional",[14] and that all States participating in cooperative approaches are required to report information under the Paris Agreement to describe the "quality" of the mitigation outcomes that they trade and how their participation in cooperative approaches ensures environmental integrity.[15] This implies that State A may need to have in place a procedure to certify that the mitigation outcome claimed by the company is real, verified and additional. Regardless of what the Paris Agreement requires, the company in State B may in any case find it too risky to buy ITMOs whose environmental integrity could be questioned. Thus, countries interested in participating in cooperative approaches may have to set up new administrative rules. Although two States could decide to create a joint structure to perform this certification process, the emerging practice of bilateral climate agreements under Article 6.2 reveals that establishing domestic procedures is an approach that several States tend to favour.[16] Besides, as ITMO transfers require the authorization of both the exporting and importing States,[17] domestic procedures could also need to be defined to specify how this authorization is to be issued.

16. A second point to take into consideration is the way in which the existence of the mitigation outcome is materialized. An option for State A is to create an electronic registry.[18] Upon completion of the certification process, a number of credits corresponding to the amount of CO_2 reduced would be issued on the account of the company. State B could also have a domestic registry and credit the account of the purchaser with a number of credits corresponding to the ITMOs acquired at the time of the sell. Another possibility for State A would be to issue a physical document certifying that the company has achieved a mitigation outcome of a specified amount. State B could either have a registry in place or issue a similar document to certify that the company has acquired a mitigation outcome.

17. A third aspect on which legal certainty is crucial is the legal status applicable to the "things" (i.e., offset credits, emission allowances, certificates) that represent the mitigation outcome, and whether those "things" may be considered as movable intangible property under domestic law. Given that it is the States that are likely to issue the credits or the legal documents that substantiate the mitigation outcome, they could be considered as having an administrative status (such as licences and permits), which could then create uncertainties about their transferability. It should also be noted that a mitigation outcome could be the subject of a purely domestic commercial transaction before being sold aboard, as a company could find it easier to first sell the credits to a broker located in the same country. As some legal experts have noted, "[f]or practitioners, it will be vital to know the legal nature of the units and the

[14] Ibid., para. 1(a).
[15] Ibid., para. 22(b).
[16] See for instance the bilateral climate agreements concluded by Switzerland, supra note 11.
[17] Paris Agreement, art. 6.3.
[18] It should be noted that each Party to a cooperative approach must have, or have access, to a registry for the purpose of tracking the transfers of ITMOs. Decision 2/CMA.3, Annex, para. 29.

ownership rights of the seller in order to specify what is being traded and how delivery is to be accomplished".[19]

18. Participation in cooperative approaches is, therefore, likely to require various legal developments or clarifications at the domestic level. The ways in which these developments and clarifications occur, as well as their outcome, could influence the involvement of the private sector in the trading of ITMOs. In States where Emission Trading Schemes (ETS) have already been running for some time, the importance of these legal developments and clarifications may remain limited. By contrast, more work could be required for countries interested in selling or buying ITMOs that have no or only limited experience in the field of regulated carbon markets.

19. A further layer of complexity in relation to ITMO trading stems from the fact that an ITMO may not always correspond to one ton of CO_2 equivalent. Indeed, Parties to the Paris Agreement have agreed that ITMOs could also be measured in non-greenhouse gas (GHG) metrics.[20] This means that, in some cases, what will be sold will not be the right to claim a certain quantity of reduced tons of CO_2 equivalent, but rather the right to claim a certain number of hectares of land afforested, or a certain quantity of megawatt-hours (MWh) of electricity generated from a renewable energy resource. Yet, here too, it will be crucial for practitioners to know how the existence of these mitigation outcomes is materialized, how are they treated under domestic law and how international transfers are to be accomplished.

20. Establishing property rights over tradable intangible commodities representing something else than a reduction of one ton of CO_2 equivalent is not novelty from a legal standpoint. Some States, such as Australia, Canada and the United States, already have some experience with the trading of units that represent mitigation outcomes not measured in CO_2 equivalent with the renewable energy credits (or certificates) (RECs). RECs are tradable intangible commodities that "are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource".[21] The owner of a REC is legally entitled to claim that one MWh of the electricity it used in its activities was generated from a renewable resource. Thus, by purchasing RECs, electricity consumers may substantiate their claim to have used renewable (i.e., zero-emission) electricity. However, a question to consider is the extent to which non-GHG mitigation outcomes should be treated under domestic law in the same way as mitigation outcome measured in CO_2 equivalent. For further clarity, States may wish to develop different legal frameworks for governing these two categories of mitigation outcomes.

21. In sum, while the elaboration of model laws and legislative guides could facilitate the emergence of a robust and credible international market for ITMOs, the legal developments and clarifications, as well as the institutional structures, that may be needed domestically to participate in ITMO trading may vary from State to State, depending on the types of ITMOs that they intend to trade. Should the Commission deem desirable to undertake work in this area, it should be noted that the UNFCCC Secretariat was already requested by the Conference of the Parties to the Paris Agreement to design and implement a capacity-building programme to assist Parties, particularly developing country countries, intending to participate in cooperative approaches.[22]

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[19] Pollination, *Legal gap analysis for transactions in preparation for Article 6*, Pollination Group, 2021, p. 6.

[20] Decision 2.CMA.3, Annex, para. 1(c).

[21] United States Environmental Protection Agency, "Renewable Energy Certificates (RECs)", www.epa.gov/green-power-markets/renewable-energy-certificates-recs. Each REC has a unique identification number and cannot be owned simultaneously by more than one owner. See also: Todd Jones, Robin Quarrier, Maya Kelty, *The legal basis for renewable energy certificates*, Center for Resource Solutions, 2015.

[22] Decision 2/CMA.3, para. 12. The Capacity Building Work Programme to support implementation of Article 6 was launched at COP 27, in November 2022.

2. Legal consistency and standardized practices

22. Article 6.2 represents a decentralized approach to carbon trading. Under this article, Parties to the Paris Agreement have a wide margin of discretion to decide what to trade, how to trade it and with whom. Because of the diversity of the mitigation components of the NDCs, enabling Parties to choose the format of their cooperative approaches is important to ensure that they may all benefit from the advantages of carbon trading under the Paris Agreement. However, this flexibility also entails the risk of permitting the emergence of an heterogenous and fragmented legal environment, which could complexify the trading of ITMOs. While the practice under Article 6.2 is still in its infancy, it may already be possible to identify several factors which could lead to such a situation.

23. The first factor is the level of consistency between the different Article 6.2 bilateral climate agreements that States participating in cooperative approaches will conclude.[23] The issue is of particular importance in the case of States that will participate in several cooperative approaches with different States. If a State A has already established a domestic procedure for certifying mitigation outcomes and authorizing their export as the result of its participation in a cooperative approach with a State B, a key issue is whether State A will need to establish new domestic procedures if it enters into a bilateral climate agreement with a State C and whether companies in State A will have to follow different rules to trade ITMOs with State B and C. A similar question arises in relation to what can be considered as an ITMO, as the trading of non-GHG ITMOs could be allowed between States A and B and forbidden between States A and C.[24]

24. A second element that is likely to influence the legal landscape of ITMO trading is the emergence of standardized commercial practices among private actors. At the moment, it is considered that stakeholders that are concluding ITMO transactions are "navigating unchartered territory, which creates many uncertainties".[25] Some of these uncertainties concern the ways to mitigate the legal risks that are specific to ITMO trading. For instance, private entities aiming at selling or buying ITMOs are confronted with the risk that a State may not authorize the export or import of the ITMOs, or may not apply corresponding adjustment to prevent the double-counting of the ITMOs transferred. According to the rules negotiated under the Paris Agreement, to avoid double counting of ITMOs, the first transferring Party and the Party that uses ITMOs towards its NDCs are each required to apply a corresponding adjustment. For the selling Party, it means that the quantity of ITMOs sold abroad needs to be added to its annual national GHG inventory. Conversely, the acquiring Party must subtract the quantity of ITMOs purchased from its inventory.[26] Yet, for now, it is unclear how the status and value of the ITMOs would be affected if a State were not to carry out a corresponding adjustment.[27] To guarantee legal predictability and reduce transaction costs, standardized practices and contractual tools to mitigate these risks could be developed. In addition, because of the specific features that ITMOs have – unlike other commodities, their mere existence may be questioned even after they have been transferred – a further question to consider is whether new

[23] For an overview of the agreements already concluded, see: Seth Kerschner, Ingrid York, William Grazebrook, "Emerging fundamentals in climate mitigation through ITMO transactions under Paris Agreement Article 6.2", White & Case, 8 March 2023, www.whitecase.com/insight-alert/emerging-fundamentals-climate-mitigation-through-itmo-transactions-under-paris#.

