

Chapter 13

HARMONIZING CLIMATE CHANGE POLICY AND INTERNATIONAL INVESTMENT LAW: THREATS, CHALLENGES AND OPPORTUNITIES

Daniel M. Firger* and Michael B. Gerrard**

Introduction

In response to the threat posed by climate change, States are adopting a variety of national and transnational regulatory measures aimed at restricting the emission of greenhouse gases (GHGs) into the atmosphere. Unfortunately, many of these measures appear to conflict with core principles of the legal regime governing international investment. Along with longstanding concerns about the “fragmentation” of international law,¹ scholars and practitioners alike have begun to examine, more specifically, perceived incompatibilities between new climate change regulations and the obligations imposed on States by international investment law (IIL).² Conflict is inevitable, they maintain,

* Postdoctoral Research Scholar, Columbia Law School; J.D., NYU School of Law; M.P.A., Woodrow Wilson School of Public & International Affairs, Princeton University. The author wishes to thank two anonymous peer reviewers for their helpful comments.

** Andrew Sabin Professor of Professional Practice, Columbia Law School.

¹ See International Law Commission, “Report of the study group on the fragmentation of international law: held at Geneva, Switzerland, from 29 April to 7 June and 22 July to 16 August 2002,” A/CN.4/L.682, available at: http://untreaty.un.org/ilc/summaries/1_9.htm (last visited April 27, 2011). For an analysis of fragmentation focusing specifically on IIL, see Anne Van Aaken, “Fragmentation of international law: the case of international investment protection,” 17 *Finnish Yearbook of International Law* 91 (2008).

² See Kate Miles, “Arbitrating climate change: Regulatory regimes and investor-state disputes,” 1 *Climate Law* 63 (2010), pp. 86-91; Fiona Marshall, “Climate change and international investment agreements: Obstacles or opportunities,” International Institute for Sustainable Development, Trade, Investment and Climate Change Series (March 2010), available at: http://www.iisd.org/pdf/2009/bali_2_copenhagen_iias.pdf (last visited May 3, 2011); Lise Johnson, “International investment agreements and climate change: The potential for investor-state conflicts and possible strategies for minimizing it,” 39 *Environmental Law Reporter* 11147 (2009); Albert H. Cho and Navroz K. Dubash, “Will investment rules shrink policy space for sustainable development? Evidence from the electricity sector,” World Resources Institute Working Paper No. 16 (September 5, 2003). For a more general treatment of the relationship between environmental norms and the IIL regime, see Jorge Viñuales,

because of the “self-contained” nature of single-purpose international legal regimes such as those meant to safeguard the environment or protect foreign investments.³ Since measures taken pursuant to the United Nations Framework Convention on Climate Change (UNFCCC) tend to impose new costs on the consumption of high-carbon fuels, observers worry that foreign investors in energy intensive industries will make use of provisions in international investment agreements (IIAs) to challenge those regulations which negatively impact their investments’ profitability. A raft of new investor claims, some fear, may force States to choose between conflicting international law obligations, stymieing efforts to curb climate change while fostering sustainable development.⁴

Indeed, a few savvy investors have already initiated or threatened climate-related claims, building upon a series of recent challenges to other types of host country environmental regulation.⁵ In a 2009 dispute that illustrates the potential incompatibility

“Foreign investment and the environment in international law: An ambiguous relationship,” 80 *British Yearbook of International Law* 244 (2009).

³ The seminal piece on this topic is Bruno Simma, “Self-contained regimes,” 16 *Netherlands Yearbook of International Law* 111 (1985). Building upon Simma’s work, many scholars have identified conflicts between climate policy and trade law. See, e.g., Christina Voight, *Sustainable development as a principle of international law: resolving conflicts between climate measures and WTO law* (Boston: Martinus Nijhoff Publishers, 2008), pp. 195-202. Indeed, the WTO itself has published a report on the subject, noting areas of conflict between the trade and climate change regimes but also emphasizing the potential for positive linkages. World Trade Organization, “Trade and climate change: a report by the United Nations Environment Programme and the World Trade Organization,” (2009), available at: http://www.wto.org/english/res_e/publications_e/trade_climate_change_e.htm (last visited April 27, 2011).

Some have also identified the potential for conflict between IIL and other international legal regimes, including human rights law. See Van Aaken, “Fragmentation of international law: The case of international investment protection,” supra note 1 (discussing the potential incompatibility of investment law with human rights law, EU law, and WTO law). Although building upon the “fragmentation” literature, this chapter is more limited in scope, focusing exclusively on the relationship between IIL and climate policy.

⁴ See Miles, “Arbitrating climate change: regulatory regimes and investor-state disputes,” supra note 2; Johnson, “International investment agreements and climate change: The potential for investor-state conflicts and possible strategies for minimizing it,” supra note 2. See also Jacob Werksman, Kevin A. Baumert and Navroz K. Dubash, “Will international investment rules obstruct climate protection policies? An examination of the clean development mechanism,” 3 *International Environmental Agreements: Politics, Law and Economics* 59 (2003). The climate measures discussed in this chapter may conflict with investment norms in one of two ways. First, a climate measure may arise out of an international environmental law obligation, as under the UNFCCC, that is incompatible with an IIL obligation. Second, a climate measure may be based on entirely domestic environmental considerations rather than international environmental law, yet still conflict with obligations imposed by IIL. To clarify this distinction, it is useful to think of the first type of inconsistency as a “normative conflict,” and the second type as a “legitimacy conflict.” Jorge Viñuales and Magnus Langer, “Managing conflicts between environmental and investment norms in international law,” in Y. Kerbrat and S. Maljean-Dubois, eds., *International law faced with environmental challenges* (Oxford: Hart Publishing, forthcoming) (introducing the distinction and applying it to the resolution of conflicts of law in investment disputes based upon challenges to environmental regulation), manuscript available at: <http://ssrn.com/abstract=1683465> (last visited June 3, 2011). Although there is some evidence that arbitral tribunals may use different interpretive tools when resolving normative versus legitimacy conflicts, *id.* at pp. 7-11, this chapter addresses both types of disputes interchangeably. This is because national and international climate change policy is not determined exclusively, or even primarily, by the UNFCCC regime, but rather by a diffuse “regime complex.” See Keohane and Victor, “The regime complex for climate change,” *infra* note 18 and related text.

⁵ See, e.g., Chemtura Corp v. Government of Canada, NAFTA Chapter 11 arbitral tribunal, *award* (August 2, 2010) (phase-out of toxic pesticide for public health reasons); Glamis Gold Ltd. v. United States of

of climate policy and IIL, a foreign investor challenged the requirement by German regulators that the investor install costly GHG emissions controls on a proposed coal-fired power plant, alleging violations of the Energy Charter Treaty's chapter on investment protection.⁶ Relatedly, in response to Australia's proposed cap-and-trade law, at least one foreign investor threatened to file an expropriation claim under the Australia-Hong Kong bilateral investment treaty (BIT) unless the legislation included generous compensation terms to recoup expected losses to the investor's holdings in several dirty coal facilities.⁷ And in Europe, a foreign investor warned that it would bring a similar expropriation claim against Austria if the government carried through with implementation of the European Union Emissions Trading System (EU ETS).⁸ Although none of these disputes have yet reached an arbitral tribunal, the exploitation of IIL to curtail the clean energy agenda seems likely to persist – and intensify – as national and international climate change regulation continues apace.

Yet IIL and climate policy are less at odds than they appear. Recent trends in both regimes point towards harmonization and coordination, not incongruity and conflict. On

America, NAFTA Chapter 11 arbitral tribunal, *award* (May 16, 2009) (environmental regulations associated with an open-pit mine); Biwater Gauff (Tanzania) Ltd. v. United Republic of Tanzania, ICSID Case No. ARB/05/22, *award* (July 24, 2008) (performance requirements imposed on urban water and sewer project); MTD Equity Sdn. Bhd. & MTD Chile S.A. v. Chile, ICSID Case No. ARB/01/7, *decision on annulment* (February 16, 2007) (environmental and land use regulations associated with a residential construction project); Methanex v. United States of America, NAFTA Chapter 11 arbitral tribunal, *award* (August 3, 2005) (regulation of gasoline additive); Waste Management v. Mexico, ICSID Case No. ARB(AF)/00/3, *award* (April 30, 2004) (local environmental regulations); S.D. Myers, Inc. v. Canada, NAFTA Chapter 11 arbitral tribunal, *partial award* (November 13, 2000) (public health regulations associated with toxic waste disposal); Metalclad Corp. v. United Mexican States, ICSID Case No. ARB(AF)/97/1, *award* (Aug. 30, 2000) (public health regulation associated with waste disposal); Compañía del Desarrollo de Santa Elena SA v Costa Rica, ICSID Case No. ARB/96/1, *final award* (February 17, 2000) (protection of wetlands and biodiversity).

⁶ Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v. Federal Republic of Germany, ICSID Case No. ARB/09/6, *request for arbitration* (March 30, 2009) (settled August 2010).

⁷ Peter Smith, "Canberra faces legal challenge over carbon scheme," *Financial Times*, November 24, 2009.

⁸ Manfred Schekulin, note, on file with author. Of course, IIL can serve as a sword as well as a shield in climate policy battles; in the same way that fossil fuel investors have threatened to challenge environmental regulations, clean energy investors might make use of BIT provisions to protest the *non-enforcement* of climate-friendly measures. For a recent example, see Elizabeth Whitsitt, "Claimant seeks enforcement of environmental laws in notice of dispute alleging expropriation of Barbadian nature sanctuary," *Investment Treaty News*, February 14, 2010, p. 4 (describing *Peter A. Allard v. Government of Barbados* (pending), in which a foreign investor attempted to make novel use of the provisions of the Barbados-Canada BIT in order to challenge the non-enforcement of a host country's environmental laws). The full text of the claimant's notice of dispute is available at <http://graemehall.com/legal/papers/BIT-Complaint.pdf> (last visited April 29, 2011). Another example, the first dispute to be arbitrated under the Permanent Court of Arbitration's (PCA's) "Optional rules for arbitration of disputes relating to natural resources and/or the environment," involved a Cypriot investor's claim against Ukraine's National Environmental Investment Agency alleging that its investment in a natural gas efficiency project had been expropriated. If completed, the project – designed to generate tradable Emission Reduction Units (ERUs) under the Kyoto Protocol, see *infra* note 194 and accompanying text – would have yielded returns for the investor as well as the Ukrainian government. In a decision dated July 27, 2010, the arbitral tribunal rejected claimant's request for interim measures. See Luke Eric Peterson, "Tribunal declines interim measures request of investor; claimant pursuing arbitration arising out of Kyoto Protocol emission reduction project," *Investment Arbitration Reporter*, October 20, 2010, available at: http://www.iareporter.com/articles/20101023_3 (last visited May 3, 2011).

the one hand, international climate negotiations and domestic legislative debates are increasingly emphasizing the importance of financial and technical support for mitigation and adaptation by developing countries. Both the Copenhagen Accord of 2009 and the Cancún Agreements of 2010, for instance, call on developed countries to mobilize a total of US\$ 30 billion in “fast start” financing for the period from 2010-2012 and set a goal of US\$ 100 billion per year by 2020 for such efforts.⁹ To meet these goals, the UN Secretary-General’s High Level Advisory Group on Climate Change Financing (AGF) concluded that developed countries must facilitate both public and private investment flows to developing countries.¹⁰ Beyond climate finance, developed country governments are making additional commitments to transfer clean energy technologies to less developed countries. These types of undertakings seem less likely to necessitate the sort of command-and-control regulations that can conflict with investment treaty obligations. Their success instead will depend, as in the case of foreign investment more generally, upon the establishment of a “clear, stable and predictable policy framework” to incentivize low-carbon foreign direct investment (FDI).¹¹ This is something that can, and should, be readily provided by the international investment law regime.

On the other hand, the increasingly multidirectional character of global investment flows is breaking down traditional distinctions between capital importers and exporters, leading many governments to reexamine their policies in order to strike a better balance between ensuring the security of FDI outflows and promoting beneficial inflows of foreign capital. A decade ago developed countries largely understood themselves to be in the business of protecting their nationals’ overseas investments. Today, officials in Brussels, Ottawa, Tokyo and Washington are more likely to embrace the perspectives of host countries as they seek to attract foreign investment while retaining flexibility in setting domestic policies that might affect the rights of foreign investors.¹² This give-and-take is reflected in changes to the language of the IIAs these

⁹ UNFCCC *decision 2/CP.15* (December 18, 2009) paras. 5, 8 (April 23, 2010) [hereinafter Copenhagen Accord], available at: <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf> (last visited April 29, 2011). The set of texts agreed to in December 2010 at COP-16, known collectively as the Cancún Agreements, effectively ratified the financing framework laid out by parties in Copenhagen. UNFCCC *draft decision 1/CP.16* (Dec. 10, 2010) [hereinafter Cancún Agreements], available at: <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2> (last visited April 29, 2011). Whether the pledges made at COP-16 will actually be forthcoming is very much an open question. In the United States, four Republican Senators publicly called on Secretary of State Hillary Clinton to freeze all future spending related to international climate finance, calling into question the Obama administration’s ability to meet its Copenhagen and Cancún commitments. See Darren Samuelsohn, “U.S. climate cash pledge in doubt,” *Politico.com*, December 10, 2010, available at: <http://www.politico.com/news/stories/1210/46222.html> (last visited April 29, 2011). The Senators’ letter to Secretary Clinton is available at: <http://thehill.com/images/stories/blogs/energy/clintonletter.pdf> (last visited April 29, 2011).

¹⁰ United Nations, “Report of the Secretary-General’s High-level Advisory Group on Climate Change Financing,” (November 5, 2010), available at: <http://www.un.org/wcm/content/site/climatechange/pages/financeadvisorygroup/pid/13300> (last visited April 29, 2011). For further discussion of the AGF, see *infra* notes 231-232.

¹¹ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, Sales No. E.10.II.D.2 (New York and Geneva: United Nations, 2010), p. xxvii.

¹² Canada, for example, announced in November 2010 that it would amend its foreign investment law, R.S., 1985, c. 28 (1st Supp.), available at: <http://www.ic.gc.ca/eic/site/ica-lic.nsf/eng/lk51018.html> (last visited

governments conclude with other countries; recent agreements impose far less draconian obligations on host countries and contain far more exceptions and carve outs than agreements concluded just several years earlier.¹³ Additionally, new initiatives such as the European Commission's (EC's) proposed regulation on foreign investment – which outlines how and when the European Union will replace existing BITs concluded by Member States with new treaties negotiated by the EC itself – include provisions on the environment and human rights and emphasize the importance of host country and home country responsibility in this regard.¹⁴ Thus, rather than signaling the inevitability of conflict, trends in both climate policy and IIL indicate that these disciplines are entering a new phase characterized by coordination, harmonization, and mutual learning. This chapter will map this new terrain and identify key opportunities to productively shape the interaction between climate change policy and international investment law.

The chapter proceeds in five parts. Parts A and B outline the main features of the climate change and IIL regimes, respectively. Part C highlights recent investment oriented trends in climate policy, paying particular attention to those commitments and actions by states that will most likely stimulate low-carbon FDI flows over the short- and medium-term. Part D turns to the IIL regime, noting developments such as the renegotiation of IIAs by both developed and developing countries to encourage sustainable development and environmental protection. Part E concludes.

A. The Global Climate Change Policy Framework

Global climate change, which results in large measure from anthropogenic emissions of carbon dioxide and other GHGs,¹⁵ is widely acknowledged to be the quintessential collective action problem of our time. Like other transboundary environmental harms, climate change creates a “transnational cooperation dilemma,”

April 29, 2011), to require greater transparency and accountability from foreign investors seeking to acquire controlling interests in domestic firms. See Bernard Simon, “Canada to toughen rules on foreign investment,” *Financial Times*, November 7, 2010, available at: <http://cachef.ft.com/cms/s/0/2a8dd890-ea68-11df-b28d-00144feab49a.html#axzz1KygVvyNT> (last visited April 29, 2011).

¹³ See, e.g., Kenneth Vandevelde, “A comparison of the 2004 and 1994 U.S. model BITs: Rebalancing investor and host country interests,” in Karl P. Sauvant, ed., *Yearbook on international investment law and policy 2008-2009* (New York: Oxford University Press, 2009), pp. 283-315 (describing changes over a ten year period in treaty text negotiated by the United States to expand the policy space available to host countries).

