

ICC COMMISSION REPORT

Resolving Climate Change Related Disputes through Arbitration and ADR

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List of abbreviated terms

CCS	Carbon Capture and Storage
CCUS	Carbon Capture, Use and Storage
CDBs	Combined Dispute Boards
CDM	Kyoto Protocol's Clean Development Mechanism
COP21	21st Conference of the Parties to the UNFCCC
COPs	Conferences of the Parties to the UNFCCC
DAABs	Dispute Avoidance and Adjudication Boards
DABs	Dispute Adjudication Boards
DB	Dispute Boards
DRBs	Dispute Review Boards
Emergency Measures	Urgent interim or conservatory measures that cannot await the constitution of an arbitral tribunal
ETC	Energy Transitions Commission
ETS	Emissions Trading System
EPs	Equator Principles (2013)
GCF	Green Climate Fund
IBA	International Bar Association
IBA Report	Achieving Justice and Human Rights in an Era of Climate Disruption (2014)
IBRD	International Bank for Reconstruction and Development
ICC	International Chamber of Commerce
ICC Centre for ADR or Centre	ICC International Centre for ADR
ICC Court	ICC International Court of Arbitration
IPCC	Inter-Governmental Panel on Climate Change
IPCC Special Report	IPCC Special Report on Global Warming of 1.5°C (2018)
IRM	Independent Review Mechanism
IUCN	International Union for the Conservation of Nature
Ji	Joint Implementation Projects
Kyoto Protocol	Kyoto Protocol to the UNFCCC (adopted on 11 Dec. 1997 and entered into force on 16 Feb. 2005)
FIDIC	International Federation of Consulting Engineers
MARPOL	International Convention for the Prevention of Pollution from Ships
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
New York Convention	Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958)
Paris Agreement	Agreement reached by the Parties to the UNFCCC at COP21 (2015)

PCA	Permanent Court of Arbitration
PCA Environmental Rules	Optional Rules for Arbitration of Disputes Relating to Natural Resources and/or the Environment (2001)
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SCC	Stockholm Chamber of Commerce
SDGs	United Nations Sustainable Development Goals
Task Force	ICC Task Force on Arbitration of Climate Change Related Disputes
TCFD	G20 Task Force of Climate Related Financial Disclosures
UN	United Nations
UNCITRAL	United Nations Commission on International Trade Law
UNCITRAL Transparency Rules	UNCITRAL Rules on Transparency in Treaty-based Investor-State Arbitration (2014)
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change (adopted on 9 May 1992 and entered into force on 21 March 1994)
WBG Action Plan	World Bank Group “Climate Change Action Plan” (2016)

I. Introduction and key features

- 1.1** The ICC Commission on Arbitration and ADR, with the support of the ICC Commission on Environment and Energy, has created a task force on “Arbitration of Climate Change Related Disputes” (the “Task Force”). Climate change related disputes, for the purpose of the Task Force and this Report, require the existence of a valid and binding agreement to arbitrate whereby parties agree to resolve disputes relating to climate change.
- 1.2** The Task Force had the following missions:
- To explore whether, and if so, how ICC Arbitration and other dispute resolution services are currently used to resolve climate change related disputes.
 - To ascertain what, if any, specific features are required for a dispute resolution mechanism to effectively resolve climate change related disputes.
 - To review the *ICC Arbitration Rules*, *Mediation Rules*, *Expert Rules* and *Dispute Board Rules* in the context of climate change related disputes in order to consider whether it would be appropriate for ICC to offer any additional guidance and suggest sample wording for dispute resolution clauses and procedure.
 - To prepare a report that summarises the Task Force’s findings, taking into account that such output could consist of a summary of the issues discussed and proposed solutions for consideration by parties, potential parties, counsel and tribunals alike.
- 1.3** The Task Force members include business representatives, lawyers, arbitrators, arbitral institutions, in-house counsel, NGO representatives, business and industry groups and academics.
- 1.4** The purpose of this Report is to examine the role for Arbitration and ADR in the resolution of international disputes related to climate change. The Report first defines climate change related disputes (Section II), providing case studies as appropriate, and then explores current, potential use and benefits of ICC Arbitration and ADR services to resolve such disputes (Sections III and IV) and identifies six broad features that potentially enhance the existing procedures to further improve their effectiveness for resolving climate change related disputes (Section V). These features, which parties to a climate change related dispute (together with arbitral tribunals as the case may be) may wish to take into account, where appropriate and on a case-by-case basis, include:
- A.** Securing relevant expertise, scientific, technical or otherwise, to ensure that decisions reflect sound and up-to-date knowledge in a new and fast-moving area.
 - B.** Highlighting opportunities to use faster and more effective procedures commensurate with the complexity, urgency and special sensitivities of a collaborative climate change response.
 - C.** Exploring the opportunity for integration of climate change policy, commitments or law into the dispute resolution procedure.
 - D.** Weighing the possible benefits of some increased measure of transparency.
 - E.** Considering options for third party involvement in the dispute resolution procedure.
 - F.** Addressing the role of costs in ensuring that appropriate stakeholders are able to participate in the dispute resolution process.
- 1.5** Hypothetical cases are used throughout this Report to demonstrate the potential circumstances in which climate change related disputes may arise. These are illustrative and not exhaustive

examples. In addition, in Section 5 dealing with specific procedural features of climate change related disputes, sample language is provided to assist parties or tribunals to put in place those features, as appropriate.

II. What are climate change related disputes?

- 2.1** The Task Force takes a broad view of climate change related disputes, to include any dispute arising out of or in relation to the effect of climate change and climate change policy, the United Nations Framework Convention on Climate Change (“**UNFCCC**”) and the **Paris Agreement**.¹
- 2.2** Climate change is one of the biggest imperatives of our time and, as the IPCC Special Report on Global Warming of 1.5°C published in 2018 (the “**IPCC Special Report**”) states it will “require rapid and far-reaching transitions of energy, land, urban and infrastructure (including transport and buildings) and industrial systems” to avoid the worst effects of climate change.²
- 2.3** The required rapid and far-reaching transition to energy, land, urban and infrastructure and industrial systems arising out of a global response to climate change will necessarily give rise to new investment and contracts, and accordingly contractual and other legal disputes. Such disputes may arise out of or in relation to: (i) contracts relating to the implementation of energy or other systems transition, mitigation or adaptation in line with the Paris Agreement commitments (for the avoidance of doubt, the Paris Agreement is between state parties and the commitments thereunder apply to state parties and not to non-state parties unless they have been incorporated into domestic regulation); (ii) contracts without any specific climate-related purpose or subject-matter but where a dispute involves or gives rise to a climate or related environmental issue; and (iii) submission or other specific agreements entered into to resolve existing climate change or related environmental disputes, potentially involving impacted groups or populations. Each of these categories of disputes requires a valid and binding dispute resolution agreement between all parties and are further described below.

Category I: Specific transition, adaptation or mitigation contracts

- 2.4** Contracts (or contractual terms) may be entered into by an investor, funder, industry body, state or state entity, in accordance with or in order to implement energy or other systems transition, mitigation or adaptation in line with **Paris Agreement** commitments. Rapid and far-reaching transitions of energy, land, urban and infrastructure (including transport and buildings) and industrial systems require investors and other contracting parties to manage and allocate risk, as far as possible, within their contracts and to reinforce that through appropriate and effective dispute resolution mechanisms. Some contracts expressly relate to the **UNFCCC**, such as the Green Climate Fund (“**GCF**”) agreements relating to “low-emission (mitigation) and climate-resilient (adaptation) projects and programmes developed by the public and private sectors to contribute to countries’ climate change priorities”,³ or emission trading system agreements.⁴ Others relate to more general investment in energy or related systems transition,

1 Adoption of the **Paris Agreement** under the UNFCCC, at the Conference of the Parties, Twenty-first session (“COP21”), on 30 Nov. - 11 Dec. 2015 in Paris. The Paris Agreement entered into force on 4 Nov. 2016.

2 The IPCC Special Report “**Global warming of 1.5°C**” (Oct. 2018), p. 15.

3 See the **Green Climate Fund proposal toolkit** (2017), p. 3.

4 National or regional systems where emission units or credits measured in terms of carbon or other greenhouse gases are allocated and traded whether voluntarily or otherwise. The “voluntarily or otherwise” is to take account of the fact that certain industry representative bodies, such as the International Civil Aviation Organization, have provided for voluntary participation in emissions trading schemes; “or other greenhouse gases” is to take account of

such as contracts relating to funding, insuring, licensing, commissioning, plant construction and dismantling/decommissioning or supply of renewable energy, decommissioning of non-renewable power plants, adaptation of existing buildings and infrastructure to adapt to a warming climate, or new agriculture, forestry infrastructure (such as enhanced irrigation systems) to reduce greenhouse gas emissions from land use. These State commitments may already be reflected by sector in a State's Nationally Determined Contribution ("NDC") submitted under its reporting obligations under the Paris Agreement.⁵

Hypothetical case no. 1: Wind farm project technical specifications dispute⁶

A contractor in a project to supply and erect a wind farm seeks (i) the suspension of the drawing of first demand performance bonds, (ii) deemed final acceptance, and (iii) payment of the balance of the price. The owner alleges that the output does not meet technical-economic indicators for definitive acceptance as approved by public authorities financing, based on energy output, efficiency and/or emission targets.

Hypothetical case no. 2: Green fund financing non-approved use dispute⁷

A financial institution funds projects on renewable energy, energy efficiency and water treatment that are designed to align with Paris Agreement commitments. It relies in part on GCF funding support, a global fund created as part of the UNFCCC's financial mechanisms with an overarching environmental and social policy that requires grievance mechanisms and rights of redress to be available to the affected communities. A dispute board is organised to issue recommendations or decisions on such grievances, and arbitration resolves remaining disputes, including in relation to use of funding.

Category II: Contracts not specifically related to transition, adaptation or mitigation

2.5 Systems transition consistent with a 1.5°C global warming pathway, mitigation measures and adaptation to a warming climate, as well as related environmental impacts of existing and future warming, may directly or indirectly impact other general commercial contracts in a broad range of sectors including energy, infrastructure, transport, agriculture and other land use and food production, and industry (including manufacture and processing). Those contracts may have no specific climate change-related purpose or subject-matter and may even pre-date the Paris Agreement. Nevertheless, contractual performance across a number of sectors may be impacted by the contracting parties' responses to (i) changes in national laws; (ii) regulation or policy to meet individual country commitments under the Paris Agreement; (iii) voluntary commitments by industry or individual corporations in accordance with climate or sustainability related corporate social responsibility; (iv) environmental impacts of climate change; and/or (v) responses to associated climate change action in national courts and other fora. Potentially every business activity and contractual relationship is capable of being impacted by energy and other systems transition, mitigation or adaptation measures and/or the environmental impacts of global warming.

the uncertainty regarding how future internationally traded emission rights and credits are benchmarked, and even if carbon seems like the most straightforward option, some systems already include other gases, e.g. that of the European Union.

5 In accordance with Art. 4, para. 12 of the Paris Agreement, NDCs communicated by Parties shall be recorded in a public registry maintained by the secretariat (<https://www4.unfccc.int/sites/ndcstaging/Pages/Home.aspx>).

6 Hypothetical case no. 1 is further mentioned at paras. 5.25, 5.28, 5.56 and 5.60 of this Report.

7 Hypothetical case no. 2 is further mentioned at paras. 5.25 and 5.28 of this Report.

Hypothetical case no. 3: Harbor construction delays and additional costs

A contractor in charge of construction of a new deep-water harbour disagrees with the owner of the harbor over whether increased salinity of fresh water sources was induced by rising sea-levels, owing to climate change, albeit that other contributing factors may exist. The parties also differ as to the allocation of such risks. Contractor seeks (i) an extension of time to complete the construction and resulting costs, and (ii) additional costs incurred in the importation of sand from a more remote location to counter the impact of increased salinity.

Hypothetical case no. 4: Shortage in motor vehicle supply⁸

A car manufacturer's vehicles type is approved under the condition that they use an air-conditioning system refrigerant gas having a global warming potential of 4, well below the country's legal maximum of 150. Following the destruction of the production sites of such gases by the Fukushima tsunami, the manufacturer was supplied with another refrigerant gas and used it in more than 100,000 motor vehicles. The replacement refrigerant had a warming potential over the legal limit, being close to 1,300. The manufacturer was compelled to suspend its deliveries and now faces administrative sanctions and potential liability for damages to consumers. The manufacturer seeks indemnification from its suppliers.

Hypothetical case no. 5: Price revision expert determination – Manufacture and supply⁹

A manufacturer and supplier of sodium bicarbonate and soda ash produced from ammonia, carbon dioxide, water and concentrated brine solution, resorts to an industrial process which requires large quantities of water vapour. It has entered into a long-term contract with a co-generation operator for the supply of such water vapour. During the contract term, an emissions trading system (“ETS”) was instituted, which permitted the water vapour supplier to benefit from emissions trading allowances, substantially decreasing its production costs. The soda manufacturer and supplier seek a price reduction based on the price revision clause in the contract which provides for an expert determination in certain circumstances.

Category III: Submission Agreements

- 2.6** A submission agreement (or “compromis”) differs from a standard arbitration agreement insofar as it is entered into only after a dispute has arisen or crystallised.¹⁰ Typically, it is difficult for parties to reach any consensus or agreement once a specific dispute has arisen between them, including as to the process to resolve it.¹¹ Consequently, such agreements are rare,

8 Hypothetical case no. 4 is further mentioned at paras. 5.25, 5.28, 5.55 and 5.60 of this Report.

9 Hypothetical case no. 5 is further mentioned at paras. 5.8, 5.25 and 5.28 of this Report.

10 G. Born, *International Arbitration and Forum Selection Agreements: Drafting and Enforcing* 5th ed. (Kluwer Law International, 2016), Ch.3: Drafting International Arbitration Agreements.

11 Such dispute may not necessarily involve an underlying contract and instead may arise on a non-contractual legal basis, such as tort law or based on a constitution or other legal framework applicable as between the parties. Provided a valid and binding arbitration agreement is entered into between the parties, there is no conceptual or procedural reason such non-contractual disputes cannot be subject to arbitration or ADR. Therefore, such disputes are also taken into account by the Task Force, and certain mechanisms or features considered in this Report would also apply in equal measure to this type of dispute. However, the Task Force does not make any assumption on the admissibility or merits of any such claims. Issues such as *locus standi*, existence of a cause of action, imputability or causation fall outside the scope of this Report and would have to be assessed by arbitral tribunals under applicable rules, like by a state court.

but not unprecedented.¹² A related form of dispute resolution agreement that is only formed (or at least perfected) after a dispute has arisen is an agreement pursuant to an unilateral offer to arbitrate, as in many bilateral and multilateral investment treaties.¹³ In the context of climate change related disputes, existing court or other dispute resolution mechanisms may lack jurisdiction or be inadequate to deal with certain types of substantive claims or subject-matters and/or claims by non-parties to the underlying contract, investment or conduct. In certain limited circumstances, where all participating parties properly and validly consent to be bound, submission agreements may be used. For example, a local group or population may be directly impacted by an investment in new or protected forestry areas, impacting their livelihoods and access to natural resources of resident populations. Similarly, a population may be impacted by the establishment of a wind farm or solar power panel installation, affecting arable land or fisheries. In such circumstances, a submission agreement could prevent multiple, multi-jurisdictional, court proceedings with inconsistent outcomes and provide certainty, enforceability and finality within a more attractive time frame than might be available through the courts.¹⁴

Hypothetical case no. 6: Affected population climate mitigation project mass claim¹⁵

A local indigenous population of subsistence farmers, fishermen and associated small businesses located in and around a new REDD+ certified forest carbon project area and bordering coastal region sue the foreign investors in the project and the host State in the local courts, alleging breach of constitutional, indigenous and other human rights and in tort against the foreign investor. The parties may consent to resolve those disputes in a single, specialist forum pursuant to a submission agreement.

- 12 Two submission agreements administered by the PCA were entered into under the **Bangladesh Factory Accord** (to protect labour rights) between the Bangladesh factory workers and 200 international apparel brands, and the **Sudan Comprehensive Peace Agreement** where the Abyei Arbitration Agreement was entered into between the Sudan People's Liberation Movement/Army and the Republic of Sudan to resolve an intra-state boundary dispute.
- 13 For example, where a company includes in its contractual documents reference to its code of conduct, ethical standards, corporate governance model or any other equivalent instrument, it may include a unilateral offer to arbitrate any dispute arising out of or relation to such instruments, including by an affected non-party individual or group of individuals. Alternatively, a company may adopt "back-to-back" drafting policies whereby its suppliers or other contractual counterparties undertake, in the interest and to the benefit also of the originating company as well as of individuals/groups affected by the relevant wrong-doing, the "double obligation" of respecting climate change related measures and of inserting the same undertaking in their own contracts with other parties, so that parallel obligations are assumed by all the parties involved in a supply chain or in a complex project which are enforceable also by the relevant third party beneficiaries. A company may do so where, for example, climate change related undertakings are imposed by a counterparty (e.g. state bodies in the context of public procurement contracts or lenders who comply with the Equator Principles), or pursuant to its own policy to conduct its business in a socially responsible way.
- 14 Such situations may not necessarily involve an underlying contract and instead disputes may arise on a non-contractual legal basis, such as tort law or based on a constitution or other legal framework applicable as between the parties. Provided a valid and binding dispute resolution agreement is entered into between the parties, there is no conceptual or procedural reason for which such non-contractual disputes cannot be subject to arbitration or ADR. While they are therefore taken into account by the Task Force, it should be stressed that this Report only reviews the procedural aspects of dispute resolution. However, significant issues should be expected to arise in connection with such disputes, as with respect to locus standi, existence of a cause of action, imputability, causation or appropriate remedies. Such issues fall outside the scope of this Report and would have to be assessed by arbitral tribunals under applicable rules, not unlike by a state court. For the avoidance of doubt, the fact that this Report takes such disputes into account only reflects the capability of arbitration and ADRs to resolve them in an effective and efficient fashion from a purely procedural point of view, and does not in any respect suggest that such claims may succeed, either at the admissibility or merits stage.
- 15 Hypothetical case no. 6 is further mentioned at paras. 5.25, 5.28, 5.81 and 5.97 of this Report.

Hypothetical case no. 7: Climate change related environmental claim against a State¹⁶

A group of low-lying, small island state parties, or their populations, directly affected by sea level rise resulting from climate change may pursue claims against larger, developed states for breach of the no-harm principle in international law, and/or specific environmental treaty protections, seeking declaratory relief or reparation or repatriation of displaced populations. The parties may consent to resolve those disputes in a single, specialist forum pursuant to a submission agreement.

Hypothetical case no. 8: UNFCCC/Paris Agreement claim¹⁷

A State or States most directly and immediately affected by climate change may seek to enforce against another State (possibly a large emitting developed nation with inadequate mitigation) the parties' commitments pursuant to the Paris Agreement (or UNFCCC) as anticipated by the yet to be finalised agreement to arbitrate in Article 24 of the Paris Agreement (and Article 14 of the UNFCCC). A submission agreement might be entered into in order to operationalise the yet to be finalised dispute resolution agreement in those instruments.¹⁸

- 2.7** This Report is focused primarily on commercial contract disputes, which represent the vast majority of cases administered by the ICC Court. However, climate change related disputes may also arise pursuant to investor-State treaties, including but not limited to claims arising out of new climate change related regulatory measures implemented by a State. A number of investment treaties provide for ICC Arbitration, and the ICC Court administers investment treaty cases. Therefore, this category of disputes is taken into account by the Task Force, and certain mechanisms or features considered in this Report would apply in equal measure to climate change related disputes arising out of treaty claims.

¹⁶ Hypothetical case no. 7 is further mentioned at para. 5.25, 5.28 and 5.69 of this Report.

¹⁷ Hypothetical case no. 8 is further mentioned at para. 5.25, 5.28 and 5.69 of this Report.

¹⁸ The opt-in dispute resolution mechanism in the UNFCCC (Art. 14(1) - (2)) and by reference the Paris Agreement provides as follows (and has been opted into in respect of arbitration by only a small handful of states including the Netherlands, Solomon Islands and Tuvalu): "1. In the event of a dispute between any two or more Parties concerning the interpretation or application of the Convention, the Parties concerned shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice. 2. When ratifying, accepting, approving or acceding to the Convention, or at any time thereafter, a Party which is not a regional economic integration organization may declare in a written instrument submitted to the Depositary that, in respect of any dispute concerning the interpretation or application of the Convention, it recognizes as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation: (a) Submission of the dispute to the International Court of Justice, and/or (b) Arbitration in accordance with procedures to be adopted by the Conference of the Parties as soon as practicable, in an annex on arbitration. A Party which is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the procedures referred to in subparagraph (b) above".

III. Current and potential use of arbitration in climate change related disputes

3.1 The Task Force's mandate is first to explore how ICC Arbitration and ADR services are currently used to resolve disputes that potentially engage climate change and related environmental issues. As the **Paris Agreement** and the **IPCC Special Report** are relatively recent, disputes arising out of "rapid and far-reaching transition to energy, land, urban and infrastructure and industrial systems"¹⁹ are not yet reflected in past and existing ICC cases. Nevertheless, three important aspects of existing ICC cases are instructive: (i) ICC Arbitration and ADR are frequently adopted in commercial contracts concerning energy, land use, urban and infrastructure and industry with these sectors representing a large portion of ICC cases; (ii) climate change related investment is rapidly increasing and systems transition of the scale proposed by the IPCC will recalibrate regulatory risk and investment strategy in sectors where ICC Arbitration and ADR are already prevalent; and (iii) climate change mitigation and adaptation, and systems transition as a whole, may cause environmental impact and ICC Arbitration and ADR are increasingly being used to resolve environmental claims.