[24] Some observers consider that, "while flexibility and self-determination is an inherent part" of Article 6.2, "maintaining some degree of standards and consistency for what should be eligible to constitute an ITMO will be important". Pollination, *Legal gap analysis for transactions in preparation for Article 6*, supra note 19, p. 13.

[25] Lieke't Gilde, Gemo Andreo Victoria, Sandra Greiner, *Article 6 transaction structures*, World Bank, 2022, p. 19.

[26] Decision 2/CMA.3, Annex, para. 7–8. In the case of non-GHG ITMOs, see para. 9.

[27] Seth Kerschner, Ingrid York, William Grazebrook, "Emerging fundamentals in climate mitigation through ITMO transactions under Paris Agreement Article 6.2", supra note 23.

transnational rules and procedures should be developed to adjudicate commercial disputes that could arise in this field.

25. A third aspect which deserves consideration is whether the carbon credits issued on the VCM by private entities (i.e., carbon standards organizations) will have the same legal status in domestic law as ITMOs. The question is of importance as, under Article 6.2, private companies are allowed to engage directly in cooperative approaches with States to purchase ITMOs and use them to demonstrate progress towards their carbon neutrality targets. The emergence of State-issued carbon credits on the VCM will add complexity to this market as private companies could possess simultaneously State-issued carbon credits and carbon credits issued by carbon standards organizations.

B. Legal certainty of carbon credits resulting from carbon sequestration projects

26. A major challenge in the field of carbon markets is ensuring that each carbon credit that is traded corresponds to a mitigation outcome that is real and additional.[28] This challenge is particularly acute with carbon sequestration projects, such as afforestation/reforestation projects or activities involving carbon capture and storage. In these cases, carbon credits do not correspond to GHG that were not emitted, but rather to GHG that were absorbed from the atmosphere and stored somewhere (e.g., in the soil, in underground geological formations, in trees, in products). Thus, carbon credits resulting from carbon sequestration projects only offset emissions as long as the carbon they represent remains stored in reservoirs. Yet, for a variety of natural and human-induced causes (e.g., wildfires, diseases, land exploitation, industrial accident) stored carbon can return to the atmosphere (a situation referred to as reversal).

27. From a legal perspective, this risk of non-permanence of carbon sequestration raises different legal issues. One is the need to include provisions in the legal frameworks governing carbon sequestration projects to address situations of reversals. Various options exist, such as the issuance of temporary credits, which expire after a predefined period and must be replaced with other credits, or the creation of "buffer reserves" in which offset credits from individual projects are set aside and may serve as an insurance mechanism.[29] However, while developing rules to address situations of reversals is key, it is equally important to seek to prevent reversals from occurring. In the case of lands on which afforestation or reforestation projects are carried out, this can be done by granting a specific legal status to these lands to ensure that the trees will not be cut down. Such a status could, for instance, forbid the sale of the land for other purposes than the afforestation or reforestation project for a defined period. Restricting the rights of use of the land on which the carbon is sequestered may however raise delicate questions in cases of mitigation projects located on indigenous people's lands (a free, prior and informed consent would be required), or when the same land is claimed to be owned by different persons. It should be noted that, under the Paris Agreement, Parties that participate in cooperative approaches will be required to describe how their participation minimizes the risk of non-permanence of mitigation outcomes and ensures, when reversals of emissions removals occur, that these are addressed in full.[30] Jurisdictions interested

[28] In this context, the expression "additional" means that the mitigation outcome must be the result of a specific measure or project intended to generate this outcome, and that it would have not occurred anyway if the measure or project had not been implemented.

[29] Derik Broekhoff *et al.*, *Securing climate benefit: a guide to using carbon offsets*, Stockholm Environment Institute & Greenhouse Gas Management Institute, 2019, p. 26.

[30] Decision 2/CMA.3, Annex, para. 22(b)(iii).

in participating in cooperative approaches to sell ITMOs generated by carbon sequestration projects could therefore have to adjust their legislation.[31]

28. Ensuring legal certainty of the carbon credits resulting from carbon sequestration projects also requires clear rules about ownership of these credits. In jurisdictions in which ownership of the subsurface belongs to the government, the absence of a clear regime could raise questions as to whether the credits are owned by the government or the proponent of the sequestration project. Similar difficulties could appear in jurisdictions where the government is the owner of all natural resources, given that with afforestation or reforestation projects the carbon is stored in trees.[32] A last aspect to consider in relation to afforestation or reforestation projects is the importance to establish robust and conservative methodologies to account for the GHG sequestered. Some studies have shown that, in certain regions of the world, abandoned agricultural lands on which trees were planted had sequestered the same amount of carbon than agricultural lands left to natural succession over 50 years.[33] Credible legal framework in this field should also set out monitoring requirements to ensure that a project carried out somewhere does not lead to the cutting of trees in another area. If this were to happen, the carbon sequestrated by the projects would no longer represent a mitigation outcome that is additional, and the corresponding carbon credits would lose their value.

C. Corporate climate litigation and potential legislative action in the field of corporate and business law

29. Since the 2022 Study, the number of lawsuits brought against corporations has continued to rise all over the world. While energy companies were primarily targeted by these lawsuits,[34] climate litigation "is now being filed against a more diverse range of corporate actors than before".[35] Over the last two years, proceedings have been launched against companies acting in sectors such as transportation, food and agriculture, manufacturing, and finance. Among the most recent high-profile cases, one can mention the claim brought by a group of French NGOs, in February 2023, against the bank BNP Paribas for an alleged breach of the French duty of vigilance law[36] resulting from its financial support to fossil fuels projects.[37] Another example is the civil lawsuit that was lodged in Switzerland, the same month, by four inhabitants of a small Indonesian Island (Pari) against the Swiss-based cement producer Holcim for its alleged role in the climate crisis. In this case, the plaintiffs are seeking to obtain, among others, compensation for the damaged incurred by the effects of climate change.[38]

30. A noticeable trend in the field of corporate climate litigation is the diversification of the legal grounds on which the plaintiffs rely. For instance, NGOs

[31] In that regard, it should be noted that the European Commission has recently adopted a proposal for a first EU-wide framework to certify carbon removals. See: European Commission, *Proposal for a regulation of the European Parliament and of the Council establishing a Union certification framework for carbon removals*, COM(2022) 672 final, 2022.

[32] Sergio Pérez Correa, Julien Demenois, Matthieu Wemaëre, "Le régime des crédits carbone générés par les projets de boisement ou de reboisement dans le cadre du mécanisme pour un développement propre: un défi pour les juristes et les développeurs de projet", *Revue Juridique de l'Environnement*, vol. 36, n°3, 2011, pp. 345–364.

[33] Melina Thibault *et al.*, "Afforestation of abandoned agricultural lands for carbon sequestration: how does it compare with natural succession?", *Plant soil*, vol. 475, n°1–2, 2022, pp. 605–621.

[34] *Milieudefensie et al., v. Royal Dutch Shell plc.*, 2021 (Kingdom of the Netherlands); *Notre Affaire à tous et al., v. Total*, pending (France).

[35] Catherine Higham, Honor Kerry, "Taking companies to court over climate change: who is being targeted?", Grantham Research Institute on Climate Change and the Environment, 3 May 2022, www.lse.ac.uk/granthaminstitute/news/taking-companies-to-court-over-climate-change-who-is-being-targeted.

[36] Law No. 2017-399 concerning the duty of parent companies and contracting companies.

[37] *Notre Affaire à Tous et al., v. BNP Paribas*, pending (France).