¹⁴ European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Toward a comprehensive European international investment policy*, COM(2010)343 final (available as annex to this volume), available at: http://trade.ec.europa.eu/doclib/docs/2010/july/tradoc_146307.pdf (last visited: March 28, 2011); European Commission, *Proposal for a Regulation of the European Parliament and of the Council establishing transitional arrangements for bilateral investment agreements between Member States and third countries*, COM(2010)344 final (available as annex to this volume), available at: http://trade.ec.europa.eu/doclib/docs/2010/july/tradoc_146308.pdf (last visited: March 29, 2011), p. 9. These documents touch only glancingly upon the topic of potential home country obligations, although discussions concerning this issue are ongoing in Europe and beyond. See *infra* note 298 and accompanying text.

¹⁵ Intergovernmental Panel on Climate Change (IPCC), “Fourth assessment report: synthesis report” (Geneva, 2007), available at: http://www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html (last visited April 29, 2011).

since cross-border externalities render unilateral action by States largely ineffective in solving the problem.¹⁶ And because carbon dioxide mixes uniformly throughout the atmosphere, is emitted as a consequence of nearly all modern industrial activities and has planetary rather than solely localized effects, the climate dilemma is particularly hard to resolve; no State acting alone can stop the global warming process and individual States have little incentive to reduce their own GHG emissions when other major emitters do not.¹⁷ For these reasons, climate change calls out for a multilateral solution. Yet notwithstanding this insight and two decades of work to craft a comprehensive international treaty, climate policy today is characterized not by a single overarching framework for global action, but rather a set of overlapping regulatory regimes. This Part describes the key features of this “regime complex” for international climate policy.¹⁸

1. Multilateral Coordination: the UNFCCC

Recognizing the need for concerted action on global warming, the international community concluded the UNFCCC at the 1992 Earth Summit in Rio de Janeiro.¹⁹ The Convention, along with the 1997 Kyoto Protocol establishing country-specific emissions reduction commitments for the period from 2008 through 2012, has been the primary international mechanism for dealing with climate change ever since.²⁰ At its core, the UNFCCC, through its Kyoto Protocol, consists of a set of binding emission reduction targets for developed countries; the Kyoto Protocol assigns these parties, listed in Annex I of the Convention, “quantified emission limitation and reduction commitments.”²¹ Overall, Annex I parties have agreed to reduce their aggregate GHG emissions by at least 5 percent below 1990 levels by 2012.²² To achieve their commitments, Annex I parties are required to implement a variety of policies and measures, in accordance with national circumstances. These include, inter alia, energy efficiency measures, protection of GHG “sinks and reservoirs” such as forests, research and development on renewable energy and carbon sequestration technologies, and the phase out of preferential tax treatment and subsidies for carbon intensive industries.²³ The Conference of the Parties (COP) to the Convention meets annually to review implementation and negotiate further

¹⁶ Scott Barrett, *Environment and statecraft: The strategy of environmental treaty-making* (Oxford: Oxford University Press, 2003), p. 49.

¹⁷ Daniel Bodansky, “The United Nations framework convention on climate change: A commentary,” 18 *Yale Journal of International Law* 451 (1993).

¹⁸ The concept of a “regime complex for climate change” was first proposed by political scientists Robert Keohane and David Victor in 2010. Robert Keohane and David Victor, “The regime complex for climate change,” 9 *Perspectives on Politics* 7 (2011). Keohane and Victor build upon earlier work introducing the concept of a regime complex and applying it to the issue area of plant genetic resources. Kal Raustiala and David Victor, “The regime complex for plant genetic resources,” 58 *International Organization* 277 (2004).

¹⁹ United Nations Framework Convention on Climate Change (opened for signature 20 June 1992, entered into force 21 March 1994) (1992) 31 *International Legal Materials* 848 [hereinafter UNFCCC].

²⁰ Kyoto Protocol to the United Nations Framework Convention on Climate Change (opened for signature 16 March 1998, entered into force 16 February 2005) (1998) 37 *International Legal Materials* 22 (hereinafter Kyoto Protocol).

²¹ *Id.*

²² *Id.*, art. 3. Notably, the United States is not a party to the Kyoto Protocol, and therefore is not legally bound to reduce its emissions, as are most other developed countries.

²³ *Id.*, art. 2.

commitments,²⁴ while two permanent subsidiary bodies meet separately and advise the COP on scientific and technical matters.²⁵

Crucially, the Kyoto Protocol establishes a set of market-based “flexibility mechanisms” to enable Annex I countries to meet their emissions reduction obligations under Article 3 of the Protocol. These mechanisms include: (i) emissions trading between Annex I parties;²⁶ (ii) joint implementation, which allows Annex I parties to transfer among themselves emissions reduction credits generated by low-carbon projects undertaken in developed countries;²⁷ and (iii) the clean development mechanism (CDM), which authorizes Annex I parties to finance and obtain credit for emission reduction projects in developing (non-Annex I) countries.²⁸ Each of these three mechanisms anticipates a role for the private sector in transnational climate mitigation activities, thus implicating the IIL regime.²⁹ The CDM, however, is explicitly designed to stimulate low-carbon FDI³⁰ and has therefore garnered the most attention from those interested in the

²⁴ UNFCCC, Essential background: Convention bodies, available at: http://unfccc.int/essential_background/convention/convention_bodies/items/2629.php (last visited April 29, 2011). The sixteenth Conference of the Parties (COP-16) took place in Cancún, Mexico from November 29 to December 10, 2010, as this chapter was submitted for publication.

²⁵ The Subsidiary Body for Scientific and Technological Advice (SBSTA) was established by Article 9 of the Convention, with a mandate to “provide the Conference of the Parties and, as appropriate, its other subsidiary bodies with timely information and advice on scientific and technological matters relating to the Convention.” UNFCCC, supra note 19, Article 9. Article 10 of the Convention established the Subsidiary Body for Implementation (SBI), which is meant to “assist the Conference of the Parties in the assessment and review of the effective implementation of the Convention.” UNFCCC, supra note 19, Article 10.

²⁶ Kyoto Protocol, supra note 20, Article 17.

²⁷ *Id.*, Article 6.

²⁸ *Id.*, art. 12.

²⁹ Emissions trading schemes authorized under the Kyoto Protocol can take a variety of forms, as Article 17 leaves to the Conference of the Parties (COP) the task of “defin[ing] the relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading.” Kyoto Protocol, supra note 20, Article 17. Although the details of trading schemes differ across jurisdictions, they function by allocating emissions reduction credits to particular industries or facilities, which are authorized in turn to sell excess permits to other entities for which the marginal cost of emissions abatement is higher. See Nathaniel O. Keohane, “Cap-and-trade is preferable to a carbon tax,” in Richard B. Stewart, Benedict Kingsbury and Bryce Rudyk, eds., *Climate finance: Regulatory and funding strategies for climate change and global development* (New York: NYU Press, 2009), pp. 57-64. Needless to say, emissions trading can take place internationally as well as within a particular country, implicating principles of international investment (and trade) law. Likewise, joint implementation prefigures private sector investment across borders in low-carbon projects, with Article 6 of the Kyoto Protocol allowing for such involvement. Kyoto Protocol, supra note 20, Article 6(3). (“A Party included in Annex I may authorize legal entities to participate, under its responsibility, in actions leading to the generation, transfer or acquisition under this Article of emission reduction units.”) The Kyoto Protocol is even more explicit with respect to the CDM, stating that “[p]articipation under the clean development mechanism [...] may involve private and/or public entities, and is to be subject to whatever guidance may be provided by the executive board of the clean development mechanism.” Kyoto Protocol, supra note 20, Article 12(9). See also Kati Kulovesi, “The private sector and the implementation of the Kyoto Protocol: Experiences, challenges and prospects,” 16 *Review of European Community and International Environmental Law* 145 (2007), p. 147.

³⁰ Kyoto Protocol, supra note 20, Article 12(2) (“The purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.”).

interplay among climate change policy, sustainable development, and IIL.³¹ Part C.1 below addresses these issues in greater depth.

As atmospheric concentrations of GHGs continue to rise, the impacts of climate change are already being felt in communities ranging from low-lying Pacific island nations to icebound indigenous villages above the Arctic Circle.³² Responding to the pressing need to adapt to climate change impacts while still working to mitigate GHG emissions, parties in 2007 established a two-track negotiating system for future COPs. Along one track, parties now work to extend Annex I emissions reduction commitments beyond the Kyoto Protocol's 2012 sunset, while along the other track the parties address adaptation, financing, and other matters left unresolved by the Kyoto Protocol, such as a framework for reducing emissions from deforestation and forest degradation (REDD), also discussed in Part C.1 below.³³

Although arguably useful, this two-track feature of recent COPs has done little to resolve tensions between various negotiating blocs; disagreement between blocs led to the near-breakdown of the UNFCCC process at the 15th Conference of the Parties (COP-15) held in Copenhagen in December 2009. There, after formal talks had stalled, ostensibly due to "procedural roadblocks" thrown up by developing countries led by Bolivia, Sudan and Venezuela,³⁴ a small meeting among the United States, Chinese, Indian, Brazilian and South African heads of State, followed immediately by a somewhat larger meeting of the major emitting countries,³⁵ yielded a deal on the last day of the

³¹ For an excellent overview, see Karen Holm Olsen, "The clean development mechanism's contribution to sustainable development: a review of the literature," 84 *Climatic Change* 59 (2007).

³² See, e.g., Islands First, Sea Level Rise, available at: http://www.islandsfirst.org/issues/sea_level_rise.html (last visited April 29, 2011); *Native Village of Kivalina v. ExxonMobil Corp*, 663 F. Supp. 2d 863 (N.D. Cal. 2009), *appeal docketed*, No. 09-17490 (9th Cir. 2010) (common law nuisance claim brought by native Arctic community against major GHG emitters).

³³ The "Kyoto track," carried out via the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), does not include the United States, rendering it less than ideal as a vehicle for negotiations on future emissions reductions. The "Convention track" was established by the Bali Action Plan, which created the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA). See Bali Action Plan, *infra* note 44.

³⁴ Daniel Bodansky, "The Copenhagen climate change conference: A post-mortem," 104 *American Journal of International Law* 230 (2010). Indeed, much of the agenda in Copenhagen was dominated by developing country delegations, who demanded funding commitments from developed countries. See, e.g., Nairobi declaration on the African process of combating climate change, para. 13, May 2009 ("Africa, in the context of environmental justice, should be equitably compensated for environmental, social and economic losses and [...] requires substantially scaled-up finance, technology and capacity-building for adaptation and risk management in accordance with the obligations of the Annex I Parties under the Kyoto Protocol to the Convention"), available at:

<http://allafrica.com/download/resource/main/main/idatcs/00011975:7fea6da7d6826946f975c392f881c116.pdf> (last visited April 29, 2011); Declaration of the Second Pan-African Parliamentary Network on Climate Change Summit, October 2009 (demanding that developed countries commit at least 1.5% of global GDP to meeting adaptation and mitigation needs), available at: http://www.africacimatesolution.org/features/Declaration_2nd_PAPNCC_summit.pdf (last visited April 29, 2011).

³⁵ This grouping of countries, notably, overlapped only partially with the membership of the Major Economies Forum. See *infra* notes 71-72 and accompanying text.

summit.³⁶ The result was a non-binding political document, the Copenhagen Accord. Somewhat unusually, the COP “took note” of the Accord rather than adopting a formal legal treaty.³⁷ Parties to the UNFCCC decided in Copenhagen to extend the mandate of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) through 2010³⁸ and at the 16th Conference of the Parties (COP-16) summit in December 2010 the parties to the UNFCCC agreed to a further extension while putting off tough discussions on the future legal framework for climate policy after the expiry of the Kyoto Protocol’s first commitment period in 2012.³⁹ These discussions were expected to continue through 2011, culminating in the 17th Conference of the Parties (COP-17) meeting in South Africa in December of that year.

Also of note for present purposes, “developed parties”⁴⁰ to the UNFCCC agreed in 1992 to a set of financial commitments related to the mitigation and adaptation costs expected to be incurred by developing countries. Pursuant to UNFCCC Article 4, developed country parties will provide “new and additional” financial resources to meet the “agreed full costs” developing country parties incur in fulfilling their reporting commitments related to implementation.⁴¹ Developed country parties will also provide financing “to meet the agreed full incremental costs of implementing measures” related to developing country parties’ commitments under Article 4(1), so long as these costs are agreed to between the developing country recipient and the donor country.⁴² Perhaps

³⁶ Bodansky, “The Copenhagen climate change conference: A post-mortem,” supra note 34.

³⁷ *Id.* The Copenhagen Accord is a legally ambiguous document. While the Accord itself is a non-binding political statement rather than a binding international treaty, the COP “took note” of the Accord in a formal decision, and requested that parties “associate with” the Accord in the months following the Copenhagen climate summit. For an excellent exposition of the legal and political implications of these issues, see Jacob Werksman, “‘Taking note’ of the Copenhagen accord: what it means,” *World Resources Institute*, December 20, 2009, available at: <http://www.wri.org/stories/2009/12/taking-note-copenhagen-accord-what-it-means> (last visited April 29, 2011); Jacob Werksman, “‘Associating with’ the Copenhagen accord: What does it mean?” *World Resources Institute*, March 25, 2010, available at: <http://www.wri.org/stories/2010/03/associating-copenhagen-accord-what-does-it-mean> (last visited April 29, 2011).

³⁸ Bodansky, “The Copenhagen climate change conference: A post-mortem,” supra note 34.

³⁹ The Cancún Agreements, supra note 9, include texts which effectively ratified most of the key provisions of the non-binding Copenhagen Accord, such as loose mitigation targets, a new climate fund for developing countries, and a framework for “international consultations and analysis” to help ease tensions around monitoring, reporting, and verification of country actions. See Pew Center on Global Climate Change, “Sixteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change and Sixth Session of the Meeting of the Parties to the Kyoto Protocol,” December 2010, available at: <http://www.pewclimate.org/docUploads/cancun-climate-conference-cop16-summary.pdf> (last visited April 29, 2011). The COP-16 texts, however, also left many important questions unanswered, including whether parties would agree to binding emissions reductions for the period commencing in 2012 and whether such reductions would be imposed through an extension of the Kyoto Protocol or via a new legal instrument.

⁴⁰ Interestingly, the term “developed party” was used for the first time ever in international law to describe the members of Annex II of the UNFCCC, which includes members of the Organisation for Economic Co-operation and Development [hereinafter OECD] plus the European Community (Annex I), but excludes eleven former socialist countries “undergoing the process of transition to a market economy.” Philippe Sands, *Principles of international environmental law*, 2d ed., (Cambridge: Cambridge University Press, 2003), p. 360, n. 253.

⁴¹ UNFCCC, supra note 19, Article 4(3).

⁴² UNFCCC, supra note 19, Articles 4(1), (3).

most controversially, developed country parties also agreed, under Article 4(4), to assist those developing countries that are “particularly vulnerable to the adverse effects” of climate change in meeting the cost of adaptation to these effects.⁴³ While these financial commitments have been expanded by subsequent agreements such as the 2007 Bali Action Plan,⁴⁴ the 2009 Copenhagen Accord⁴⁵ and the Cancún Agreements concluded in December 2010,⁴⁶ discussed in greater detail in Part C.2 below, it is worth recalling here that the plain text of the Convention itself calls for the mobilization of climate-friendly FDI, setting the stage for some degree of coordination between climate policy and the IIL regime.

2.Sub-global and Regional Initiatives

While a legally binding multilateral instrument to replace the Kyoto Protocol remained in doubt in early 2011, many States turned to sub-global arrangements in order to advance a more piecemeal and less contentious strategy for climate policy coordination. Examining this phenomenon, Robert Keohane and David Victor identify four climate “clubs” which enable key clusters of countries to cooperate, notwithstanding ongoing gridlock within the UNFCCC negotiations.⁴⁷ These clubs include the Group of Eight (G8)⁴⁸ and its newer, larger configuration, the Group of Twenty (G20),⁴⁹ the Asia-Pacific Partnership on Clean Development and Climate (APP)⁵⁰ and the Major Economies Forum on Energy and Climate Change (MEF).⁵¹ While each club’s membership overlaps, at times substantially, with the other three, each has generated its own framework for climate policymaking and each has attracted different resources and institutional backers. Each club also engages distinct aspects of the IIL regime.

a.G8

Consideration of climate change at the G8⁵² began in earnest at the 2005 G8 summit in Gleneagles, Scotland.⁵³ There, the eight major industrialized countries issued a

⁴³ See Sands, *Principles of international environmental law*, supra note 40, p. 366.