3.2 *First*, collectively the sectors impacted by transition of the energy, urban and infrastructure, land use and industry systems, as identified by the **IPCC**, account for the majority of ICC cases and awards; ICC Arbitration and ADR is therefore at the forefront of the ongoing transition. According to the ICC Report for 2017:

The ICC cases cover a wide spectrum of business sectors, ranging from agriculture to heavy industry and manufacturing, as well as public sector activities and service industries. Construction and energy generated the largest number of cases in recent years. In particular, construction and engineering accounted for 23% of all new cases in 2017 (186 new cases filed). The energy sector closely followed the above trend with 155 new cases in 2017, representing 19% of the overall new caseload. Sectors related to telecoms and specialised technologies, financing and insurance, general trade and distribution, industrial equipment, and health, pharmaceuticals and cosmetics each amounted to approximately 6% of cases.

In 2018, the construction and engineering sector accounting for 26.6% of all new cases, followed by the energy sector with 14.6% of new caseload, and sectors related to telecoms and specialised technologies, financing and insurance, general trade and distribution, industrial equipment and health, pharmaceuticals and cosmetics each amounted to approximately 6% of cases.²⁰ As discussed in the Annex, these are all sectors that are impacted by the systems transitions.

3.3 *Second*, investment in projects designed to mitigate greenhouse gas emissions or adapt to climate change (i.e. climate change investment) is a rapidly growing area and that growth is set to expand exponentially as a result of systems transition. Already in the last decade, and in particular since the **Paris Agreement** entered into force in November 2016, business and industry has responded to the significant investment opportunities generated by climate change related and other "green" projects and programmes. These investment opportunities are further enhanced by international funding and other incentives under the **UNFCCC** through international development banks, or available through local, regional, state and other initiatives, as well as increased regulatory and other legal risks associated with investment in high climate impact areas.

19 See the IPCC Special Report "Global warming of 1.5°C" (Oct. 2018), p. 15.

20 See ICC Dispute Resolution 2018 Statistics, p. 13.

- 3.4** The UN international development banks, international institutions, regional and state bodies, and private foundations are pledging or reserving funds for climate change and “green” projects and programmes. In particular, there is likely to be an entirely new stream of investment that will flow from countries’ climate related commitments contained in their **NDCs**, which must be filed every five years²¹ and thereafter monitored through an “enhanced transparency framework” designed to “build mutual trust and confidence and to promote effective implementation”.²² At the same time, many international development banks and state-owned financial institutions are ceasing to fund projects that would undermine the climate change objectives of the **Paris Agreement**. These financial measures and trends are designed to “achieve a paradigm shift to low-emission and climate-resilient pathways”,²³ and are set to continue and to increase.
- 3.5** In addition, States and regional governments are introducing national legislation and regulation to lower greenhouse gas emissions targets, and institutions are withdrawing funding from projects that do not provide for measures against high emitters, cap and trade mechanisms and/or other internalisation devices. Other measures include increased transparency of emission levels and climate change related financial disclosure.²⁴ Separately, public interest groups and NGOs are increasingly pursuing climate change related litigation proceedings in various national courts and other fora, primarily seeking to hold state parties accountable for their climate change related commitments.²⁵

21 Arts. 3 and 4 of the Paris Agreement.

22 The Paris Agreement, Art.13; See Modalities procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement (2018); Matters relating to Article 14 of the Paris Agreement and paragraphs 99-101 of decision 1/CP.21; See also the Modalities and procedures for the effective operation of the committee to facilitate implementation and promote compliance referred to in Article 15, paragraph 2, of the Paris Agreement (2018) .

23 <https://www.greenclimate.fund/who-we-are/about-the-fund/governance>.

24 In June 2017, the Bank of England released analysis on the risk from climate change to financial markets, “**The Bank of England’s response to climate change**” and the G20’s Task Force on Climate Related Financial Disclosures (“TCFD”) released its **Final Recommendations** proposing increasingly specific public disclosure by listed entities of financial risk related to climate change; these have been picked up by both the EU’s High Level Expert Group on Sustainable Finance and the UK with both publishing regulatory proposals in early 2018: The **Final report of the High-Level Expert Group on Sustainable Finance** (Jan. 2018) and the **Green Finance Task Force Report to the UK Government “Accelerating Green Finance”** (March 2018). See also the European Commission’s **legislative proposals on sustainable finance** (on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU) 2016/2341). See also **Carvalho and Others v Parliament and Council**, Case T-330/18: Action brought on 23 May 2018 by 37 applicants against the Council of the European Union and the European Parliament to, inter alia, “declare the ‘GHG Emissions Acts’ unlawful insofar as they allow the emission between 2021 and 2030 of a quantity of greenhouse gases corresponding to 80 % of the 1990 emissions in 2021 and decreasing to 60 % of the 1990 emissions in 2030”. The **Ontario Securities Commission** recently announced a similar review of climate change related disclosures by aLI issuers.

25 **Urgenda Foundation v. The State of the Netherlands** before the Hague Courts, C/09/456689/HA ZA 13-1396 (Judgment of 24 June 2015, upheld on appeal on 9 Oct. 2018); **Asghar Leghari. v. Federation of Pakistan**, before the Courts of Pakistan, Case No. W.P. No. 25501/2015 (14 Sept. 2015, Justice Syed Mansoor Ali Shah); **VZW Klimaatzaak v. Kingdom of Belgium, et al.**, Court of First Instance of Brussels (decision pending); **Kelsey Cascade Rose Juliana, et al. v. the United States of America, et al**, US District Court of Oregon (Order of 8 April 2016) ; **Thomson v. Minister for Climate Change Issues**, High Court of New Zealand (2017); **Verein KlimaSeniorinnen Schweiz v. Federal Council, Schweizerische Bundeskanzlei & Ors**, see Greenpeace, “**Swiss Grannies launch legal challenge to demand stronger climate action**” (25 Oct. 2016); **Future Generations v. Ministry of the Environment and Others**, Supreme Court of Colombia (2018). **Plan B Earth and Others v. The Secretary of State for Business, Energy, and Industrial Strategy**, English High Court (2019). **Friends of the Irish Environment CLG v. Fingal County Council**, High Court of Ireland (2017) (see details at <https://www.climatecaseireland.ie/climate-case/#about-the-case>); **Trustees for the Time Being of GroundWork v. Minister of Environmental Affairs, ACWA Power Khanyisa Thermal Power Station RF (Pty) Ltd, and Others**, High Court of South Africa (filed May 2017); **Wilderness Workshop v. U.S. Bureau of Land Management**, US District Court of Colorado (2018).

3.6 In the **IPCC Special Report**,²⁶ the IPCC encapsulated the magnitude of the necessary change and ensuing business opportunity, in a relatively short period of time. It concluded that we must limit global warming to 1.5°C to avoid the worst effects of climate change and set out emission pathways and system transitions consistent with 1.5°C global warming. Those pathways require “rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems”. The IPCC says that transition of: “[t]hese systems are unprecedented in terms of scale, but not necessary in terms of speed, and imply deep emissions reductions in all sectors, a wide portfolio of mitigation options and a significant upscaling of investments in those options”. Any “significant upscaling of investments” provides opportunity and risk in four broad areas of business and industry:

- a) Energy.** System transition requires significant investment upscaling in: enhanced energy efficiency; faster electrification of energy end use; higher share of lower emission energy sources; renewables projected to supply 70-85% of electricity in 2050; share of nuclear to increase; share of fossil fuels with carbon dioxide capture and storage (“**CCS**”) modelled to increase; electricity generation from gas to be approximately 8% of global energy by 2050; steep reduction in coal to zero; developments in solar, wind and electricity storage technologies; total annual average energy supply investments of US\$ 640 to US\$ 910 billion for 2016 to 2050; annual investments in low-carbon energy technologies and energy efficiency upscaled by roughly a factor of 6 by 2050 compared to 2015.
- b) Urban and infrastructure.** System transition requires significant investment upscaling in: changes in land and urban planning practices; deeper emission reductions in transport and buildings; technical measures and practices enabling deep emissions reductions, including various energy efficient options; in transport sector, share of low emission final energy would rise from less than 5% in 2020 to 35-60% in 2050.
- c) Global and regional land use.** System transition requires significant investment upscaling in: non-pasture agricultural land for energy crops reduction of 4 million km² to increase of 2.5 million km²; 0.5-11 million km² reduction of pasture land to be converted into a 0-6 million km² increase of agricultural land for energy crops; 2 million km² reduction to 9.5 million km² increase in forests by 2050; profound challenges for sustainable management of the various demands on land for human settlement, food, livestock feed, fibre, bioenergy, carbon storage, biodiversity and other ecosystem services; and mitigation options limiting demand for land include sustainable intensification of land-use practices, ecosystem restoration and changes towards less resource-intensive diets.
- d) Industry.** System transition requires significant investment upscaling in: new and existing technologies and practices including electrification, hydrogen, sustainable bio-based feedstocks, product substitution, and carbon capture, utilisation and storage; emissions reductions by energy and process efficiency.²⁷

²⁶ IPCC Special Report “Global warming of 1.5°C” (Oct. 2018).

²⁷ The ETC press release accompanying the “Mission Possible” Report states that: “In heavy-duty transport, electric trucks and buses (either battery or hydrogen fuel cells) are likely to become cost-competitive by 2030, while, in shipping and aviation, liquid fuels are likely to remain the preferred option for long distances but can be made zero carbon by using bio or synthetic fuels. Improved energy efficiency, greater logistics efficiency and some level of modal shift for both freight and passenger transport could reduce the size of the transition challenge. In industry, more efficient use of materials and greatly increased recycling and reuse within a more circular economy could reduce primary production and emissions by as much as 40% globally – and more in developed economies – with the greatest opportunities in plastics and metals. Reaching full decarbonization will require a portfolio of decarbonization technologies, and the optimal route to net-zero carbon will vary across location depending on local resources. The

- 3.7** This all has the effect of actively promoting public and private investment and behaviours that are aligned with, facilitate and promote global climate change objectives. Such investment and change in practices is likely to result in a proliferation of underlying investment agreements and other contracts or contractual terms that demonstrate an intention or commitment to promote those objectives. These types of contracts are very likely to give rise to climate change disputes and may be appropriate for the specific procedural features that are discussed in this Report.
- 3.8** *Third*, arbitration and ADR are also well-established in resolving environmental disputes. The role of arbitration and ADR is already firmly established in resolving disputes in all of those sectors. For the last twelve years (since 2007), there has been on average three new environmental protection cases per year registered with ICC, with up to six in some years. Other arbitral institutions have provided similar statistics. All of these cases could potentially give rise to climate change related disputes. In 2018, the construction and engineering sector accounted for 26.6% of all new cases, followed by the energy sector with 14.6% of new caseload and sectors related to telecoms and specialised technologies, financing and insurance, general trade and distribution, industrial equipment, and health, pharmaceuticals and cosmetics each amounted to approximately 6% of cases.
- 3.9** Based on current and predicted growth of climate change related investments by States and the private sector in an effort to meet the objectives of the **Paris Agreement**, the Task Force predicts that climate change related disputes will increase exponentially. This analysis is summarised in the **Annex**.

IV. Benefits of arbitration for resolution of climate change related disputes

- 4.1** Arbitration has already been used to determine climate change related disputes arising under the **UNFCCC's** Green Climate Fund and the **Kyoto Protocol**. A broad range of climate change related initiatives concerning renewable energy, climate change adaptation and mitigation, with diverse funding from international, domestic and business sources, will need to consider dispute resolution procedures.
- 4.2** Moreover, commercial disputes with a climate change related genesis are increasingly likely to be brought by businesses as they adjust to increasing regulation of emissions following the entry into force of the **Paris Agreement**. Disputes in the context of asset divestment, new renewable energy investments, carbon trading and pricing, and increasingly stringent environmental representations and warranties are some of the issues that are emerging.
- 4.3** In addition to offering the advantage of a neutral forum and benefitting from worldwide coverage by the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958) (the "**New York Convention**") enabling cross border recognition and enforcement of arbitral awards, other main advantages that arbitration could offer to climate change disputes is accessibility of the tribunal, expertise and flexibility as to where an arbitration is hosted. Arbitral tribunals can adopt realistic time-frames, engage expert knowledge, in certain limited circumstances admit amicus evidence and adapt the process with flexibility depending on the nature and scope of disputes.

¹'Mission Possible' report concludes that the most challenging sectors to decarbonize are plastics, due to end-of-life emissions, cement, due to process emissions, and shipping because of the high cost of decarbonization and the fragmented structure of the industry".

- 4.4 In addition, the international dimension of climate change and the likely presence of states or state entities as parties make international arbitration a suitable forum for the resolution of a variety of such disputes.²⁸
- 4.5 States and state entities are already claimants in ICC Arbitrations against contractors in construction disputes or against suppliers in energy related disputes. Likewise, states or state entities acting as respondents in ICC Arbitrations may also seek relief by way of counterclaims for environmental damages.²⁹ Against such background, it is worth noting that the Report of the UN Secretary General on *Gaps in international environmental law and environment-related instruments: towards the global pact for the environment* notes that, while in the absence of an international environment court disputes between states relating to the environment have been addressed by a variety of international courts and tribunals, “[g]aps relating to the implementation and effectiveness of international law have appeared in several aspects of inter-State dispute settlement”.³⁰
- 4.6 In 2012, the ICC Commission on Arbitration and ADR published its *Report on States, State Entities and ICC Arbitration* detailing how ICC Arbitration works in relation to disputes involving States and state entities.³¹ It aimed to raise awareness of the recommendations, rules and practices that have been developed in the ICC Arbitration system to take into account a State or state entity’s participation, both with respect to the arbitration agreement and procedure. Although ICC Arbitration may be underused in disputes involving States and state entities, approximately 15% of the cases administered by ICC involved a State, a parastatal or public entity as a party.³² These arise in all parts of the world, with both large and small amounts in dispute, in a wide variety of matters most frequently relating to construction, maintenance and the operation of facilities or systems, and with only a minority arising from the alleged breach of a bilateral investment treaty. In addition, that Task Force concluded that a separate set of rules applicable to cases involving States or state entities was in fact unnecessary because the ICC Arbitration Rules contained new provisions that are intended to facilitate and further the participation of such parties in ICC Arbitration.

V. Specific procedural features of climate change related disputes

- 5.1 Rapid and far-reaching transitions of energy, land, urban and infrastructure (including transport and buildings) and industrial systems require significantly increased and changed investment by States, business and industry. It also requires greater regulation by States as they implement the necessary legal framework to achieve their **Paris Agreement** commitments to reduce greenhouse gases, including in relation to tariffs, taxation or greater constraints on transition-

28 Indeed, the UNFCCC itself (Art. 14) expressly anticipates arbitration for resolution of inter-state disputes arising out of the breach of its provisions “in accordance with procedures to be adopted by the Conference of the Parties as soon as practicable, in an annex on arbitration”. This was reaffirmed in the **Paris Agreement** (Art. 24). In furtherance thereof, the Netherlands have accepted to submit to arbitration as well as the jurisdiction of the International Court of Justice, and Solomon and Tuvalu accepted arbitration. See the UN Treaty Collection for the **status of signatures and ratification**.

29 This may not always be possible in investment arbitration, depending on the provisions of the applicable BIT treaty or other offer to arbitrate, see, however, **Burlington Resources v. Republic of Ecuador**, ICSID Case No. ARB/08/5, Decision on counterclaims. There is no such hindrance under the **ICC Arbitration Rules** (Art. 5(5)).

30 Resolution adopted by the UN General Assembly “**Towards a Global Pact for the Environment**” (10 May 2018) and Report of the UN Secretary General (Nov. 2018) See also ICC Primer on the Global Pact for the Environment.

31 ICC Commission Report on Arbitration Involving States and State Entities under the ICC Rules of Arbitration (2012).

32 See ICC Dispute Resolution 2018 Statistics, at p. 9.

related activities. Against that backdrop, the Task Force has sought both: (i) to ascertain what, if any, specific features are required for a dispute resolution mechanism effectively to resolve disputes arising out of climate change related investment and policy or regulatory change; and (ii) to review *ICC Arbitration Rules*, *Mediation Rules*, *Dispute Board Rules* and *Expert Rules* and provide additional guidance, dispute resolution clauses and/or other templates for use in disputes arising out of or in relation to that investment or policy or regulatory change.

- 5.2 Among other things, the Task Force is responding to the call for international arbitral institutions to consider how to take appropriate steps to ensure their rules are compatible with climate change objectives. In particular, the IBA Climate Change Justice and Human Rights Task Force Report *Achieving Justice and Human Rights in an Era of Climate Disruption* states:

[F]or environmental and climate change-related disputes, the Task Force recognizes the availability of multiple other arbitral fora which, depending on the nature of the case, may also be considered, including ... the ICC ... among others. The Task Force encourages all arbitral institutions to take appropriate steps to develop rules and/or expertise specific to the resolution of environmental disputes, including procedures to assist consideration of community perspectives.³³

- 5.3 ICC's global reach, as one of the leading arbitral institutions, and increasing experience with state entity parties and multiparty arbitration, position it to take a major role in the determination of climate change related disputes through the several dispute resolution services it offers.³⁴
- 5.4 Specifically in relation to environmental disputes, the Permanent Court of Arbitration ("PCA") had previously taken steps to tailor its processes by issuing *Optional Rules for Arbitration of Disputes Relating to Natural Resources and/or the Environment* (the "**PCA Environmental Rules**").³⁵ In particular, the PCA Environmental Rules provide for: (i) PCA lists of potential expert arbitrators or expert witnesses;³⁶ (ii) the possibility for the tribunal to request a summary of technical or scientific matters from the parties;³⁷ (iii) bespoke confidentiality restrictions on information;³⁸ and (iv) possible precautionary interim measures to protect the environment, including provisional orders, where it is deemed necessary to "prevent serious harm to the environment falling within the subject-matter of the dispute".³⁹ The PCA has administered a number of cases under these Rules, concerning both State and non-State actors dealing with environmental disputes.⁴⁰

33 IBA Climate Change Justice and Human Rights Task Force Report, "Achieving Justice and Human Rights in an Era of Climate Disruption", p. 144. (The IBA's reference to "environmental disputes" appears to incorporate what this Task Force refers to as climate change and related environmental disputes, as the entire IBA report deals with climate change only.)

34 See ICC Dispute Resolution 2018 Statistics, pp. 8-9: 33% of cases filed in 2018 involved multiple parties and approximately 15% of the cases involved a State or state entity.

35 The PCA Environmental Rules are based on the 1976 UNCITRAL Rules and have not been updated to reflect many of the developments reflected in the 2010 UNCITRAL Rules or various institutional rules, including the ICC Arbitration Rules. These rules were intended specifically to deal with environmental disputes in the traditional (and non-climate change related) context. Nevertheless, as identified by the IBA, they incorporate useful provisions that enhance the PCA's ability also to administer climate change related disputes, as compared with its other rules.

36 PCA Environmental Rules, Arts. 8(3) and 27(5).

37 Ibid. Art. 24(4).

38 Ibid. Arts. 15(4)-15(6). See below, § 6.78.

39 Ibid. Art. 26(1).

40 See the Presentation by the Secretary-General of the PCA at the UNFCCC 21st Conference of the Parties (7-8 Dec. 2015), referring to six cases as of that date. The disputes concerned carbon trading, the Clean Development Mechanism and Joint Implementation. See also e.g. J. Levine and N. Peart, "Procedural Issues and Innovations in

5.5 This Report assesses and confirms the capability of ICC to immediately offer adequate solutions in climate change related disputes through its several dispute resolution services, be it under the aegis of the ICC Court or ICC Centre for ADR. It also specifically explores potential procedural innovations and guidance for arbitration and ADR in climate change related disputes.⁴¹ This ICC Task Force has identified a number of specific features of international arbitration that may assist in resolving climate change related disputes going forward. These include utilisation and optimisation of:

- use of and recourse to appropriate scientific and other expertise;
- existing measures and procedures for expediting early resolution of disputes or providing urgent interim or conservatory relief;
- integration of climate change commitments and principles of international law, including arising out of the **UNFCCC** and **Paris Agreement**;
- enhanced transparency of proceedings;
- potential third-party participation, including through *amicus curiae* briefs; and
- costs, including advances and allocation of costs, to promote fair, transparent and appropriate conduct of climate change related disputes.

5.6 Each of these is considered below in turn. However, as a preliminary global observation, the ICC provisions on the establishment of Terms of Reference and the holding of a case management conference are unique features of ICC Arbitration. Both provide an early opportunity for parties and tribunals to consider, at an early stage in the arbitration, whether or not specific climate change or related environmental issues are likely to arise and, if so, consider the specific features discussed below.

A. Recourse to appropriate scientific and other expertise

5.7 Arguably the single most important feature of arbitrating climate change related disputes is the ability to ensure that appropriate expertise is available to the parties and the tribunal in addition to understanding of disputes and their resolution techniques. Appropriate expertise and skills may be provided in various ways including through: (i) arbitrators with appropriate expertise; (ii) party-appointed experts; (iii) tribunal appointed experts; and/or (iv) expert determination (such as pursuant to the *ICC Expert Rules*).

1) Arbitrators with appropriate climate change related expertise

5.8 The *ICC Arbitration Rules* make it possible for the parties to have a decisive impact on the choice of arbitrators, including for reasons pertaining to competence and skills. In relation to expertise, users of ICC Arbitration should be more open to appointing tribunal members with appropriate climate change related legal, scientific or technical expertise, in appropriate disputes, especially in three-member tribunals comprising at least one legally-trained arbitrator. There are few, if any, national arbitration laws that require arbitrators to be qualified lawyers. Nonetheless, the default is for parties, co-arbitrators and the ICC Court to appoint a lawyer or retired judge as arbitrator. Despite that, in the construction industry, engineers and architects having received appropriate arbitral practice training are in some countries considered to be preferable decision-makers in certain types of disputes; the same flexibility should be afforded to selection of arbitrators in appropriate climate change related disputes. It should be borne in mind that expert arbitrators

Environment-Related Investor-State Disputes", in *Research Handbook on Environment and Investment Law*, K. Miles (Ed.) (Edward Elgar Publishing, 2019). Most PCA-administered cases relating to the CDM and JIs, discussed above, were brought under the PCA Environmental Rules.