[38] *Asmania et al., v. Holcim*, pending (Switzerland).

are now increasingly suing corporations when they deem that they mislead the consumers about the real climate impacts of their activities or the seriousness of their strategies to achieve carbon neutrality.[39] A prime example of this new wave of climate litigation is the lawsuit filed against KLM in the Kingdom of the Netherlands in June 2022, in which the plaintiffs claim that "KLM's *Fly Responsibly* campaign breaches the Dutch implementation of the EU's Unfair Commercial Practices Directive by giving customers the false impression that its flights won't worsen the climate emergency".[40] Another new avenue for the plaintiffs also consists in seeking company directors personally liable for the way in which they take climate change into consideration in their business decisions. In February 2023, the NGO ClientEarth launched a lawsuit against Shell's Board of Directors alleging that the members of the Board have breached their legal duties under the UK *Companies Act* by failing to adopt and implement an energy transition strategy that aligns with the Paris Agreement.[41]

31. While legal analysts expect this wave of corporate climate litigation to continue in the foreseeable future, this phenomenon shows how resourceful civil society can be in mobilizing non-climate specific private law tools (e.g., tort law, corporate law, business law, commercial law) to hold corporations accountable for their contribution to the climate problem. Yet, the fact that these cases rely on general (i.e., non-climate specific) legal grounds tends to create an unpredictable legal environment for the business sector. In these cases, domestic judges are asked to apply non-climate focused statuary provisions and legal concepts to climate-related issues, which often raises new questions. Thus, in the absence of common guidance on which to rely – doctrinal opinions apart[42] – judges are left with a wide margin of interpretation to decide the implications of these non-climate focused statuary provisions and legal concepts for the business sector in relation to climate change. Because corporate climate litigation is a worldwide phenomenon, this situation could result in major legal inconsistencies across jurisdictions. Coordinated legal initiatives at the global level aiming at integrating more explicitly climate considerations into corporate and business law could therefore send a clear signal to the business sector about what is excepted from them regarding climate change, contribute to reducing legal uncertainties and help levelling the playing field across jurisdictions.

D. Legal initiatives to foster the credibility of the private sector's climate commitments

32. Since the adoption of the Paris Agreement, a growing number of corporations have committed to reducing their carbon footprint and reaching carbon neutrality by, or around, 2030 or 2050. According to the organization Net Zero Tracker, out of the 2,000 largest publicly traded companies in the world by revenue, 909 have announced some form of net zero target.[43] However, despite their proliferation, the credibility of such commitments (i.e., their level of precision, the methodology on which they rely, their scope, whether they are backed by concrete implementation plans and follow-up mechanisms) is increasingly questioned. For instance, corporations rarely include scope 3 (i.e., indirect) emissions in their net zero pledges and their commitments are

[39] See section D below.

[40] ClientEarth, "Claim filed against KLM over greenwashing allegations", 6 July 2022, www.clientearth.org/latest/press-office/press/claim-filed-against-klm-over-greenwashing-allegations.

[41] *ClientEarth v. Shell's Board of Directors*, pending (United Kingdom).

[42] See for instance, the *Oslo principles on global climate obligations* (https://globaljustice.yale.edu/oslo-principles-global-climate-change-obligations) developed by a group of legal experts in 2014. While their authors contend that the principles express "the current obligations that all States and enterprises have to defend and protect the Earth's climate", the question of whether these principles set out in this document reflect the current state of the law is more debatable.

[43] Net Zero Tracker, https://zerotracker.net.

usually unclear as to how the announced targets will be achieved.[44] In addition, the credibility of the actions taken by the private sector to achieve their targets tends to be criticized, notably when those actions consist in purchasing offset credits. In January 2023, an investigation led by journalists found that the majority of the rainforest offset credits delivered by Verra (a leading carbon standard organization) – many of which had been bought by big corporations – did not represent genuine carbon reductions.[45]

33. As a result, the communication of corporations about climate change and what they do (or pledge to do) to address this issue is frequently qualified as "greenwashing" – or "climate-washing" – in the public discourse.[46] Yet, climate disinformation may hinder progress towards the achievement of the goals of the Paris Agreement by encouraging consumers and investors to rely on products and services that are not as climate-friendly as they think they are. In addition, it may create market distortions across several sectors of the economy. This situation has led to a surge in the number of claims seeking to hold private actors legally accountable for their actions or products that misleadingly claim to address climate change. At least 16 proceedings of this kind were launched in the United States between 2016 and 2021, and at least 26 others in the rest of the world. In addition, at least 27 complaints were filed before non-judicial oversight bodies against corporations relating to misleading advertising (e.g., United Kingdom of Great Britain and Northern Ireland, Australia, Italy, New Zealand, Denmark, the United States of America, Republic of Korea). This wave of greenwashing litigation involves a variety of sectors (e.g., aviation,[47] car manufacturers,[48] fossil fuels,[49] mining,[50] the food industry,[51] banking and finance,[52] sports[53]).

34. Against this backdrop, several jurisdictions have started to adjust their legislation to better prevent climate-washing. Recent updates in that regard include the entry into force of France's drastic limitation of carbon-neutral claims in advertising, as part of its recent climate and resilience law.[54] In particular, this law prohibits the use of the claim "carbon neutral" in advertising without this claim being substantiated and justified.[55] On 22 March 2023, the European Commission also

[44] Richard Black *et al.*, *Taking stock: a global assessment of net zero targets*, Energy and Climate Intelligence Unit and Oxford Net Zero, 2021, pp. 22–24.

[45] Patrick Greenfield, "Revealed: more than 90 per cent of rainforest carbon offsets by biggest provider are worthless, analysis shows", *The Guardian*, 18 January 2023, www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe. In the wake of this investigation, Verra announced in March 2023 that it will update its methodologies in the coming months.

[46] Although no unique definition of the expression exists, the term "greenwashing" is usually understood as referring to environmental claims that are trivial, misleading and that cannot be substantiated, as well as misleading communication, or disinformation, about the environmental practices of a company. See Agostino Vollero, *Greenwashing. Foundations and emerging research on corporate sustainability and deceptive communication*, Emerald, 2022, pp. 6–10.

[47] *FossielVrij NL v. KLM*, pending (Kingdom of the Netherlands); *Advertising Standards Authority Ruling on Ryanair Ltd t/a Ryanair Ltd.*, 2020 (United Kingdom).

[48] *Australian Competition and Consumer Commission v. Goodyear Tyres*, 2008 (Australia).

[49] *Greenpeace France and Others v. TotalEnergies SE and TotalEnergies Electricité et Gaz France*, pending (France); *Greenpeace Canada v. Shell Canada*, pending (Canada); *The City of New York v. Exxon Mobil Corp., ExxonMobil Oil Corporation, Royal Dutch Shell plc, Shell Oil Company, BP p.l.c., and BP America Inc., and the American Petroleum Institute*, 2021 (United States).

[50] *PCWP and others v. Glencore*, pending (Australia).

[51] *Vegetarian Society et al. of Denmark v. Danish Crown*, pending (Denmark).

[52] *Abrahams v. Commonwealth Bank of Australia*, 2021 (Australia).

[53] *KlimaAllianz v. FIFA*, pending (Switzerland); *New Weather Institute v. FIFA*, pending (United Kingdom); *Australian Competition and Consumer Commission v. V8 Supercars Australia Pty. Ltd*, 2008 (Australia).

[54] Article L. 229-68 of the French Environmental Code, created by Law 2021-1104 of 22 August 2021 on combating climate change and strengthening resilience to its effects.

[55] Decree 2022-539 of 13 April 2022 defines the terms and conditions for advertisers to communicate the carbon neutrality of their products or services. Starting 1 January 2023, advertisers must publish a summary report on their website or, failing that, on their mobile application, describing the carbon footprint of the product or service being advertised and the

published a proposal for a directive on substantiation and communication of explicit environmental claims, also referred to as the "Green Claims Directive".[56] The proposal highlights the need to protect consumers against false environmental claims, as well as the consumers' role in contributing actively to the green transition through informed decisions. Yet, while there exist a variety of laws and legal principles under competition or consumer protection laws that can be used to regulate false or misleading climate-related claims, most jurisdictions do not possess a regulatory framework setting forth specific obligations for companies.[57]

35. The risks associated with climate-washing are increasingly drawing attention at the global level. Because of the absence of "clear, transparent, and generally accepted sets of standards and criteria for the development, measurement, assessment, and accountability of non-State net zero pledges and their associated implementation",[58] the Secretary-General of the United Nations established on March 2022 a High-Level Expert Group to develop recommendations on: (1) standards for setting net zero targets by non-state actors; (2) criteria to assess the credibility of the stated objectives; (3) processes to verify progress towards the achievement of net zero commitments; and (4) a roadmap to translate these standards and criteria into international and national level regulations.[59] In its report unveiled in November 2022 at COP 27, the High-Level Expert Group identified a set of recommendations, one being that "regulators should develop regulation and standards in areas including net zero pledges, transition plans and disclosure, starting with high-impact corporate emitters, including private and state-owned enterprises and financial institutions."[60] In the wake of this initiative, other global standard setters, such as the International Organisation of Securities Commissions (IOSCO), have also considered climate-washing as a priory area of regulation.[61]

E. Regulatory fragmentation risk

36. To further align business activities with the goals of the Paris Agreement, it is now relatively undisputed that global standards in various areas of private law (e.g., corporate law, business law, commercial law) need to be established. A key issue however is that different initiatives aiming at setting such standards, led by different actors (e.g., Task Force on Climate-Related Financial Disclosure; International Sustainability Standards Board, IOSCO, Basel Committee on Banking Supervision[62]), are already under way. In addition, some domestic regulators have recently shown an interest in setting their own standards, which could have a tremendous influence worldwide, but also lead to inconsistent outcomes. This is notably the case with the Securities and Exchange Commission which proposed in March 2022 rules to enhance standardized climate-related disclosure for investors. This situation creates a regulatory fragmentation risk that stakeholders have started to acknowledge. The

process by which the emissions generated by this product or service will be prevented, then reduced, and ultimately offset.