⁴⁴ UNFCCC Decision 1/CP.13 (Bali Action Plan), UN Document FCCC/CP/2007/6/Add.1, March 14, 2008, available at: <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf> (last visited April 29, 2011).

⁴⁵ Copenhagen Accord, supra note 9.

⁴⁶ Cancún Agreements, supra note 9.

⁴⁷ Keohane and Victor, “The regime complex for climate change,” supra note 18, p. 6.

⁴⁸ University of Toronto G8 Information Centre, available at: <http://www.g8.utoronto.ca> (last visited April 30, 2011).

⁴⁹ G20, What is the G20, available at: http://www.g20.org/about_what_is_g20.aspx (last visited April 29, 2011).

⁵⁰ Asia-Pacific Partnership on Clean Development and Climate, Welcome to the Asia-Pacific Partnership on Clean Development and Climate, available at:

<http://www.asiapacificpartnership.org/english/default.aspx> (last visited April 29, 2011).

⁵¹ Major Economies Forum on Energy and Climate, Major Economies Forum, available at: <http://www.majoreconomiesforum.org> (last visited April 29, 2011).

⁵² Since 1975, the leaders of Canada, France, Germany, Japan, Italy, the United Kingdom and the United States have gathered at an annual summit to discuss financial regulation and other pressing global governance matters. This club, known as the Group of Seven or G7, was expanded to include Russia in 1998 and renamed the G8. Although the G7 countries continue to meet as a separate bloc alongside the G8, it is the G8 that has provided a platform for recent collective statements on climate policy. For more

joint communiqué titled “Climate Change, Energy and Sustainable Development,” which outlined the interconnected challenges posed by climate change and poverty, as articulated by the UNFCCC and Millennium Development Goals, and provided a roadmap for collective action on both issues.⁵⁴ The Gleneagles communiqué is noteworthy for several reasons. First, it notes the interrelationship between climate change and development, clarifying the important complementary roles for foreign aid and FDI in mitigating GHG emissions while helping alleviate poverty.⁵⁵

Second, the communiqué contains a “plan of action” specifying key undertakings on everything from the efficiency of buildings and appliances to the development of carbon capture and sequestration (CCS) technology to the encouragement of World Bank and export credit agency (ECA) lending for low-carbon investments.⁵⁶ Third, and perhaps most relevant to the issue of climate change policy’s interaction with IIL, the communiqué describes specific steps to be taken to “remove barriers to direct investment” in low-carbon projects and “leverage private capital for clean development.”⁵⁷ By framing the issue of climate finance explicitly in terms of private sector investment and public-private partnerships, the communiqué prefigures subsequent developments such as the Copenhagen Accord and the Cancún Agreements and sets the stage for potential harmonization between climate policy and IIL. Since Gleneagles, the G8 has continued to serve as a forum for collective deliberation on climate change policy, with each subsequent annual communiqué including a statement on the issue.⁵⁸

b.G20

For the first decade of its existence, the G20 was a relatively low-profile institution, serving as a forum for coordination between finance ministers and central

information on this history, see University of Toronto G8 Information Centre, What is the G8?, available at: http://www.g7.utoronto.ca/what_is_g8.html (last visited April 30, 2011).

⁵³ Although climate change was included on the agenda at the 2003 G8 summit in Evian, France, it was British Prime Minister Tony Blair’s insistence on its importance that guaranteed the prominence of the issue at the 2005 Scotland summit, which Blair chaired. Henrike Peichert and Nils Meyer-Ohlendorf, “G8 impact on international climate change negotiations: good or bad?,” 2007 Annual Conference of the British International Studies Association: held at Cambridge, from 17 to 19 December 2007, available at: <http://ecologic.eu/2221> (last visited April 30, 2011).

⁵⁴ G8, “Communiqué issued following the Gleneagles summit: held at Gleneagles, Scotland, from 6 to 8 July 2005,” (2005), available at:

http://www.unglobalcompact.org/docs/about_the_gc/government_support/PostG8_Gleneagles_Communique.pdf (last visited April 30, 2011) [hereinafter Gleneagles communiqué].

⁵⁵ *Id.*, paras. 1-2.

⁵⁶ *Id.*

⁵⁷ *Id.*, paras. 21-22.

⁵⁸ See, e.g., University of Toronto, G7/G8 summit meetings, St. Petersburg summit documents, St.

Petersburg plan of action global energy security, available at:

<http://www.g8.utoronto.ca/summit/2006stpetersburg/energy.html#plan> (last visited April 30, 2011); G8

Muskoka declaration recovery and new beginnings, 25 to 26 June 2010, available at:

<http://www.canadainternational.gc.ca/g8/summit-sommet/2010/muskoka-declaration-muskoka.aspx?lang=eng> (last visited April 30, 2011).

bank governors from the world's most "systemically important" countries.⁵⁹ This changed in the fall of 2008 when the United States hosted a G20 summit in Washington, D.C. coinciding with the height of the financial crisis. The summit, which was followed by two additional summits in 2009, in London and Pittsburgh, transformed the G20 from a largely technocratic body into the preeminent international summit for political leaders. While the primary objective of the G20 remains international financial stability and regulation, the Pittsburgh leaders' statement expanded the G20's goals to include sustainable development and climate change.⁶⁰ The statement created a "Framework for Strong, Sustainable and Balanced Growth," with commitments to:

Rationalize and phase out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption; [...] [s]timulate investment in clean energy, renewables, and energy efficiency and provide financial and technical support for such projects in developing countries; [...] [and] intensify our efforts, in cooperation with other parties, to reach agreement in Copenhagen through the UNFCCC negotiation.⁶¹

A comprehensive agreement in Copenhagen was a bridge too far.⁶² And, when the G20 met in South Korea in November 2010 countries had still largely failed to live up to their commitments to cut fossil fuel subsidies.⁶³ But because leaders in Pittsburgh agreed that the G20 would henceforth replace the G8 as the preeminent forum for future policy coordination,⁶⁴ opportunities may yet emerge at the G20 level to push for harmonization between climate policy and the IIL regime.

c. Asia-Pacific Partnership

The Asia-Pacific Partnership (APP) was launched by the leaders of Australia, China, India, Japan, South Korea and the United States in 2005 at the Association of South East Asian Nations (ASEAN) regional forum in Laos.⁶⁵ At the time of its founding,

⁵⁹ Randall Germain, "Global financial governance and the problem of inclusion," 7 *Global Governance* 411(2001), p. 416.

⁶⁰ G20, Pittsburgh leaders' statement, available at:

<http://www.pittsburghsummit.gov/mediacenter/129639.htm> (last visited April 30, 2011).

⁶¹ *Id.*, paras. 29, 31-32.

⁶² See Part A.1, *infra*.

⁶³ See "Green view: How to save \$300 billion," *The Economist*, November 12, 2010, available at:

http://www.economist.com/blogs/newsbook/2010/11/fossil-fuel_subsidies (last visited April 30, 2011)

(citing a 2010 study which found that no country has initiated a subsidy reform specifically in response to the G20).

⁶⁴ See, e.g., Ann Davies, "Major win for Australia as G20 permanently replaces the G8," *The Age* (Australia), September 26, 2009 available at: <http://www.theage.com.au/national/major-win-for-australia-as-g20-permanently-replaces-the-g8-20090925-g6d0.html> (last visited April 30, 2011). But see Daniel Price, "Comment: G20 version 2.0 will appease the skeptics," *Financial Times*, March 31, 2011 ("[T]he G20 is not the right forum to address all global issues. It is not a committee to save the world. [...] [T]he G20 must guard against mission creep, which could undercut its efficacy on the global economic issues squarely within its remit."), available at: <http://www.ft.com/cms/s/0/c0dea9aa-5bc4-11e0-b8e7-00144feab49a.html> (last visited April 30, 2011).

⁶⁵ See media release, Honorable Alexander Downer, Former Minister for Foreign Affairs, Australia, "Asia-Pacific Partnership on Clean Development and Climate," (August 11, 2005), available at:

many observers viewed the founding of the APP as a cynical response to lingering criticism about the United States' decision to forsake the Kyoto Protocol; President George W. Bush warmly welcomed the new forum for cooperation on research and development of new technologies while eschewing the binding emissions caps imposed by the UNFCCC.⁶⁶

The APP was created with four purposes in mind: (i) to create a “voluntary, non-legally binding framework for international cooperation to facilitate the development, diffusion, deployment, and transfer of” clean and efficient technologies; (ii) to promote regulatory environments to assist such efforts; (iii) to “facilitate attainment” of each country’s “national pollution reduction, energy security and climate change objectives,” and; (iv) to “provide a forum” for further collaboration on “interlinked development, energy, environment, and climate change issues” among the seven members of the Partnership.⁶⁷ Commentators are split on whether the APP’s voluntary, industry-based approach represents progress or backsliding by major emitters such as the United States and Australia.⁶⁸ Some argue that the club’s small and strategically important membership roster make it a useful complement to the clumsy UNFCCC negotiating process, while others doubt whether the vague and non-binding nature of members’ commitments will yield measurable reductions in GHG emissions.⁶⁹

d. Major Economies Forum

Like the APP, the Major Economies Forum (MEF) was conceived of as an alternative forum to the UNFCCC, where a small group of strategically important countries could coordinate their climate and energy policies. In fact, according to one account, the Bush administration created the MEF (originally dubbed the “Major Emitters Forum” in 2007 and rebranded only later, in 2009, as the “Major Economies Forum on Energy and Climate Change”) after recognizing that the APP was “too small and without much practical significance.”⁷⁰ The MEF membership consists of sixteen States plus the European Union. The MEF’s roster overlaps entirely with that of the G20, with the

http://www.foreignminister.gov.au/releases/2005/js_cdc.html (last visited April 30, 2011). Canada became the organization’s seventh member at the APP’s Second Ministerial Meeting in New Delhi on October 15, 2007.

⁶⁶ Keohane and Victor, “The regime complex for climate change,” supra note 18, p. 6.

⁶⁷ Asia-Pacific Partnership on Clean Development and Climate, About the Asia-Pacific Partnership on Clean Development & Climate, available at: <http://www.asiapacificpartnership.org/english/about.aspx> (last visited April 30, 2011).

⁶⁸ Richard Black, “Climate pact: for good or bad?,” *BBC News*, July 28, 2005, available at: <http://news.bbc.co.uk/2/hi/science/nature/4725681.stm> (last visited April 30, 2011).

⁶⁹ For an overview of these opposing views, see Peter Lawrence, “The Asia-Pacific Partnership on Clean Development and Climate (AP6): A distraction to the Kyoto process or a viable alternative?,” 10 *Asia Pacific Journal of Environmental Law* 183 (2007). See also Harro Van Asselt, “From UN-ity to diversity? The UNFCCC, the Asia-Pacific Partnership, and the future of international law on climate change,” 1 *Carbon and Climate Law Review* 17 (2007); Sarah A. Peay, “Joining the Asia-Pacific Partnership: The environmentally sound decision?,” 18 *Colorado Journal of International Environmental Law and Policy* 477 (2007).

⁷⁰ Keohane and Victor, “The regime complex for climate change,” supra note 18, p. 6.

exception of Argentina, Saudi Arabia and Turkey, which are geopolitically important countries for the purposes of the G20 but do not rank highly as major emitters of GHGs.

The MEF, like the APP, represents something more than a negotiating bloc at UNFCCC meetings, but something less than a quasi-international institution such as the G8 and G20. As in the case of the APP, the MEF countries have created work streams dedicated to fostering cooperation in particular industries such as renewable energy, advanced vehicles, bio-energy, and energy efficiency in buildings. And like the G8 and G20, the MEF leaders have issued formal declarations following high-level summits. Indeed, the first “Leaders’ Declaration” of the MEF was released on July 9, 2009,⁷¹ following the First Leaders’ Meeting held in L’Aquila, Italy alongside the 35th G8 summit held in the same location from July 8-10.⁷² As of this writing, the format for future MEF collaboration, as well as coordination between initiatives organized by the APP, G8/G20, and MEF, remained unclear.

3. Bilateral Arrangements

Like the regional initiatives discussed above, bilateral arrangements on climate change are gaining prominence as prospects remain dim for a comprehensive post-2012 global climate treaty. As with BITs in the investment law context, bilateral climate deals are open to criticism on the grounds that they undermine comprehensive international efforts to mitigate global GHG emissions. Moreover, a strong case can be made that the problem of carbon leakage militates in favor of a coordinated multilateral policy on climate change and against ad hoc bilateral arrangements.⁷³ Nevertheless, with just two countries (China and the United States) responsible for approximately 40 percent of aggregate global carbon dioxide emissions,⁷⁴ bilateral deals hold out the promise of

⁷¹ Major Economies Forum, “Declaration of the leaders: Major Economies Forum on Energy and Climate,” July 9, 2010, available at: <http://www.majoreconomiesforum.org/past-meetings/the-first-leaders-meeting.html> (last visited April 30, 2011).

⁷² See G8, from La Maddalena to L’Aquila, Italy’s year at the helm of the G8 comes to an end, available at: <http://www.g8italia2009.it> (last visited April 30, 2011). The 2009 Leaders’ Declaration established a new institution, the “Global Partnership for Low Carbon Energy,” which was meant to “drive transformational low-carbon, climate-friendly technologies.” In establishing the Global Partnership, MEF leaders emphasized that they would “dramatically increase and coordinate public sector investments in [...] these technologies, with a view to doubling such investments by 2015, while recognizing the importance of private investment, public-private partnerships and international cooperation.” Major Economies Forum, “Declaration of the Leaders: Major Economies Forum on Energy and Climate,” supra note 71.

⁷³ Carbon leakage refers to the migration of emissions from jurisdictions where the cost of carbon is high to those where it is relatively low (or unpriced). The classic example is the relocation of energy-intensive manufacturing from Europe, where the European Union Emissions Trading System imposes a cap on carbon dioxide emissions, to China, where emissions are still largely unregulated. See generally Robert N. Stavins, “A meaningful U.S. cap-and-trade system to address climate change,” 32 *Harvard Environmental Law Review* 293 (2008) (discussing leakage as it applies to cap-and-trade schemes). See also Michael Vandenberg and Mark Cohen, “Climate change governance: Boundaries and leakage,” 18 *New York University Environmental Law Journal* 221 (2010) (proposing a new strategy to counteract leakage effects based on information disclosure).

⁷⁴ United Nations Statistics Division, millennium development goals indicators: Carbon dioxide emissions, available at: <http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749&crd=> (last visited April 30, 2011).

meaningful progress on climate change, especially while UNFCCC negotiations remain largely gridlocked.

Bilateral climate arrangements have been established on a variety of topics, from collaboration on research and development to technology transfer to foreign investment. Although the vast majority of these arrangements do not create binding obligations under international law, the arrangements' proliferation nevertheless represents significant transnational action on climate change. Furthermore, in many cases such agreements anticipate a leading role for private investment in clean energy projects. The United States and China, for instance, signed a July 2009 memorandum of understanding to enhance cooperation on climate and energy matters.⁷⁵ This built upon a "Framework for Ten Year Cooperation on Energy and Environment"⁷⁶ concluded the previous year. The July agreement was elaborated upon, in turn, during President Obama's November 2009 visit to Beijing,⁷⁷ at which President Obama and his counterpart President Hu Jintao announced seven new projects and initiatives, including the United States-China Clean Energy Research Center, the United States-China Electric Vehicles Initiative and a program on "21st Century Coal," which features an agreement on the joint construction of Chinese CCS facilities by United States firms and major Chinese partners.⁷⁸ The United States penned a similar deal with India in late 2009,⁷⁹ emphasizing many of the same issues.

The European Union, like the United States, has developed a framework for bilateral cooperation with China. The European Union's agreement with China is known as the European Union-China Climate Change Partnership,⁸⁰ which includes subsidiary agreements establishing the Europe-China Clean Energy Centre and the Near Zero Emissions Coal Project, through which the European Union has agreed to finance the construction of a coal plant using advanced CCS technology.⁸¹ In addition, some EU Member States have indicated that they plan to fulfill their UNFCCC climate finance commitments, including the "fast start" funding promised in Copenhagen for the period

⁷⁵ Memorandum of understanding to enhance cooperation on climate change, energy and the environment between the Government of the United States of America and the Government of the People's Republic of China, July 18, 2009, available at: <http://www.state.gov/r/pa/prs/ps/2009/july/126592.htm> (last visited April 30, 2011).