41 See, e.g. J. Levine and N. Peart, *supra* note 40.

are appointed for their ability to better understand technical information put before them, not to apply their own expertise to resolve the dispute, without first putting the proposed expertise to the parties for comment. As such, expert arbitrators would be required to comply with the same standards of due process, natural justice and independence and impartiality as any other arbitrator. Any independent technical knowledge or understanding by the expert arbitrator would need to be put to the parties for comment before being applied in making any award or decision. This could be addressed in the parties' arbitration clause to ensure that there is no misunderstanding between the parties as to the role of the expert arbitrator.⁴²

Hypothetical case no. 9: Price revision expert determination - Manufacture and supply⁴³

> See para. 2.5 above.

In the hypothetical case no. 5 above, another dispute arises between the co-generation operator which supplies the vapor, on the one hand, and a group of local residents, on the other hand. This other dispute may require the arbitral tribunal hearing their respective disputes to have extensive knowledge and understanding of emissions trading systems ("ETS") and their legal framework.

5.9 The starting point for the appointment of arbitrators is the wording of the parties' arbitration agreement. The ICC Arbitration Rules permit the parties to agree on the appointment of arbitrators and/or the method of appointment.⁴⁴ In practice, parties sometimes do expressly provide for specific appointment requirements, such as to the nationality, experience, areas of expertise or other features that arbitrators should meet. The risk is that the more specific the parties are, the more difficult it is to identify an arbitrator with the required attributes and/or expertise.

5.10 Accordingly, the Standard ICC Arbitration Clause is minimal and does not address qualifications or expertise:

All disputes arising out of or in connection with the present contract shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.⁴⁵

5.11 ICC's general guidance to parties wishing to supplement the Standard ICC Arbitration Clause in any respect provides that:

Parties are free to adapt the clause to their particular circumstances. For instance, they may wish to stipulate the number of arbitrators given that the ICC Arbitration Rules contain a presumption in favour of a sole arbitrator. Also, it may be desirable for them to stipulate the place and language of the arbitration and the law applicable to the merits. The ICC Arbitration Rules do not limit the parties' free choice of the place and language of the arbitration or the law governing the contract.

When adapting the clause, care must be taken to avoid any risk of ambiguity. Unclear wording in the clause will cause uncertainty and delay and can hinder or even compromise the dispute resolution process.

⁴² For example, the FIDIC Red Book, clause 21.4.3, expressly provides that the DAAB shall not act as arbitrator(s).

⁴³ Hypothetical case no. 9 is further mentioned at paras. 5.25 and 5.28 of this Report.

⁴⁴ ICC Arbitration Rules, Arts. 11(6), 12(5) and 12(8).

⁴⁵ <https://iccwbo.org/dispute-resolution-services/arbitration/arbitration-clause/>.

Parties should also take account of any factors that may affect the enforceability of the clause under applicable law. These include any mandatory requirements that may exist at the place of arbitration and the expected place or places of enforcement.⁴⁶

Expert arbitrator(s) – Sample wording

If the parties wish to include climate change legal expertise in the qualifications of the members of the arbitral tribunal, they should expressly provide for it by adding the following wording to the Standard ICC Arbitration Clause:

The arbitrator(s) shall have expertise in general principles of climate change policy and climate change law.

If the parties wish to include climate change scientific/technical expertise in the qualifications of the members of the arbitral tribunal, they should expressly provide for it by adding the following wording to the clause above:

The number of arbitrators shall be three [or five]. At least one of the arbitrators shall be experienced and knowledgeable in climate change science, technology and/or modelling, as appropriate.

- 5.12** Whenever parties are required to nominate a sole arbitrator or presiding arbitrator for confirmation by the ICC Court or co-arbitrators are required to nominate a presiding arbitrator, they may jointly seek the Secretariat's assistance on expertise, by requesting that the Secretariat either propose names of possible candidates or provide non-confidential information on prospective arbitrators.⁴⁷
- 5.13** An advantage of ICC administered arbitration in the appointment process is that the ICC Court or Secretary General must independently review whether or not the arbitrator(s) satisfy any qualification requirements prior to appointment. The ICC Court or Secretary General will only confirm an arbitrator nominated by the parties if the individual is fit to serve as an arbitrator,⁴⁸ and after the prospective arbitrator has signed a statement of acceptance, availability, impartiality and independence.⁴⁹ Fitness to serve may, in appropriate cases, include a minimum level of technical or scientific expertise. For example, in the PCA administered *Kishenganga* arbitration, the parties agreed to appoint two arbitrators each, who then appointed three further arbitrators including one qualified engineer and one international lawyer. The engineer was a non-lawyer, in recognition that the arbitration raised technical engineering and environmental issues.⁵⁰
- 5.14** ICC can also act as appointing authority in arbitrations that the parties have elected not to conduct under the ICC Arbitration Rules, e.g. where the arbitration agreement refers to arbitral proceedings conducted under the Arbitration Rules of the United Nations Commission on International Trade Law ("UNCITRAL") or other arbitration proceedings, whether *ad hoc* or

⁴⁶ Id.

⁴⁷ Note to Parties and Arbitral Tribunals on the Conduct of the Arbitration under the ICC Rules of Arbitration (1 Jan. 2019) § 32.

⁴⁸ ICC Arbitration Rules, Art. 13(1) and 13(2).

⁴⁹ Ibid. Art. 11(2).

⁵⁰ *Indus Waters Kishenganga Arbitration (Pakistan v. India)*, PCA Case No. 2011-01 (Partial Award of 18 Feb. 2013 and Final Award of 20 Dec. 2013).

administered by other arbitral institutions.⁵¹ In such a situation, ICC, through the ICC Court, is empowered to act as appointing authority by agreement of the parties, designation by the Secretary-General of the PCA, or otherwise.⁵²

- 5.15** As provided in the *IBA Guidelines on Conflicts of Interest in International Arbitration*, “[e]very arbitrator shall be impartial and independent of the parties at the time of accepting an appointment to serve and shall remain so during the entire arbitration proceeding until the final award has been rendered or the proceeding has otherwise finally terminated”.⁵³ Under ICC practice, “[a]n arbitrator or prospective arbitrator must disclose in his or her statement, at the time of his or her appointment and as the arbitration is ongoing, any circumstance that might be of such a nature as to call into question his or her independence in the eyes of any of the parties or give rise to reasonable doubts as to his or her impartiality”,⁵⁴ and any doubt must be resolved in favour of disclosure. In assessing whether a disclosure should be made, an arbitrator or prospective arbitrator should consider relationships with non-parties having an interest in the outcome of the arbitration. The Secretariat may in this respect assist prospective arbitrators by identifying “relevant entities” in the arbitration.⁵⁵
- 5.16** In view of the specific nature of investment arbitrations based on treaties, for the sake of transparency and subject to any considerations of confidentiality, ICC encourages prospective arbitrators to state in their curriculum vitae a complete list of the treaty-based cases in which they participated as arbitrator, expert or counsel.⁵⁶
- 5.17** Where the ICC Court is required to appoint an arbitrator – i.e. a sole arbitrator,⁵⁷ member of the tribunal where a party has failed to nominate,⁵⁸ or president⁵⁹ – it generally solicits a proposal by a National Committee.⁶⁰ The parties may agree that the ICC Court’s appointment of a sole arbitrator or a presiding arbitrator will take place in consultation between the parties and the Secretariat.⁶¹
- 5.18** The ICC Court may directly appoint an arbitrator where: (i) one or more of the parties is a State or state entity; (ii) it considers that it would be appropriate to appoint an arbitrator from a country or territory where there is no National Committee; or (iii) in the President of the ICC Court’s opinion, circumstances make a direct appointment necessary and appropriate.⁶² In those circumstances, the ICC Court carries an even higher responsibility to ensure that the identified appointee is appropriately qualified and fit for the role.

51 See Rules of ICC as Appointing Authority in UNCITRAL or Other Arbitration Proceedings (1 Jan. 2018).

52 Ibid. Art.1(1).

53 IBA Guidelines on Conflicts of Interest in International Arbitration, General Standard 1.

54 Note to Parties and Arbitral Tribunals on the Conduct of the Arbitration under the ICC Rules of Arbitration (1 Jan. 2019) § 21.

55 Ibid. § 24.

56 Ibid. § 139.

57 ICC Arbitration Rules, Art. 12(2) .

58 Ibid. Art. 12(4).

59 Ibid. Art. 12(5).

60 Ibid. Art. 13(3).

61 Note to Parties and Arbitral Tribunals on the Conduct of the Arbitration under the ICC Rules of Arbitration (1 Jan. 2019), §24.

62 ICC Arbitration Rules, Art. 13(4).

- 5.19** A party may challenge the appointment before the ICC Court, “whether for an alleged lack of impartiality or independence, or otherwise”.⁶³ The language “or otherwise” is a catch-all phrase that could include lack of requisite qualifications. Accordingly, if a party considers that the arbitrator is not appropriately qualified or fit for the role, parties may challenge the arbitrator.⁶⁴ An arbitrator shall be replaced upon acceptance of a challenge or on the ICC Court’s own initiative “when it decides that the arbitrator is prevented de jure or de facto from fulfilling the arbitrator’s functions, or that the arbitrator is not fulfilling those functions in accordance with the Rules”.⁶⁵ In such situations, the ICC Court provides the arbitrator concerned, the parties and any other members of the arbitral tribunal an opportunity to comment.
- 5.20** Thus, the selection of arbitrators under the *ICC Arbitration Rules* leaves the parties a wide margin of discretion either to choose the arbitrators or specify the method to select them. The ICC Court would usually only step in where the parties cannot agree or they challenge an arbitrator for alleged lack of impartiality or independence or requisite skills.
- 5.21** The *PCA Environmental Rules*, by contrast, provide for the establishment of a specialised list of arbitrators considered to have environmental expertise and a specialised list of scientific and technical experts who may be appointed as expert witnesses pursuant to those Rules.⁶⁶ As of July 2018, the PCA’s list included 25 specialised environmental arbitrators⁶⁷ and 17 technical and scientific environmental experts.⁶⁸ This currently includes, for example, a member of the board of directors of the Sri Lanka Carbon Fund. Individuals on the list are nominated by member states and reviewed every four years. Parties to a dispute under the *PCA Environmental Rules* are free to choose arbitrators, conciliators and expert witnesses from these panels, but are not limited to these panels.
- 5.22** While the ICC Court of Arbitration does not currently maintain formal lists of experts, the ICC Centre for ADR maintains an open database of experts in different areas as discussed below.

2) Party-appointed experts

- 5.23** The *ICC Arbitration Rules* permit parties wide discretion to appoint experts in international arbitration proceedings. The arbitral tribunal may decide to hear “experts appointed by the parties or any other person”.⁶⁹ Under the existing Rules, therefore, parties are free to appoint any expert that they consider relevant to the dispute, including climate change experts.
- 5.24** This is in line with the *IBA Rules on the Taking of Evidence in International Arbitration*, which provide that a party may rely on a party-appointed expert as a means of evidence on specific issues.⁷⁰

63 Ibid. Art. 14(1).

64 That provision allows a party to challenge an arbitrator for reasons other than an alleged lack of independence or impartiality. Parties have made challenges on grounds such as an arbitrator’s alleged inability to conduct the proceedings according to the Rules or an arbitrator’s lack of relevant skills. See J. Fry, S. Greenberg, F. Mazza, *The Secretariat’s Guide to ICC Arbitration* (ICC, 2012), § 3-567.

65 *ICC Arbitration Rules*, Art. 15 (2).

66 *PCA Environmental Rules*, Art. 27(5). However, “in appointing one or more experts ... the arbitral tribunal shall not be limited in its choice to any person or persons appearing on the indicative list of experts”. (Id.).

67 <https://pca-cpa.org/wp-content/uploads/sites/6/2017/07/Current-List-Annex-2-SP-ARB-update-20180622.pdf>.

68 <https://pca-cpa.org/wp-content/uploads/sites/-/2017/07/Current-List-Annex-3-SP-SciEXP-update-20180622.pdf>.

69 *ICC Arbitration Rules*, Art. 25(3).

70 Art. 5 of the *IBA Rules on the Taking of Evidence in International Arbitration* (2010). See also Art. 6.5 of the *Prague Rules on the Efficient Conduct of Proceedings in International Arbitration* (2018).

5.25 Existing arbitral practice demonstrates that parties do indeed introduce expert evidence in ICC Arbitration in relation to environmental, energy and other technical issues. In climate change related disputes, the parties and the tribunal may consider raising at the case management conference, or in the context of Terms of Reference as a matter of course, the question whether or not climate change expertise is required. As discussed below, the parties may use the services of the ICC Centre for ADR to assist it in selecting such party-appointed expert(s).

Hypothetical cases nos. 1-9

> See paras. 2.4, 2.5, 2.6 and 5.8 above.

In all of the hypothetical situations described above, the parties will be able to select and appoint their own scientific, technical and/or economic experts with appropriate knowledge in climate change, systems transition and related environmental impacts and to introduce their opinions into evidence.

3) Tribunal-appointed experts

5.26 The arbitral tribunal may also appoint its own expert(s). Under the *ICC Arbitration Rules*, the tribunal may do so after having consulted with the parties.⁷¹ As discussed below, the arbitral tribunal may use the services of the ICC Centre for ADR to assist it in appointing an expert. In climate change related disputes, this could include for example an expert on climate change science, or domestic or international climate change policy, commitments or law. This is not new. For example, in the PCA administered *South China Sea* arbitration, the tribunal commissioned an independent expert on the coral reef environment.⁷²

5.27 As for party-appointed experts, the *IBA Rules on the Taking of Evidence* provide that the arbitral tribunal, “after consulting with the Parties, may appoint one or more independent tribunal-appointed experts to report to it on specific issues designated by the Arbitral Tribunal”.⁷³ ICC arbitral tribunals have recourse to such experts on a regular basis.

5.28 The ICC Centre for ADR, which is wholly independent from the ICC Court, may propose experts to ICC arbitral tribunals free of charge, which is a unique service offered in all cases administered by ICC.⁷⁴

Hypothetical cases nos. 1-9

> See paras. 2.4, 2.5, 2.6 and 5.8 above.

As for party-appointed experts, in all of the hypotheticals, the arbitral tribunal will be able, on its own motion or upon parties’ requests, to select and appoint their own scientific, technical and/or economic experts with appropriate knowledge in climate change, systems transition and related environmental impacts.

⁷¹ ICC Arbitration Rules, Art. 25(4).

⁷² “Assessment of the potential environmental consequences of construction activities on seven reefs in the Spratly Islands in the South China Sea”, Expert report of Dr. S. Ferse, Prof. P.Mumby, and Dr. S. Ward.

⁷³ Art. 6 of the *IBA Rules on the Taking of Evidence in International Arbitration* (2010). Likewise, Arts. 6.1 and 6.7 of the *Prague Rules on the Efficient Conduct of Proceedings in International Arbitration* (2018) provide that the arbitral tribunal may appoint one or more independent experts to present a report on disputed matters “which require specialised knowledge” and that, at the request of a party or on the arbitral tribunal’s own initiative, the expert shall be called for examination at the hearing.

⁷⁴ ICC Rules for the Proposal of Experts and Neutrals, Appendix II, Art. 3.

5.29 Alternatively, a tribunal in an ICC administered arbitration may request that the parties – either jointly or separately – produce a non-technical document summarising and/or explaining any scientific, technical or other specialised information to assist it in its resolution of the dispute. The *PCA Environmental Rules* expressly provide that an arbitral tribunal may request such a document in relation to environmental claims.⁷⁵ An arbitral tribunal may similarly do so under the *ICC Arbitration Rules*, which empower tribunals to adopt such procedural measures as they consider appropriate after consulting the parties, provided it is not contrary to any agreement of the parties.⁷⁶ This could also be provided for in the Terms of Reference.

General use of climate change related expertise

Terms of Reference - Sample wording

Where the arbitration clause does not so provide, alternatively the parties and/or arbitral tribunal may subsequently include language as follows:

(a) *After consultation with the parties, the tribunal may issue directions regarding the use of appropriate climate change related expertise including through:*

- (i) *tribunal appointed experts; and/or*
- (ii) *party appointed experts.*

(b) *The tribunal may, and the parties are encouraged to, utilise the facilities of the ICC International Centre for ADR to identify individuals with appropriate climate change related scientific, technical or other specialised expertise.*

(c) *At any stage in the proceedings that it considers appropriate and necessary, the tribunal may request the parties to jointly or separately provide a non-technical document summarizing and explaining the background to any scientific, technical or other specialised information which the tribunal considers necessary to understand fully the matters in dispute.*

(d) *If a party does not comply with the preceding requirements, the tribunal retains full discretion to take appropriate action and issue appropriate directions or orders.*

4) The ICC Expert Rules

5.30 As indicated, the ICC Centre for ADR offers services for the proposal or the appointment of experts, and the administration of expert proceedings. Under the *ICC Expert Rules*, the Centre offers three distinct services relating to experts and neutrals: (i) “*proposal*”, whereby the Centre puts forward the name(s) of one or more experts or neutrals upon a request from one or more parties, a court or an arbitral tribunal; (ii) “*appointment*”, whereby the Centre makes an appointment that is binding upon the requesting parties; or (iii) “*administration*”, whereby the Centre is chosen to administer and supervise the entire expert proceedings. In respect of all three services, the Centre selects an expert either on the basis of a proposal by an ICC National Committee or otherwise.

⁷⁵ *PCA Environmental Rules*, Art. 24(4). The *PCA Environmental Rules* provide that the arbitral tribunal “may request the parties jointly or separately to provide a nontechnical document summarizing and explaining the background to any scientific, technical or other specialised information which the arbitral tribunal considers to be necessary to understand fully the matters in dispute”.

⁷⁶ *ICC Arbitration Rules*, Art. 22(2).

- 5.31** As with the ICC Court for the appointment of arbitrators, the ICC Centre for ADR requires any prospective expert to sign a statement of acceptance, availability, impartiality and independence.⁷⁷ The Centre also considers the prospective expert's attributes, including with respect to nationality, residence, training and experience. Every expert is required to be and to remain impartial and independent of the parties involved in the expert proceedings, unless otherwise agreed in writing by such parties.
- 5.32** The ICC Centre for ADR conducts a bespoke search in every case in order to identify individuals who fit the particular case criteria. It consults its open database of all the companies and individuals that have submitted profiles to it over the decades of existence of ICC's expertise services, including its network of professionals and firms worldwide and, most importantly, ICC's network of National Committees. The Centre thus avails itself of "unmatched access to experts and neutrals on all continents and from all disciplines, including accounting, finance, engineering, information technology, construction, energy and the law".⁷⁸ Given this wide range of expertise, the ICC Centre for ADR is in a good position to select experts whose experience is tailored to the particular needs of the parties in climate change and related environmental disputes.
- 5.33** It may be timely for the ICC Centre for ADR to explore an outreach to climate change scientists and other technical and modelling experts in order to expand the Centre's available experts in areas relevant to climate change related disputes.

B. Measures and procedures to expedite early or urgent resolution

- 5.34** Urgency, timeliness and avoidance of delay is often critical for meaningful resolution of climate change related disputes. The science, innovation and new technology is fast-moving. The environmental impacts and effects on populations are potentially irreversible if not dealt with at an early enough stage. In addition, applicable legislative and regulatory frameworks and the overall energy market will continue rapidly to evolve and impact the allocation of risk in ongoing essential infrastructural and energy projects, possibly affecting millions of lives. Consequently, it is not always viable to expect disputing parties to await resolution of a dispute over the course of two or more years. Climate change action is universally acknowledged to be urgent; arbitration of climate change related disputes must be able meaningfully to accommodate that urgency. However, not all arbitrations, even less ADRs, do take years to resolve disputes, whether climate change related disputes or equally large and/or complex disputes, even in the construction area. One of the virtues of the statement of acceptance, availability, impartiality and independence required to be filed by prospective appointees under the *ICC Arbitration Rules*, *Mediation Rules* and *Expert Rules*, is precisely to allow their selection process to take their availability in account, and parties should give much weight to this consideration where time is a factor in their dispute's resolution.
- 5.35** ICC Arbitration has various features that may be adopted or utilised to enhance prompt resolution of climate change related disputes. *First*, parties and arbitral tribunals may adopt certain case management techniques to facilitate prompt resolution of climate change related disputes.

⁷⁷ ICC Mediation Rules, Art. 5(3).

⁷⁸ ICC Expert Rules, Foreword.

Guidance for case management of climate change related disputes

The following are examples of case management techniques that can be used by the tribunal and the parties in climate change related disputes.