[56] European Commission, *Proposal for a Directive of the European Parliament and of the Council on substantiation and communication of explicit environmental claims*, COM/2023/166 final, 2023.

[57] See for instance *Canada's Consumer Packaging and Labelling Act,* R.S.C., 1985, c. C-38, which prohibits false or misleading representation relating to pre-packaged products but does not explicitly refer to environmental or climate change claims.

[58] United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, *Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions*, 2022, p. 38, www.un.org/sites/un2.un.org/files/high-levelexpertgroupupdate7.pdf.

[59] Ibid.

[60] Ibid., p. 33.

[61] IOSCO, "IOSCO outlines regulatory priorities for sustainability disclosures, mitigating greenwashing and promoting integrity in carbon markets", 9 November 2022, www.iosco.org/news/pdf/IOSCONEWS669.pdf.

[62] Scott Atkins, "Climate greenwashing liability. Key risks for board in the transition to net zero", Norton Rose Fullbright, 6 November 2022, www.nortonrosefulbright.com/en/knowledge/publications/c8a01926/climate-greenwashing-liability.

International Monetary Fund and the European Central Bank recently expressed concern about this issue,[63] and in its 2022 report the High-Level Expert Group recommended that the "challenge of fragmented regulatory regimes should be tackled by launching a new Task Force on net zero Regulation that convenes a community of international regulators and experts to work together towards net zero".[64]

37. While climate-related information disclosure and climate-washing are topics that are being widely discussed, other relevant issues seem to have received less attention from global standard setters so far. For instance, it has not been possible to identify initiatives aiming at clarifying the implications of the fiduciary duties of corporate directors and officers in the context of climate change, or the conditions under which the behavior of an enterprise in relation to climate change could be considered as a civil fault (although this last point may have close links with the issues of climate-related information disclosure and climate-washing). In the field of carbon markets, a need remains for global standards designed to ensure that carbon credits correspond to genuine GHG reductions or absorptions.[65] This is notably the case in the VCM which is "fragmented" and "suffers from differing accounting methodologies and standards".[66]

38. Another strategy that could be pursued to foster the credibility of the private sector's climate commitments is the development of specific legal tools that could be used by corporations. In that regard, an author has proposed the "contractual carbon fee" as a "novel governance instrument to guide non-state climate mitigation efforts".[67] A contractual carbon fee would be a fee that a corporation commits to pay to another private actor (e.g., a charity, an environmental NGO, a governmental agency, a climate fund) by virtue of a contract for its GHG emissions, or the GHG emitted above a certain threshold. The contract would give the other party legal standing to enforce the corporation's commitment in case of a breach. The technical details of the fee to be paid (e.g., scope of the emissions covered by the fee, period to consider, amount of the fee) could be aligned with the climate commitment of the corporation. Concluding carbon fees contracts could represent an additional means for corporations to signal their seriousness about achieving their climate pledges. While the use of contractual carbon fees does not appear to be common practice at the moment, the development of a standardized contract in that area could draw attention on this tool and contribute to promote its diffusion.

[63] Huw Jones, "ECB, IMF call on climate standards setters to align company disclosures", *Reuters*, 8 August 2022, www.reuters.com/business/sustainable-business/ecb-imf-call-climate-standard-setters-align-company-disclosures-2022-08-08/.

[64] United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, *Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions*, supra note 26, p. 33.

[65] See section D above.

[66] John B. Quinn *et al.*, "Carbon offsets: a coming wave of litigation?", Quinn Emanuel, 7 September 2022, www.quinnemanuel.com/the-firm/publications/client-alert-carbon-offsets-a-coming-wave-of-litigation/#:~:text=Companies%20who%20mislead%20consumers%20by,exaggerated%20claims%20of%20eco%2D%20friendliness.

[67] Steve Lorteau, "Contractual carbon fees: a proposal", *McGill Journal of Sustainable Development Law*, vol. 15, n°2, 2020, pp. 176–201.

Annex

UNCITRAL Colloquium on Climate Change and the Law of International Trade

Vienna, 12–13 July 2023

Vienna International Centre

BACKGROUND

The UNCITRAL Colloquium on Climate Change and the Law of International Trade will be held in Boardroom D of the Vienna International Centre, on 12–13 July 2023, as part of the fifty-sixth session of the United Nations Commission on International Trade Law (UNCITRAL). The web page of the colloquium may be found at https://uncitral.un.org/en/climatechangecolloquium

The Colloquium is organized by the UNCITRAL secretariat, in cooperation with other relevant international organizations, pursuant to the request of the Commission at its fifty-fifth session in 2022 (A/77/17, para. 216). At that session, the Commission agreed on the importance of the topic and on the usefulness of exploring how UNCITRAL could offer its own contribution to the international community's efforts to combat climate change and mitigate its effects by updating existing private law instruments and developing new enabling legal mechanisms, if necessary. It was observed that global efforts to combat climate change were an integral part of the agenda of the United Nations and that, as a subsidiary body of the General Assembly, UNCITRAL was well placed to undertake work on those aspects of climate change falling within its mandate, and it would indeed be expected that UNCITRAL would provide its own contribution to support the efforts of other United Nations bodies and Secretariat units in that respect (A/77/17, para. 212).

For that purpose, the Commission requested the Secretariat to organize a colloquium on the various legal issues surrounding climate change mitigation, adaptation and resilience, in conjunction with relevant and interested international organizations, the results of which would facilitate its consideration at a future session.

The Colloquium will consider areas in which international trade law can effectively support the achievement of climate action goals set by the international community, the scope and value of legal harmonization in those areas and the need for international guidance for legislators, policymakers, courts and dispute resolution bodies. It should consider in particular: (a) the contribution that UNCITRAL could make in the light of its mandate to promote the harmonization and modernization of the law of international trade in the form of possible future work and (b) how existing UNCITRAL instruments in areas such as contract law, electronic commerce, public procurement, public-private partnerships and dispute resolution can be applied to support climate action.

Participants at the Colloquium are invited to contribute to the discussion of those issues. The main conclusions of the Colloquium will be presented to the Commission for consideration during the third week of its fifty-sixth session.

Programme
Wednesday, 12 July 2023

9:00	**Registration of participants**
9:30	**Welcome address by the Chairperson of UNCITRAL**
9:35	***1. The role of market mechanisms under the international framework on climate change*** *This session will provide a general overview of the international framework for climate action under the Kyoto protocol and the Paris Agreement, with a focus on the role envisaged for the private sector, in particular through market mechanisms for emission reduction and the promotion of clean investment.* ***Keynote speech:*** *Ms. Annette L. Nazareth, Integrity Council for the Voluntary Carbon Market (ICVCM)* ***Speakers:*** *United Nations Framework Convention on Climate Change (UNFCCC)* *United Nations Environnent Programme (UNEP)* *Mr. Thomas Clark, General Counsel, Asian Development Bank (ADB)*
	Open discussion
11:00	**Coffee break**
11:15	***2. Financial instruments to support emission reduction and carbon trading: regulatory aspects and legal underpinnings*** *This session will discuss market structures and financial instruments for green investment, focusing on regulatory and legal aspects to ensure interoperability, promote integrity and enhance legal certainty for ETS schemes.* ***Moderator:*** *[tbc]* ***Speakers:*** *Ms. Bénédicte Nolens, Head of the Hong Kong Innovation Hub, Bank for International Settlements (BIS)* *Mr. Dirk Forrister, CEO, International Emissions Trading Association (IETA)* *Mr. Peter Werner, Senior Counsel, International Swaps & Derivatives Association (ISDA)* *Ms. Flavia Rosembuj, Global Lead for Blended Finance, Climate Business Global Lead for Trust Funds, International Finance Corporate (IFC)*
	Open discussion
12:30	**Lunch**
14:00	***3. Green Investment Certification and Compliance*** *This session will discuss certification and compliance methods for promoting confidence in green investment and preventing "greenwashing".* ***Moderator****: [tbc]* ***Speakers****:* *Ms. Kris Nathanail-Brighton, Senior Policy Advisor for Special Projects, International Organization of Securities Commissions (IOSCO)* *Ms. Joanne Brinkman (tbc), General Counsel a.i, Green Climate Fund (GCF)* *Mr. Mauricio Moura Costa, BVRio, (Brazil)* *Ms. Ipshita Chaturvedi, Partner, Dentons Rodyk*