⁷⁶ United States Department of State, United States-China Ten Year Framework for Cooperation on Energy and Environment, available at: <http://www.state.gov/g/oes/env/tenyearframework/index.htm> (last visited April 30, 2011).

⁷⁷ United States Department of Energy, United States-China clean energy announcements, November 17, 2009, available at: <http://www.energy.gov/news/8292.htm> (last visited April 30, 2011).

⁷⁸ *Id.*

⁷⁹ Press release, the White House Office of the Press Secretary, "Fact sheet: U.S.-India green partnership to address energy security, climate change, and food security," November 24, 2009, available at: http://www.whitehouse.gov/sites/default/files/Green_Partnership_Fact_Sheet.pdf (last visited April 30, 2011).

⁸⁰ European Commission, European Union and China partnership on climate change, September 2, 2005, available at: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/05/298> (last visited April 30, 2011).

⁸¹ See NZEC carbon capture and storage, what is NZEC?, available at: <http://www.nzec.info/en/what-is-nzec> (last visited April 30, 2011).

from 2010-12, through bilateral deals.⁸² According to the chairperson of the European Parliament's environment committee, EU Member States may also seek to draft technology transfer agreements on a bilateral basis.⁸³

Beyond these general climate arrangements, States are concluding specialized bilateral agreements on issues as diverse as nuclear power and forest conservation. Japan, while refusing at COP-16 to endorse a second commitment period under the Kyoto Protocol in the absence of stronger emissions reduction commitments from China and others,⁸⁴ quietly unveiled a new initiative to provide major financial support to developing countries for the construction of nuclear power plants.⁸⁵ And, countries such as Norway are taking big steps forward on bilateral forest protection schemes under the rubric of REDD, discussed in greater depth in Part C.1 below. Norway's "International Climate and Forest Initiative,"⁸⁶ launched at the 13th Conference of the Parties (COP-13) summit in 2007, allocates up to US\$ 500 million per year for forest protection initiatives. As of April 2011, Norway had entered into financing agreements with Brazil, Guyana, Indonesia, Mexico, Tanzania, as well as with multinational entities such as the Congo Basin Forest Fund administered by the Africa Development Bank.⁸⁷

As in the investment law arena, bilateral climate deals are also proliferating along the South-South axis, as developing countries take positions of greater prominence on the global stage. In October 2009, China and India signed their first bilateral agreement on climate, establishing a "Joint Working Group" to coordinate the countries' negotiating positions at the Copenhagen summit but also to collaborate on joint research on renewable energy and clean coal.⁸⁸ And, at a November 2010 bilateral summit in Cape Town, China pledged a US\$ 20 billion line of credit to South Africa for renewable and nuclear energy projects, hoping that such credit will facilitate "outward bound movement

⁸² "Bilateral deals mushroom as climate treaty falters," *EurActive.com*, October 1, 2010, available at: <http://www.euractiv.com/en/climate-environment/bilateral-deals-mushroom-climate-treaty-falters-news-498187> (last visited April 30, 2011).

⁸³ *Id.*

⁸⁴ Lisa Friedman, "Future of Kyoto Protocol remains in serious doubt as Cancun talks enter final day," *New York Times*, December 10, 2010 ("Japan brought the issue to a head on the first day of negotiations in this Yucatan peninsula resort town when it declared unequivocally that it would not submit new greenhouse gas emission targets under a second phase of the treaty in 2012").

⁸⁵ Juliet Eilperin and William Booth, "Some aren't waiting for climate consensus," *Washington Post*, December 10, 2010. Of course, in the aftermath of the crisis at the Fukushima Dai-ichi nuclear power plant, which began with the March 2011 earthquake and tsunami, Japan's political, diplomatic and financial posture vis-à-vis nuclear energy is very much open to reconsideration. At the time of this writing, the country's commitment to finance the construction of new nuclear power facilities, at home or abroad, remained unclear.

⁸⁶ Ministry of the Environment (Norway), What does the Norwegian Climate and Forest Initiative finance?, available at: <http://www.regjeringen.no/en/dep/md/Selected-topics/climate/the-government-of-norways-international-/what-do-we-finance.html> (last visited April 30, 2011).

⁸⁷ *Id.*

⁸⁸ See "India and China sign their first bilateral agreement on climate," *Hindustan Times*, October 21, 2009, available at: <http://www.hindustantimes.com/India-and-China-sign-their-first-bilateral-agreement-on-climate/Article1-467517.aspx> (last visited April 30, 2011).

for Chinese companies” seeking new markets.⁸⁹ Such developments augur well for the future of low-carbon investment: As FDI flows in general are increasingly originating in and directed towards emerging economies where future GHG emissions are predicted to grow fastest, so too will clean energy investments flow more readily along a South-South axis.⁹⁰

4. National Regulation

Despite the global nature of the problem, most regulation on climate change still occurs at the national level. This is due in part to the persistence of the Westphalian nation-State as the predominant actor on the global stage, but can also be traced back to a more pedestrian rationale: The Kyoto Protocol requires Annex I parties to limit their aggregate domestic emissions through appropriate national legislation. All Annex I parties have taken steps to meet their quantified emission limitation and reduction commitments under Article 3 of the Kyoto Protocol, but the preeminent example here is the EU ETS, which commenced operation on January 1, 2005 and which has been adopted in the national legislation of each EU Member State.⁹¹ Implementation of the EU ETS has proceeded in stages. Phase I, which ran from 2005-2007, was characterized by “learning by doing” among EU Member States and regulated entities; many mistakes were made, and the nascent European carbon market experienced wide swings and steep drops in value.⁹² Phase II, known as the “Kyoto Commitment Phase,” runs from 2008-2012 and is “aimed at achieving the reduction targets set by the Kyoto Protocol,”⁹³ a goal which, as of this writing, seemed unlikely to be met. Phase III of the EU ETS, which will

⁸⁹ Mandy Rossouw, “China’s sweet climate change deal,” *Mail and Guardian* (South Africa), November 19, 2010, available at: <http://www.frontier-advisory.com/chinas-sweet-climate-change-deal> (last visited May 2, 2011).

⁹⁰ It must be noted here, however, that many of the benefits of such South-South clean energy investments are being wiped out by the sheer scale of dealmaking between developing economies in high carbon industries such as coal mining. Indonesia, for instance, recently overtook Australia as the world’s largest producer of thermal coal, with exports rising 400 percent between 2000 and 2010. China and India are the first and second largest markets for Indonesian coal, and companies from both countries are making major investments in the industry. Anthony Deutsch, Amy Kazmin and Leslie Hook, “Scramble for coal reaches Indonesia,” *Financial Times*, September 8, 2010, available at: http://www.ft.com/cms/s/0/986dbd40-bb5f-11df-a136-00144feab49a,dwp_uuid=9d04b7e0-e671-11df-95f9-00144feab49a.html#axzz1LJfEudos (last accessed).

⁹¹ See Council Directive (EC) 2003/87 of the European Parliament and of the Council (October 13, 2003) (establishing a scheme for greenhouse gas emission allowance trading within the Community) (“EU ETS Directive”), available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:275:0032:0032:EN:PDF> (last accessed May 2, 2011); Council Directive (EC) 2004/101 (November 13, 2004) (“Linking Directive”), available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:338:0018:0018:EN:PDF> (last accessed May 2, 2011) amends the EU ETS Directive to enable EU Member States to grant permits to private sector actors such as power plant operators, and to use credits obtained through the Kyoto flexibility mechanisms to comply with their obligations under the EU ETS. Each Member State’s domestic implementation of these directives proceeded pursuant to domestic legislative rules. For an exposition of the legislative process in the United Kingdom, see Tim Stephens, “The United Kingdom’s carbon emissions reduction legislation” 24 *Environmental and Planning Law Journal* 249 (2007).

⁹² See Josephine A. W. Van Zeben, “(De)Centralized law-making in the revised EU ETS,” 3 *Carbon & Climate Law Review* 340 (2009), p. 346.

⁹³ *Id.*

begin in 2013, will feature several important changes, including the setting of a community-wide cap on emissions rather than cap-setting through “National Allocation Plans,” and the substitution of allowance auctioning for the current system, in which emission allowances are freely allocated to emitters.⁹⁴

Because of its stringent emissions cap and its authorization of offsetting mechanisms such as the Kyoto Protocol’s CDM and joint implementation schemes,⁹⁵ the EU ETS has spurred significant private sector investment in low-carbon technologies while also affecting the property rights of innumerable firms and individuals.⁹⁶ Unsurprisingly, it has also generated significant legal controversy. In March 2010, the European Court of Justice (ECJ) issued a final ruling in a landmark case brought by Arcelor SA, a steel manufacturer, challenging certain ETS provisions that allegedly “infring[ed] its right to property and its freedom to pursue an economic activity, which constitute fundamental rights guaranteed by the Community legal order.”⁹⁷ The ECJ rejected Arcelor’s challenge, upholding the EU ETS while noting that “the right to property and the right to pursue an economic activity did not constitute ‘absolute prerogatives,’ but had to be ‘viewed in relation to their social function.’”⁹⁸ Neither the EU ETS nor other forms of national climate regulation have yet to generate an investment treaty claim by an aggrieved foreign investor,⁹⁹ but experts agree that the question is not if, but when, such a claim will be filed.¹⁰⁰

⁹⁴ *Id.*, pp. 347-55.

⁹⁵ See *infra* notes 193-199 and accompanying text. The EU ETS allows firms to use CERs and ERUs to offset their emissions reduction obligations under the cap. Although as of December 2010 the EU ETS did not grant offset credits for avoided deforestation and forest conservation projects, some observers noted that the adoption of REDD at COP-16 in Mexico signaled a growing willingness among Europeans to consider allowing international forest carbon offsets into the ETS.

⁹⁶ For a discussion of the legal nature of emissions permits and offset credits such as CERs generated via CDM projects, see Jolene Lin, “Private actors in international and domestic emissions trading systems,” in David Freestone and Charlotte Streck, eds., *Legal aspects of carbon trading: Kyoto, Copenhagen, and beyond* (New York: Oxford University Press, 2009), p. 142.

⁹⁷ Case T-16/04, *Arcelor SA v. European Parliament and Council of the European Union*, 2010 *E.C.R.* 00000, para. 146. This case followed closely on the heels of another challenge to the EU ETS, based in part on an argument about ETS infringement on the principle of equal treatment (nondiscrimination). See Case C-127/07, *Arcelor Atlantique et Lorraine and Others*, 2008 *E.C.R.* I-9895.

⁹⁸ Chester Brown, “International, mixed, and private disputes arising under the Kyoto Protocol,” 1 *Journal of International Dispute Settlement* 447 (2010), p. 461 (citing *Arcelor SA*, para. 153). For a summary of the facts and holdings in the *Arcelor* case, as well as other cases challenging European Union and Member State actions taken pursuant to the EU ETS, see *id.* pp. 461-63.

⁹⁹ See *supra* notes 5-9 and accompanying text.

¹⁰⁰ See, e.g., Brown, “International, mixed, and private disputes arising under the Kyoto Protocol,” *supra* note 98; Marshall, “Climate change and international investment agreements: Obstacles or opportunities,” *supra* note 2. Although climate-friendly regulatory measures can theoretically yield a panoply of investment treaty claims, certain host country actions seem more likely than others to spur claims by investors. For instance, government procurement policies imposing performance requirements on goods or stipulating that goods must be manufactured using low-carbon energy sources could conceivably fall afoul of a BIT’s national treatment clause. See Part B.5, *infra*. Likewise, an aggrieved fossil fuel investor might try to argue that the initiation of a strict cap-and-trade program with auctioned – rather than allocated – allowances constitutes a measure “tantamount to expropriation,” see Part B.3, *infra*, or is a violation of the investor’s “legitimate expectations,” see Part B.4, *infra*.

5.Sub-national Policies

Many countries, including those that have promulgated comprehensive national emission reduction legislation, are also experimenting with a variety of sub-national climate policies. Sub-national policies are taking on particular importance in the United States, since federal cap-and-trade legislation failed to pass the Senate in 2010 and, at the time of this writing, appeared unlikely to be revisited before 2013 at the earliest. Moreover, because some sub-national entities such as the state of California are themselves among the top GHG emitters worldwide,¹⁰¹ sub-national policies can generate significant emissions reductions even in the absence of a comprehensive national climate policy.¹⁰²

Sub-national climate regulation in the United States is occurring simultaneously at the municipal, state, and regional levels. This “plural architecture”¹⁰³ holds out great possibilities for innovation, collaboration and mutual learning across jurisdictions, but also increases the risk of wasteful duplication and, worse, mutually incompatible regulatory regimes. In many countries, as in the United States, a federal system of government allows for concurrent national and sub-national jurisdiction over many spheres of economic and social activity.¹⁰⁴ In some instances, federal preemption can stymie state experimentation in areas where federal rules displace sub-national jurisdictions’ authority to regulate.¹⁰⁵ However, although several challenges were pending as this chapter was submitted for publication, regional, state and local climate regulation in the United States is proceeding apace largely without substantial interference from the courts.¹⁰⁶

¹⁰¹ If California were a country, it would rank as the world’s 18th largest emitter of greenhouse gases, with slightly less emissions than Iran and slightly more than South Africa. In the United States, only Texas ranks higher, at 8th, ahead of Canada and slightly behind Brazil. World Resources Institute, climate analysis indicators tool (CAIT), 2007, available at: <http://cait.wri.org> (last visited April 30, 2011).

¹⁰² For an overview of the issues related to sub-national climate change regulation in the United States, see generally Richard B. Stewart, “States (and cities) as actors in global climate regulation: Unitary vs. plural architectures,” 50 *Arizona Law Review* 681 (2008).

¹⁰³ *Id.*

¹⁰⁴ For an illuminating discussion of federalism and climate change, see Blake Hudson, “Federal constitutions and global governance: The case of climate change,” 87 *Indiana Law Journal* __ (forthcoming 2012).

¹⁰⁵ In *Wyeth v. Levine*, 129 S. Ct. 1187 (2009), the United States Supreme Court explored these preemption principles in ruling that federal drug laws do not preempt state common law tort claims against drug manufacturers. For a discussion of the state of the debate on preemption, see Gregory Dickinson, “Chevron’s sliding scale in *Wyeth v. Levine*, 129 S. Ct. 1187 (2009),” 33 *Harvard Journal of Law and Public Policy* 1177 (2010).

¹⁰⁶ For a comprehensive account of all climate-related litigation in the United States, including preemption challenges to state and local regulation, see Columbia Center for Climate Change Law, Columbia Law School, Climate change litigation in the U.S. (chart), available at: <http://www.climatecasechart.com> (last visited April 30, 2011). Of course, challenges to climate-related regulatory activities in the United States are coming not only in the form of lawsuits, but also through controversial legislative attacks in Congress. Several bills and amendments passed in the House of Representatives in early 2011 would strip EPA of its ability to regulate GHGs under the Clean Air Act, as it has been legally obligated to do since 2007 under the Supreme Court’s decision in *Massachusetts v. EPA*, 549 U.S. 497 (2007). The Columbia Center for Climate Change Law maintains a useful tracking service of congressional activities on climate change,

At the regional level, multi-state schemes such as the Regional Greenhouse Gas Initiative (RGGI)¹⁰⁷ and the Western Climate Initiative (WCI)¹⁰⁸ have taken the lead in creating markets for carbon emissions reduction credits. With ten participating states as of early 2011,¹⁰⁹ RGGI represents an accord to cap regional carbon dioxide emissions from power plants at 188 million tons per year, which was projected to be the total power plant emissions for the region in 2009. Member states agreed to reduce this figure by 2.5 percent each year between 2015 and 2019 for a total reduction of 10 percent, achieved in part via trading emissions allowances. The New York State Department of Environmental Conservation points out that this phased-in approach “will provide predictable market signals and regulatory certainty.”¹¹⁰ On September 25, 2008 RGGI held its first emissions allowance auction, with fifty-nine entities participating, including utility and energy companies, financial institutions, and environmental groups.¹¹¹ Across the country, the WCI published final reporting requirements for participating jurisdictions in July 2009.¹¹² Together with rules for harmonizing WCI reporting and the requirements of the Environmental Protection Agency’s (EPA’s) Mandatory Reporting Rule for GHG emissions,¹¹³ this represents an important step towards the launch of full-scale emissions trading, currently scheduled to commence on January 1, 2012.¹¹⁴ Meanwhile, WCI member states¹¹⁵ took steps of their own to meet their reductions requirements under the

available at: <http://www.law.columbia.edu/centers/climatechange/resources/legislation> (last visited April 30, 2011).