- a) Bifurcating the proceedings or rendering one or more partial awards on key climate change related scientific, technical or other specialised issues, when doing so may reasonably be expected to result in a more effective and efficient resolution.
- b) Identifying climate change related scientific, technical or other specialised issues that can be resolved by agreement between the parties or their experts.
- c) Identifying climate change related scientific, technical or other specialised issues to be decided solely on the basis of documents rather than through oral evidence or legal argument at a hearing.
- d) Production of documentary evidence relating to climate change related scientific, technical or other specialised issues:
 - (i) requiring the parties to produce with their submissions the scientific, technical or other specialised documents on which they rely, including any mathematical models or software required for the prognosis and/or evaluation of measures and/or environmental impacts;
 - (ii) avoiding requests for document production when appropriate in order to control time and cost;
 - (iii) in those cases where requests for additional climate change related scientific, technical or other specialised document production are considered appropriate, limiting such requests to documents or categories of documents that are relevant and material to the outcome of the case;
 - (iv) establishing reasonable time limits for the production of documents;
 - (v) using a schedule of document production to facilitate the resolution of issues in relation to the production of documents;
 - (vi) requiring the parties jointly or separately to provide a non-technical document summarising and explaining the background to any scientific, technical or other specialised information which the tribunal considers necessary to understand fully the matters in dispute.
- e) Using the case management conference and/or other procedural hearings to limit and focus the length and scope of written submissions and written and oral witness evidence (both fact witnesses and experts) on climate change related scientific, technical or other specialised so as to maintain focus on key climate change related issues.
- f) Use witness and/or expert conferencing for procedural and other hearings in order to focus and narrow the climate change related scientific, technical or other specialised issues.
- g) Organise a pre-hearing conference with the arbitral tribunal at which arrangements for a hearing can be discussed and agreed and the arbitral tribunal can indicate to the parties issues on which it would like the parties to focus at the hearing.
- h) Settlement of disputes:
 - (i) informing the parties that they are free to settle all or part of the dispute either by negotiation or through any form of amicable dispute resolution methods such as, for example, mediation under the ICC Mediation Rules, and that the procedural timetable of the arbitration may provide for a mediation window if they so wish;
 - (ii) where agreed between the parties and the arbitral tribunal, the arbitral tribunal may take steps to facilitate settlement of the dispute, including through the use of a neutral climate change related scientific, technical or other specialised expert, provided that every reasonable effort is made to ensure that any subsequent award is enforceable at law.

- 5.36** *Second*, parties may proceed on the basis of the new *ICC Expedited Procedure*. By agreeing to arbitrate under the *ICC Arbitration Rules*, the parties accept the Expedited Procedure Rules if (i) the amount in dispute does not exceed a limit currently set at US\$ 2 million, or (ii) the parties otherwise agree.⁷⁹

Expedited arbitration

ICC Standard Clause⁸⁰

Parties may wish expressly to avail themselves of the expedited procedure in higher-value disputes, they should expressly opt in by adding the following wording to the Standard ICC Arbitration Clause:

The parties agree, pursuant to Article 30(2)(b) of the Rules of Arbitration of the International Chamber of Commerce, that the Expedited Procedure Rules shall apply irrespective of the amount in dispute.

If parties wish the ceiling for the application of the Expedited Procedure Rules to be higher than that specified in those Rules, the following wording should be added to the clause above:

The parties agree, pursuant to Article 30(2)(b) of the Rules of Arbitration of the International Chamber of Commerce, that the Expedited Procedure Rules shall apply, provided the amount in dispute does not exceed US\$ [specify amount] at the time of the communication referred to in Article 1(3) of the Expedited Procedure Rules.

Terms of Reference

Alternatively, in the Terms of Reference, the parties and arbitral tribunals may provide as follows:

The tribunal may invite the parties to explore proceeding under the Expedited Procedure Rules.

- 5.37** *Third*, under the *ICC Arbitration Rules* and dispute resolution practice, there are several additional features already in place, including: (i) use of escalating dispute resolution clauses in order to avoid arbitration altogether; (ii) emergency arbitration; (iii) interim and conservatory measures; and (iv) other time and cost management techniques including those set out at Appendix IV of the *ICC Arbitration Rules*, the case management conference and Terms of Reference. Many of these features are unique to ICC Arbitration and, as discussed below, the ICC Court and ICC Centre for ADR both provide additional safeguards. Each of these is discussed below.

1) ADR and other escalating dispute resolution provisions

- 5.38** *First*, escalating dispute resolution provisions provide for pre-arbitral, non-binding dispute resolution phases ranging from informal consultation, high level settlement meetings, negotiation and mediation to structured adjudication. Often, such ADR will facilitate fast and cost-efficient resolution of a dispute.

⁷⁹ Art. 30 of, and Appendix VI to, the *ICC Arbitration Rules*.

⁸⁰ See the *ICC Standard Arbitration Clauses*.

- 5.39** In relation to climate change related disputes in particular, in addition to the often inherent urgency, there are frequently ongoing relations or project commitments or other reasons to seek resolution without instigating formal arbitration proceedings. Moreover, climate change projects or programmes often involve state parties or international organisations or development funds, with whom new climate change industry market entrants must preserve ongoing relations.
- 5.40** ADR is also reflected, as an alternative to arbitration, in both the **UNFCCC** and the **Paris Agreement**, which expressly provide that the states parties to these instruments may have recourse to “settlement of the dispute through negotiation or any other peaceful means of their own choice”.⁸¹ Whilst both instruments expressly provide for arbitration, it is subject to further agreement and negotiation of an arbitration annex. Conciliation, on the other hand, is mandatory pursuant to the provisions of both the UNFCCC and Paris Agreement.⁸²

81 Art. 14(1) of the UNFCCC / Art. 24 of the Paris Agreement (by incorporation: “The provisions of Article 14 of the Convention on settlement of disputes shall apply mutatis mutandis to this Agreement”).

82 Art. 14(5) and (6) of the UNFCCC / Art. 24 of the Paris Agreement (by incorporation) provide in relation to conciliation that: “5. Subject to the operation of paragraph 2 above, if after twelve months following notification by one Party to another that a dispute exists between them, the Parties concerned have not been able to settle their dispute through the means mentioned in paragraph 1 above, the dispute shall be submitted, at the request of any of the parties to the dispute, to conciliation. 6. A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall be composed of an equal number of members appointed by each party concerned and a chairman chosen jointly by the members appointed by each party. The commission shall render a recommendatory award, which the parties shall consider in good faith.”

Multi-tiered clauses – ICC Standard Clauses⁸³

ICC Arbitration may be used as the forum for final determination of a dispute following an attempt at settlement by other means such as mediation. Parties wishing to combine ICC Arbitration and ICC Mediation in a multi-tiered dispute resolution clause may refer to the standard clauses relating to the ICC Mediation Rules. At all times, care must be taken to avoid any risk of ambiguity in the drafting of the clause. Unclear wording causes uncertainty and delay and can hinder or even compromise the dispute resolution process. When incorporating any of these standard clauses in their contracts, parties are advised to take account of any factors that may affect their enforceability under applicable law.

Obligation to refer dispute to the ICC Mediation Rules while permitting parallel arbitration proceedings if required

(x) In the event of any dispute arising out of or in connection with the present contract, the parties shall first refer the dispute to proceedings under the ICC Mediation Rules. The commencement of proceedings under the ICC Mediation Rules shall not prevent any party from commencing arbitration in accordance with sub-clause y below.

(y) All disputes arising out of or in connection with the present contract shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules

Obligation to refer dispute to the ICC Mediation Rules, followed by arbitration if required

In the event of any dispute arising out of or in connection with the present contract, the parties shall first refer the dispute to proceedings under the ICC Mediation Rules. If the dispute has not been settled pursuant to the said Rules within [45] days following the filing of a Request for Mediation or within such other period as the parties may agree in writing, such dispute shall thereafter be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules of Arbitration

Other combinations of services are also possible. For instance, arbitration may be used as a fallback to expertise or dispute boards. Also, parties who resort to ICC Arbitration may wish to provide for recourse to the ICC International Centre for ADR for the proposal of an expert if an expert opinion is required in the course of the arbitration.

- 5.41** As to the implementation of multi-tiered dispute resolution provisions, ICC offers several services administered by its ICC Centre for ADR including mediation, expert determination and dispute boards to implement escalation provisions, with final resolution of remaining unsolved disputes under the ICC Arbitration Rules if needed.

⁸³ Clause C and Clause D of the ICC Mediation Clauses. The notes below each clause are intended to help parties select the clause that best meets their specific requirements.

i) Mediation

- 5.42** ICC offers assistance to parties seeking to resolve their disputes amicably through the its Centre for ADR and its Mediation Rules. Mediating climate change related disputes is enhanced where the mediator or adjudicator is appointed for his or her specific expertise in the relevant subject matter.⁸⁴
- 5.43** As to appointment, unless the parties jointly nominate a mediator for confirmation by the ICC Centre for ADR,⁸⁵ the Centre shall make the appointment or propose a list of mediators to the parties,⁸⁶ on the basis of a proposal by a National Committee or otherwise.⁸⁷ In either case, the prospective mediator shall sign a statement of acceptance, availability, impartiality and independence,⁸⁸ and, when confirming him or her, the Centre shall in any event “consider the prospective mediator’s attributes, including with respect to nationality, language skills, training, qualifications and experience”.⁸⁹

Mediation – ICC Standard Clauses⁹⁰

Parties wishing to use proceedings under the ICC Mediation Rules should consider choosing one of the clauses below, which cover different situations and needs. Parties are free to adapt the chosen clause to their particular circumstances. For instance, they may wish to specify the use of a settlement procedure other than mediation. Further, they may wish to stipulate the language and place of any mediation and/or arbitration proceedings.

Option to Use the ICC Mediation Rules

The parties may at any time, without prejudice to any other proceedings, seek to settle any dispute arising out of or in connection with the present contract in accordance with the ICC Mediation Rules

Obligation to Consider the ICC Mediation Rules

In the event of any dispute arising out of or in connection with the present contract, the parties agree in the first instance to discuss and consider referring the dispute to the ICC Mediation Rules.

- 5.44** The process under the *ICC Mediation Rules* is flexible; after discussion with the parties, the only formal obligation on the mediator is to provide the parties with a written note informing them of the manner in which the mediation shall be conducted and for the parties to participate until such note is issued by the mediator.⁹¹ The only guidelines are that the mediator is “guided by the wishes of the parties” and he must treat them “with fairness and impartiality” while, in turn they “shall act in good faith” throughout the mediation.⁹²

84 It should be noted that the UN Convention on International Settlement Agreements Resulting from Mediation (the “Singapore Mediation Convention”), once in force, could provide a framework for international settlement agreements resulting from mediation.

85 ICC Mediation Rules, Art. 5(1).

86 Ibid. Art. 5(2).

87 Ibid. Art. 5(5).

88 Ibid. Art. 5(3).

89 Ibid. Art. 5(4).

90 Clause A and Clause B of the ICC Mediation Clauses.

91 ICC Mediation Rules, Art. 7(2).

92 Ibid. Art. 7. See also the ICC Mediation Guidance Notes.

ii) Expert determination

- 5.45** As discussed above, ICC further offers assistance to parties seeking to resolve their disputes through expert determination. Contractually agreed escalating dispute resolution provisions may expressly provide for expert determination as a mandatory step prior to any arbitration proceedings, or the parties may agree to submit to an expert after a dispute has arisen.
- 5.46** Parties to climate change related disputes may look to an expert to determine a dispute on the basis of his or her scientific, technical or financial expertise, ultimately subject to arbitration or not. The parties may consent to the ICC Expert Rules for this purpose.

Administration of Expert Proceedings – ICC Standard Clauses⁹³

Optional Administered Expert Proceedings

The parties may at any time, without prejudice to any other proceedings, agree to submit any dispute arising out of or in connection with [clause X of the present contract] to administered expert proceedings in accordance with the Rules for the Administration of Expert Proceedings of the International Chamber of Commerce.

Obligation to Submit Dispute to Non-Binding Administered Expert Proceedings

In the event of any dispute arising out of or in connection with [clause X of the present contract], the parties agree to submit the dispute to administered expert proceedings in accordance with the Rules for the Administration of Expert Proceedings of the International Chamber of Commerce.

- 5.47** Expert determination may facilitate early resolution of disputes by providing parties with an early neutral assessment on the technical facts in issue – for example the total greenhouse gas emissions of a particular project. This is particularly valuable given that climate science and technical modelling is constantly evolving. And even if settlement is not achieved, such prior expert determination would provide the parties and the arbitral tribunal with a starting point for the determination of the dispute.

Hypothetical case no. 5: Price revision expert determination – Manufacture and supply

> See para. 2.5 above.

The contract between the manufacturer of sodium bicarbonate and soda ash and the co-generation operator for the supply of such water vapor includes a price revision clause which provides for an expert determination where appropriate.

By resorting to such expert determination at an early stage in their dispute, they may find the expert's opinion an adequate basis for an amicable resolution.

iii) Dispute boards

- 5.48** ICC also assists in the formation and use of dispute resolution standing bodies and offers model governing rules. A standing body, usually of one or three members, is typically set up upon signature or commencement of performance of a mid- or long-term contract. In construction contracts these are commonly referred to as Dispute Boards (“DB”), a generic category including Dispute Adjudication Boards (“DABs”) under the *ICC Dispute Board Rules*. Dispute Avoidance and Adjudication Boards (“DAABs”) are a main feature in the recently revised

⁹³ Clause A and Clause B of the standard clauses referring to the ICC Rules for the Administration of Expert Proceedings.

FIDIC Suite of Conditions of Contract.⁹⁴ DBs are used to assist parties avoid or overcome any disagreements or disputes that arise during the implementation of the contract, without delaying the ongoing project implementation. DBs could be effective in various climate change related projects and programmes, such as reforestation projects or irrigation and water distribution projects. DBs could also be used in disputes relating to climate change related environmental impacts, where the parties require the impact (or threatened impact) to be addressed without interfering with the ongoing project.

- 5.49** The *ICC Dispute Board Rules* consist of a comprehensive set of provisions for establishing and operating a DB. They cover such matters as the appointment of the DB member(s); the services they provide; and the compensation they receive. In the application of the *ICC Dispute Board Rules*,⁹⁵ the ICC Centre for ADR can also provide administrative services to the parties, such as appointing DB members, deciding upon challenges against them, determining their fees, and reviewing their decisions.
- 5.50** Where climate change related disputes are likely to arise in relation to large infrastructure projects, the parties might choose to incorporate ICC Dispute Boards into the suite of contracts for the project. ICC Dispute Boards can be particularly appropriate for large-scale projects: being standing bodies, at least as a general rule, they are expected to remain up to date as to the progress of the project and any issues arising and can intervene to assist as soon as issues arise and before they crystallise into disputes. A number of features of DBs might make them appropriate:
- a) The *ICC Dispute Board Rules* apply to a wide range of disputes, including pre-dispute “differences”. The only major requirement is that there be a “contract”, defined as an “agreement of the Parties that contains or is subject to provisions for establishing a Dispute Board under the Rules.” Provided this requirement is met, a DB may “assist the Parties in avoiding Disagreements, in resolving them through informal assistance, and by issuing Conclusions”, either a Recommendation or a Decision.⁹⁶
 - b) The specific obligations of the DB members and the extent to which they are required to remain up to date as to the progress of the project and any issues arising can be individually negotiated for each project. For example, the retainer agreement with the DB members can require them to undertake regular site visits, review key progress reports and maintain a general overview of the issues arising. As standing bodies, the DBs would have current knowledge of the project, its status, its aims and any constraints around what changes can be made and how such changes would affect the stakeholders in the project.
 - c) The parties can select DB members with suitable experience or expertise and establish the process for the DB with considerable latitude. The parties enjoy a wide margin of discretion to organise the DB with the assistance of the Centre, if required. Any project-specific requirements should be able to be accommodated.
 - d) Upon perceiving a potential disagreement, the DB may identify it and encourage the parties to resolve it on their own. A DB can intervene with informal assistance to help the parties resolve the matter by agreement or determine a dispute through a recommendation or a decision issued after a procedure of formal referral.

94 FIDIC Suite of Agreements 2017.

95 *ICC Dispute Board Rules*, Art. 1(2).

96 *Ibid.* Art. 2(1).

- e) The *ICC Dispute Board Rules* offer three different types of DBs: (i) DABs that issue decisions that must be complied with immediately; (ii) Dispute Review Boards (“DRBs”) that issue recommendations that become binding on the parties if none objects within 30 days; and (iii) Combined Dispute Boards (“CDBs”) that normally issue recommendations but may also issue decisions if a party so requests and no other party objects or the DB so decides on the basis of criteria set out in the Rules.
- f) The decisions of the DB do not face enforceability issues where the allocation of funds to meet its rulings would come from a standing fund. The applicant would not need to make a further application to give effect to the decision.

5.51 Industry practice demonstrates the use of DBs in major infrastructure contracts, including by states in projects that may detrimentally impact the environment. For example, the Chilean Government has approved the use of technical panels to deal with technical or economic discrepancies among parties that arise during the life of concession agreements. The technical panel is appointed for the duration of the concession and can be asked to resolve a dispute at any time and can act whether the government or the concessionaire requires its intervention. The parties may, however, seek to preserve the right to arbitrate any DB decision. In this respect, the *IBA Model Mining Development Agreement Project* published a model contract for all aspects of natural resource extraction projects, usually involving state parties. It provides for pre-arbitration conciliation, including through submitting any technical matters to a sole technical expert.⁹⁷

5.52 In addition, *ad hoc* standing dispute resolution bodies are well known in international dispute resolution. Examples include: (i) the *Iran-US Claims Tribunal*; (ii) the *Claims Resolution Tribunal for Holocaust Victim Asset Litigation*, (iii) *ad hoc* standing dispute resolution bodies established to deal with environmental disasters, such as the Deepwater Horizon oil spill in the Gulf of Mexico; and (iv) the *International Oil Pollution Compensation Funds* maintained by an intergovernmental organisation that provides compensation for oil pollution damage resulting from spills from oil tankers. While such *ad hoc* standing bodies may not strictly all be DBs, they provide examples of functions that DBs could conceivably be entrusted with the duties of discharging.

5.53 There are various ways in which DBs might be used in relation to climate change related disputes. For example:

- a) **Green Climate Fund (“GCF”) disputes.** In September 2017, the Board of the **GCF** adopted Terms of Reference for an Independent Review Mechanism (“IRM”) to consider complaints from countries about funding decisions for projects and complaints from individuals and groups claiming to have been adversely affected by such projects. In relation to adverse effect complaints, the IRM can seek to implement mediation processes to settle the complaint or can make recommendations to the Board of the GCF (as to changes to be made to the project and/or compensation for the affected communities). Where a GCF funded project has wide-ranging impacts that may continue for an extended period, it may be appropriate to build an ICC Dispute Board option into the complaint mechanism processes available to affected individuals and groups. This would allow affected individuals

⁹⁷ *IBA Model Mining Development Agreement*, clause 32.1. The Agreement separately provides for a dispute resolution mechanism for community grievances and for any claim by a natural citizen in relation to the project at clause 27.1 and 27.2, respectively.

and groups a line of communication directly to the entities working on the project; rather than the more indirect line of communication to the IRM of the GCF, as the funder of the project.

- b) Equator Principles (“EPs”) disputes.** ICC Dispute Boards could also be built into the dispute resolution processes applying to projects where the funding is subject to the EPs. Currently 92 financial institutions in 32 countries have signed up to the EPs. Pursuant to those principles, the financial institutions commit to only funding projects that appropriately manage social and environmental risks. EP 6 “Grievance Mechanism” provides:

[T]he EPFI [Equator Principles Financial Institutions] will require the client, as part of the ESMS [Environmental and Social Management System], to establish a grievance mechanism designed to receive and facilitate resolution of concerns and grievances about the Project’s environmental and social performance.

The grievance mechanism is required to be scaled to the risks and impacts of the Project and have Affected Communities as its primary user. It will seek to resolve concerns promptly, using an understandable and transparent consultative process that is culturally appropriate, readily accessible, at no cost, and without retribution to the party that originated the issue or concern. The mechanism should not impede access to judicial or administrative remedies. The client will inform the Affected Communities about the mechanism in the course of the Stakeholder Engagement process.⁹⁸

Accordingly, the ICC Dispute Board process could be adapted to act as the grievance mechanism for EPs’ funded projects under EP 6. This could either be a separate DB, solely focused on the community engagement issues. Or, the community engagement issues under the Equator Principles could be one aspect of the role of a DB established at the commencement of the project to deal with issues that arise between the contracting parties.

2) Emergency proceedings

5.54 *Second*, the *ICC Arbitration Rules* provide that, where an arbitral tribunal has not been constituted to decide a dispute and the parties are signatories to an arbitration agreement, a party that needs “urgent interim or conservatory measures that cannot await the constitution of an arbitral tribunal (“Emergency Measures”) may make an application for such measures pursuant to the *Emergency Arbitrator Rules* in Appendix V”.⁹⁹ Although the ICC Rules provide for recourse to an emergency arbitrator, they do not intend to prevent any party from seeking urgent interim or conservatory measures from a competent judicial authority at any time prior to making an application for such measures, and in appropriate circumstances even thereafter.¹⁰⁰

5.55 Pursuant to the *ICC Emergency Arbitrator Rules*, if and to the extent that the President of the ICC Court considers, on the basis of the information contained in the Application, that the Emergency Arbitrator Provisions apply, the President shall appoint an emergency arbitrator “within as short a time as possible, normally within two days from the Secretariat’s receipt of the Application”. The emergency arbitrator’s order shall be made no later than 15 days from

⁹⁸ Equator Principles III (June 2013).

⁹⁹ *ICC Arbitration Rules*, Art. 29(1). A request for arbitration must then be filed by the applicant within 10 days, unless the emergency arbitrator determines that a longer period of time is necessary. Before the file is transmitted to the arbitral tribunal (and “in appropriate circumstances even thereafter”), the parties may apply to any competent judicial authority for interim or conservatory measures (Art. 28(2)).

¹⁰⁰ *ICC Arbitration Rules*, Art. 29(7).

the date on which the file was transmitted to him or her.¹⁰¹ Accordingly, climate change related disputes that require immediate orders prior to the constitution of the arbitral tribunal can benefit from these existing Emergency Arbitrator Rules.

Hypothetical case no. 4: Shortage in motor vehicle supply

> See para. 2.5 above.

The car manufacturer may apply for an emergency arbitrator order as to which substitute air conditioning refrigerant it should use to resume its production pending adjudication of its claims on the merits.