	Open discussion
16:00	**Coffee break**
16:15	***4. Green bonds and carbon credits as financial instruments: legal nature, trading and holding patterns*** *The session will discuss business models for issuance, intermediation and custodianship of green investment instruments, focusing on the legal nature of such instruments, their use as collateral and the rights of holders.* ***Moderator**: Mr. José Angelo Estrella-Faria, Principal Legal Officer, UNCITRAL Secretariat* ***Speakers**:* *Mr. Géraud de Lassus St-Geniès, Professor of Law, Laval University in Québec (Canada)* *Mr. Tianbao Qin, Professor of Law, Wuhan University (China)* *[tbc], Inter-American Development Bank (IADB)*
	Open discussion
17:00	**Closing of Day 1**

Programme
Thursday, 13 July 2023

9:30	**Welcome address by the Secretary of UNCITRAL**
9:35	***1. Corporate social responsibility, due diligence and disclosure of climate impact*** *This session will focus on the international, regional and state's efforts to call upon private sector support towards achieving climate goals by advocating and advancing climate-responsible corporate conduct. The discussion will touch upon, among others, existing international instruments and regional and domestic legislations aimed at increasing transparency and accountability for climate impact of business models and investment strategies through due diligence and information disclosure.* ***Moderator**: [tbc]* ***Speakers**:* *Mr. Juan Gómez-Riesco, Legal Officer - Corporate Governance [tbc], Directorate-General for Justice and Consumers (JUST), European Commission* *[tbc], Organisation for Economic Co-operation and Development (OECD)* *Ms. Meng Su, Partner, King & Wood Mallesons,* *Ms. Raelene Martin (tbc), Head of Sustainability, ICC Global Environment and Energy Commission*
	Open discussion
11:00	**Coffee break**
11:15	***2. Greening the Supply Chain: Contractual and Liability Enforcement Mechanisms*** *This session will discuss the various adaptation strategies and approaches available to private sector operators to promote sustainability in their supply chains, especially through incorporating corresponding contractual and liability enforcement mechanisms into existing commercial practices.* ***Moderator:** [tbc]* ***Speakers:*** *Ms. Vesselina Haralampieva, Senior Counsel, European Bank for Reconstruction and Development (EBRD)* *Ms. Yeşim M. Atamer, Professor of Law, University of Zurich* *Mr. Christian Richter-Schöller, Co-head of Sustainability Group, DORDA, Vienna* *Ms. Ipshita Chaturvedi, Partner Dentons Rodyk*
	Open discussion
12:30	**Lunch**
14:00	***3. Climate Change Dispute Resolution*** *The aim of the session is to explore and evaluate the current trends in climate change disputes and their legal implication for corporates to fulfil the duty of care and foster the incorporation of climate considerations into business and investment decision.* ***Moderator**: Ms. Anna Joubin-Bret, Secretary of UNCITRAL* ***Speakers**:* *Ms. Wendy Miles KC, London, Founder, Net Zero Lawyers Alliance* *Ms. Annette Magnusson, Stockholm, Co-Founder, Climate Change Counsel* *Ms. Aisha Abdallah, Partner, Head of Litigation and Disputes, Anjarwalla & Khanna,* *Ms. Tomoko Ishikawa, Vice Dean, Graduate School of International Development Nagoya University (Japan)*
	Open discussion

16:00	**Coffee break**
16:15	***4. Ambassadorial roundtable: Possible work by UNCITRAL on climate change and private law*** *The aim of the session is to assess on the basis of the preceding sessions, feasibility and desirability of work by UNCITRAL on climate change and private law and, if work were to be undertaken, its possible form and scope.* ***Moderator**: Chairperson, UNCITRAL 56th session*
	Open discussion
17:00	**Closing of the Colloquium**

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Work Programme

Possible future work on climate change mitigation, adaptation and resilience

Note by the Secretariat

Contents

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I. Introduction

1. This document reproduces comments received from international governmental and non-governmental organizations on the proposals for a possible contribution by UNCITRAL to the efforts of the international community to combat climate change and mitigate its effects and, in particular, to the findings and recommendations of the study on private law aspects of climate change that the secretariat had commissioned from an outside expert, professor Géraud de Lassus St-Geniès, of Laval University in Québec (Canada) and that were summarized in a note by the Secretariat on the desirability and feasibility of undertaking work in this area (A/CN.9/1120 and A/CN.9/1120/Add.1). The Commission considered that note at its fifty-fifth session (New York, 27 June–15 July 2022).

2. The comments are reproduced in the order in which they were received. For purposes of consistency and to facilitate their consideration by the Commission, the comments have been slightly edited and reformatted.

II. International governmental organizations

Secretariat of the United Nations Framework Convention on Climate Change

[Original: English]
[20 April 2023]

Private law can play a significant role in the fight against climate change and help create a more favourable environment for climate-friendly investment by providing more clarity, uniformity, and predictability in the area of carbon trading.

The development of international guidance on the private law treatment of carbon credits could represent a useful contribution to improve the operation of the Paris Agreement. Its article 6 establishes three cooperative approaches that have the potential to significantly contribute to the goals of the Paris Agreement. In particular, article 6.4 of the Agreement establishes an international mechanism which will issue emission credits against mitigation outcomes that meet internationally defined quality standards. The mechanism is governed by an international supervisory body under the guidance of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). The effectiveness of the A6.4 mechanism would benefit from guidance and increased clarity on the national implementation of the mechanism and on the legal status of the standards defined at international level and not subject to a national regulator.

Given the wide spectrum of countries that may benefit from this work, the UNFCCC secretariat welcomes the willingness of an organization of the United Nations system with universal membership to carry out work in this area. I appreciate your invitation to contribute to the work UNCITRAL is proposing on private law aspects of carbon markets and to participate to the colloquium it is organizing on 13–14 July 2023 in Vienna. I am pleased to confirm that a representative from the UNFCCC secretariat will participate to the colloquium and that the secretariat is interested in contributing to the proposed work within its available resources.

III. International non-governmental organizations

A. Net Zero Lawyers Alliance (NZLA)

[Original: English]
[2 May 2023]

1. The Secretariat of the Net Zero Lawyers Alliance (NZLA), a UNFCCC Race to Zero Accelerator coalition of over 100,000 international commercial lawyers, offers its additional observations to supplement the Note.

2. The Study findings and recommendations focus predominantly on carbon offset and trading and carbon capture, and to a lesser extent, corporate compliance laws implementing the Task Force on Finance Related Climate Disclosure (TCFD). The NZLA encourages any UNCITRAL work programme to focus on the best way to utilise private law instruments to promote, facilitate and accelerate global investment into (and align global finance flows) new low-carbon energy, infrastructure, land use and industrial systems and away from incumbent high emitting activities and systems.

3. First, regarding investment in transition, OECD, GFANZ and others have indicated that $7 trillion (per annum) of new investment is required globally to transition energy, infrastructure, land use and industrial systems to net zero GHG emissions by 2050, with a 45 per cent reduction by 2030 (62 per cent in energy systems). New investment is required at every stage in the energy cycle and supply chain, including raw materials, as well as improving efficient use of electricity. A Just Transition is the reduction of greenhouse gas emissions in a manner that enables States to adapt to meet workers' needs.

4. Transition of global energy, infrastructure, land use and industrial systems – and alignment of global finance flows with the Paris Agreement goals – engages global investment and trade activity, policy and associated laws at different levels:

(a) 197 States parties have committed to transition pursuant to the United Nations Framework Convention on Climate Change and the Paris Agreement, guided by the Paris Rulebook and Glasgow Pact (administered by the UNFCCC);

(b) State parties implement bottom-up commitments through nationally determined contributions implemented by domestic policy, legislation and regulation and jurisprudence;

(c) Private law, supported by international trade and investment law conventions, including the CISG, New York Convention, various model laws and contracts and international dispute resolution mechanisms, provides a legal framework for mobilizing cross-border investment (administered by UNCITRAL).

5. UNCITRAL instruments and guidance assist States in facilitating development and attracting foreign direct investment. In order to align inbound and outbound foreign direct investment with the Paris Agreement, it is appropriate to conduct a stocktake of existing instruments. UNCITRAL instruments and guidance should maximize the opportunity to facilitate and accelerate transition through the application of private law in international investment and trade.