¹⁰⁷ Regional Greenhouse Gas Initiative [hereinafter RGGI], available at: <http://www.rggi.org/home> (last visited 2011).

¹⁰⁸ Western Climate Initiative [hereinafter WCI], available at: <http://www.westernclimateinitiative.org> (last visited April 30, 2011).

¹⁰⁹ RGGI members in 2010 were Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. Pennsylvania and the Canadian provinces of New Brunswick, Ontario and Québec are official observers. See RGGI, the ten states, available at: http://www.rggi.org/states/ten_states (last visited April 30, 2011). In early 2011, several states under the leadership of Republican governors, including New Hampshire and New Jersey, signaled their intent to withdraw from the accord. Indeed, as this chapter was submitted for publication, the New Hampshire House of Representatives had voted to pull out of the program. Ehren Goossens, “New Hampshire House votes to withdraw from regional carbon trading market,” *Bloomberg*, March 30, 2011, available at: <http://www.bloomberg.com/news/2011-03-30/new-hampshire-house-votes-to-withdraw-from-regional-carbon-trading-market.html> (last visited April 30, 2011).

¹¹⁰ New York State Department of Environmental Conservation, How the carbon dioxide budget trading program works, available at: <http://www.dec.ny.gov/energy/39276.html> (last visited April 27, 2011.)

¹¹¹ See RGGI Auction Results, Auction 1, available at: http://rggi.org/market/co2_auctions/results/auction1 (last visited April 27, 2011).

¹¹² WCI, final essential requirements for mandatory reporting for the Western Climate Initiative, available at: <http://www.westernclimateinitiative.org/component/remository/Reporting-Committee-Documents/Final-Essential-Requirements-for-Mandatory-Reporting/> (last visited April 27, 2011).

¹¹³ WCI, harmonization of essential requirements for mandatory reporting in U.S. jurisdictions with EPA mandatory reporting rule, available at: <http://www.westernclimateinitiative.org/news-and-updates/125-harmonization-of-essential-requirements-for-mandatory-reporting-in-us-jurisdictions-with-epa-mandatory-reporting-rule> (last visited April 27, 2011).

¹¹⁴ See WCI, Frequently Asked Questions, available at: <http://www.westernclimateinitiative.org/the-wci-cap-and-trade-program/faq#question7> (last visited April 27, 2011).

¹¹⁵ Seven United States states are members of the WCI (Arizona, California, Montana, New Mexico, Oregon, Utah and Washington), as are four Canadian provinces (British Columbia, Manitoba, Ontario, and Quebec). See WCI, WCI partners and observers, available at: <http://www.westernclimateinitiative.org/wci->

WCI framework,¹¹⁶ including anticipatory measures creating possible avenues of linkage between the WCI, RGGI and potentially other regional emissions trading schemes.

At the state level, as with so many other United States environmental issues, California is taking the lead. After the California legislature passed Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, the California Air Resources Board (CARB) began work to establish a comprehensive statewide regulatory scheme, including cap-and-trade rules scheduled to go into effect in 2011. AB 32, which requires California to reduce its GHG emissions to 1990 levels by 2020,¹¹⁷ survived a high-stakes ballot initiative put to California voters in November 2010, which would have effectively stripped CARB of its authority to regulate GHGs.¹¹⁸ In March 2011, implementation by CARB of climate regulations pursuant to AB 32 was blocked by a California Superior Court decision, which held that CARB had violated the California Environmental Quality Act (CEQA) by failing to conduct an adequate environmental review of its implementation decisions. The court found that CARB had failed to adequately consider, describe, and analyze alternatives to the cap-and-trade program (such as a direct carbon tax) in its scoping plan and improperly began implementing the scoping plan measures before its CEQA process was complete.¹¹⁹ The future timeline for implementation by

partners-and-observers-map (last visited April 27, 2011). Interestingly, Canadian provinces begun participating in the WCI at the same time that Canada's central government was pushing for a bilateral climate agreement with the Obama administration. See, e.g., "Canada to seek climate-change deal with Obama," *Business Week*, November 5, 2008. This "disconnect" between state and federal action, on both sides of the border, presents not only significant challenges in terms of foreign affairs preemption and federalism, on *both* sides of the United States-Canada border. These issues are beyond the scope of this chapter. For a compelling account of the preemption and federalism problems raised by subnational action on climate change, see Judith Resnik, "Foreign as domestic affairs: rethinking horizontal federalism and foreign affairs preemption in light of translocal internationalism," *57 Emory Law Journal* 31 (2007).

¹¹⁶ See, e.g., Celeste Lecompte, "Oregon approves greenhouse gas reporting rules" *New York Times*, October 24, 2008. See also California Air Resources Board, AB 32 climate change scoping plan document, available at: <http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm> (last visited April 27, 2011).

¹¹⁷ Global Warming Solutions Act of 2006, California Health & Safety Code § 38550 (West 2006).

¹¹⁸ See Colin Sullivan and Debra Kahn, "Voters reject 2-sided assault on climate law," *New York Times*, November 3, 2010.

¹¹⁹ *Association of Irrigated Residents v. California Air Resources Board* (Cal. Super. Ct. March 18, 2011). Petitioners in the case include environmental justice groups representing lower-income communities largely in Southern California, and the Association of Irrigated Residents, a central-valley based group that in the last few years has sought relief on environmental matters in over a dozen cases. They argue that the CARB violated its obligations under CEQA by treating its scoping plan as a post-hoc rationalization for policies it had already decided upon. Petitioners believe a cap-and-trade program would allow industrial facilities, many situated in low-income communities, to continue to emit non-GHG pollutants while lowering their carbon output indirectly through emissions trading on the carbon market. In reaching its March 18 decision, the Court did not address these environmental justice concerns, but focused instead on a narrow procedural question: whether CARB analyzed alternatives to cap-and-trade under the law. For an excellent collection of commentary on the lawsuit and its likely impacts on AB 32 implementation, see Sean Hecht, "The recent court decision blocking California's scoping plan to reduce greenhouse gas emissions: one-stop shopping for recent Legal Planet commentary," *Legal Planet*, March 28, 2011, available at: <http://legalplanet.wordpress.com/2011/03/28/the-recent-court-decision-blocking-californias-scoping-plan-to-reduce-greenhouse-gas-emissions-one-stop-shopping-for-recent-legal-planet-commentary/#more-9811> (last visited April 27, 2011).

CARB of its cap-and-trade program remained in doubt as this chapter was submitted for publication.

One particularly noteworthy development in connection with sub-national climate policy is the initiation of international partnerships between states and cities, rather than at the level of national governments. In the United States, for instance, state officials are moving forward in the international arena even in the absence of federal climate legislation. On November 16, 2010, California's then-Governor Arnold Schwarzenegger signed two memoranda of understanding (MOUs) with the governors of Acre, Brazil and Chiapas, Mexico establishing a "sub-national Reducing Emissions from Deforestation and Forest Degradation working group" to "develop recommendations" due to be reported to CARB in October 2011. These recommendations will help bring "sub-national REDD programs into California's cap-and-trade program to allow California companies to use REDD credits for compliance."¹²⁰

A week after Schwarzenegger's announcement, a worldwide summit of mayors and local leaders held in Mexico City produced a voluntary agreement, known as the Global Cities Covenant on Climate, to coordinate mitigation and adaptation activities at the municipal level.¹²¹ These transnational initiatives, like others being undertaken by state and municipal leaders worldwide, raise domestic legal issues related to constitutional federalism and foreign affairs, while also calling into question some of the UNFCCC/Kyoto Protocol mechanisms, which were designed with nation States, not sub-national entities, in mind. Nevertheless, they represent a potentially significant avenue for international cooperation on climate change and hold out the possibility of real emissions reductions at a time when some national governments may seem less willing to act.

B. The International Investment Law Regime

The protection of foreign property under international law has a long and storied history,¹²² but the modern era for IIL began in earnest only in 1959 when West Germany and Pakistan concluded the world's first bilateral investment treaty.¹²³ In the ensuing five decades States have entered into thousands of BITs, 2,750 of which were in force as of December 2009, together with 295 additional IIAs.¹²⁴ Much like the variegated "regime complex" covering aspects of climate change policy, IIL lacks a single, comprehensive

¹²⁰ Press Release, Governor Arnold Schwarzenegger (California), "Gov. Schwarzenegger announces agreement with Mexico and Brazil to combat climate change, protect forests at GGCS 3," November 16, 2010.

¹²¹ World Mayors Summit on Climate, the Mexico City Pact, available at: <http://www.wmsc2010.org/the-mexico-city-pact> (last visited April 27, 2011).

¹²² Rudolf Dolzer and Christoph Schreuer, *Principles of international investment law* (New York: Oxford University Press, 2008), pp. 1-30; M. Sornarajah, *The international law on foreign investment*, 2d ed., (Cambridge: Cambridge University Press, 2004), pp. 18-30.

¹²³ Treaty for the Promotion and Protection of Investments, West Germany-Pakistan (signed 25 November 1959, entered into force 26 March 1963) 457 UNTS 23.

¹²⁴ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, supra note 11, p. 81. The relationship between the existence of IIAs and FDI flows is contested. For an excellent overview of the issues, see Karl Sauvant and Lisa Sachs, eds., *The effect of treaties on foreign direct investment* (New York: Oxford University Press, 2009).

mechanism to regulate the conduct of states, firms and individuals vis-à-vis transnational investment.¹²⁵ Rather, a set of interrelated principles, norms and governance structures have emerged through the drafting and interpretation, in investor-State disputes, of thousands of distinct IIAs. Such IIAs can take the form of BITs, regional investment treaties such as the ASEAN Comprehensive Investment Agreement, the investment chapters of free trade agreements (FTAs) such as the North American Free Trade Agreement (NAFTA), or the investment-oriented provisions of treaties focusing on other subject matter, such the Energy Charter Treaty (ECT). This Part introduces the features common to nearly all of these IIAs and identifies those areas where they are most likely to interact, both positively and negatively, with climate policy.

1.Object and purpose of IIAs

In resolving investment disputes, arbitral panels interpret the operative provisions of IIAs according to the principles enumerated in Article 31 of the Vienna Convention on the Law of Treaties, which refers to the objects and purposes of treaties.¹²⁶ Loosely speaking, the “object and purpose” of a treaty indicates parties’ fundamental intentions in concluding a given instrument.¹²⁷ These intentions tend to be gleaned from both reasonable assumptions about the general pro-investment purposes of investment treaties as well as specific preambular language, which may highlight additional purposes.¹²⁸

Traditionally, preambular language in IIAs has been narrowly focused on the desirability of foreign investment per se and on the economic benefits of such investment for both home and host countries. For instance, the preamble of the 2005 United Kingdom Model BIT simply states:

The Government of the United Kingdom of Great Britain and Northern Ireland and the Government of ____; Desiring to create favourable conditions for greater investment by nationals and companies of one State in the territory of the other State; Recognising that the encouragement and reciprocal protection under international agreement of such investments will be conducive to the stimulation

¹²⁵ This was not for lack of trying. In the mid-1990s, OECD countries attempted to negotiate a multilateral agreement on investment (MAI), with the idea being that such a treaty would be concluded first by OECD countries themselves and subsequently opened for signature by others. See Kenneth Vandavelde, “A brief history of international investment agreements,” in Sauvart and Sachs, *The effect of treaties on foreign direct investment*, supra note 124, p.33. In part due to a very effective international campaign against the MAI coordinated by non-governmental organizations, the MAI negotiations failed and the initiative was scrapped. See UNCTAD, *Lessons from the MAI*, Sales No. E.99.II.D.26 (New York: United Nations, 1999).

¹²⁶ Vienna Convention on the Law of Treaties (opened for signature 23 May 1969, entered into force 27 January 1980) 1155 UNTS 311 [hereinafter Vienna Convention], Article 31(1) (“A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in light of its object and purpose.”).

¹²⁷ Dolzer and Schreuer, *Principles of international investment law*, supra note 122, p. 21.

¹²⁸ Vienna Convention Article 31(2) states that a treaty’s preamble is part of the context for the interpretation of object and purpose. For a general discussion of the applicability of Article 31(2) to the interpretation of IIAs, see Jeswald Salacuse, *The law of investment treaties* (New York: Oxford University Press, 2010), pp. 146-48.

of individual business initiative and will increase prosperity in both States; Have agreed as follows: [...] ¹²⁹

This wording, replicated more or less verbatim in many other IIAs, ¹³⁰ has led many tribunals to resolve ambiguities in favor of claimants and place the burden of proof on respondent States, even in cases where challenged host country regulatory measures are undertaken for legitimate reasons such as to protect the environment or public health. ¹³¹

More recently, States have expanded treaty preambles to include broader policy considerations, rendering less tenable a one-dimensional “investor protection” rationale for the objects and purposes of IIAs. ¹³² For example, the 2004 United States Model BIT includes a clause emphasizing that the treaty’s investment protection objectives should be achieved “in a manner consistent with the protection of health, safety, and the environment, and the promotion of internationally recognized labor rights.” ¹³³ Whereas a tribunal considering a climate mitigation measure with arguably discriminatory impacts on foreign investors may have sided with a claimant under the 2005 United Kingdom Model BIT, the inclusion of these words in the United States Model could lead to a finding that such a measure in fact complies with the treaty’s object and purpose. Other examples go even further, incorporating sustainable development and other objectives into not only preambular language but operative treaty provisions as well. We discuss this trend and its implications for climate policy in Part D below.

2. Investor-state dispute settlement

A defining feature of most modern IIAs is the guarantee that investors can seek binding international arbitration for alleged violations of the investors’ treaty rights without first exhausting local remedies or seeking the diplomatic protection of the investors’ home countries. ¹³⁴ An investor-State dispute settlement (ISDS) mechanism has

¹²⁹ Reproduced in Dolzer and Schreuer, *Principles of international investment law*, supra note 122, p. 376.

¹³⁰ See, e.g., Agreement between the Government of the People’s Republic of China and the Government of the Republic of Djibouti on the promotion and protection of investments (China-Djibouti BIT) (signed 18 August 2003, not yet entered into force). [NB citation format]

¹³¹ See, e.g., Siemens v. Argentina, ICSID Case No. ARB/02/6 2007, *award* (February 6, 2007), para. 289; Azurix v. Argentina, ICSID Case No. ARB/01/12, *award*, (July 14, 2006), para. 360; *MTD v. Chile*, supra note 5, para. 113.

¹³² Peter Muchlinski, “The framework of investment protection: the content of BITs,” in Karl Sauvant and Lisa Sachs, eds., *The effect of treaties on foreign direct investment* (New York: Oxford University Press, 2009), pp. 38.

¹³³ 2004 United States Model BIT, reproduced in Dolzer and Schreuer, *Principles of international investment law*, supra note 122, p. 385.

¹³⁴ For a detailed discussion of the evolution from diplomatic espousal under public international law principles to investor-state arbitration under IIAs, see William S. Dodge, “Investor-state dispute settlement between developed countries: Reflections on the Australia-United States Free Trade Agreement” 39 *Vanderbilt Journal of Transnational Law* 1 (2006), pp. 5-14. For an examination of the investor-state provisions in the NAFTA, see Daniel M. Price, “Chapter 11 investor-state dispute settlement: Frankenstein or safety valve?,” 26 *Canada-United States Law Journal* 107 (2000). The insufficiency of traditional methods of diplomatic espousal for the purposes of contemporary foreign investors can be illustrated by the case of Barcelona Traction Light and Power Co., Ltd. (Belgium v. Spain), 1970

been featured in BITs since at least the early 1980s, when it was included in the first such treaties negotiated by the United States.¹³⁵ But prior to the conclusion of the NAFTA in 1994, “few (if any) claims were brought under these agreements and [...] direct litigation between persons and States was a rarity.”¹³⁶ Beginning in the mid-1990s, such provisions became increasingly common. Only in the past few years have governments begun to reconsider their commitment to binding ISDS.