Emergency relief in multi-tiered clause - ICC Standard Clauses¹⁰²

If the parties wish to have recourse to the Emergency Arbitrator Provisions, and want that recourse expressly to be available prior to expiry of the 45-day or other agreed period following filing of the Request for Mediation, the following wording should be added to the multi-tiered clause:

The requirement to wait [45] days, or any other agreed period, following the filing of a Request for Mediation, before referring a dispute to arbitration shall not prevent the parties from making an application, prior to expiry of those [45] days or other agreed period, for Emergency Measures under the Emergency Arbitrator Provisions in the Rules of Arbitration of the International Chamber of Commerce.

If the parties wish to have recourse to the Emergency Arbitrator Provisions, but only after expiry of the 45-day or other agreed period following filing of the Request for Mediation, the following wording should be added to the multi-tiered clause:

The parties shall not have the right to make an application for Emergency Measures under the Emergency Arbitrator Provisions in the Rules of Arbitration of the International Chamber of Commerce prior to expiry of the [45] days or other agreed period following the filing of a Request for Mediation.

3) Interim measures

5.56 *Third*, the ICC Arbitration Rules, like most arbitration rules, also provide for interim and conservatory measures.¹⁰³ The ICC Arbitration Rules provide that the parties may apply to any competent judicial authority for interim or conservatory measures “in appropriate circumstances” even after the file has been transmitted to the arbitral tribunal.¹⁰⁴ Unless the parties have otherwise agreed, as soon as the file has been transmitted to it, “the arbitral tribunal may, at the request of a party, order any interim or conservatory measure it deems appropriate” in the form of “an order, giving reasons, or of an award, as the arbitral tribunal considers appropriate”.¹⁰⁵

101 While the President of the ICC Court may extend the time limit pursuant to a reasoned request from the emergency arbitrator or on the President’s own initiative if the President decides it is necessary to do so, extensions are rare.

102 See Clause D (Specific Issues Concerning the Emergency Arbitrator Provisions) of the ICC Mediation Clauses.

103 Art. 28 of the ICC Arbitration Rules provides an adequate response in such situations as those envisioned, for example and in a different context, by Art. 290 of UNCLOS expressly provides for interim measures where there is a threat of harm to the environment.

104 ICC Arbitration Rules, Art. 28(2).

105 Ibid.

Hypothetical case no. 1: Wind farm project technical specifications dispute

> See para 2.4 above.

The contractor in a supply and erection of a wind farm project may, pending adjudication of its claims on the merits, seek interim relief in the form of (i) the suspension of the drawing of first demand performance bonds, and (ii) deemed final acceptance.

- 5.57** In the context of climate change related disputes, interim and conservatory measures may be pertinent, for example in the case of imminent and irreversible associated environmental harm arising out of a climate change related project, programme or initiative. The unique nature of environmental harm is recognised in the *PCA Environmental Rules*. These Rules expressly empower arbitral tribunals to order interim measures “to prevent serious harm to the environment falling within the subject-matter of the dispute”.¹⁰⁶ Such an environmentally-tailored provision may highlight to a tribunal the importance of environmental concerns as part of the overall dispute, as well as the importance of resolving such matters quickly. Similarly, the *UN Convention on the Law of the Sea (“UNCLOS”)* expressly states, at Article 290(1), that a court or tribunal with prima facie jurisdiction may prescribe provisional measures when necessary to prevent serious harm to the marine environment pending the final decision.

Interim and conservatory measures – Sample wording**Arbitration clause**

Parties may wish expressly to empower the tribunal, in as much as may be needed, to prevent environmental harm associated with climate change by adding the following wording to the Standard ICC Arbitration Clause:

The parties agree that, in as much as may be needed, interim and conservatory measures, in accordance with Article 28 of the ICC Rules of Arbitration, may be ordered where necessary to prevent serious harm to the environment falling within the subject-matter of the dispute.

Terms of Reference

Alternatively, in the Terms of Reference, the parties and arbitral tribunals in new transition-related contracts and subsequent agreements to arbitrate may wish to provide as follows:

The tribunal may order interim or conservatory measures in accordance with the ICC Arbitration Rules, including to prevent serious harm to the environment that falls within the subject-matter of the dispute.

4) Other time and cost management techniques

- 5.58** Fourth, the *ICC Arbitration Rules* incorporate other provisions to enhance time and cost management in arbitration. These provisions are individually and separately available to and potentially useful for parties to climate change related disputes. These include the ICC Arbitration Rules, Appendix IV on case management techniques, which provides examples of case management techniques “that can be used by the arbitral tribunal and the parties for controlling time and cost. Appropriate control of time and cost is important in all cases. In cases

¹⁰⁶ PCA Environmental Rules, Art. 26.

of low complexity and low value, it is particularly important to ensure that time and costs are proportionate to what is at stake in the dispute". They also include the unique ICC features of the mandatory case management conference and Terms of Reference.

- 5.59** In disputes where, as will often be, the understanding of underlying considerations to the dispute (e.g. business environment, genesis, technical aspects) are paramount to the parties, they should take advantage of the case management conference to inform and brief the arbitrators. The case management conference can, and often should, provide a full opportunity to customise the process and make it as efficient as possible, provided the parties timely express their concerns and make constructive suggestions to accommodate them. This will be relevant in climate change related disputes as much as in many others, if not more, because of the unique mix of legal, technical, ecological, economic and sometimes even socio-economic factors involved.

C. Application of climate change commitments and/or law

- 5.60** For the avoidance of doubt, ICC and arbitral tribunals are bound by the governing or applicable law to which parties have agreed, including any applicable mandatory rules. The governing law is central to the tribunal's decision. This Task Force is not suggesting that this can, or should, be changed.

Hypothetical case no. 1: Wind farm project technical specifications dispute

> See para. 2.4 above.

The contractor in the supply and erection of the wind farm project will argue that the contract's technical-scientific specifications have normative value as implementing the state's energy system transition public policy.

Hypothetical case no. 4: Shortage in motor vehicle supply

> See para. 2.5 above.

The parties to the dispute between the car manufacturer and the supplier of air conditioning system refrigerant gas may find it relevant that the legal maximum global warming potential of the gas be assessed as arguably implementing the state's transportation system transition public policy. Indeed, this is arguably a regulatory aspect that flows from the policy and it is in accordance with the governing law to enforce it.

- 5.61** Increasingly, state action to implement the **Paris Agreement** commitments, including the elements of **NDCs**, is reflected in changes to national legal and regulatory frameworks. In addition, many corporates (including but not limited to publicly listed companies) are voluntarily adopting certain industry standards (such as the **Equator Principles**) or international standards (such as the *UN Guiding Principles on Human Rights*) into their own corporate social responsibility commitments or codes of conduct. As both the changing regulatory environment and corporate codes reflect an intention to achieve the implementation of the Paris Agreement commitments (and the **SDGs**), the underlying climate change international instruments or policy may be relevant.

- 5.62** As international and national laws develop in relation to climate change, this evolution might become relevant, e.g. to termination of contract, determination of declaratory relief as to the responsibility for project delays, *force majeure/factum principis*, frustration, hardship/fundamental change in circumstances, or illegality.
- 5.63** In the international investment treaty context, the **Paris Agreement** is now expressly referenced in some bilateral investment treaties, including the *2018 Netherlands Model Bilateral Investment Treaty*.¹⁰⁷ As a result, arbitral tribunals determining claims made by a private sector investor against a host state under such treaties are obliged to give greater consideration to international climate change obligations bearing on states, and specifically the Paris Agreement. Even where there is no reference to the Paris Agreement in the applicable bilateral investment treaty, international obligations are usually interpreted on a progressive basis and it is likely that the Paris Agreement, and **NDCs**, will inform the investing party's legitimate expectations in determining, for example, a fair and equitable treatment claim.
- 5.64** In the commercial contractual context, certain sectors expressly reference in the preambular language or in the governing law provision of the relevant contract the *lex mercatoria* or industry specific "good" or "best" practice. If so, that may inform a tribunal's assessment of a particular claim. It is not unusual for parties to specify that the governing law of a contract is not a national law, e.g. the contract may be governed by "public international law" or "general principles of international commercial trade" (often interpreted as reference to the *UNIDROIT Principles of International Commercial Contracts 2016*). Should commercial parties expressly reference international climate commitments or specific domestic climate law requirements in their contracts, this may be a relevant consideration for an arbitral tribunal to take into account in its decision, even though such commitments or requirements would probably not be sufficient to address entirely the legal issues in dispute so as to lead the tribunal to disregard other rules of the law that would otherwise normally apply. In this regard, it is worth noting that Article 21.2 of the ICC Arbitration Rules refers to national laws and *trade usage* in relation to the choice of governing law.
- 5.65** The growing awareness of climate change policy, commitments and law should not be overlooked in the resolution of climate change related disputes. ICC is currently considering whether to propose further recommendations for guidance to parties and arbitrators in this respect.

¹⁰⁷ Art. 6(6) of the **Netherlands Model BIT** provides: "Within the scope and application of this Agreement, the Contracting Parties reaffirm their obligations under the multilateral agreements in the field of environmental protection, labor standards and the protection of human rights to which they are party, such as the Paris Agreement".

Climate change related commitments and principles – Sample wording

Governing law clause

If parties wish to ensure that the governing law includes international climate-related commitments and general principles, the following wording could be added to the governing law clause:

This contract shall be governed by the laws of [...]. In addition, the parties recognise the importance of achieving the ultimate objective of the United Nations Framework Convention on Climate Change (“UNFCCC”), the Paris Agreement and related agreements in order to address the urgent threat of climate change, and agree that this contract shall be construed in a manner that is consistent with that objective.

Terms of Reference

Where the governing law clause does not already so provide, the following wording may be included in the Terms of Reference:

The tribunal may invite the parties to consider the extent to which their underlying contract is intended to recognize the importance of achieving the ultimate objective of the United Nations Framework Convention on Climate Change (“UNFCCC”), the Paris Agreement and related agreements and its protocols in order to address the urgent threat of climate change. The tribunal may further invite the parties to agree that the dispute shall be resolved in a manner that is consistent with that objective.

Good faith negotiation – Sample wording

Where the arbitration clause does not already so provide, and the parties wish expressly to recognise that certain climate change related disputes would benefit from the use of certain procedural features to safeguard the underlying objectives of the agreement to address the urgent threat of climate change, the following wording may be included in the **Terms of Reference**:

The parties undertake to negotiate in good faith how certain procedural features best may be utilised in the present arbitration to safeguard the parties’ underlying objective to address the urgent threat of climate change and to take into account any observations and suggestions that the tribunal may express, without prejudice to the right of the tribunal to issue directions for case management.

D. Transparency

5.66 A major concern in the context of climate change related disputes is transparency. Public interest issues are frequently at stake and the lack of transparency in traditional commercial arbitration has been viewed as a barrier to its legitimacy as a satisfactory dispute resolution mechanism for climate change related disputes. ICC considers that increasing the information available to parties, the business community at large and academia is key in ensuring that arbitration remains a trusted tool.¹⁰⁸

¹⁰⁸ Note to Parties and Arbitral Tribunals on the Conduct of the Arbitration under the ICC Rules of Arbitration (1 Jan. 2019), § 34.

- 5.67** There has been much debate and progress in investor-state dispute resolution processes to increase transparency of proceedings. The UNCITRAL Rules on Transparency in Treaty-based investor-State Arbitration (the “**UNCITRAL Transparency Rules**”), which came into effect on 1 April 2014, comprise a set of procedural rules that provide for transparency and accessibility to the public of treaty-based investor-state arbitration. The UNCITRAL Transparency Rules provide that, subject to certain exceptions for confidential and protected information,¹⁰⁹ the parties’ main submissions, a list of exhibits, expert reports and witness statements, and the arbitral tribunal’s orders, decisions and awards are all to be made available to the public.¹¹⁰ In addition, in order to provide for similar transparency of proceedings for investment treaties concluded before 1 April 2014, states can ratify the *UN Convention on Transparency*,¹¹¹ thereby expressing their consent to apply the UNCITRAL Transparency Rules to disputes arising under these earlier treaties.
- 5.68** Transparency in arbitrations arising from *commercial* contracts regarding public interest issues may start to gain more traction, since public interest issues are also raised in the context of commercial arbitrations involving states. As has been noted already, “[t]he public versus private distinction between treaty and contract arbitration can be over-stated” because “[c]ommercial arbitrations can often involve state entities, and, as such, can have just as much of an impact on state’s public policy and finances as investor-state arbitration”.¹¹² As approximately 15% of ICC Arbitrations involve state entities (of which only a minority are investor-state disputes),¹¹³ they can have just as much of an impact on a state’s public policy and finances as an investor-state arbitration.¹¹⁴
- 5.69** In climate change related disputes, there is likely to be increasing pressure for the disclosure of information even in commercial disputes because of the public policy implications. This is especially true where members of the public are directly concerned by the dispute, such as persons affected by the environmental impacts of climate change. Increasing transparency of arbitral proceedings could assist in enhancing the perception of legitimacy of those proceedings with broader stakeholders, such as in investor-state dispute resolution, but also in other areas. This will be particularly so if arbitral proceedings concern broader policy issues, such as climate policy and associated environmental impacts.

Hypothetical cases nos. 7 and 8: Submission agreement class/group claims

> See para. 2.6 above.

These cases would involve a group or class of claimants, whose individual claims may well be most efficiently handled by being heard together in a single forum. However, they are likely to raise important concerns from citizens and NGOs as they involve significant public policy issues. A higher degree of transparency than that generally expected in business dispute resolution is thus desirable to ensure that interested parties and non-parties recognise the legitimacy of the process.

109 UNCITRAL Rules on Transparency, Art. 7.

110 Ibid. Art. 3.

111 UN Convention on Transparency in Treaty-based Investor-State Arbitration (New York, 2014).

112 See further C Partasides and S Maynard, “Raising the Curtain on English Arbitration” (2017) *Arbitration International* 33:1.

113 See ICC Dispute Resolution 2018 Statistics, p. 9.

114 The exact figure for 2018 is 14.8% of ICC cases involved States and/or state entities.

- 5.70** Increased transparency in relation to climate change related disputes could be achieved in two main ways: (i) opening the proceedings to the public, including in the publication of submissions, procedural decisions and hearings; and (ii) publication (or even redacted publication) of awards.
- 5.71** As a preliminary note in this respect, it should be remembered that there is no general rule of confidentiality in dispute resolution proceedings, and that national laws diverge in this respect.¹¹⁵ In general terms, arbitral tribunals may issue orders concerning the confidentiality of the arbitration proceedings or of any other matters in connection with the arbitration,¹¹⁶ depending on the law applicable to the arbitration agreement and the *lex arbitrii*, and subject to the parties' positions and expectations.¹¹⁷ Since most national laws defer to the intention of the parties in this respect, in most cases, the parties could expressly agree to publicise all or part of the proceedings, orders and awards (whether they agree in the actual arbitration clause or subsequently, for example during the case management conference and/or in the Terms of Reference).
- 5.72** The ICC Court already allows some degree of public involvement in the dispute resolution process under its policy of transparency of certain of its own decisions:
- The Court therefore endeavors to make the arbitration process more transparent in ways that do not compromise expectations of confidentiality that may be important to parties. Transparency provides greater confidence in the arbitration process and helps protect arbitration against inaccurate or ill-informed criticism.¹¹⁸
- 5.73** The ICC Court achieves that transparency by publishing on the ICC website: (i) the names of the arbitrators; (ii) the arbitrators' nationalities; (iii) the arbitrators' role within a tribunal; (iv) the method of appointment; and (v) whether the arbitration is pending or closed.¹¹⁹ For arbitrations registered from 1 July 2019, the Court will also publish on the ICC website the following additional information: (i) the sector of industry involved; and (ii) counsel representing the parties in the case.¹²⁰ Moreover, the parties may jointly request the Court to publish additional information.¹²¹
- 5.74** In addition, upon request of any party, the ICC Court may publicly communicate the reasons for: (i) a decision whether or not and to what extent the arbitration shall proceed, i.e. if the ICC Court is *prima facie* satisfied that an arbitration agreement under the Rules may exist; (ii) a decision whether or not to consolidate two or more arbitrations; (iii) a decision made on the challenge of an arbitrator; and (iv) a decision to initiate replacement proceedings and subsequently to replace an arbitrator. The ICC Court has full discretion to accept or reject a request for communication of reasons.¹²²

115 See *Confidentiality in Arbitration*, ICC International Court of Arbitration Bulletin – Supplement 2009, available at <https://library.iccwbo.org/>.

116 ICC Arbitration Rules, Art. 22(3).

117 See, e.g. A. Dimolitsa, "Institutional Rules and National Regimes Relating to the Obligation of Confidentiality", in *Confidentiality in Arbitration*, supra note 115.

118 Note to Parties and Arbitral Tribunals on the Conduct of the Arbitration under the ICC Rules of Arbitration (1 Jan. 2019), §34.

119 Ibid. § 35.

120 Ibid. § 36.

121 Ibid. § 39.

122 Ibid. §§ 14-17. For arbitrations conducted under the Rules in effect prior to the entry into force of the 2017 Rules, a request for communication of reasons must be made jointly by all parties (id. § 15).

- 5.75** ICC has also traditionally promoted transparency of decision-making through its publication of redacted versions of arbitral awards (e.g. in the *ICC Dispute Resolution Bulletin*). ICC awards from 1 January 2019, and any other award and dissenting or concurring opinion made in the same case, may be published no less than two years after notification of the award to the parties, absent objection by one or more party. Parties may agree to a longer or shorter time period for publication.¹²³ Also, unless a party objects, a treaty-based award will be published within six months from notification.¹²⁴
- 5.76** Under the *ICC Arbitration Rules*, the arbitral tribunal may issue orders concerning the confidentiality of the arbitration proceedings or of any other matters in connection with the arbitration and may take measures for protecting trade secrets and confidential information.¹²⁵ Thus, an arbitral tribunal may take measures to ensure confidentiality of the proceedings. Conversely, depending on the law applicable to the arbitration agreement and on the *lex arbitrii*, and subject to the parties' positions and expectations, the arbitral tribunal may also allow some accommodations to confidentiality.
- 5.77** In short, there is nothing in the *ICC Arbitration Rules* that would prevent the parties from agreeing to disclose information on pending arbitral proceedings to the public. For instance, the parties may seek assistance from the arbitral tribunal to help them determine the content of any public communications they are providing on the dispute. This has been done, inter alia, in cases where the parties, or one of them, are listed companies and subject to obligations of disclosure. Similar arrangements could all the more be agreed in disputes where individuals and/or NGOs are involved.

Enhanced transparency of proceedings – Sample wording

Arbitration clause

If parties wish expressly to permit or require transparency of proceedings, the following wording should be added to the Standard ICC Arbitration Clause:

In recognition of the importance of transparency in relation to climate change related disputes, the parties authorise the ICC to publish mutually agreed updates of material developments in the course of the arbitration proceedings [and the Final Award (redacted for commercial sensitivity if requested by a party)] [no less than six months after notification of the award to the parties, absent objection by one or more party].

Terms of Reference

Where the arbitration clause does not already so provide, the following wording may be included in the Terms of Reference:

In recognition of the importance of transparency in relation to climate change related disputes, the arbitral tribunal may invite the parties to authorise ICC to publish mutually agreed updates of material developments in the course of the arbitration proceedings [and the Final Award (redacted for commercial sensitivity if requested by a party)] [no less than six months after notification of the award to the parties, absent objection by one or more party].

¹²³ Ibid. §§ 41-43. At any time before publication, any party may object to publication or require that any award be in all or part redacted or anonymised, in which case the award will not be published or will be redacted or anonymised (id. § 43). In case of a confidentiality agreement covering certain aspects of the arbitration or of the award, publication will be subject to the parties' specific consent (id. § 44).

¹²⁴ Ibid. § 142.

¹²⁵ ICC Arbitration Rules, Art. 22(3).

- 5.78** The *PCA Environmental Rules* contain certain features to allow for greater transparency where the parties have agreed by stating that an arbitral tribunal may determine that information is to be classified as confidential and the conditions under which and persons to whom such information may be disclosed.¹²⁶ The *PCA Environmental Rules* even provide that the tribunal may appoint a confidentiality advisor, such that decisions on confidentiality can be taken without the tribunal having to view the confidential material.¹²⁷ These options could be utilised in climate change related disputes before ICC arbitral tribunals.
- 5.79** The above notwithstanding, commercial parties have historically favoured confidentiality of arbitral proceedings as one of the key benefits to arbitration.¹²⁸ However, as demonstrated by the *UNCITRAL Transparency Rules* themselves, there are many options by which to render parts of proceedings public, while still maintaining confidentiality where appropriate.

E. Third party participation

- 5.80** Climate change related disputes are often complex and multi-faceted, frequently involving public interests, and therefore may benefit from participation of additional third parties, such as affected citizens or populations. As with expertise and transparency, any involvement by third parties in the arbitral process requires the clear and express consent of the parties. Such provision is already incorporated in the *IBA Model Mining Development Agreement*, although for dispute resolution within community procedures or local courts as opposed to arbitration.
- 5.81** Similarly to natural resource extraction agreements, other climate change transition, mitigation and adaptation projects or programmes may impact local populations and surrounding ecosystems. Investment in climate change initiatives may involve parallel funding, insurance, state procurement and goods or services agreements, or indeed natural resource mining or extraction agreements. It may be to the benefit of the contracting parties to incorporate a mechanism for resolution of disputes or grievances involving third parties, which may incorporate a waiver by those third parties preventing parallel proceedings in other fora.

Hypothetical case no. 6: Affected population climate mitigation project mass claim

> See *para. 2.6 above*.

The dispute between the local indigenous population of subsistence farmers, fishermen and associated small businesses located in and around a new REDD+ certified forest carbon project area and bordering coastal region, will by its nature involve a group of claimants of a potentially significant size and, possibly, a number of respondents also.

¹²⁶ *PCA Environmental Rules*, Art. 15(4) - (6).

¹²⁷ *Ibid.* Art. 15(6).