6. To that end, the Note deals briefly with Public Procurement (#B.20 to #B.22) and Public Private Partnerships (#B.23 to #B.27). Both could and should be expanded to ensure that the Work Programme fully explores how private law might facilitate investment in the transition to net zero. Public procurement guidance could incorporate best practices on accounting for carbon in supply chains as well as apportioning contractual risk and responsibility for embedded carbon in new infrastructure projects.

7. Secondly, the Note raises international commercial arbitration (#B.17 to #B.19), although citing primarily to investor-State treaty arbitration. International commercial arbitration frequently involves States parties or State-owned or regulated resources,

property and infrastructure. This “mixed” international commercial arbitration warrants careful consideration, insofar as it impacts States parties’ commitments under the Paris Agreement.

8. Enforcement of investment agreements in transition in energy, infrastructure, land use or industrial systems needs to comply with applicable laws, including but not limited to the mandatory law of the place of performance and place of registration of the investor (as well as the law of the contract and arbitration agreement). Increasingly, these laws incorporate climate change-related obligations; new climate change-related legislation, regulation, and jurisprudence are steadily increasing.

9. However, the current scope for review of awards by domestic courts for failure to apply the law is extremely narrow and limited. This is a symptom of a strong, pro-enforcement approach toward arbitral awards encouraged by UNCITRAL. This insulation is critical for facilitating investment and certainty. However, there is potential for conflicting public international law norms and arbitration must not become a vehicle through which investors are able to circumvent climate laws.

10. Thirdly, investor-State dispute settlement reform (as opposed to international commercial arbitration) is an area that could be included in the Work Programme. The recent work on the Energy Charter Treaty Modernisation demonstrates the level of concern surrounding the protection of investment in high carbon-emitting activity that State governments are increasingly phasing out as they implement their Paris Agreement commitments.

11. Arguably, that process did not fully explore the opportunity for utilizing investment promotion, protection and facilitation to scale up the necessary investment in low-carbon energy infrastructure and the commensurate and equally necessary investment in phasing down incumbent energy infrastructure. This leaves a gap for UNCITRAL to take the work further. Ultimately, ISDS may be able to play a key role in dealing with this in a measured and objective manner, properly reflecting the confluence of public and private international law and the resolution of conflicting public international law norms.

12. Fourthly, in addition to existing work and core instruments within Working Groups I, II and III, the Work Programme could also consider additional developments in types of investment activity that are critical to the transition to net zero. New areas could consider the role of private law in:

(a) Aligning finance flows using blended public and private finance models;

(b) Establishing/implementing carbon accounting standards across project infrastructure;

(c) Regulating critical mineral and metal allocation, extraction and processing;

(d) Accelerating climate change-related technology sharing through model licensing agreements providing for classification of “climate essential” technology, the establishment of a pricing formula (e.g. fair, reasonable and non-discriminatory), and appropriately tailored dispute resolution mechanisms that provide expertise and efficiency;

(e) Examining investment ownership structures that permit appropriate representation of local communities and indigenous peoples in governance decisions; and/or

(f) Considering insolvency laws and the impact of climate change-related liability in transnational insolvency proceedings (Working Group V).

13. Fifthly, the Note (#A.10 to #A.34) focuses primarily on carbon trading (Working Group II and Working Group IV). The NZLA agrees that there is an important role for private law in regulating contracts, rules and guidance through the life cycle of generating, accrediting, trading and retiring carbon units (as it presented to UNCITRAL in 2021). Carbon offsetting is indeed an important element in transition.

14. However, the transition to meet the Paris Agreement goal of climate change mitigation first and foremost requires GHG reduction. Successful transition requires investment in two aspects of GHG reduction: (i) scaling up low GHG-emitting energy, infrastructure, and use and industrial systems; and (ii) phasing down (and ultimately out) existing high GHG-emitting systems. Offsetting and capturing GHG removal are secondary (and temporary) where reduction is not yet achievable.

15. Carbon trading falls within various existing instruments and mechanisms:

(a) Article 6 of the Paris Agreement adopts certain accounting standards for States parties to offset their own GHG emissions to meet their nationally determined contributions (NDCs), permitting State-to-State trading and some further trading by States to non-States parties;

(b) National laws may implement carbon pricing mechanisms in the form of domestic taxes, direct or indirect subsidies or incentives (including carbon border adjustment mechanisms (CBAM)), and emissions trading schemes (ETS). ETS may permit offsetting and trading of offsets;

(c) Private law (contracts and voluntary rules and protocols) establish and govern voluntary carbon markets, which operate by private party consensus, largely independent of Article 6 and domestic carbon pricing mechanisms (tax and ETS). To date, the voluntary carbon markets remain unregulated and subject entirely to private enforcement through contracts and choice of arbitration or court proceedings.

16. The voluntary carbon market has raised integrity concerns regarding both project accreditation and claims by users to meet voluntary GHG emission reduction commitments. The Integrity Council for Voluntary Carbon Markets (ICVCM), formerly TSVCM, referred to in the Note (#A.13), recently published Core Carbon Principles to regulate accreditation (https://icvcm.org/). The Voluntary Carbon Markets Initiative (VCMI) has issued claims standards and guidance to regulate claims by users (https://vcmintegrity.org/). Neither have tackled standardization of end-to-end, carbon unit cycle contractual terms, governing law/s and/or dispute resolution. These are aspects that UNCITRAL is extremely well-positioned to consider, as suggested in the Note (#A.22) by reference to the “bundle of private contractual rights”.

17. Sixthly, other than the possible application of governing domestic law in enforcement of private law rights and obligations (primarily under investment agreements), the NZLA does not currently consider national carbon reporting, target setting and compliance regimes pursuant to TCFD or similar to be an obvious workstream for UNCITRAL. It is already the subject of considerable workstreams, initiatives and allocation of resources through other forums, including the UNFCCC Race to Zero platform, a new ISSB standards authority and the UNSG.

18. In conclusion, an UNCITRAL Work Programme on climate change mitigation (transition of energy, infrastructure, land use and industrial systems to net zero), adaptation and resilience is critical and increasingly urgent. UNCITRAL has a clear role in facilitating private investment and trade in accordance with uniform and consistent private laws and legal instruments.

19. In the light of this supplemental Note, the Commission may also wish to consider:

(a) Whether it is a viable option for it not to undertake, at minimum, a thorough and comprehensive stocktake of all existing UNCITRAL instruments impacting or potentially impacting international trade and investment in energy, infrastructure, land use and industrial systems that are required to transition to net zero emissions;

(b) The scope of work relating to existing instruments and activities (e.g. carbon emission reduction investment activity and aligning existing UNCITRAL instruments to promote and facilitate that critical path);

(c) The scope of additional work relating to potential new instruments or activities (including but not limited to new guidance) and a process for reporting recommendations for prioritizing further work; and

(d) The timetable for the comprehensive stocktake, report and recommendations in respect of existing and new activities and instruments.

20. The NZLA Secretariat and members have conducted considered research and analysis into the role of international economic law, particularly regarding the confluence of public and private international law in the global transition to net zero. The NZLA remains at the service of the Commission and secretariat and encourages its serious consideration of this critical new potential work programme.

B. International and Comparative Law Research Center

[Original: Russian]
[2 May 2022]

1. Since 2020, UNCITRAL has been examining the private-law aspects of the impact of climate change on the investment and business activities of companies from two perspectives:

(a) How existing UNCITRAL texts could be aligned with climate change mitigation, adaptation and resilience goals;

(b) Whether further work could be done by UNCITRAL to facilitate those goals in the implementation of its existing texts or in the development of new texts.

2. Among the issues identified in documents A/CN.9/1120 and A/CN.9/1120/Add.1 of the UNCITRAL secretariat that could be considered are the definition of the legal nature of carbon assets and the development of uniform/unified rules for the effective operation of carbon markets, including their operation across borders, with a view to achieving the objectives of the Paris Agreement.

3. The present note has been prepared to supplement the aforementioned documents of the UNCITRAL secretariat and is devoted to analysis of the legal regulation of the legal nature of carbon assets and emerging carbon markets in countries members of the Eurasian Economic Union (taking as examples the Russian Federation, the Republic of Belarus and the Republic of Kazakhstan) in the context of global approaches, and to matters concerning the harmonization of such regulation within the framework of the Union.

4. The comments contained in this document reflect the expert opinion of the International and Comparative Law Research Center as an UNCITRAL observer and may be used in further work by the UNCITRAL secretariat on the harmonization of international approaches to trade in carbon assets.

Terminology

5. A single harmonized set of terms for universal use in relation to any carbon assets (any type of tradable equivalent of the reduction (or prevention) and/or increased removal of greenhouse gases, expressed as an amount of greenhouse gases equivalent to 1 ton of CO_2), has not yet been developed.