Investor-State arbitration has been justified largely on the basis of an assumption about the motivations of foreign investors. Conventional wisdom holds that in order to attract foreign investment, host countries must shield foreigners from the vagaries of domestic institutions such as courts. Because investors fear the expropriation or diminution of their investment at the hands of local officials, it is thought that a host country must bind itself with an “international commitment device” such as a BIT in order to assure investors that they will be treated fairly. The internationalization of dispute settlement via ISDS, which removes investor claims from domestic courts in favor of international arbitral tribunals, thus serves to substitute for “poor institutional environments” where the risks of investing would otherwise outweigh the benefits.¹³⁷

In the late 1990s, the Governments of the United States, Canada and Mexico awoke to the “sheer significance of the powers allocated to foreign investors and to arbitrators under NAFTA Chapter 11”¹³⁸ leading to both procedural and substantive reforms of the NAFTA’s arbitration provisions. Around the same time, scholars began to call into question the link between the availability of ISDS and the quantity of incoming FDI,¹³⁹ which had served as the primary justification for investor-State arbitration provisions in IIAs. New research appears to demonstrate that these risks are overblown. More pointedly, some developing countries have responded to these critiques by renegotiating their BITs to exclude certain categories of investment from ISDS, requiring investors to exhaust local remedies before seeking international arbitration¹⁴⁰ and in a few cases terminating entire treaty programs.¹⁴¹ Notwithstanding these developments, ISDS today remains a key feature of most extant IIAs.

I.C.J. 3, 32 (Feb. 5), in which the International Court of Justice required eight years to reject a claim on jurisdictional grounds.

¹³⁵ See generally Kenneth Vandeveld, “The bilateral investment treaty program of the United States,” 21 *Cornell International Law Journal* 201 (1988) (discussing development and features of US BIT program).

¹³⁶ Vicki Been and Joel C. Beauvais, “The global fifth amendment: NAFTA’s investment protections and the misguided quest for an international regulatory takings doctrine,” 78 *New York University Law Review* 30 (2003), p. 45, n. 63.

¹³⁷ Tom Ginsburg, “International substitutes for domestic institutions: Bilateral investment treaties and governance,” 25 *International Review of Law and Economics* 107 (2005), p. 113.

¹³⁸ Gus Van Harten, “Five justifications for investment treaties: A critical discussion,” 2 *Trade, Law and Development* 19 (2010), p. 21.

¹³⁹ *Id.* pp. 30-32 (summarizing eight empirical studies on the proposition that IIAs encourage investment and concluding that “this justification for the system is [...] unsupported by the preponderance of empirical evidence.”).

¹⁴⁰ E.g., Agreement between the Belgium-Luxembourg Economic Union and Colombia on the reciprocal promotion and protection of investments (Belgium-Colombia BIT) (signed February 4, 2009, not yet entered into force), art. XII.

¹⁴¹ See Van Harten, “Five justifications for investment treaties: A critical discussion,” *supra* note 138, pp. 22-23.

3. Expropriation

Of paramount concern for every foreign investor is the risk that a host country government will seize the investor's assets.¹⁴² The longstanding international law principle of territorial sovereignty affirms a host country's right to nationalize the property of aliens, but customary international law (CIL) and treaties place certain conditions on a government's ability to legally expropriate.¹⁴³ According to the most common formulation, these conditions prohibit the expropriation of an alien's investment unless done for a public purpose, in a non-discriminatory manner¹⁴⁴ and conditioned on the payment of "prompt, adequate and effective compensation."¹⁴⁵ Each of these conditions has been the subject of enormous controversy and the standards for expropriation under international law – including the definition of what actions constitute an act of expropriation – are still very much contested.¹⁴⁶

For present purposes, it is sufficient to focus on two key questions. First, what constitutes an acceptable "public purpose" for an expropriation? Second, when do administrative and regulatory actions of the host country government constitute "indirect" or "creeping" expropriation or measures "tantamount to" expropriation by diminishing an investor's property rights, even though the host country's actions leave the investor in possession of the investment? Although arbitral tribunals have been divided on these questions, certain principles can help elucidate the standards used to reach answers in particular cases.

First, in determining whether an expropriation was carried out for a "public purpose," arbitral tribunals have taken one of three distinct and relatively incompatible approaches, leaving both investors and host countries uncertain as to the standards to be applied in future disputes. The first approach, embraced by the tribunals in *Metalclad* (2000) and *Santa Elena* (2000) but disfavored in more recent disputes, considers the

¹⁴² Salacuse, *The law of investment treaties*, supra note 128, p. 285.

¹⁴³ See August Reinisch, "Expropriation," in Peter Muchlinski, Federico Ortino and Christoph Schreuer, eds., *Oxford handbook of international investment law* (New York: Oxford University Press, 2008), pp. 407-458. See also Dolzer and Schreuer, *Principles of international investment law*, supra note 122, p. 89.

¹⁴⁴ Some investment treaties impose procedural due process requirements on the expropriating state, see Article 6(1)(d) of the 2004 United States Model BIT, equating due process with the international minimum standard of treatment under CIL and/or the requirement of fair and equitable treatment (FET). It is unclear whether an explicit due process clause in an IIA creates an independent requirement for the legality of a state's expropriatory act or simply constitutes part of a more general non-discrimination obligation. See Dolzer and Schreuer, *Principles of international investment law*, supra note 122, p. 91.

¹⁴⁵ Dolzer and Schreuer, *Principles of international investment law*, supra note 122, pp. 89-118. See also Christoph Schreuer, "The concept of expropriation under the ECT and other investment protection treaties" in Clarisse Ribeiro, ed., *Investment arbitration and the energy charter treaty* (Huntington NY: JurisNet, 2006), p. 108 ("Expropriations, in order to be legal, must be in the public interest, non-discriminatory, must take place under due process of law and against prompt adequate and effective compensation.").

¹⁴⁶ For an overview of the debate, see Muchlinski, "The framework of investment protection: the content of BITs," supra note 132, pp. 61-65. See also Noah Rubins and N. Stephan Kinsella, *International investment, political risk and dispute resolution: A practitioner's guide* (New York: Oceana Publications, 2005), pp. 200-12.

purpose of a challenged measure irrelevant if that measure has the effect of denying the investor the benefit of its investment.¹⁴⁷

The Metalclad tribunal, for instance, held that it “need not decide or consider the motivation or intent of the adoption of the Ecological Decree,” and found that “the implementation of the Ecological Decree would, in and of itself, constitute an act tantamount to expropriation.”¹⁴⁸ Taking a similar stand, the Santa Elena tribunal held that “[w]hile an expropriation or taking for environmental reasons may be classified as a taking for a public purpose, and thus may be legitimate, [this] [...] does not affect the nature of the measure or the compensation to be paid for the taking. [...] The international source of the obligation to protect the environment makes no difference.”¹⁴⁹

The second approach favors a balancing test in lieu of the effects test adopted by earlier awards, looking to the burdens imposed on a foreign investor and the degree of relationship between the means employed and the public purpose sought to be realized by the challenged measure. The tribunal adopted this approach in 2003 in the Tecmed case,¹⁵⁰ which like Metalclad involved the siting of a hazardous waste facility. Citing jurisprudence from the European Court of Human Rights, the tribunal in Tecmed held that “a measure must be both appropriate for achieving its aim and not disproportionate thereto” and that the “requisite balance will not be found if the person concerned has had to bear ‘an individual and excessive burden.’”¹⁵¹ Applying this standard, the tribunal rejected claimant’s arguments that Mexico’s regulatory actions had amounted to an expropriation.

The third and final approach is categorical, excluding “non-discriminatory regulation for a public purpose [...] enacted in accordance with due process” from the category of expropriation.¹⁵² This approach was adopted in Methanex (2005) and followed by the tribunal in Saluka Investments BV v. Czech Republic (2006), which conclusively held that “the principle that a State does not commit an expropriation and is thus not liable to pay compensation to a dispossessed alien investor when it adopts general regulations that are ‘commonly accepted as within the police power of States’ forms part of customary international law today.”¹⁵³

Notwithstanding the apparently chronological progression of these three approaches, wherein earlier disputes adopting the first approach have given way to later disputes adopting the second and third approaches, it would be wrong to interpret such variation over time as a sort of jurisprudential evolution. Indeed, in the absence of the principle of stare decisis, ad hoc international arbitral tribunals remain entirely free to

¹⁴⁷ Marshall, “Climate change and international investment agreements: Obstacles or opportunities,” supra note 2, p. 45.

¹⁴⁸ *Metalclad*, supra note 5, para. 111.

¹⁴⁹ *Santa Elena*, supra note 5, para. 71.

¹⁵⁰ *Técnicas Medioambientales Tecmed S.A. v. United Mexican States*, ICSID Case No. ARB(AF)/00/2, award (May 29, 2003).

¹⁵¹ *Id.*, para. 122.

¹⁵² *Methanex*, supra note 5, Part IV, Chapter D, para. 7.

¹⁵³ *Saluka Investments BV v. Czech Republic (UNCITRAL)*, partial award (March 17, 2006), para. 262.

pick and choose standards to apply to the facts of any given dispute, leaving the law on expropriation persistently unsettled, with serious implications for climate policy. That said, arbitrators do not live in a vacuum; over time, as climate change and issues such as human rights are increasingly prioritized on the international stage, a legal realist would expect arbitral tribunals to bend doctrine to changing norms and expectations. This appears, in large measure, to be precisely what most arbitrators have done.

A second key question that emerges in the context of climate-related regulation is whether a particular measure amounts to an “indirect” expropriation actionable under the provisions of an IIA. In contemporary practice, direct nationalization of investments by host country governments is exceedingly rare; indirect expropriations carried out through administrative action are far more frequent.¹⁵⁴ Investment tribunals have been divided on the question of how to determine when an “indirect” or “creeping” expropriation has occurred or when governmental action rises to the level of measures “tantamount to” expropriation.¹⁵⁵ In this regard, some scholars have criticized the NAFTA tribunals and other arbitral bodies for misapplying the United States legal doctrine of “regulatory takings” in the very different context of investor-State arbitration.¹⁵⁶

The best that can be said here is simply that measures which interfere with an investor’s property rights, such as disproportionate tax increases, interference with contractual rights and the unjustified revocation of permits and licenses, have all been found to constitute indirect expropriations by a variety of tribunals.¹⁵⁷ Inevitably, inquiries in this area tend to be fact-based and highly dependent upon the context in which a state has acted, including, as identified above, the purpose for which the challenged measure has been adopted. Climate-related regulatory purposes have yet to be explicitly tested in investor-State arbitration, but appear ripe for such a challenge in coming years.

4. Fair and equitable treatment

Nearly all modern IIAs guarantee that host countries will provide investors with fair and equitable treatment (FET), which has arguably become “the most important standard in investment disputes.”¹⁵⁸ Like expropriation, the FET standard has been contested by States and scholars over the course of many decades, with disagreements raging about the appropriate relationship between the treaty-based FET obligation and the international minimum standard of treatment under CIL,¹⁵⁹ as well as about whether a

¹⁵⁴ See Salacuse, *The law of investment treaties*, supra note 128, p. 297.

¹⁵⁵ *Id.*, pp. 297-300.

¹⁵⁶ Been and Beauvais, “The global fifth amendment: NAFTA’s investment protections and the misguided quest for an international regulatory takings doctrine,” supra note 136.

¹⁵⁷ Salacuse, *The law of investment treaties*, supra note 128, pp. 300-307.

¹⁵⁸ Christoph Schreuer, “Protection against arbitrary or discriminatory measures,” in Catherine Rodgers and Roger Alford, eds., *The future of investment arbitration* (New York: Oxford University Press, 2009), p. 189.

¹⁵⁹ On the international minimum standard, see especially the *Neer* claim, IV RIAA 60 (1926). On the relationship between the international minimum standard and the obligation to accord fair and equitable treatment in accordance with Article 1105 of the NAFTA, see, e.g., *Glamis Gold*, supra note 5, paras. 598-627 (explaining the differences between a narrow FET standard referencing CIL and a broader one which

due process standard constitutes an independent treaty norm or is subsumed within the FET obligation.¹⁶⁰ Further muddying the waters, arbitral tribunals have at times considered the FET and non-expropriation obligations in tandem, concluding that certain breaches of the FET standard can amount to indirect expropriation of investments.¹⁶¹

Despite real differences of opinion at the margins, the FET guarantee is generally thought to include a set of basic investor protections, including commitments by the host country to: (i) transparency, stability, and respect for investors' legitimate expectations; (ii) compliance with contractual obligations; (iii) procedural due process; (iv) good faith; and, (v) freedom from coercion and harassment.¹⁶² The tribunal in *Waste Management* (2004) articulated the standard as follows:

[T]he minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory or exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety—as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour [sic] in an administrative process. In applying this standard it is relevant that the treatment is in breach of representations made by the host State which were reasonably relied on by the claimant.¹⁶³

Many subsequent tribunals have followed this general approach, while at the same time stressing that FET must be judged on the basis of the facts of a particular case and not in the abstract.¹⁶⁴

From the perspective of climate policy, the most problematic part of the FET standard is the requirement that a host country not undermine investors' "legitimate expectations."¹⁶⁵ Put plainly, the notion is that "it is unfair for a state to create certain

does not). Cf. *Saluka Investments*, supra note 153, para. 309 (holding that "the 'fair and equitable treatment' standard [...] is an autonomous Treaty standard" unconnected to CIL). See also *Biwater Gauff*, supra note 5, paras. 593-96 (tribunals may interpret the FET standard differently depending upon the facts of the case).

¹⁶⁰ For an extensive discussion of these and other issues relating to FET, see generally Dolzer and Schreuer, *Principles of international investment law*, supra note 122, pp. 119-49. See also Muchlinski, "The framework of investment protection: the content of BITs," supra note 132, p. 46.

¹⁶¹ For instance, in *CME Czech Republic B.V. v. Czech Republic* (UNCITRAL/BIT award), *partial award* of Sept. 13, 2001, available at: <http://ita.law.uvic.ca/documents/CME-2001PartialAward.pdf> (last visited April 30, 2011), the tribunal held that "by permitting or tolerating [] conduct [...] amount[ing] to an unfair and inequitable treatment [...] the State Party must in the tribunal's opinion have taken a measure tantamount to expropriation." *CME v. Czech Republic* para. 606.

¹⁶² Dolzer and Schreuer, *Principles of international investment law*, supra note 122, pp. 133-47.

¹⁶³ *Waste Management*, supra note 5, para. 98.

¹⁶⁴ See Marshall, "Climate change and international investment agreements: obstacles or opportunities," supra note 2, p. 40, nn. 78-9 (collecting cases).

¹⁶⁵ The concept of "legitimate expectations" was dealt with exhaustively in *EDF (Services) Ltd. V. Romania*, ICSID Case ARB/05/13, *award* (August 10, 2009). The *EDF* decision and its treatment of the concept are summarized in Abhijit P.G. Pandya and Andy Moody, "Legitimate expectations in investment treaty arbitration: an unclear future," 2010, unpublished manuscript available at: <http://ssrn.com/abstract=1631507> (last visited April 30, 2011).

expectations in the minds of investors through its laws, regulations, and actions; and then, once the investment is made, to change those laws and regulations in ways that significantly frustrate or cancel the expectations that the state itself has been instrumental in creating.”¹⁶⁶ Where new climate regulations impose the previously externalized costs of GHG emissions upon investors, a claimant may allege that its “legitimate expectations” have been violated.¹⁶⁷ For while some degree of regulatory evolution is to be expected (and, clearly, the FET obligation ought not be interpreted as stringently as the requirements imposed by stabilization clauses),¹⁶⁸ the difference between a regulatory landscape where emissions are free and one with a price on carbon is arguably stark enough to provide the basis for a successful FET claim. This issue is discussed in greater depth in Part D.1 below.