¹²⁸ Some even see confidentiality as consubstantial to arbitration, see, e.g. S. Lazareff, "Confidentiality and Arbitration: Theoretical and Philosophical Reflections", in *Confidentiality in Arbitration*, *supra* note 115. Arbitration practitioners are mainly concerned with conciliating the minimal disclosure of confidential information between the parties required by due process, see, e.g. Elliott Geisinger (ed.), *Confidential and Restricted Access to Information in International Arbitration*, ASA Special Series No. 43.

- 5.82** There is some precedent for corporates using arbitration for resolving public interest disputes with third parties. Advantages in doing so may include:
- limitation of multiple proceedings by providing for a one-stop, neutral and efficient forum;
 - improved reputation by offering effective means for the adjudication of climate change and related environmental claims to the various stakeholders affected by their business activities;
 - improved credit rating or other financial benefit arising out of implementation of corporate social responsibility, and better management of excessive litigation risk in multiple fora, thereby obtaining higher international quality standards or access to top-segments of financial markets; and
 - companies may offer an arbitral forum for claims by potentially affected stakeholders as a means to address local or political opposition to a project or to satisfy certain legal requirements in order to allow the project to go ahead.¹²⁹
- 5.83** Third-party views may be addressed through a separate grievance mechanism, or in single contractual arbitration through joinder of an additional party or non-party participation such as through a written *amicus curiae* brief.

1) Joinder of additional parties in the arbitration

- 5.84** The ICC Arbitration Rules allow parties to seek to join additional parties (Article 7), as well to bring claims against multiple other parties (Article 8) in respect of multiple contracts (Article 9). However, the arbitral tribunal cannot permit third parties to join of their own accord.¹³⁰
- 5.85** In addition, the ICC Court may consolidate proceedings (Article 10) where the parties agree; where all of the claims in multiple arbitrations are made under the same arbitration agreement; or where claims in multiple arbitrations in respect of differing arbitration agreements are nonetheless claims made between the same parties, in connection with the same legal relationship, and the ICC Court finds the arbitration agreements are compatible. It has even been proposed to make possible the consolidation of arbitrations that are subject to different sets of institutional arbitration rules.¹³¹
- 5.86** Additional parties may thus be authorised to join the proceedings, or another set of proceedings may be consolidated with the proceedings, albeit usually only where the parties have expressly or impliedly consented in their agreement to arbitrate.
- 5.87** Indeed, it is widely accepted that, while multiparty arbitration “has the advantage of enabling the dispute to be resolved in one single procedure taking account of all issues and the interests of all parties affected and can save considerable costs and time”, it requires a showing that all

¹²⁹ For many of the same reasons, arbitration mechanisms involving third-party participation are also being discussed in the context of investor-State arbitration and the UN Guiding Principles on Business and Human Rights. See J. Amado, J. Kern and M. Doe Rodriguez, *Arbitrating the Conduct of International Investors* (Cambridge University Press, 2018) and *The Hague Rules On Business and Human Rights Arbitration* (Nov. 2018).

¹³⁰ This is subject to the provisions of Arts. 6(3)–6(7) and 23(4), i.e. (i) if any party against which a claim has been made does not submit an Answer, or if any party raises one or more plea concerning the existence, validity or scope of the arbitration agreement or concerning whether all of the claims made in the arbitration may be determined together in a single arbitration, and (ii) after the Terms of Reference have been signed or approved by the Court, no party shall make new claims which fall outside the limits of the Terms of Reference unless it has been authorized to do so by the arbitral tribunal, which shall consider the nature of such new claims, the stage of the arbitration and other relevant circumstances. This can be contrasted with the more expansive HKIAC Rules: HKIAC (prior to tribunal constitution) or the tribunal may join a third party which is bound by an arbitration agreement under these Rules giving rise to the arbitration, even without consultation with the other parties, and upon the third party’s application (Art. 27).

¹³¹ See SIAC Proposal on Cross-Institution Consolidation Protocol (19 Dec. 2017).

parties have actually consented and that they are treated equally since “the lack of consent as well as any unequal treatment of the parties are grounds for resisting enforcement under the New York Convention”.¹³² The core of the issue may be summarised as follows: “consent must be found somewhere, in some form, or there will be no proper basis for requiring the non-signatory to arbitrate”.¹³³

- 5.88** Most climate change industry contracts and climate change related pre-existing contracts will not usually have a specific provision for participation of non-parties in dispute resolution proceedings. There are exceptions: if a development bank were to guarantee a climate change related development project, it might be entitled to participate in any dispute. Alternatively, the parties might agree to permit certain non-parties to participate in the proceedings once a specific dispute has arisen.

Multi-party proceedings – Sample wording

Arbitration clause

In order to promote efficiency and fair resolution of complex, multi-faceted climate change related disputes, parties may wish to preserve the ability to consolidate under the existing ICC Arbitration Rules by ensuring that the arbitration clauses are compatible in terms of seat, number of arbitrators and institutional rules. Where this is not possible and the parties nevertheless wish to preserve the right to consolidate, subject to the *lex arbitrii* and/or the laws applicable to the contract and arbitration agreement, the following wording should be added to the Standard ICC Arbitration Clause:

Where claims pursuant to Article 8 of the ICC Arbitration Rules are made under more than one arbitration agreement, the parties are free to agree that the arbitration shall proceed as to those claims even where the arbitration agreements under which those claims are made may not be compatible [in which case this arbitration agreement shall apply].

Terms of Reference

Where the arbitration clause does not already so provide, the following wording may be included in the Terms of Reference:

In circumstances where the tribunal or one or all of the parties considers that it may be appropriate, the tribunal may invite parties to agree to include in the arbitration additional claims, including but not limited to those made under more than one arbitration agreement, even where the arbitration agreements under which those claims are made may not be compatible, provided that parties can agree to submit those additional claims to arbitration under the same arbitration agreement.

2) *Amicus curiae*

- 5.89** A less intrusive manner in which non-parties may be heard in arbitration arising out of climate change related disputes is through an *amicus curiae* submission. Again, this would as a general rule require the agreement of the parties to the arbitration.
- 5.90** Resort has been had to *amicus curiae* to a significant extent in investment arbitration, albeit under strict conditions, including under the Rules of the International Center for the Settlement

¹³² J. Lew, L. Mistelis, S. Kröll, *Comparative International Commercial Arbitration* (Kluwer, 2003), Chap. 16, §§ 16-2 and 16-3.

¹³³ J. Townsend, “Extending an Arbitration Clause to a Non-Signatory Claimant or Non-Signatory Defendant: Does it make a Difference?”, *Multiparty Arbitration* (Dossiers of the ICC Institute of World Business Law, 2010), B. Hanotiau, E. Schwartz (eds.), p. 111.

of Investment Disputes (“**ICSID**”) and in the World Trade Organization (“**WTO**”) context, where amicus briefs have been filed by NGOs and admitted by the Appellate Body since 1998. As generally understood in certain legal systems and in investment arbitration, this is when a non-party to the dispute, as “a friend”, offers to provide the court or tribunal its special perspectives, arguments, or expertise on the dispute, usually in the form of a written *amicus curiae* brief or submission. Such a submission has been deemed acceptable depending on three basic criteria: the appropriateness of the subject-matter of the case, the suitability of a given non-party to act as *amicus curiae* in that case, and the procedure by which the amicus submission is made and considered.¹³⁴

- 5.91** The ICC Arbitration Rules provide that, in the course of establishing the facts of the case, the arbitral tribunal may decide to hear not only witnesses and experts, but also “any other person”.¹³⁵ Likewise, at the hearing, while “persons not involved in the proceedings shall not be admitted”, this is “save with the approval of the arbitral tribunal and the parties”.¹³⁶ According to the ICC Note to Parties, “[p]ursuant to Article 25(3) of the Rules, the arbitral tribunal may, after consulting the parties, adopt measures to allow oral or written submissions by amici curiae and non-disputing parties”.¹³⁷

Amicus curiae – Sample wording

Arbitration clause

If parties wish to permit non-party participation, the following wording should be added to the Standard ICC Arbitration Clause:

In recognition of the ability of limited non-party participation in certain climate change related disputes, the parties may permit potentially affected individuals or groups to participate in the proceedings as third parties, subject to express terms to be agreed by the other parties and the arbitral tribunal (which may include permitting amicus curiae briefs in the arbitration).

Terms of Reference

Where the arbitration clause does not already so provide, the following wording may be included in the Terms of Reference:

In circumstances where the tribunal or one or all of the parties considers that it may be appropriate, the tribunal may invite parties to agree to permit limited non-party participation in the arbitration by individuals or groups potentially affected by the subject-matter of the dispute, subject to express terms to be agreed by the parties (which may include permitting amicus curiae briefs in the arbitration).

- 5.92** Similarly, under the *UNCITRAL Rules on Transparency*, the arbitral tribunal may allow a third party to file a written submission after consultation with the disputing parties, and considers, among other factors, whether the third party has a significant interest in the arbitral

¹³⁴ See, e.g. *Aguas Argentinas, S.A., Suez, Sociedad General de Aguas de Barcelona, S.A. and Vivendi Universal, S.A. and The Argentine Republic*, ICSID Case No. ARB/03/19 (Order in Response to a Petition for Transparency and Participation as *Amicus Curiae*, 19 May 2005, para. 17).

¹³⁵ ICC Arbitration Rules, Art. 25(3).

¹³⁶ *Ibid.* Art. 26(3).

¹³⁷ Note to Parties and Arbitral Tribunals on the Conduct of the Arbitration under the ICC Rules of Arbitration (1 Jan. 2019), §143.

proceedings and the extent to which the submission would assist the arbitral tribunal in the determination of a factual or legal issue “by bringing a perspective, particular knowledge or insight that is different from that of the disputing parties”.¹³⁸

5.93 Likewise, under the *ICSID Rules of Procedure for Arbitration Proceedings*, the arbitral tribunal may allow a non-disputing party to file a written submission after consulting the parties, and where the tribunal considers, among other things, the extent to which the non-disputing party submission would assist the tribunal ‘in the determination of a factual or legal issue related to the proceeding by bringing a perspective, particular knowledge or insight that is different from that of the disputing parties’. In addition, the tribunal must ensure that the non-disputing party submission “does not disrupt the proceeding or unduly burden or unfairly prejudice either party”.¹³⁹

5.94 Accordingly, arbitral tribunals in climate change related disputes are empowered to hear submissions from *amicus curiae*, and their participation may be increased further (e.g. at the hearing), at least where the parties and the arbitral tribunal agree. In so doing, arbitral tribunals may find it advisable to ensure that equal access is provided for non-disputing persons presenting varied interests and points.

F. Costs

5.95 The *ICC Arbitration Rules* include a complete set of provisions governing the costs of the arbitration and their administration by the ICC Court, with limited involvement of the arbitral tribunal. In establishing an “advance to cover the costs of the arbitration”, the ICC Court fixes an amount likely to cover the fees and expenses of the arbitrators and the ICC’s administrative expenses (which is usually payable in equal shares by the claimant and the respondent, subject to readjustment). The ICC Rules permit the arbitration to proceed even where one party has not paid its share of the advance on costs since they provide that “any party shall be free to pay any other party’s share of any advance on costs should such other party fail to pay its share”.¹⁴⁰

5.96 Accordingly, where a respondent fails to pay its share of the advance on costs, the ICC Rules allow the claimant to pay the respondent’s share of the advance if the claimant wishes the arbitration to proceed. Article 37 of the ICC Arbitration Rules thereby provides for a complete and coherent system of administration of the costs of an arbitration by the ICC Court and its Secretariat, without needing to involve the arbitral tribunal.

5.97 Conversely, should parties agree that one or several members of the public or a representative NGO claimant(s) may become involved in the arbitration as a party one way or another albeit being unable to pay the relevant share of the advance on costs, subject to the law applicable to the arbitration agreement and the *lex arbitrii*, the parties may provide for adequate funding from an appropriate source in the arbitration agreement, e.g. one party could elect to pay the entire amount of the advance on costs, in accordance with the ICC Arbitration Rules.

¹³⁸ UNCITRAL Rules on Transparency in Treaty-based Investor-State Arbitration, Art. 4(3).

¹³⁹ ICSID Rules of Procedure for Arbitration Proceedings, Art. 37(2).

¹⁴⁰ ICC Arbitration Rules, Art. 37(5).

Hypothetical case no. 6: Affected population climate mitigation project mass claim

> *See para. 2.6 above.*

In the dispute between the local indigenous population of subsistence farmers, fishermen and associated small businesses located in and around a new REDD+ certified forest carbon project area and bordering coastal region, the group of claimants may not be able to fund legal costs given the scope and complexity of technical, economic and legal issues. A dispute resolution agreement may provide for adequate funding from an appropriate source or for the ICC advance on costs to be met by the investor party.

5.98 As in all cases, the final award shall fix the costs of the arbitration and decide which of the parties shall ultimately bear them or in what proportion they shall be borne by the parties.¹⁴¹ However, here also, as a matter of practice, parties may agree on a different method of allocating costs. Arbitration agreements do include provisions such as that parties will share equally in the costs of the arbitration, bear each their own costs, or that the losing party bears the entire costs. Similar provisions limit the application of such methods to “reasonable” costs.

141 Ibid. Art. 38(4).

Annex: Climate Change Related Disputes in Practice

1. This Annex contains the Task Force's more in-depth analysis that informed the recommendations and proposed special features for climate change related disputes contained in this Report. This analysis includes: (i) ICC's past and present engagement with climate change international negotiations; (ii) existing and potential use of ICC and other institutional arbitration in the types of contracts and activity that are likely to be impacted by systems transition and associated adaptation and mitigation that the IPCC and others deem necessary to achieve the Paris Agreement objective to limit global warming to well below 2°C and keep it as close as possible to 1.5°C above preindustrial levels and achieve net zero CO₂ emissions globally by 2050, as well as the impact of continuing global warming; and (iii) advantages of arbitration and ADR for the resolution of climate change related disputes now and into the future.

I. Long history of ICC engagement with UNFCCC Negotiations

2. ICC is fully committed to the UNFCCC, including the Paris Agreement, and, more broadly, our collective environmental goals as well as the SDGs.
3. ICC, in its capacity as the focal point for business and industry, has been active in the work of the UNFCCC since the early 1990's, representing the private sector at every UNFCCC negotiation round (the "**Conferences of the Parties**" or the "**COPs**") since 1992. In 2016, ICC was granted Observer Status at the UN General Assembly – the first time that a private-sector organisation has been admitted formally into the UN system.
4. ICC is therefore well-positioned to take a leading role not only in relation to climate change policy, but also more generally in the area of environmental protection and sustainable development.
5. The ICC Court of Arbitration and the ICC Commission on Arbitration and ADR commenced its engagement in relation to climate change disputes in the lead-up to the 21st Conference of the Parties ("**COP21**") to the UNFCCC and the signing of the historic Paris Agreement in December 2015.¹ ICC hosted the successful side event "Climate Change Related Disputes: A Role for International Arbitration and ADR" during COP21 in Paris, France. The event was a collaborative effort between ICC, the International Bar Association ("**IBA**"), PCA and Arbitration Institute of the Stockholm Chamber of Commerce ("**SCC**"). The objective was to provide an open forum to discuss the existing use of international arbitration and ADR mechanisms to resolve a broad range of climate change-related disputes and further explore the role of arbitration and ADR to help implement and enforce emerging international sustainability principles, standards, commitments and obligations, resolve disputes and maintain individual, national and international climate change targets and objectives.
6. In 2016, ICC again partnered with the SCC, IBA and PCA in a second dispute resolution related COP side event hosted in Stockholm, Sweden, during COP22 in Marrakech, Morocco. The event was entitled "Bridging the Climate Change Policy Gap: The Role of International Law and Arbitration".² The focus was on whether international law could bridge the "policy gap" between

1 Adoption of the Paris Agreement under the UNFCCC, Conference of the Parties, Twenty-first session ("COP21"), Paris, 30 Nov. - 11 Dec. 2015 (FCCC/CP/2015/L.9).

2 A summary of the papers presented at this conference is available at http://www.sccinstitute.com/media/221868/conference_report_climatechange2.pdf.

the objectives and the outcomes of the international climate change agreements; and whether international arbitration could serve as an enforcement mechanism in the climate change context.

7. In 2017, ICC published an edited collection of papers from the COP21 event entitled *Dispute Resolution and Climate Change: The Paris Agreement and Beyond*.³ This book includes detailed overviews of existing climate change related disputes and existing contractual requirements for environmental compliance, and recommendations for the adoption and adaption of arbitration for climate related disputes.
8. In November 2017, ICC, IBA, PCA and SCC hosted a third dispute resolution related official COP side event at COP23 in Bonn, Germany. The panel discussion “Supporting the UNFCCC and the Paris Agreement through International Dispute Settlement” included representatives from states, arbitral institutions, NGOs, academics, arbitration counsel and arbitrators. The objective was to engage government treaty negotiators and other stakeholders on the topic of dispute resolution of international climate change related disputes. The COP23 panel discussed the real opportunities for dispute resolution procedures to be used between states to incentivise state compliance with and enforcement of the Paris Agreement, and the importance of developing dispute resolution norms that could complement the international negotiations. They also discussed the way in which dispute resolution involving non-state actors, including investors in climate change mitigation or adaptation projects, could reinforce states’ international commitments in relation to climate change policy.⁴
9. Relatedly, in 2014, the IBA Climate Change Justice and Human Rights Task Force published the report *Achieving Justice and Human Rights in an Era of Climate Disruption* (the “**IBA Report**”).⁵ The IBA Report called on “world leaders, policy-makers, lawyers, legislators, advocates and scientists to take joint, bold action aimed at achieving climate change justice”. The IBA Report also made a number of recommendations for legal reforms, with the aim of strengthening climate change justice and better preparing existing legal regimes to cope with emerging climate issues. Professor John Knox, UN Independent Expert on Human Rights and the Environment, commented on its publication that “[o]n the basis of a comprehensive review of the relevant domestic and international law, this report suggests concrete steps towards achieving climate justice that are both far-reaching and eminently sensible. Its analysis and recommendations should be read by everyone involved in climate policy”.
10. A key part of the IBA Report’s recommendations related to dispute resolution. The IBA Report recognised that many states have opted for arbitration when disputes arise between states or between a state and investors, such as in cases involving power generation or natural resource extraction. The IBA Report recognised that arbitration may offer a number of advantages to the parties. It is open to a broad range of actors such as states, private parties and intergovernmental organisations, and parties to arbitration are able to make use of specialised procedural rules. Arbitral institutions also offer other dispute settlement methods efficiently to resolve climate-related disputes, such as review panel proceedings, fact finding commissions and mediation and conciliation. Among its recommendations, the IBA Report

3 W. Miles QC (ed.), *Dispute Resolution and Climate Change: The Paris Agreement and Beyond*, (ICC, 2017) (available at <https://library.iccwbo.org/>).

4 A report of the event was published in the *ICC Dispute Resolution Bulletin*, issue 2017/4: “What Role for Dispute Resolution in Supporting the Paris Agreement on Climate Change” by N. Swan and N. Peart (available at <https://library.iccwbo.org/>).

5 Available at <https://www.ibanet.org/PresidentialTaskForceClimateChangeJustice2014Report.aspx>.

specifically encouraged arbitral institutions to “take appropriate steps to develop rules and/or expertise specific to the resolution of environmental disputes, including procedures to assist consideration of community perspectives”.

11. ICC is particularly well-positioned to take on the IBA Report’s recommendation to consider the need to develop rules and expertise specific to the resolution of climate change related disputes. This consideration needs not, indeed should not, be limited to disputes involving state parties or intergovernmental organisations.
12. Ultimately, this Task Force and Report brings together ICC’s long and rich history on the subject of sustainability, environment and climate change, with the ICC International Court of Arbitration’s broad dispute resolution expertise to address and/or promote climate change objectives through business and industry practice and procedures. They reinforce ICC’s leading role in the resolution of international business disputes, including climate change related disputes, at a time when the volume, complexity and importance of such disputes is set to expand exponentially following massive investment and global policy change aimed to meet the climate change objectives to which almost every state in the world has committed to seeking to achieve.

II. Relevant arbitration and ADR sectors

13. As set out in this Report, the **IPCC Special Report** encapsulates the magnitude of the task ahead: “rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems”. Such cross-disciplinary transitions are “unprecedented in terms of scale ... and imply deep emissions reductions in all sectors, a wide portfolio of mitigation options and a significant upscaling of investments in those options”.⁶
14. Arbitration and ADR is already firmly established as a favoured dispute resolution mechanism in international investment and disputes in those industry sectors most directly impacted by energy, urban and infrastructure (including transport and buildings), land use and industrial systems transitions. Systems transition is by nature dramatic and the future landscape is uncertain; state regulators and investors will need to be nimble as the effects of global warming unfold. Therefore, ICC and other arbitral institutions are likely to see a proliferation of contracts that specifically relate to or are impacted by climate change effects, transition, adaptation or mitigation.