6. In the English-speaking world, the term “carbon credits” is usually used to refer to carbon assets (which arise and are traded both in so-called “regulated” markets and in so-called “voluntary” markets).

7. No standardized translation of that term in the Russian language has yet been established. The term is frequently translated as “carbon credits” and “carbon assets”, among other variant translations. Sometimes, the term “carbon credits” is translated into Russian as “carbon quotas” (this translation can be found in some Russian-language UNCITRAL documents).

8. However, it is inappropriate to translate the term “carbon credits” as “carbon quotas” and to use that translation as a blanket term that encompasses the entire range of carbon assets, since (a) the term “credits” in the context in question cannot be translated into Russian as “quota”; and (b) this causes needless confusion of the term and its meaning with the term – established under Russian law – “greenhouse gas emissions quota” (“quota”) and its meaning (the administratively established meaning of a cap on greenhouse gas emissions, not something that can be traded).

9. In that regard, for the purposes of this note, the term “carbon assets” is used to refer to both (a) carbon assets that arise and are traded in so-called “regulated” markets (usually referred to as “emission allowances” in the context of international regulation and in the literature, while the most accurate equivalent of that term in Russian would appear to be “emission permits”), and (b) carbon assets that arise and are traded in so-called “voluntary” markets (in the context of international regulation and in the English-language literature those assets are usually defined as “offset credits” or “offsets”). The most accurate equivalent of that term in Russian would appear to be “carbon offsets” (rather than the term “компенсационные квоты” (lit. “compensatory quotas”), which can be found in Russian-language UNCITRAL documents).

10. It should be taken into account that the terms “emission permits” and “carbon offsets” are generic and, depending on the national legislation concerned, the name of a particular carbon asset that in effect is an emission permit or a carbon offset may be different.

Russian Federation

11. In the Russian Federation, article 2, paragraph 9, of Federal Act No. 296 of 2 July 2021 on limiting greenhouse gas emissions introduces the term “carbon unit”. A carbon unit is defined as the verified outcome of implementation of a climate project, expressed as an amount of greenhouse gases equivalent to 1 ton of carbon dioxide. The Act lays the foundations for a legal environment for regulating the reduction (prevention) of emissions of greenhouse gases (including CO_2 and a number of other gases), a list of which has been defined by Russian legislation, and for increasing their removal.

12. Furthermore, in September 2022 in the Russian Federation, a pilot project was launched in participating constituent entities of the Russian Federation to determine whether greenhouse gas emissions could be reduced through the use of quota mechanisms. A significant role in the project has been assigned to business entities that meet certain criteria and whose activities generate greenhouse gas emissions at a specified level. Those entities are referred to by the term “regional regulated organizations”.

13. The pilot project is being implemented within the framework of Federal Act No. 34 of 6 March 2022 on the implementation of a pilot project to limit greenhouse gas emissions in certain constituent entities of the Russian Federation. That Act expands on the regulation of carbon assets.

14. Article 2, paragraph 1, of Federal Act No. 34 introduces the term “greenhouse gas emissions quota” (or “quota”). “Quota” means the level of allowable greenhouse gas emissions that characterizes the amount of those emissions and is established for a regional regulated organization in accordance with Federal Act No. 34 in order to achieve carbon neutrality in the territory of the constituent entity of the Russian Federation that is participating in the pilot project.

15. Federal Act No. 34 provides that one of the ways to fulfil the quota established for a regional regulated organization is to offset the so-called “quota fulfilment units” belonging to that regional regulated organization. “Quota fulfilment unit” means the verified outcome of fulfilment of an assigned quota, expressed as the difference between the assigned quota and the actual amount of greenhouse gas emissions, equivalent to 1 ton of carbon dioxide.

16. The pilot project is an exercise to test a cap-and-trade scheme aimed at reducing greenhouse gas emissions. Under this scheme, the quota administratively assigned according to a specified procedure to each regional regulated organization may be fulfilled both through direct measures leading to the reduction (prevention) of greenhouse gas emissions or to an increase in their removal, and through the offsetting of the carbon units and quota fulfilment units held by the regional regulated organization.

Republic of Kazakhstan

17. The regulation of carbon assets in the Republic of Kazakhstan has its own special characteristics. Article 299, paragraph 1, of the Environmental Code of the Republic of Kazakhstan establishes the term "carbon unit". This term refers generically to the following two types of carbon assets: "carbon quota units" and "carbon offset" (each representing the equivalent of 1 ton of carbon dioxide).

18. Unlike in the Russian Federation, where quotas apply directly to a person (a regional regulated organization), quotas in the Republic of Kazakhstan apply to a facility that meets certain criteria. "Facility" means a stationary source of greenhouse gas emissions or several stationary sources of greenhouse gas emissions connected by a single technological process and located at a single industrial site.

19. The regulatory authority of the Republic of Kazakhstan has also established the term "carbon quota", which means the quantitative volume of quota-based greenhouse gas emissions established for a facility subject to quotas for the period of validity of the National Plan of Carbon Quotas and credited to the appropriate account of the operator of the facility in question in the State registry of carbon units.

20. A "carbon quota unit", in turn, is defined as a carbon unit used to calculate the volume of the carbon quota.

21. Under the legislation of the Republic of Kazakhstan, "carbon offset" means the reduction of greenhouse gas emissions and (or) an increase in greenhouse gas removals achieved as a result of activities carried out in any economic sector in the Republic of Kazakhstan with the aim of reducing greenhouse gas emissions and (or) increasing greenhouse gas removals.

22. Thus, the legislation of the Republic of Kazakhstan establishes the generic term "carbon unit", which includes all types of carbon assets (carbon quota unit and carbon offset). In contrast, in the Russian Federation there is no legally defined term that would cover all existing types of carbon assets (including carbon units and quota fulfilment units).

Republic of Belarus

23. In the legislation of the Republic of Belarus there is no specific law that systematically regulates matters related to carbon assets. However, there are regulatory instruments having the force of law that concern a particular type of carbon assets. Carbon units are defined in paragraph 2 of Decision No. 4 of 22 January 2007 of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus approving a directive on the procedure for establishing and maintaining a national registry of carbon units of the Republic of Belarus. According to that definition, the term covers removal units, emission reduction units, assigned amount units and certified emission reduction units as established by the decisions of the seventh session of the Conference of the Parties to the United Nations Framework Convention on Climate Change.

24. Those terms are explained by reference to the Kyoto Protocol to the United Nations Framework Convention on Climate Change. Thus, the relevant regulations concern only those issues related to the implementation by the Republic of Belarus of the Kyoto Protocol and its mechanisms.

The legal nature of carbon assets

25. As illustrated by international experience and by analysis of UNCITRAL documents A/CN.9/1120 and A/CN.9/1120/Add.1, the legal nature (and in general the legal classification) of carbon assets varies from one State to another (for example, even at the level of individual member States of the European Union). The legal nature and legal classification of carbon assets within the respective State are thus determined chiefly by national legislation.

26. Taking into account existing regulations in individual countries, the following may be regarded as objective universal characteristics of carbon assets (both carbon units and quota fulfilment units):

(a) Their intangible nature (carbon assets as separate physical objects do not exist);

(b) The possibility of the circulation of carbon assets (including in the form of their transfer by the owner to a third party (in compliance with the procedures established for such a transfer, including, inter alia, the carrying out of the relevant transactions in a special registry));

(c) The point in time at which a carbon asset arises (is put into circulation) is the point at which it is credited, in accordance with the established procedure, to the account of the entity in question in a special registry (for example, in the Russian Federation, such a point in time would be, in the case of a quota fulfilment unit, the point at which it is credited to the account of the regional regulatory organization concerned in the registry of carbon units, and, in the case of a carbon unit, the point in time at which it is credited to the account of the entity implementing the climate project in question in the registry of carbon units).

27. National regulators take divergent approaches to determining the legal nature of carbon assets. For example, some States view such assets as being subject to regulation under civil law, while others consider them to be subject to regulation under administrative law. In some jurisdictions, this issue is not directly regulated at all, and there is no established practice as yet.

Legal classification of carbon assets in Eurasian Economic Union countries

28. There is, as yet, no unified approach to determining the legal nature and legal classification of carbon assets in the member States of the Eurasian Economic Union. These issues (and other issues pertaining to the circulation of carbon assets) are addressed in the national legislation of each individual State.