5.National and/or most-favored-nation treatment

National treatment provisions require that host countries treat foreign investors no less favorably than the host countries treat their own nationals.¹⁶⁹ A close cousin of national treatment, the most favored nation (MFN) clause included in many IIAs does not guarantee equality of treatment between foreign and domestic investors, but rather prohibits host countries from treating a covered foreign investor or an investment originating from an IIA partner any less favorably than it treats investors or investments from any other country.¹⁷⁰ This means, in practice, that a foreign investor can invoke an MFN clause to take advantage of the highest standard of treatment granted to the nationals of any of the host country’s BIT partners. Some BITs, such as those negotiated by the United States, combine the national treatment and MFN standards, requiring the host country to grant foreign investors the more favorable of either national or MFN treatment.¹⁷¹

Notably, certain aspects of the international climate regime might be considered to violate the national treatment or MFN obligations in IIAs. An example can be found in the language of Article 12 of the Kyoto Protocol, which states that CDM projects can only be undertaken between developing countries and entities from developed countries. This limitation on participation is facially discriminatory under national treatment principles. Although no investor has yet brought a claim alleging that this requirement under the Kyoto Protocol violates an IIA, such a claim theoretically could be brought.¹⁷² Additionally, certain climate-friendly measures, including subsidies or investment incentives (or the removal of subsidies or incentives for high carbon fossil

¹⁶⁶ Salacuse, *The law of investment treaties*, supra note 128, p. 232.

¹⁶⁷ Johnson, “International investment agreements and climate change: the potential for investor-state conflicts and possible strategies for minimizing it,” supra note 2, p. 11153.

¹⁶⁸ See infra note 186 and accompanying text.

¹⁶⁹ Dolzer and Schreuer, *Principles of international investment law*, supra note 122, pp. 178-86.

¹⁷⁰ Dolzer and Schreuer, *Principles of international investment law*, supra note 122, pp. 186-91.

¹⁷¹ Jeswald Salacuse and Nicholas Sullivan, “Do BITs really work? An evaluation of bilateral investment treaties and their grand bargain,” 46 *Harvard International Law Journal* 67 (2005), pp. 84-85.

¹⁷² See Brown, “International, mixed, and private disputes arising under the Kyoto Protocol,” supra note 98, p. 465.

fuels),¹⁷³ might be interpreted to run afoul of national treatment and MFN provisions. Thus, the commitments made at the G20's 2009 Pittsburgh summit, not to mention President Obama's recent statements on fossil fuel subsidies in the 2012 federal budget, might arguably conflict with certain interpretations of key features of the IIL regime, making them ripe for challenge by an aggrieved investor.¹⁷⁴

6. Umbrella clauses

Many IIAs contain so-called "umbrella clauses," which raise contractual violations and breaches of other obligations to investors to the level of treaty violations, making the previously mentioned infringements actionable by investors before an international arbitration tribunal rather than leaving the resolution of such disputes to domestic courts.¹⁷⁵ Sometimes couched in terms of a host country's "observance of obligations,"¹⁷⁶ an umbrella clause is typically justified on the grounds that it ensures an additional degree of contractual stability and therefore creates an environment more favorable for foreign investment.¹⁷⁷ Thus, such provisions generally stipulate that "[e]ach Contracting Party shall observe any obligation it may have entered into with regard to the investments of investors of the other Contracting Party."¹⁷⁸ However, this feature of IIAs has been the subject of some controversy.

In twin decisions involving the same claimant (Switzerland-based Société Générale de Surveillance (SGS)), two arbitral tribunals famously reached opposite conclusions on the question of tribunal jurisdiction, pursuant to a BIT's umbrella clause, to hear an investor's claim regarding host country breaches of investment contracts. In *SGS v. Pakistan* (2003),¹⁷⁹ the tribunal rejected the claimant's arguments on textual and policy grounds and, noting that this was the first time a tribunal had examined the legal effect of an umbrella clause, upheld Pakistan's objection to the tribunal's jurisdiction.¹⁸⁰ By contrast, the tribunal in *SGS v. Philippines* (2004)¹⁸¹ held that the umbrella clause in the Switzerland-Philippines BIT subsumed the contractual dispute in question "notwithstanding the presence of an exclusive jurisdiction clause in favor of local trial courts for such disputes."¹⁸² Distinguishing the Pakistan decision on the basis of differences in the wording of the clause in question¹⁸³ and noting that it was not bound by

¹⁷³ See "Green view: how to save \$300 billion," *The Economist*, supra note 63.

¹⁷⁴ See supra notes 60-64 and accompanying text.

¹⁷⁵ For a detailed discussion of umbrella clauses, see Salacuse, *The law of investment treaties*, supra note 128, pp. 271-284.

¹⁷⁶ Muchlinski, "The framework of investment protection: the content of BITs," supra note 132, pp. 54-59.

¹⁷⁷ *Id.*, p. 54.

¹⁷⁸ *Id.*, p. 274 (quoting the 1990 United Kingdom-Argentina BIT).

¹⁷⁹ Société Générale de Surveillance (SGS) v. Pakistan, ICSID Case No. ARB/01/13, *decision on jurisdiction* (August 6, 2003).

¹⁸⁰ *Id.*, paras. 163-174.

¹⁸¹ Société Générale de Surveillance (SGS) v. Philippines, ICSID Case No. ARB/02/6, *decision on jurisdiction* (January 29, 2004).

¹⁸² Muchlinski, "The framework of investment protection: The content of BITs," supra note 132, p. 56.

¹⁸³ Compare Switzerland-Pakistan BIT, art. II ("Either Contracting Party shall constantly guarantee the observance of the commitments it has entered into with respect to the investments of the investors of the other Contracting Party,") with Switzerland-Philippines BIT, art. X(2) ("Each Contracting Party shall

any doctrine of precedent to follow the prior tribunal's logic,¹⁸⁴ the Philippines tribunal read the clause broadly to cover the contractual dispute between the parties.¹⁸⁵ Confusion has persisted on the issue of umbrella clauses since the twin SGS cases were decided, with many subsequent tribunals following the Philippines approach and looking closely at the language of the clause in question in order to determine the scope of its coverage.

An additional complication in umbrella clause interpretation may emerge in cases where investment contracts contain so-called "stabilization clauses."¹⁸⁶ Such clauses operate to "freeze the law of the host state with respect to the investment project over the life of the project" or, less drastically, to "require that the investor be compensated for the cost of complying with" new laws introduced after the investment is made.¹⁸⁷ Since a stabilization clause may provide evidence of an investor's "legitimate expectations" concerning the investor's investment,¹⁸⁸ such a clause may allow the investor to bring an IIA claim under either an FET obligation or an umbrella clause.¹⁸⁹ Moreover, there is at least some support for the proposition that breach of a stabilization clause can also constitute an indirect expropriation.¹⁹⁰ Claims involving breaches of stabilization clauses have heretofore dealt with issues as diverse as taxation and human rights,¹⁹¹ and would also appear ripe for a climate-related challenge.

C. Investment Oriented Trends in Climate Change Policy

As the international community grapples with a warming planet, a rough consensus has emerged that any strategy to deal with climate change must not only limit developed country emissions but also encourage low-carbon economic growth in the developing world while at the same time helping particularly vulnerable countries and regions adapt to adverse climate impacts. Each of these tasks features an investment component; each task will therefore engage, to some degree, features of the IIL regime. This Part itemizes existing climate policies that touch upon the IIL principles identified

observe any obligation it has assumed with regard to specific investments in its territory by investor of the other Contracting Party.").

¹⁸⁴ *SGS v. Philippines*, supra note 181, para. 97.

¹⁸⁵ For an analysis of these cases and a critique of the *SGS v. Philippines* decision, see Thomas Waelde, "The 'umbrella' clause in investment arbitration: A comment on the original intentions and recent cases," 6 *Journal of World Investment and Trade* 183 (2005) (describing how the *SGS v. Philippines* tribunal gave effect to the umbrella clause, only to back away from applying it to allow the claimant to bring its claim).

¹⁸⁶ See Thomas Waelde and George Ndi, "Stabilizing international investment commitments: International law versus contract interpretation," 31 *Texas International Law Journal* 215 (1996) (discussing the stabilization clause in general).

¹⁸⁷ Johnson, "International investment agreements and climate change: The potential for investor-state conflicts and possible strategies for minimizing it," supra note 2, p. 11153.

¹⁸⁸ See supra notes 165-168 and accompanying text.

¹⁸⁹ Johnson, "International investment agreements and climate change: The potential for investor-state conflicts and possible strategies for minimizing it," supra note 2, p. 11153.

¹⁹⁰ See, e.g., *Revere Copper & Brass, Inc. v. Overseas Private Investment Corporation (OPIC)*, [1978] 56 *International Legal Materials* 258.

¹⁹¹ See, e.g., Andrea Shemberg, "Investment agreements and human rights: The effects of stabilization clauses," Corporate Social Responsibility Initiative Working Paper No. 42, Harvard Kennedy School (March 2008); Sornarajah, *The international law on foreign investment*, supra note 122, pp. 406-10; Dolzer and Schreuer, *Principles of international investment law*, supra note 122, pp. 75-77.

above, while also highlighting new climate finance initiatives that, once operationalized, may generate significant low-carbon FDI flows and therefore make use of key elements of the IIL regime.

1.Existing Offset Measures

Existing climate policies already anticipate roles for transnational private sector investment in low-carbon projects or facilities. Pursuant to the Kyoto Protocol's flexibility mechanisms, for instance, private entities in Annex I countries may be authorized to make investments in developing countries in order to lower the cost of compliance with the investors' home countries' treaty-based emissions reduction targets.¹⁹² Beyond the three market-based mechanisms authorized by the UNFCCC, many developed countries have adopted or proposed to adopt offsetting measures in their domestic ETS programs that allow or would allow covered facilities to purchase international "credits" that can be credited towards compliance with a cap on GHG emissions. Other schemes include forest conservation projects loosely coordinated under the umbrella of REDD.

a.Kyoto Protocol flexibility mechanisms

The Kyoto Protocol's flexibility mechanisms allow market participants to invest in certified emission reductions through a variety of channels, such as joint implementation of efficiency and clean energy projects in Annex I countries (including Russia and the former Soviet states) and the CDM, which enables financing of such projects in developing countries where, but for the investment in question, greater emissions would otherwise result.¹⁹³ Both joint implementation and the CDM enable home countries to credit transnational private investments toward their own national emissions reduction targets for the Kyoto Protocol's first commitment period (2008-12). While joint implementation projects generate "emission reduction units" (ERUs), investments in CDM projects yield "certified emission reductions" (CERs).¹⁹⁴ Private actors can use both types of credits to comply with domestic emission limits imposed by governments pursuant to the Kyoto Protocol, although ERUs currently trade at a discount to CERs in the European carbon market, the world's largest, because "fewer companies have obtained internal management approval to buy them."¹⁹⁵

¹⁹² Kyoto Protocol, *supra* note 20, art. 3.

¹⁹³ The Kyoto Protocol's third flexibility mechanism is international emissions trading, discussed above in Part A.1. Since it is not a project-based mechanism, international emissions trading does not have much potential to stimulate climate friendly FDI flows, as do joint implementation and the CDM.

¹⁹⁴ As of October 2010, joint implementation projects had generated 24.5 million metric tons of ERUs, with about 40 percent originating in one country, Ukraine. By comparison, CERs generated from CDM projects in the developing world amounted to nearly 400 million metric tons over the same period. Mathew Carr, "Europe should consider CO2 offsets to cut energy bill, Global Carbon Says," *Bloomberg*, November 16, 2010, available at: <http://www.bloomberg.com/news/2010-11-16/europe-should-consider-co2-offsets-to-cut-energy-bill-global-carbon-says.html> (last visited May 3, 2011).

¹⁹⁵ Mathew Carr, "ECX's first emission reduction unit offset trades at discount," *Bloomberg*, November 8, 2010, available at: <http://www.bloomberg.com/news/2010-11-08/ecx-s-first-emission-reduction-unit-offset-trades-at-discount.html> (last visited May 18, 2011)..

Since it allows for projects to be undertaken across the entire developing world, as opposed to just within Annex I parties, the CDM has far greater potential than joint implementation to stimulate low-carbon FDI flows.¹⁹⁶ The CDM has indeed attracted significant investment, with over 2,900 transnational projects – worth billions of dollars – registered as of March 2011.¹⁹⁷ One recent study estimated that CDM projects initiated since 2002 represent US\$ 150 billion in investment, although not all of this constitutes FDI since some project sponsors from major emerging economies have provided their own financing.¹⁹⁸ And with empirical evidence showing that the conclusion of BITs by developing countries may fail to generate FDI flows, some argue that “the CDM is in fact more effective than traditional IIAs in promoting investment.”¹⁹⁹ Of course, since the market for CDM-generated CERs is entirely contingent upon the binding obligation on developed countries under the Kyoto Protocol to comply with their quantified emission limitation and reduction commitments,²⁰⁰ any decision to invest is policy-dependent; uncertainty about the future form of the CDM after the Kyoto Protocol’s expiry in 2012 has caused a significant dip in project activity.²⁰¹

At the Cancún summit in December 2010, the COP took steps to reform and strengthen governance of the CDM,²⁰² while falling short of some parties’ proposals that the CDM be linked to new instruments designed to stimulate FDI and deliver emission reductions on a much larger scale.²⁰³ Reforming the CDM is necessary not just because

¹⁹⁶ See Anne Arquit Niederberger and Raymond Saner, “Exploring the relationship between FDI flows and CDM potential,” 14 *Transnational Corporations* 1 (2005) (discussing the CDM’s potential to stimulate novel forms of low-carbon FDI).

¹⁹⁷ UNFCCC, CDM in numbers, available at: <http://cdm.unfccc.int/Statistics/index.html> (last visited April 30, 2011). The CDM market was worth roughly US\$ 7.4 billion in 2007, according to an analysis published by the World Bank. World Bank Group, “State and trends of the carbon market 2008,” p. 19, available at: <http://siteresources.worldbank.org/NEWS/Resources/State&Trendsformatted06May10pm.pdf> (last visited May 18, 2011). In just two years, however, that value had fallen by over 50%, with the CDM market worth only US\$ 3.3 billion in 2009. World Bank Group, “State and trends of the carbon market 2010,” p. 37, available at:

http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State_and_Trends_of_the_Carbon_Market_2010_low_res.pdf (last visited May 18, 2011). Two points should be noted in this regard. First, this volatility in CDM investments reflects, in part, the global financial crisis of 2008. It also reflects fundamental uncertainty about the future of climate policy, and therefore of carbon markets. Second, the figures cited by the World Bank do not represent the combined value of CDM investments, but merely the value of the primary market for CERs *generated* by these investments. According to the International Institute for Sustainable Development, “The underlying investments that gave rise to those credits would be many times as large.” Marshall, “Climate change and international investment agreements: Obstacles or opportunities,” *supra* note 2, p. 73.

¹⁹⁸ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, *supra* note 11, p. 102 (citing UNEP Risoe, “CDM/JI Pipeline Analysis and Database,” March 1, 2010).

¹⁹⁹ Marshall, “Climate change and international investment agreements: Obstacles or opportunities,” *supra* note 2, p. 73 (citing Mary Hallward-Driemeier, “Do bilateral investment treaties attract FDI? Only a bit ... and they could bite,” World Bank Working Paper No. 3121 (June 2003)).

²⁰⁰ Kyoto Protocol, *supra* note 20, art. 3.

²⁰¹ World Bank Group, “State and trends of the carbon market 2010,” p. 38, *supra* note 197.

²⁰² See UNFCCC, Further guidance relating the clean development mechanism, *draft decision -/CMP.6*, available at:

http://unfccc.int/files/meetings/cop_16/conference_documents/application/pdf/20101204_cop16_cmp_guidance_cdm.pdf (last visited April 30, 2011).