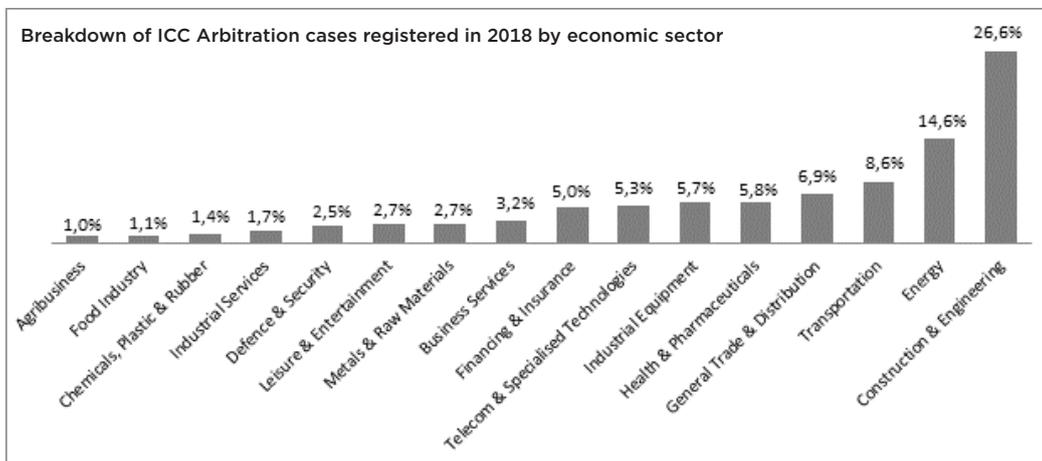
A. Arbitral institution statistical overview

15. The Task Force considered the publicly available statistics from ICC and other major arbitral institutions in order to understand in more depth the extent to which arbitration and ADR are used in the sectors that will be most directly and most significantly impacted by the four systems transition pathways envisaged by the IPCC as necessary to meet the Paris Agreement commitments in relation to global warming. Those statistics speak for themselves. Based on existing industry usage statistics, systems transition disputes will be determined by institutional arbitration or ADR, unless of course that currently favored dispute resolution mechanism is unable to meet user and stakeholder objectives going forward.
16. According to the **ICC Dispute Resolution 2018 Statistics**:
Construction/engineering and energy disputes generate the largest number of ICC cases and, as in previous years, account for approximately 40% of the 2018 new caseload. A new record has been set in 2018 with the number of construction and engineering cases now reaching 224 new cases (i.e.

6 The IPCC Special Report “Global warming of 1.5°C” (Oct. 2018), at p. 15.

27% of the caseload in 2018). Sectors related to telecoms and specialised technologies, financing and insurance, general trade and distribution, industrial equipment and services, and health/ pharmaceuticals and cosmetics range between 5 to 8% of the new cases.⁷

17. The ICC Court’s breakdown of 2018 arbitration cases by economic sector reveals that the vast majority of its cases (almost 50%) involve construction, energy and transportation. Construction, energy and transportation are directly and dramatically impacted by the energy and infrastructure transitions anticipated by **the IPCC Special Report**. Other economic sectors relating to agribusiness and food are likely to be impacted by land use transition. Industrial services, which are broken down further into chemicals, plastic and rubber, metals and raw materials, and industrial services, are all likely to be impacted by the industrial services transition.



18. By July 2018, the Permanent Court of Arbitration (“PCA”) was administering 17 environmental and energy related disputes under private commercial contracts, privatisation or concession agreements, public-private partnerships and public procurement agreements, including a number of related cases relating to exploration contracts for hydrocarbons.⁸
19. In addition, an increasing number of investor-State treaty disputes administered by the PCA concern environmental issues. Examples include disputes regarding a State’s handling of a lengthy environmental assessment for the proposed construction and operation of a quarry and marine terminal,⁹ measures taken on account of environmentally-based social opposition to a mining project,¹⁰ and restrictions imposed on harmful pesticides.¹¹ A number of investor-State treaty disputes have also arisen from withdrawal of incentives and other regulatory changes

7 See ICC Dispute Resolution 2018 Statistics, p. 13.

8 See, e.g. 1. Ecuador TLC S.A. (Ecuador) 2. Cayman International Exploration Company S.A. (Panamá) 3. Teikoku Oil Ecuador (Islas Caimán) v. 1. Republic of Ecuador 2. Ecuador Hydrocarbons Secretariat 3. Petroecuador, PCA Case No. 2014-32 (relating to a hydrocarbon exploration and exploitation contract); *Maynilad Water Services, Inc. (Philippines) v. Republic of the Philippines*, PCA Case No. 2015-37 (relating to tariffs charged by a privatised water utility); *The Republic of Croatia v. MOL Hungarian Oil and Gas PLC*, PCA Case No. 2014-15 (relating to the nullification of a gas agreement as a result of bribery allegedly engaged in by the respondent); *Bilcon of Delaware et al. v. Canada*, PCA Case No. 2009-04.

9 *Bilcon of Delaware et al. v. Canada*, supra note 8.

10 *Copper Mesa Mining Corp. v. Republic of Ecuador*, PCA Case No. 2012-02.

11 *Chemtura Corporation (formerly Crompton Corporation) v. Government of Canada*, PCA Case No. 2008-01.

in the renewable energy sector, as demonstrated by cases brought against Spain,¹² Canada,¹³ and the Czech Republic.¹⁴ In some cases, investors have also sought State compliance with international environmental norms, such as in one case against Barbados for alleged environmental damage which affected an investment in a nature sanctuary.¹⁵

20. The published statistics of the Stockholm Chamber of Commerce (“**SCC**”) for 2018 do not reflect industry or economic sectors. However, they do identify disputes by type of underlying agreement and these break down into: 45 services agreements, 26 delivery agreements, 20 business acquisition agreements, 14 shareholder agreements, 11 construction agreements, 8 joint venture or partnership agreements, 7 employment agreements, 6 treaties, 3 intellectual property agreements, 5 credit/loan agreements, 3 license agreements, and 2 settlement agreements.¹⁶ These statistics indicate that the SCC also has a relatively strong construction bias (and likely energy given its role as administering institution under the Energy Charter Treaty).
21. In 2018, the Hong Kong International Arbitration center (“**HKIAC**”) registered cases concerning disputes arising from a wide range of sectors. A breakdown of those sectors is as follows: international trade (29.6%); corporate (18.6%); maritime (15.1%); construction (13.7%); banking and financial services (11.9%); professional services (8.0%); intellectual property (1.8%); investor-state (0.9%); insurance (0.4%).¹⁷
22. In 2018, the London Court of International Arbitration (“**LCIA**”) reported that the bulk of its arbitrations related to banking and finance (29%) and energy and resources (19%). The LCIA saw a increase in construction disputes from 7% in 2017 to 10% in 2018 and professional services arbitrations represented 7% of the caseload.¹⁸ All of these sectors are impacted by the IPCC anticipated systems transitions.
23. According to **ICSID** Statistics 2018-1, the following categories might have an environmental component: transportation (9%); construction (8%); water, sanitation and flood protection cases (5%); and agriculture, fishing and forestry (4%).¹⁹

B. Sector specific types of contracts and disputes

24. In the last five years, ICC and other major arbitral institutions have witnessed a steady increase in disputes that arguably involve, or might involve, climate change related issues.²⁰ To date, these disputes tend to fall into a number of main industry sectors. Some of these are new sectors (or sub-sectors) that have emerged as a consequence of global climate change policy,

12 See, e.g. *The PV Investors v. Spain*, PCA Case No. 2012-14.

13 See, e.g. *Tennant Energy, LLC v. Government of Canada*, UNCITRAL (pending); *Mesa Power Group LLC v. Government of Canada*, PCA Case No. 2012-17 (Award 23 March 2016); *Windstream Energy LLC v. Government of Canada*, PCA Case No. 2013-22 (Award 27 Sept. 2016).

14 See, e.g. 1. *Natland Investment Group N.V. (The Netherlands)*, 2. *Natland Group Limited (Cyprus)*, 3. *G.I.H.G. Limited (Cyprus)*, 4. *Radiance Energy Holding S.à.r.l. (Luxembourg) v. The Czech Republic*, PCA Case No. 2013-35, *Antaris Solar GmbH (Germany) and Dr. Michael Göde (Germany) v. The Czech Republic*, PCA Case No. 2014-01. See also, “Sun rises on Czech energy claims” (GAR, 19. Feb 2014).

15 *Peter A. Allard v. The Government of Barbados*, PCA Case No. 2012-06 (Award of 27 June 2016).

16 <https://sccinstitute.com/statistics/>.

17 <https://www.hkiac.org/about-us/statistics>.

18 See LCIA’s 2018 Annual Casework Report.

19 <https://icsid.worldbank.org/en/Pages/resources/ICSID-Caseload-Statistics.aspx>.

20 The discussion of disputes involving climate change issues in this section steps outside of the two categories of contract discussed earlier in the paper, namely “Climate change industry contracts” and “related pre-existing contracts” (see para 5.88 of this Report).

such as solar and wind within the renewable energy sector, green finance and carbon trading within the financial services sector and climate change technology and technology sharing within the technology, telecommunications and media sector. Other relevant sectors include oil and gas, natural resources, transport, insurance and construction.²¹

1) Energy system

25. The energy system transition is central and key to the achievement of the global climate change goals and **Paris Agreement** commitments. This relates to electricity and power grids, not to transportation or industry. The modernization of power grids, in particular, is key to energy transition in general, and the development of renewables energies in particular; not only do they provide, e.g. through better interconnexion, an adequate response to the intermittence of renewable energies, they ensure a higher degree of energy security with lesser independent investment. According to the **IPCC Special Report**:

In energy systems, modelled global pathways (considered in the literature) limiting global warming to 1.5°C with no or limited overshoot ... generally meet energy service demand with lower energy use, including through enhanced energy efficiency, and show faster electrification of energy end use ...

In 1.5°C pathways with no or limited overshoot, low-emission energy sources are projected to have a higher share, [and] renewables are projected to supply 70–85% (interquartile range) of electricity in 2050 (high confidence). In electricity generation, shares of nuclear and fossil fuels with carbon dioxide capture and storage (CCS) are modelled to increase in most 1.5°C pathways with no or limited overshoot. In modelled 1.5°C pathways with limited or no overshoot, the use of CCS would allow the electricity generation share of gas to be approximately 8% (3–11% interquartile range) of global electricity in 2050, while the use of coal shows a steep reduction in all pathways and would be reduced to close to 0% (0–2% interquartile range) of electricity (high confidence).

While acknowledging the challenges, and differences between the options and national circumstances, political, economic, social and technical feasibility of solar energy, wind energy and electricity storage technologies have substantially improved over the past few years (high confidence). These improvements signal a potential system transition in electricity generation.

26. Therefore, the key aspects of the energy (or electricity) system transition are: low-emission energy sources (renewables such as solar and wind); nuclear; fossil fuels with **CCS**; steep reduction of coal; electricity storage technologies; and improved energy efficiency. Each of these relates to industry areas or sectors that are already prevalent in ICC and other institutional arbitration and the **IPCC** anticipates total annual average energy supply investments of US\$ 640 to US\$ 910 billion for the transition period from 2016 to 2050.

i) Renewables

27. With predictions of upscaling in annual investments in low-carbon energy technologies by roughly a factor of six by 2050 compared to 2015, and for 70-85% of electricity to be produced from renewables by 2050, there is likely to be continued rapid and further unprecedented growth in investment, technological development and transition of power grids to renewables. This investment naturally impacts renewable projects themselves, including engineering, procurement and construction contracts, as well as associated contracts such as technology agreements, tariff and licensing agreements, financing agreements, insurance agreements, supply and manufacturing agreements and mining development agreements in respect of rare earth minerals required for the manufacture of, for example, photovoltaic panels and magnets for wind turbines.

²¹ See e.g cases cited supra note 8.

28. The provision of renewable energy projects and programmes intersects with the policy of climate change transition, adaptation and mitigation. Such projects, including those funded by or through Green Climate Fund (“GCF”) or other state funding under the UNFCCC framework, may be subject to certain funding, regulatory, policy or other benefits, incentives or tariffs to promote transition to renewable energy. Disputes may arise if those incentives detrimentally change or investors themselves seek to adjust their contractual performance to comply with their own climate change-related legal, regulatory or voluntary obligations, for example in the event of domestic enforcement of the recommendations of the G20’s Task Force of Climate Related Financial Disclosures (“TCFD”).
29. Solar energy investment has already given rise to a number of arbitration cases arising out of subsequent change to investment incentives. The so-called “Solar Cases” brought by investors against Spain, Italy and the Czech Republic, focus on the question of whether states can adjust incentives - such as subsidies and feed-in tariffs - in the renewable energy sector to the detriment of investors, after those investors have relied on those subsidies in making their investments.²² Similar cases have been brought in the United Kingdom and Canada.²³
30. In one of the earliest “Solar Cases”, claimant investors argued that Spain’s legislative changes in 2010 to its renewables incentive program had detrimentally affected their investment in a number of solar plants in Spain. The tribunal found for Spain, noting that because the legislative changes had maintained the overall profitability of the investor’s solar plants, the “loss of value [was] such that it [could not] be considered equivalent to a deprivation in property”.²⁴ In a later case, related to legislative reforms introduced by Spain between 2012 and 2014 to address an electricity tariff deficit,²⁵ the tribunal issued a €128 million award for the claimant investor (currently under challenge). Most recently, in 2018 an arbitral tribunal ruled in favor of a Luxembourg-based investment firm with respect to the 2012 to 2014 legislative reforms by Spain, ordering Spain to pay €53 million in compensation.²⁶ Similar changes to renewable energy subsidies have been the subject of arbitration brought by investors against Canada.²⁷

22 See *Global Arbitration Review*, “Investment Disputes Involving the Renewable Energy Industry Under the Energy Charter Treaty”. See, for example, *Charanne B.V. and Construction Investments v. Spain*, SCC Case No. V 062/2012; *Eiser Infrastructure Limited and Energia Solar Luxembourg v Kingdom of Spain*, ICSID Case No. ARB/13/36; *Isolux Netherlands, BV v. Kingdom of Spain*, SCC Case No. V 2013/153; *Blusun S.A., Jean-Pierre Lecorcier and Michael Stein v. Italian Republic*, ICSID Case No. ARB/14/3; *Novenergia v. Kingdom of Spain*, SCC Case No. 063/2015; *Masdar Solar & Wind Cooperatief U.A. v Spain*, ICSID Case No. ARB/14/1; *Natland v Czech Republic*, PCA Case No. 2013-35; *Silver Ridge Power BV v. Italian Republic*, ICSID Case No. ARB/15/37; *Belenergia S.A. v. Italian Republic*, ICSID Case No. ARB/15/40; *Eskosol S.p.A. in liquidazione v. Italian Republic* (ICSID Case No. ARB/15/50); *ESPF Beteiligungs GmbH et al. v. Italian Republic*, ICSID Case No. ARB/16/5; *VC Holding II S.a.r.l. et al. v. Italian Republic*, ICSID Case No. ARB/16/39; *Veolia Propreté SAS v. Italian Republic*, ICSID Case no. ARB/18/20; *Greentech Energy Systems A/S et al. v. Italian Republic*, SCC Case No. 095/2015; *CEF Energia BV v. Italian Republic*, SCC Case No. 158/2015; *Sun Reserve Luxco Holdings S.r.l. v. Italian Republic*, SCC Case No. 132/2016. [Note that in *Masdar* (Award 16 May 2018) the tribunal dismissed the *Achmea* ruling (*Slovak Republic v. Achmea B.V.*, Court of Justice of the European Union, Case C-284-16, 6 March 2018) but in *Novenergia* (which award was dispatched the same day, i.e. 16 May 2018), a Swedish court stayed enforcement on the basis of *Achmea*.]

23 See *Global Arbitration Review*, “Arbitration Involving Renewable Energy”, *The Guide to Energy Arbitrations* (2nd ed.).

24 *Charanne B.V. and Construction Investments S.á.r.l v. Kingdom of Spain*, supra note 22.

25 *Eiser Infrastructure Limited and Energia Solar Luxembourg Sarl v. Kingdom of Spain*, supra note 22.

26 R. Weyndling, “Spain to pay compensation to renewables investors” (*Wind Power Monthly*, 23 Feb. 2018).

27 See supra note 13.

31. Whilst the “Solar Cases” all arose out of investment treaties, each is likely also to involve underlying contracts, including but not limited to investment agreements, procurement agreements, construction contracts, financing agreements, tariff agreements and/or insurance contracts. The same state measures that gave rise to the investment treaty claims may also give rise to breach of contract claims under any or all of those underlying contracts.
32. Currently, solar power industry groups such as *Terrawatt* are working to build suites of standardised solar power contracts, similar to what FIDIC has done in the construction industry. Such standardised contracts may well benefit from the dispute resolution safeguards and features discussed herein.
33. Wind energy investment has given rise to similar investment treaty claims in Canada. In one case, the tribunal accepted claimants’ argument that Canada’s decision to suspend offshore wind development adversely impacted a 2010 contract that claimants had signed with a local power authority.²⁸ In another case involving claims brought by another utility, the claimant alleged that it was discriminated against in the awarding of feed-in tariff contracts by the same power authority. The tribunal dismissed all claims.²⁹ Wind farms have also given rise to arbitration cases concerning damages sustained during construction and remuneration for operations under long term sales agreements for renewable electricity.
34. Similar investment treaty claims are being explored in relation to changes by Spain to its wind energy tariffs. In addition, these disputes are not limited to investment treaty claims. For example, a dispute arose over a contract for manufacture of gearboxes for wind turbines in which the HKIAC found for the claimant, awarding the claimant US\$ 360 million plus interest.³⁰
35. There is almost certainly a much greater number of commercial disputes both in wind and solar, and going forward one hopes these will be tracked in institutional statistics. Often such disputes fall within construction, warranty or product liability disputes. Further, there is a number of post M&A disputes relating to renewable energy projects/investments. In these disputes the feed-in tariffs often play a role when it comes to quantifying damages. Recent trends in Germany (and other European countries) suggest that some of the latest huge renewable energy projects (offshore wind and solar) have been awarded without any subsidies in the form of feed-in tariffs. In these projects the public investment incentives have been replaced by long-term energy supply contracts with large utilities. This trend may well give rise to new kinds of disputes.³¹
36. Hydro power is a more established renewable energy sector and has given rise to different types of arbitration disputes, including due to the often cross-boundary nature of rivers. For example, the PCA administered a dispute relating to the downstream environmental impact of a hydro-electric plant in the Kashmir area between India and Pakistan. The tribunal noted the need for States “to manage natural resources in a sustainable manner” and their duty not to create transboundary harm.³² Many commercial arbitrations arise in the context of hydro power: construction disputes, issues pertaining to the supply and distribution of the produced electricity, to alleged negative impacts of that activity on other businesses, etc.

28 *Windstream Energy LLC v. Government of Canada*, supra note 13.

29 *Mesa Power Group LLC v. Government of Canada*, supra note 13.

30 *GE Transp. (Shenyang) Co., Ltd v. A-Power Energy Generation Systems, Ltd.*, ARB No. HKIAC/A11074.

31 See, e.g. <https://www.pv-tech.org/news/enbw-developing-175mw-pv-project-in-germany>; <https://www.greentechmedia.com/articles/read/what-it-takes-to-get-subsidy-free-offshore-wind#gs.pPozWOI2>.

32 *Indus Waters Kishenganga Arbitration (Pakistan v. India)*, Partial Award of 18 Feb. 2013, PCA Case No. 2011-01, para. 449.

ii) Nuclear

37. Currently, ICC and other arbitral institutions administer nuclear energy-related disputes. Like renewable projects, disputes arise out of core engineering, procurement and construction agreements, as well as manufacture and supply agreements, technology licenses, operating agreements, tariff agreements and financing and insurance agreements.
38. Whilst shares of nuclear are modelled to increase in most **IPCC** 1.5°C pathways, following safety concerns in the wake of the Fukushima disaster, there has been a transition in Europe away from nuclear power. Already that policy-based transition has given rise to at least one investor state arbitration. The *Vattenfall v Germany* ICSID arbitration involves a claim by a Swedish nuclear power investor against Germany following its decision to phase out nuclear power. The investor is not challenging the policy decision, but rather its right to compensation for loss arising out of that decision.³³
39. Both the contractual investment and the state-led policy decisions relating to nuclear power are likely to give rise to further future arbitration cases, which may engage climate change and related environmental issues.

iii) Fossil fuels with CCS

40. Oil and gas represents a large portion of sectorial arbitration within ICC and most other arbitral institutions, including those administering investment treaty arbitration. The energy systems transition anticipated by the **IPCC** envisages continued market demand for oil and gas in the electricity sector for the coming decades and gas even beyond 2050 (8% of a larger energy market). Yet the market share of renewables is expected to increase and any transition from fossil fuel provided energy to renewables energy creates scope for significant disputes, including those related to climate change.
41. Ongoing use of fossil fuel in the energy system during and following transition is modelled by the **IPCC** to be complemented by Carbon Capture and Storage (“**CCS**”) in all **IPCC** 1.5°C pathways. CCS is a technology that aims to prevent the CO₂ generated by large stationary sources from entering the atmosphere, by capturing CO₂ emissions from these stationary sources and permanently prevent their release into the atmosphere. CCS is designed to accomplish this in three steps. First, CO₂ is captured and compressed at the emission site. Second, it is transported to a storage location, where, third, it is permanently stored.³⁴ Transboundary CCS projects might give rise to disputes between parties, including: disputes regarding the application of other treaties and agreements or breaches thereof; disputes regarding access to, and utilisation of, transboundary storage sites and the basis for sharing rights and responsibilities and attributing liability for leakage; actions brought if transboundary pollution or environmental harm occurs; disputes relating to non-permanence and disputes arising in relation to liability.³⁵
42. Furthermore, ongoing use of fossil fuel is likely to be accompanied by a carbon pricing mechanism and carbon trading. Part of the effort to mitigate the harm caused to the atmosphere by the emission of greenhouse gases is to set off emissions against carbon credits. Investment in offset programmes and trading of carbon credits all involve contracts and potential disputes.

33 *Vattenfall AB and others v. Federal Republic of Germany*, ICSID Case No. ARB/12/12.

34 “Carbon Capture & Storage: Assessing the Economics” (McKinsey & Company 2008).