29. The development by UNCITRAL of a consolidated approach to defining the legal nature of carbon assets and unified rules for their circulation will facilitate the effective cross-border exchange of such assets both within the Eurasian Economic Union and in international trade between the States members of the Union and other States and will contribute to the compliance of the national structure of carbon markets with the Paris Agreement.

Russian Federation

30. In Russian legislation, the legal nature of carbon assets (both carbon units and quota fulfilment units) is not explicitly defined. This has led to debate among experts and other actors involved in the circulation of carbon assets.

31. Moreover, in order for carbon assets to be classified as objects of civil-law rights in the Russian Federation, it is not sufficient to classify them as “commodities” (as has been done in some countries of the Eurasian Economic Union). The civil legislation of the Russian Federation defines specific types of objects of civil-law rights. A list of such objects is set out in article 128 of the Civil Code of the Russian Federation; that list does not refer to “commodities” as a separate type of objects of civil-law rights.

32. Nevertheless, Federal Act No. 296 and Federal Act No. 34, as well as regulatory instruments having the force of law that have been adopted in accordance with those Acts, use civil-law terminology in relation to carbon assets (for example, they use “owner” and “ownership” in reference to carbon assets and rights to such assets).

33. In addition, Russian legislation allows the transfer of carbon assets (both direct transfer and transfer through organized trading) by their owner to another person, such transfers being carried out at the sole discretion of the owner of the carbon assets. In such cases, the standard contract with the operator of the carbon unit registry refers explicitly to the civil-law nature of transactions involving carbon assets (by defining them as a “contract or other transaction in accordance with the Civil Code of the Russian Federation, concluded for the purpose of transferring carbon units and (or) quota fulfilment units”).

34. It is important to highlight that the explanatory note accompanying the draft text of Federal Act No. 296 reflects the fact that the authors of the bill regarded carbon units as objects of civil-law rights – a new category of property rights. The explanatory note itself is not a binding document and does not create any regulatory norms, but it may be used (including by legal practitioners) for their interpretation.

35. Thus, carbon assets in the Russian Federation are a tradable object of civil-law rights. The category of objects of civil-law rights to which regulators assign carbon assets will become clear as practice evolves.

36. In economic terms, carbon assets in the Russian Federation may also be considered as a commodity (that is, as a tradable item). Within the framework of amendments contributing to the development of the carbon market, prepared by the Ministry of Economic Development of Russia, it is proposed that transactions involving carbon units and quota fulfilment units be exempted from VAT.

37. Furthermore, carbon units are already traded on the National Commodity Exchange, although the carbon unit is not formally considered a commodity in the sense of article 2, para. 1 (9), of Federal Act No. 325 of 21 November 2011 on organized trading.

38. In addition, a strategic document of the Central Bank of the Russian Federation states that carbon assets are an important element in the development of the financial market. However, that statement has not yet been elaborated on (including from the perspective of the legal classification of carbon assets).

Republic of Belarus

39. The legislation of the Republic of Belarus directly regulates only the implementation on the territory of that State of projects within the framework of the Kyoto Protocol. No steps have yet been taken to develop or expand regulations pertaining to carbon assets in the light of present-day conditions. Consequently, the question of the nature and legal classification of carbon assets in the Republic of Belarus remains unresolved.

40. However, the Belarusian Universal Commodity Exchange (an open joint-stock company), which is the only commodity exchange in the Republic of Belarus, is currently considering the possibility of trading carbon assets in the same way as such trade is conducted in the Russian Federation.

41. There is currently no legislation on the trading of carbon assets on exchanges in the Republic of Belarus.

Republic of Kazakhstan

42. While the legal nature of carbon assets is not defined in the Republic of Kazakhstan either, carbon units are recognized as a commodity by virtue of a direct reference to them in the legislation: paragraph 2 of the Environmental Code of the Republic of Kazakhstan stipulates that a carbon unit (carbon quota unit or offset unit)

is a commodity that may be traded among carbon market actors in the Republic of Kazakhstan in accordance with the Environmental Code.

43. Trading in carbon units in Kazakhstan takes place through the Caspian Commodity Exchange, a joint-stock company.

44. Thus, from an economic point of view, in the Russian Federation and the Republic of Kazakhstan the carbon unit is essentially a tradable commodity. In the Republic of Belarus, there is no legislation or established practice with regard to carbon assets and their circulation (outside the framework of the Kyoto Protocol).

45. However, the legislation of the Eurasian Economic Union countries shows that currently, carbon assets, in terms of their legal classification, are not considered by regulators to be a financial instrument and are sold (or are planned to be sold) on commodity exchanges.

Harmonization of national approaches at the Eurasian Economic Union level

46. Regulation in the main member States of the Eurasian Economic Union has its own special characteristics (including with regard to both the terminology used and the mechanisms for the circulation of carbon assets in general). As initial steps towards regulatory harmonization, it is important to create at the level of the Union a unified legal framework – based on international standards and possible UNCITRAL recommendations in this area – that makes it possible to ensure the appropriate and consistent use of terminology.

47. Some steps are being taken in that regard, since the States members of the Eurasian Economic Union are parties to the United Nations Framework Convention on Climate Change and the Paris Agreement. In 2021, a high-level working group was established with the task of preparing proposals for harmonizing the positions of the Eurasian Economic Union member States within the framework of the climate agenda.

48. At the end of July 2022, the working group had reached general agreement on an initial package of measures for the Eurasian Economic Union within the framework of the climate agenda. That document provides for coordination of the efforts of the Union’s member States in seven areas. One important area is the establishment of joint market and non-market mechanisms for carbon regulation.

49. Some aspects of climate regulation are also covered in “Strategic areas for the development of Eurasian economic integration until 2025”, a document that provides for the implementation of a coordinated policy on carbon regulation.

50. In January 2023, a model taxonomy developed by the Eurasian Economic Commission together with the national economic development institution of the Russian Federation (VEB.RF) and the Centre for Green Finance of the Astana International Financial Centre, which are the national developers of taxonomies in the Russian Federation and Kazakhstan, was approved at the conclusion of a meeting of the working group. The objective in drawing up criteria for green projects of the States members of the Eurasian Economic Union is to foster and harmonize the approaches of those States as part of the systematic development of green financing tools within the Union, and to ensure freedom of movement of capital. Those criteria may serve as a basis for the development or updating of national taxonomies. In order to define the criteria, global best practices were analysed and national approaches to achieving climate goals were taken into account, which ensured that the document was closely aligned with other international standards.

51. In addition, during a round table on climate policy in the Caspian Sea region, and likewise at a seminar on the climate agenda of the Eurasian Economic Union, attention was drawn to the need to enable dialogue on the establishment of carbon markets. To that end, it is important for the Union’s member States to agree on common standards, develop a system for verification and for the accreditation of organizations that will perform such verification, and define mechanisms for mutual

recognition. Accordingly, it is planned to prepare a document setting out the main areas of economic cooperation within the framework of the climate agenda.

52. Harmonization processes within the framework of the Eurasian Economic Union will make it possible to take into account the specific national characteristics of carbon regulation in individual countries and to ensure harmonized approaches to the terminology used and to the interpretation of terms, as well as to the mutual recognition of carbon assets.

ANNEXE II

LIST OF ACRONYMS

Acronym	Definition
CAD Trust	Climate Action Data Trust
CCM	Compliance Carbon Market
CCPs	Core Carbon Principles developed by the ICVCM
CERs	Certified Emission Reductions
CORSIA	United Nations Carbon Offsetting and Reduction Scheme for International Aviation
DAPL Principles	UNIDROIT Digital Assets and Private Law Principles
ERPA	Emission Reductions Purchase Agreements
GHG	Greenhouse gases
HCCH	Hague Conference on Private International Law
ICAO	United Nations International Civil Aviation Organization
ICVCM	Integrity Council for Voluntary Carbon Markets
IETA	International Emissions Trading Association
IOSCO	International Organization of Securities Commissions
ISDA	International Swaps and Derivatives Association
ITMOs	Internationally Transferred Mitigation Outcomes
NDCs	Nationally Determined Contributions
SCALE	Scaling Climate Action by Lowering Emissions
TSVCM	Task Force on Scaling Voluntary Carbon Markets
UNCITRAL	United Nations Commission on International Trade Law
UNCITRAL LGIL	2004 UNCITRAL Legislative Guide on Insolvency Law
UNFCCC	United Nations Framework Convention on Climate Change
UN SDGs	United Nations Sustainable Development Goals
UNIDROIT	International Institute for the Unification of Private Law
VCC	Voluntary Carbon Credit
VCM	Voluntary Carbon Market
VCMI	Voluntary Carbon Markets Integrity Initiative
VCS	Verified Carbon Standard
WBG	World Bank Group