35 UNFCCC, “Transboundary carbon capture and storage project activities (Technical paper)” (1 Nov. 2012).

43. This is an area that has already produced disputes under the **Kyoto Protocol**, including “over registration, issuance, or revocation [of carbon credits] decisions” or involve “disagreements over bookkeeping [or] an allegedly erroneous transfer [of credits]”.³⁶ The PCA has already administered 10 cases connected with the Kyoto Protocol’s Clean Development Mechanism (“**CDM**”) and Joint Implementation Projects (“**JI**”). In one case an investor challenged measures taken by a state that were aimed at addressing climate change, on the grounds they were “expropriatory or discriminatory, or constitute unfair or inequitable treatment”.³⁷
44. A number of cases have arisen from emissions trading schemes. One such case concerned the proper allocation of ‘assigned amount units’ to set off emissions against carbon credits.³⁸ Another arose from alleged failure to pay success fees as stipulated in an agreement to develop a CDM landfill project.³⁹ The *PCA Environmental Rules* are expressly referenced in “model emissions reduction purchase agreements” and other emissions trading contracts under the *International Emissions Trading Association*.⁴⁰ In the investment treaty realm, the PCA has also heard a claim against Bolivia;⁴¹ while not directly implicating a carbon trading agreement, this case involved carbon trading issues as the damages claim put forward by the claimant included anticipated revenue from the sale of carbon credits.
45. In 2013, a company filed a claim with the SCC alleging violations of agreements with Russian entities to repair leaks to a gas pipeline network. According to the claimant, work that it carried out reduced carbon emissions from the pipelines by about eight million tons per year, which entitled it to receive a number of carbon credits. However, it did not receive the credits due to certain administrative failures by the Russian companies; the tribunal found in favour of the claimant.⁴² In another case, the claimant alleged that Bolivia had interfered with their ability to finance a gas turbine project through the sale of carbon credits,⁴³ and that the alleged violation of an agreement between the investor and Ukraine prevented the investor from completing a gas efficiency project and earning a number of carbon credits.⁴⁴ In both cases, the tribunal dismissed claimants’ claims for monetary damages; however, in the latter case, the tribunal partially granted the investor’s claims for the transfer of the carbon credits it was owed.

iv) Coal

46. Coal is a significant source of energy for electricity grids. The **IPCC** 1.5°C pathway models see a phase out of coal in energy supply by 2050 (many industry commentators also anticipate a coal phase and this can be evidenced by the increasing number of national and subnational governments and businesses in the *Powering Past Coal Alliance*⁴⁵). Given that coal power plant

36 L. Hodes Rosen, A. Bossi, “Due Process Rights in the Carbon Markets” (2011) 11 *Climate L Rep* 9, 12.

37 See P. Sands QC, “Climate Change and the Rule of Law: Adjudicating the Future in International Law” (2016) 28 *Journal of International Law* 19, 24-25.

38 *Naftrac Ltd (Cyprus) v National Environmental Investment Agency of Ukraine*, PCA Case No. 2009-18, Award of 4 Dec. 2012 (PCA Environmental Rules).

39 *Individual (African) v. Company (European)*, PCA Case No. 2015-14.

40 <https://www.ieta.org>.

41 1. *Guaracachi America, Inc. (U.S.A.) & 2. Rurelec plc (United Kingdom) v. Plurinational State of Bolivia*, PCA Case No. 2011-17.

42 See T. Moore, “A \$150M award: Baker Botts loses another Russian case as Quinn Emanuel secures pay-out against gas giants” (Legal Business, 9 Dec. 2014).

43 See supra note 41.

44 *Naftrac Ltd (Cyprus) v National Environmental Investment Agency of Ukraine*, supra note 38.

45 The *Powering Past Coal Alliance* – launched by the Canadian and the UK governments in Bonn in Nov. 2017 at COP23 – is a coalition of national and sub-national governments, businesses and organisations working to advance the transition from unabated coal power generation to clean energy.

projects are often subject to long-term contracts, and associated coal mining development agreements may similarly involve long-term agreements, the timing of transition may not accord with the scheduled end date of the project.

47. Coal is a key area where major financial investors, including hedge funds, private equity funds, pension funds, insurance funds and banks and other financial institutions are increasingly divesting in order to ensure that their own investment portfolios comply with climate change policy. At the same time, as renewables become increasingly economical, market pressure increases on coal-based energy projects and, at the same time, regulatory incentives for renewables and penalties in respect of coal will accelerate transition.
48. Meanwhile, like the Vattenfall case in relation to nuclear, as states implement policy decisions to transition from coal, they may see increasing disputes with investors who suffer financial loss as a consequence. These disputes may be subject to contracts and/or treaties and will likely be resolved in arbitration.

v) *Other natural resources*

49. In relation to natural resources, extraction, smelting and refining and transportation all give rise to greenhouse gas emissions and therefore directly impact climate change. Moreover, various rare earth and other minerals are critical to the continued production of photovoltaic panels and magnets for solar and wind energy, respectively, and lithium for battery storage. Both existing natural resource investment and future investment arising out of increased demand for renewables will give rise to investment agreements and, inevitably, disputes.
50. Disputes in the natural resource industry often give rise to environmental issues or claims. Disputes may be between state parties, involve one state and one private investor, or two or more private parties. As indicated, the *IBA Model Mining Development Agreement* provides not only for arbitration of contractual disputes, but also for dispute resolution with affected communities and citizens.
51. As early as 1935, a claim of transboundary environmental harm arising from a Canadian smelter's air pollution was settled by the US and Canada in an *ad hoc* arbitration.⁴⁶ In the recent ICSID case *Burlington Resources Inc. v Republic of Ecuador*, the tribunal granted Ecuador final compensation of US\$ 41.7 million for its counterclaims relating to environmental damage.⁴⁷ In *Perenco Ecuador Ltd. v. the Republic of Ecuador and Empresa Estatal Petróleos del Ecuador*, Perenco – which is part of the same consortium as Burlington and had brought a separate claim under a different BIT – attempted to seek the dismissal of counterclaims Ecuador had similarly brought for environmental and infrastructure damage. However, the tribunal decided that the counterclaims were admissible.⁴⁸ In addition, an example of an investor bringing a claim against a state for discriminatory treatment on the basis of environmental policy modifications can be found in the SCC case of *Bogdanov v. Moldova*.⁴⁹

46 See *Trail Smelter Case (United States v Canada)*, Award of 11 March 1941 and 16 April 1938, RIAA 2006, Vol. III pp. 1905-1982.

47 *Burlington Resources Inc. v Republic of Ecuador*, ICSID Case No. ARB/08/5.

48 *Perenco Ecuador Ltd. v. the Republic of Ecuador and Empresa Estatal Petróleos del Ecuador*, ICSID Case No. ARB/08/6.

49 *Yuri Bogdanov and Yulia Bogdanova v. Republic of Moldova*, SCC Case No. 091/2012.

vi) Electricity storage technologies

52. Relatedly, new technology is required further to develop electricity storage facilities in order to make renewable powered electricity grids sustainable to scale. New technology involves protection of intellectual property, licensing agreements, technology sale and purchase agreements (and non-disclosure agreements preceding sale and purchase), as well as technology transfer as anticipated in the context of the **Paris Agreement**. Again, the speed of change will lead to uncertainty and potential disputes, which the ICC Court is well equipped to manage.
53. For example, the ICC Court already administers arbitration in relation to technology sharing in the mobile phone technology market, arising out of allocation of standard essential patents and the associated fair, reasonable and non-discriminatory pricing mechanism. In fact, a similar type of system could be introduced in the context of climate change technology.

vii) Improved energy efficiency

54. Improved energy efficiency touches upon every aspect of how consumers use energy, from light, heat, cooking and use of technology.
55. For example, data centers that power the internet, artificial intelligence research and cryptocurrency mining, are part of the problem, but may also offer solutions. These data centers consume vast amounts of electricity and emit as much CO₂ as the airline industry. However, the sector is looking into how it can reuse residual heat to supply heat grids and deliver thermal energy to households. In Stockholm, several data parks are being created and already heated more than 20,000 households in 2016. Investment in data center efficiencies provides opportunity and risk in many of the areas of business and industry identified in this report: energy, urban and infrastructure, construction, land use and industry. State authorities play a crucial role in providing necessary permits for the construction/renovation of data centers. They will also play a crucial role in stimulating the recycling of heat by drawing up consistent policies.

2) Urban and infrastructure system

56. According to the **IPCC** “the urban and infrastructure system transition consistent with limiting global warming to 1.5°C with no or limited overshoot would imply, for example, changes in land and urban planning practices, as well as deeper emissions reductions in transport and buildings compared to pathways that limit global warming below 2°C (*medium confidence*)”. These would involve the electricity share of energy demand in buildings to be about 55-75% in 2050, and, in the transport sector, the share of low-emission final energy to rise from less than 5% in 2020 to about 35-65% in 2050. The IPCC acknowledges that “[e]conomic, institutional and socio-cultural barriers may inhibit these urban and infrastructure system transitions, depending on national, regional and local circumstances, capabilities and the availability of capital”.
57. Building construction and transportation comprise large portions of ICC and other arbitral institutions’ core sectors. System transition in this area will lead to new kinds of investment, review of existing investment and likely increased regulation as states seek to implement their own **NDC** targets. Already the road and rail, aviation and shipping industries have seen significant policy shifts.
58. Already the standard form **FIDIC** contracts incorporate **ICC** Arbitration and multi-tiered dispute resolution provisions discussed above. This is an area ripe for continued close cooperation between FIDIC and ICC as the construction industry moves towards its own systems transition.

59. Historically, international arbitration has been used to resolve disputes arising out of major, cross boundary transportation. In relation to a cross European railway infrastructure – the Iron Rhine – the **PCA** administered arbitration disputes arising out of associated environmental harm. In one PCA arbitration, the PCA upheld the “polluter pays” principle in relation to chloride discharges into the Rhine River,⁵⁰ and held that prior agreements must be interpreted in light of contemporary environmental considerations such that the costs of environmental protection measures must be included in the costs to reactivate a railway.⁵¹ Technology group Wärtsilä has recently signed a five year services agreement including a new requirement that the vessels covered by the agreement are compliant with the International Convention for the Prevention of Pollution from Ships (“**MARPOL**”). The MARPOL Convention was amended in 2005 to regulate air pollution by limiting emission of sulphur oxides, nitrogen oxides, ozone depleting substances, volatile organic compounds and shipboard incineration. Wärtsilä contracts also impose the *International Maritime Organisation* sulphur limits that come into force on 1 January 2020.⁵² The company also focuses on sustainability and energy efficiency in its long-term services agreement with cruise operator, Carnival Corporation, that has built in “performance-based” requirements. These requirements focus on optimised performance and, further, reduction of the company’s environmental footprint.⁵³
60. Many of the PCA-administered cases under the UN Convention on the Law of the Sea (“**UNCLOS**”) have also dealt with questions of environmental sustainability. For example, in an UNCLOS case regarding a maritime boundary between Bangladesh and India in the Bay of Bengal, the tribunal was required to consider what the future impact of sea level rise would be on the respective countries’ coastlines, and the impact on their resulting maritime zones.⁵⁴
61. Most recently, commentators have suggested that the tribunal’s decision in the South China Sea arbitration has opened doors to the interpretation of UNCLOS “in light of obligations under other multilateral environmental agreements such as the **UNFCCC**”.⁵⁵
62. Environmental protection measures must be included in the costs to reactivate a railway.⁵⁶

3) Land use system

63. According to the **IPCC**, transitions in global and regional land use in pathways limiting global warming to 1.5°C project changes in use of non-pasture agricultural land for food and feed crops, reduction of pasture land, increase of agricultural land for energy crops and increase in forests, all by 2050. The **IPCC Special Report** acknowledges as follows:

Such large transitions pose profound challenges for sustainable management of the various demands on land for human settlements, food, livestock feed, fibre, bioenergy, carbon storage, biodiversity and other ecosystem services ...

50 The Rhine Chlorides Arbitration concerning the Auditing of Accounts (*The Netherlands v. France*), PCA Case No. 2000-02.

51 Iron Rhine Arbitration (Belgium v. The Netherlands), Award of 20 Sept. 2005, PCA Case No. 2003-02.

52 <https://www.wartsila.com/media/news/04-06-2018-wartsila-provides-financial-predictability-and-ensures-the-marpol-compliance-of-vessels-managed-by-wilhelmsen-ship-management-2199873>.

53 <https://www.wartsila.com/media/news/25-01-2017-wartsila-and-carnival-corporation-announce-strategic-performance-based-partnership>.

54 The Bay of Bengal Maritime Boundary Arbitration (Bangladesh v. India), Award of 7 July 2014, PCA Case No. 2010-16.

55 The South China Sea Arbitration (The Republic of Philippines v. The People’s Republic of China), PCA Case No. 2013-19, see <https://www.cigionline.org/articles/how-fight-over-south-china-islands-led-climate-win>.

56 *Iron Rhine Arbitration*, supra note 51.

Mitigation options limiting the demand for land include sustainable intensification of land-use practices, ecosystem restoration and changes towards less resource-intensive diets ...

The implementation of land-based mitigation options would require overcoming socio-economic, institutional, technological, financing and environmental barriers that differ across regions.⁵⁷

64. As indicated above, these transitions would impact agribusiness and food industry contracts, pursuant to which a reasonable number of ICC administered arbitrations arise. By their very nature, commercial agricultural contracts are very likely to be affected by climate change. Environmental degeneration, including reduction in soil quality and water resources, can seriously hinder any agricultural development. Increasingly, agribusiness will need to take sustainability into account when assessing the value of contract farming.⁵⁸

4) Industry system

65. The **IPCC** indicated that CO₂ emissions from industry in pathways limiting global warming to 1.5°C are projected to be about 65–90% lower in 2050 relative to 2010. It anticipates that those reductions “can be achieved through combinations of new and existing technologies and practices, including electrification, hydrogen, sustainable bio-based feedstocks, product substitution, and carbon capture, utilization and storage (CCUS)”. The IPCC further notes:

These options are technically proven at various scales but their large-scale deployment may be limited by economic, financial, human capacity and institutional constraints in specific contexts, and specific characteristics of large-scale industrial installations.

66. Again, the various areas of industry, described in the **ETC** “Mission Possible” Report as hard-to-abate, are sectors where arbitration is commonly adopted.⁵⁹

5) Financing and insuring all systems transitions

67. *First*, as set out in the ICC Court President’s message, it is estimated that a US\$ 90 trillion investment is required to implement the Paris Agreement based on the existing NDCs, including the globalization of new technologies and solutions for mitigation and adaptation.⁶⁰ A UN Environment report issued in 2016 noted that the cost of climate change adaptation in developing countries could rise to between US\$ 280 and US\$ 500 billion per year by 2050, a figure that is four to five times greater than previous estimates.⁶¹

68. A portion of climate change funding is being supported and stimulated by certain international funds, such as the **GCF**. Examples include the following:

- **Contribution Agreements** between the GCF and state parties setting out the States’ commitments to provide funding for climate change mitigation and adaptation. See, e.g. France’s Contribution Agreement, which refers disputes to ICC⁶² and Norway’s Contribution Agreement, which refers disputes to the PCA.⁶³

57 The IPCC Special Report “Global warming of 1.5°C” (Oct. 2018), p. 16.

58 See “Contract farming - Partnerships for growth”, *FAO Agriculture Services Bulletin* (2001), p. 117.

59 “Mission Possible: Reaching net-zero carbon emissions from harder-to-abate sectors by mid-century”, Energy Transitions Commissions (ETC) (Nov. 2018)

60 “Message from the President” (A. Mourre), *ICC Dispute Resolution Bulletin 2018/*. The ICC Court President was citing: International Finance Corporation, ‘Creating Markets for Climate Business – An IFC Climate Investment Opportunities Report’ (IFC, 2017) 140.

61 “Cost of adapting to climate change could hit \$500B per year by 2050” (UNEP Report, 2016).

62 Contribution Agreement – French Republic, GCF Documentation (2015).

63 Contribution Agreement – Kingdom of Norway, GCF Documentation (2017).

- **Accreditation Master Agreement** between GCF and the accredited entities that will disburse funding. See, e.g. the “Accreditation Master Agreement” between International Union for the Conservation of Nature (“**IUCN**”) and the GCF, which refers disputes to ICC,⁶⁴ and the Accreditation Master Agreement between GCF and the UN Environment, which refers disputes to the PCA.⁶⁵ The terms of these agreements, including dispute resolution provisions, are likely to be reflected in further downstream agreements between and among accredited implementing entities/intermediaries, executing entities, SPVs, contractors, and other funding sources.⁶⁶
 - **Contracts involving the Adaptation Fund for disbursements of funds** relating to adaption projects and programmes in developing countries, e.g. see the agreement between the Adaptation Fund Board and International Bank for Reconstruction and Development (“**IBRD**”), through which the Adaptation Fund Board agreed to provide the IBRD (the trustee) a grant of US\$ 6 million for marine conservation work in Belize.⁶⁷ Article 15.02 states that disputes between the Adaptation Fund Board and the IBRD “shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as presently in force”.
 - **Readiness Support Framework/Grant Agreements** between the GCF and different development funding organisations. See, e.g. the Framework Agreement between the Deutsche GIZ and the GCF, which refers disputes to ICC,⁶⁸ and the Framework Agreement between the Corporación Andina de Fomento and the GCF, which refers disputes to the PCA.⁶⁹
69. *Second*, in order to achieve the sought after “paradigm shift to low-emission and climate-resilient pathways”, international development banks and the private finance sector need to approach project funding and corporate financing in a different way.
70. Following the **Paris Agreement**, in 2016, the **World Bank Group** set out its *Action Plan on Climate Change* for 2016-2020. The Action Plan notes:
1. Climate change is a threat to the core mission of the World Bank Group (WBG) ...
[...]
 5. Recent global developments favour bold climate action by the WBG ...
 6. To get impact at scale, the Action Plan is focused on helping to shape national investment plans and policies and leveraging the private sector. Financing needs for resilient, low-carbon growth are much larger than available public resources, and WBG resources are small relative to these needs. Policy and institutional support for national investment plans and for facilitating private sector initiatives will be critical to having impact at scale.⁷⁰

64 Accreditation Master Agreement - Between the Green Climate Fund and IUCN, International Union for the Conservation of Nature and Natural Resources, GCF Documentation (11 Oct. 2016).

65 Accreditation Master Agreement - Between the Green Climate Fund and United Nations Environment Programme (UNEP), GCF Documentation (15 Dec. 2016).

66 GCF, “Legal and Formal Arrangements with Intermediaries and Implementing Entities”, GCF/B.08/23 (6 Oct. 2014).

67 Belize Marine Conservation and Climate Adaptation Project, between the Adaptation Fund Board and International Bank for Reconstruction and Development (26 Aug. 2014).

68 Readiness and Preparatory Support Framework Agreement - with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), GCF Documentation (6 Sept. 2016).

69 Readiness and Preparatory Support Framework Agreement - with Corporacion Andina de Fomento (CAF), GCF Documentation (20 Sep. 2017).

70 “World Bank Group Climate Change Action Plan” (2016).

71. The movement towards financing for resilient, low-carbon growth will ultimately require regulatory change and the likely introduction of new climate related compliance requirements for financing decisions. Already the *UN Guiding Principles for Business and Human Rights* introduce standards for financial institutions that include environmental protections.⁷¹
72. *Third*, the financial services industry is promoting various voluntary initiatives to promote sustainable funding. For instance, 92 financial institutions in 32 countries have signed up to the Equator Principles pursuant to which they commit to only funding projects that appropriately manage social and environmental risks and with respect to which a grievance mechanism is designed to receive and facilitate resolution of concerns and grievances about the project's environmental and social performance. Similarly, the Principles for Responsible Investment ("PRI") now have 2,250 signatories, including asset owners, investment managers and service providers. According to an announcement in February 2019, those 2,250 signatories must all report their climate change risks from 2020.⁷²
- 6) **Insurance**
73. Insurance will be the primary route through which the **UNFCCC** develops initiatives to tackle loss and damage. Accordingly, this will be a growth area. Companies like Swiss Re are already involved in the climate change adaptation and loss and damage sector offering initiatives such as drought insurance in Africa⁷³ and flood protection in Bangladesh.⁷⁴
74. *ClimateWise* is a voluntary network of 28 leading insurers, reinsurers, brokers and industry service providers facilitated by the University of Cambridge Institute for Sustainability Leadership. The group is driven by its members who come together to address key sustainability challenges. In particular, members of *ClimateWise* seek to promote six core principles that include reducing environmental impact and supporting climate awareness. Each member submits an annual report summarising actions taken within their business to promote these principles across their business activities, the results are then collated and published.⁷⁵

III. Conclusion

75. ICC is uniquely positioned, given its active participation on behalf of business and industry in relation to international negotiations on climate change and the **SDGs**, to understand and accommodate and administer climate change related transition, adaptation and mitigation disputes. Its caseload history demonstrates that ICC Arbitration is already in use in most of the core transition areas and, provided that ICC Arbitration rises to the challenges ahead, it will see a rapid increase as users grapple with unprecedented change.

71 *Guiding Principles on Business and Human Rights Implementing the United Nations "Protect, Respect and Remedy" Framework* (2011).

72 See "PRI signatories must report climate change risks from 2020" (www.ipe.com, 20 Feb. 2019). **The six Principles for Responsible Investment:** "Principle 1: We will incorporate ESG [Environmental, Social, and corporate Governance] issues into investment analysis and decision-making processes. Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices. Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest. Principle 4: We will promote acceptance and implementation of the Principles within the investment industry. Principle 5: We will work together to enhance our effectiveness in implementing the Principles. Principle 6: We will each report on our activities and progress towards implementing the Principles."

73 Swiss Re, "Closing the gap: A sovereign insurance pool for Africa" (2015).

74 Swiss Re, "Closing the gap: flood protection for Bangladesh" (2015).

75 See, e.g. *The ClimateWise Principles Independent Review 2017*.

Acknowledgements

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ICC aims to make climate action everyone's business, whether in its role as Permanent Observer to the United Nations, or with its dispute resolution bodies, the International Court of Arbitration and the ICC International Centre for ADR.