²⁰³ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, *supra* note 11, p. 102.

under the terms of the Copenhagen Accord low-carbon FDI must increase fivefold by 2020,²⁰⁴ but also because real challenges remain in meeting the CDM's twin goals of emissions mitigation and sustainable development. Many observers have criticized the CDM's relatively lax governance structure and questioned the additionality of the CERs issued as a result of CDM projects, calling into question the effectiveness of the scheme to achieve real emission reductions.²⁰⁵

Furthermore, CDM projects have not been implemented evenly across developing countries. Countries with relatively high levels of development have attracted the majority of CDM projects, while least developed countries (LDCs) have hosted only a few. Indeed, 70 percent of CDM projects registered to date have been located in just three countries: China (41.2 percent), India (22.3 percent) and Brazil (7.1 percent). Only 1.9 percent of registered projects are in Africa, with South Africa leading the continent at seventeen projects.²⁰⁶

Despite these obvious limitations, the CDM is nevertheless the lone Kyoto Protocol mechanism to have generated significant low-carbon FDI flows. As such, some commentators have suggested that it should serve as a model for a new breed of IIA that expressly conditions favorable host country treatment or the provision of specific investment incentives upon meeting a set of "climate friendly criteria" specified in the IIA.²⁰⁷ This – together with other related proposals – is discussed in Part D below.

b. Emissions trading system (ETS) offsets

Under an ETS, emission allowances are typically allocated to regulated entities such as industrial facilities, and these entities are allowed to engage in "emissions trading" with others, thereby taking advantage of market efficiencies to find the most cost effective sources of GHG emissions reductions continent-wide.²⁰⁸ The EU ETS and other

²⁰⁴ The Copenhagen Accord calls for US\$ 100 billion in annual climate finance by 2020. By comparison, the value of all CDM projects between 2002 and 2010 has been estimated at just US\$ 150 billion, or about US\$ 18.7 billion per year. See *id.*

²⁰⁵ For an overview of the issues related to CDM governance and the environmental integrity of CERs, see generally Charlotte Streck, "Expectations and reality of the clean development mechanism: A climate finance instrument between accusation and aspirations," in Richard B. Stewart, Benedict Kingsbury and Bryce Rudyk, eds., *Climate finance: Regulatory and funding strategies for climate change and global development* (New York: NYU Press, 2009), pp. 67-75. See also Michael Wara, "Measuring the clean development mechanism's performance and potential," 55 *UCLA Law Review* 1759 (2008); Jessica F. Green, "Delegation and accountability in the clean development mechanism: The new authority of non-state actors," 4 *Journal of International Law & International Relations* 21 (2008); Christopher Carr and Flavia Rosembuj, "Flexible mechanisms for climate change compliance: emission offset purchases under the clean development mechanism," 16 *New York University Environmental Law Journal* 44 (2008); Dennis Hirsch, "Trading in ecosystem services: Carbon sinks and the clean development mechanism," 22 *Journal of Land Use and Environmental Law* 623 (2007).

²⁰⁶ UNFCCC, Registration: Registered project by region and registered project by host party, available at: <http://cdm.unfccc.int/Statistics/index.html> (last visited April 30, 2011).

²⁰⁷ See Marshall, "Climate change and international investment agreements: Obstacles or opportunities," *supra* note 2, pp. 74-75.

²⁰⁸ E.g., European Commission, climate action, policies, emissions trading system (ETS), available at: http://ec.europa.eu/clima/policies/ets/index_en.htm (last visited April 30, 2011). The European Union is not

national climate policy mechanisms with emissions trading components allow regulated entities to credit the CERs they generate via CDM projects and the ERUs gained in joint implementation projects to their respective emission caps. Although the value of these and other proposed types of “offsets,” such as credits for REDD projects, can fluctuate wildly depending upon the overall policy framework governing their use, offsets are an important component of the EU ETS and may, depending on the future design of the mechanism, generate significant flows of both public and private capital for low-carbon energy projects in developing countries.²⁰⁹

National schemes such as the EU ETS can define emissions offsets in various ways, including as a commodity, a security interest, or even in some cases a service.²¹⁰ Depending on the legal character of the offset credit and whether it constitutes an “investment” under the terms of an applicable IIA, the offsetting provisions of a national ETS may trigger the investment protection mechanisms available to investors under IIL, enabling the owners of offset credits to push back against regulatory measures that effect or interfere with the offset credits’ use. Of course, whether or not the EU defines an offset credit as an “investment” may not matter much if the investment is located in a country that defines the credit differently. As of March 2011, only one international investment arbitration concerning the legal status of emissions offset credits was known to have been initiated. Oral hearings in the case, which involves the certification of ERUs by the Government of Ukraine for use in the EU ETS by a Cypriot investor, were scheduled to be held in early 2011 in The Hague.²¹¹ Much remains to be seen, as of this writing, about how investors’ property interests in offset credits will or will not engage the norms and standards of the IIL regime discussed above.

c.Reducing Emissions from Deforestation and Forest Degradation (REDD)

Tropical deforestation accounts for roughly one fifth of global anthropogenic carbon emitted each year,²¹² yet until relatively recently policies aimed at reducing emissions from deforestation and degradation (REDD) were not formally included within the UNFCCC system.²¹³ Concerned with complicated questions of additionality and

the only jurisdiction to have established an ETS, but it represents the foremost exemplar of such a program to date. As such, this subsection will focus exclusively on the European experience with offsets.

²⁰⁹ See Part C.2 *infra*.

²¹⁰ See Louisa Fitz-Gerald and Paul Curnow, “Australia case study,” in Leslie Parker, Jennifer Ronk, and Rachel Maxwell, eds., *From debate to design: issues in clean energy and climate change law and policy* (New Haven: Yale School of Forestry and Environmental Studies, 2008), p. 113. Notably, although the European Union is clearly not a nation-State in the traditional Westphalian sense, the EU ETS functions less like those regional arrangements discussed in Part A.2, *supra*, and more like a national-level regulatory regime.

²¹¹ Peterson, “Tribunal declines interim measures request of investor: Claimant pursuing arbitration arising out of Kyoto Protocol emission reduction project,” *supra* note 8.

²¹² See IPCC, “Fourth assessment report: Synthesis report” *supra* note 15.

²¹³ Climate scientists have long been aware of the link between deforestation and carbon emissions, and parties to the UNFCCC have held extensive discussions on forest carbon since the COP-11 summit in Montreal in 2005, but the REDD policy framework was only formally introduced at COP-13 in 2007, as a component of the Bali Action Plan. See UNFCCC Decision 2/CP.13 (Reducing emissions from

unable to agree on standards for monitoring, reporting, and verification (MRV) of avoided deforestation projects, negotiators chose to leave REDD outside of the original Kyoto Protocol framework. But since the late 1990s, political and economic changes in forest-rich countries like Brazil and Indonesia, together with advances in remote sensing technology, have promised solutions to many of these problems.²¹⁴ At COP-16 in December 2010, REDD represented a rare area of relative consensus among developed and developing countries,²¹⁵ and parties to the Convention left Cancún with a formal, albeit vague, agreement in hand on forest conservation and climate change.²¹⁶

Even before COP-16, where REDD finally became legally operative under the Kyoto Protocol, forest protection schemes have been fairly well integrated into the international climate policy toolbox through the creative use of the CDM to finance forestry projects,²¹⁷ through multilateral funds such as the World Bank's Forest Carbon Partnership Facility,²¹⁸ and through bilateral mechanisms like Norway's International Climate and Forest Initiative.²¹⁹ The 2009 Copenhagen negotiations yielded a REDD negotiating text that could stand alone, even in the absence of a deal on post-2012 emissions reduction commitments by developed countries.²²⁰ The United States, among

deforestation in developing countries: approaches to stimulate action), UN Doc. FCCC/CP/2007/6/Add.1, March 14, 2008, available at: <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf> (last visited April 30, 2011).

²¹⁴ For comprehensive overview of these recent developments and key issues relating to implementation of REDD, see Meridian Institute, "Reducing emissions from deforestation and forest degradation (REDD): An options assessment report prepared for the Government of Norway," March 2009, available at: http://www.redd-oar.org/links/REDD-OAR_en.pdf (last visited April 30, 2011).

²¹⁵ See Foundation for International Environmental Law and Development (FIELD), "REDD-plus briefing paper: UN climate change conference in Cancun," November 22, 2010, available at: http://www.field.org.uk/files/fieldcancunreddplusbrief_en.pdf (last visited April 30, 2011).

²¹⁶ For instance, the REDD agreement negotiated at COP-16 included no mention of carbon markets as a mechanism to generate investment in avoided deforestation projects, casting some doubt on the potential scope of the REDD program. See Jim Efstathiou Jr. and Alex Morales, "Climate talks back \$100 billion aid fund, forest protection; no Kyoto deal," *Bloomberg*, December 11, 2010, available at: <http://www.bloomberg.com/news/2010-12-11/un-talks-endorse-100-billion-climate-aid-fund-forest-protection-program.html> (last visited April 30, 2011). Other aspects of the REDD text were purposefully left ambiguous so that future negotiators can work to improve the agreement. See Nathan Hultman, "The Cancun Agreements on climate change," *The Brookings Institution*, December 14, 2010, available at: http://www.brookings.edu/opinions/2010/1214_climate_hultman.aspx (last visited April 30, 2011) ("The agreements merely provide the framework and do not obligate any country to specific reductions. The hope is that future multi- or bilateral agreements could arise as a result of the more formalized REDD process imitated [sic] under the Cancun Agreements, but as of now this potential remains an open question.").

²¹⁷ In March 2010 the World Bank announced the registration of Africa's first large-scale forest CDM project, which followed on the heels of other forestry-related CDM projects in other regions. See World Bank, Press Release, "Africa's First Large-Scale Forestry Project Under the Kyoto Protocol," March 3, 2010, available at: <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:22487653~pagePK:34370~piPK:34424~theSitePK:4607,00.html> (last visited April 30, 2011).

²¹⁸ See *infra* note 234.

²¹⁹ See *supra* note 86 and accompanying text.

²²⁰ UNFCCC negotiating text, UN Doc. FCCC/AWGLCA/2009/8 (May 19, 2009), available at: <http://unfccc.int/resource/docs/2009/awglca6/eng/08.pdf> (last visited April 30, 2011).

others, favored this approach in Cancún.²²¹ Bolivia, on the other hand, lead a coalition of developing countries to demand that any REDD agreement reflect the outcome of a “People’s Climate Conference” held in Cochabamba earlier in 2010,²²² which called for enhanced social safeguards and limits on financing for REDD through offsets. A key challenge for Cancún negotiators was thus to incorporate some of these demands while maintaining support from developed countries, for which forest-based offsetting remains essential. Although the REDD agreement reached in Cancún left many details to be determined at the next COP, to be held in South Africa in December 2011, it provided enough certainty to all but guarantee large investment inflows to forest-rich developing countries for the foreseeable future. While the majority of current REDD projects rely upon public rather than private investment, future private sector forest carbon investments will necessarily involve both municipal and national land use regulations and delicate negotiations with local forest-dependent communities, and are thus likely to generate investment disputes under applicable IIAs. To the extent today’s pilot projects generate significant attention from investors, REDD represents a key policy area where climate measures and the IIL regime will interact, both positively and negatively, for the foreseeable future.

2. The International Climate Finance Framework

Financial flows to developing countries for climate change mitigation and adaptation purposes, from both public and private sources, totaled approximately US\$ 9 billion in 2009.²²³ Yet a rough consensus holds that developing countries will face ongoing climate-related costs at least ten times higher per annum.²²⁴ Reflecting this view, the international community concluded the Copenhagen Accord in December 2009. The Accord included new financial commitments by developed countries to “provide new and additional resources ... approaching USD 30 billion for the period 2010–2012 with balanced allocation between adaptation and mitigation” (dubbed the “fast-start” financing commitment)²²⁵ and to “mobiliz[e] jointly USD 100 billion dollars a year by 2020 to

²²¹ Alex Ogle, “Obama pointman dismisses climate change skeptics,” *Agence France Presse*, November 18, 2010 (“With a dimmed prospect of a path-breaking deal there, efforts have shifted towards more modest and incremental steps. Stern backed such steps on Thursday, saying the summit would focus on smaller and more achievable initiatives to address deforestation, financing and technology transfer [...]”).

²²² The World Peoples’ Conference on Climate Change and the Rights of Mother Earth was held in Cochabamba, Bolivia in April 2010. The Conference yielded a “Peoples’ Agreement,” which articulated many of the most strident developing country critiques of the Copenhagen Accord. See World Peoples’ Conference on Climate Change and the Rights of Mother Earth, available at: <http://pwccc.wordpress.com/support> (last visited April 30, 2011).

²²³ World Bank, “Issue brief: Making the most of public finance for climate action,” May 2010, p. 2, available at:

<http://climatechange.worldbank.org/climatechange/sites/default/files/documents/DCFIB%20%232-web.pdf> (last visited May, 27, 2011).

²²⁴ See Pew Center on Global Climate Change, “Post-2012 policy brief: Strengthening international climate finance,” p. 3, available at: <http://www.pewclimate.org/publications/brief/strengthening-international-climate-finance> (last visited April 30, 2011).

²²⁵ For an analysis of these “fast-start” commitments as of November 2010, see World Resources Institute, “Summary of developed country ‘fast-start’ climate finance pledges,” available at: <http://www.wri.org/publication/summary-of-developed-country-fast-start-climate-finance-pledges> (last visited April 30, 2011).

address the needs of developing countries.”²²⁶ The Accord clarified that “[t]his funding will come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.”²²⁷

To facilitate the mobilization of these new financial commitments, parties established the architecture for a multilateral “Copenhagen Green Climate Fund” to “support projects, programme [sic], policies and other activities in developing countries related to mitigation.”²²⁸ In Cancún, parties formally established this “Green Climate Fund,” which is to operate under the “guidance” of the COP. The parties created a twenty-four-member board to govern the new fund, with equal representation from developed and developing countries. The Cancún Agreements also designated the World Bank as interim trustee; the Bank’s role will be reviewed three years after the fund begins operating.²²⁹

Pursuant to the Copenhagen Accord, which called for the creation of a “High Level Panel ... to study the contribution of the potential sources of revenue, including alternative sources of finance, towards meeting this goal,”²³⁰ UN Secretary-General Ban-ki Moon established the High-Level Advisory Group on Climate Change Financing (AGF) in February of 2010.²³¹ Co-chaired by Ethiopian Prime Minister Meles Zenawi and Norwegian Prime Minister Jens Stoltenberg, the AGF was given a mandate to study and issue a report on “potential sources of revenue for the scaling up of new and additional resources from developed countries for financing actions in developing countries, in the spirit of the political commitments contained in the Copenhagen Accord, with a view to contributing to an appropriate decision of the UNFCCC Conference of the Parties at its 16th session in Mexico.” The AGF’s final report, published on November 5, 2010, represents one of the most authoritative sources of information to date about the international community’s views on climate finance. Predictably, it identifies multiple potential sources of revenue to meet the goals established by the Copenhagen Accord, including both public and private sources,²³² while carefully eschewing all but the most general recommendations.

²²⁶ Copenhagen Accord, *supra* note 9, para. 8.

²²⁷ *Id.*

²²⁸ *Id.*, para. 10.

²²⁹ See Pew, “Sixteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change and Sixth Session of the Meeting of the Parties to the Kyoto Protocol,” *supra* note 39, pp. 4-5.

²³⁰ Copenhagen Accord, *supra* note 9, para. 9.

²³¹ UN Secretary-General’s High-level Advisory Group on Climate Change Financing [hereinafter AGF], available at: <http://www.un.org/wcm/content/site/climatechange/pages/financeadvisorygroup> (last visited April 29, 2011).

²³² AGF, “Report of the Secretary-General’s High-Level Advisory Group on Climate Change Financing,” November 5, 2010, available at: http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF_reports/AGF%20Report.pdf (last visited May 18, 2011).

a.Public financing

Only 40 percent of financing for climate mitigation projects in developing countries consists of public funds.²³³ Currently, this public financing flows either through unilateral official development assistance (ODA) programs or through channels established by the UNFCCC. Under the Convention, an independent financial organization known as the Global Environment Facility (GEF) distributes multilateral financing to developing countries,²³⁴ but parties at COP-15 agreed to establish a single entity to coordinate future actions on climate finance. To this end, they called for the AGF to examine both sources and structures for managing new financial flows, with an eye towards adopting the AGF's recommendations at COP-16 in December 2010. The Cancún Agreements, in large measure, incorporate the AGF's core structure and policy prescriptions.

According to the AGF final report, “[n]ew public sources ... have the potential to generate flows of tens of billions of dollars annually, a significant step towards raising the US\$100 billion per year” by 2020 called for by the Copenhagen Accord.²³⁵ The AGF identified ten potential sources of public financing:

1. International auctioning of emission allowances under the Kyoto Protocol;
2. Auctioning of emission allowances in domestic emissions trading schemes, as under Phase III of the EU ETS;
3. Offset levies, such as those generated by the CDM;
4. Taxes on international aviation and/or shipping, involving a levy on maritime bunker/aviation jet fuels, a separate emissions trading scheme for these activities or a surcharge on passenger tickets for international flights;
5. A small charge on electricity generation, either on kWh produced or on the carbon emissions per kWh produced;
6. Revenues generated by removing fossil energy subsidies in developed countries, which can be diverted towards climate finance;
7. Revenues from fossil fuel extraction royalties or licenses;
8. Carbon taxes;
9. A global financial transaction tax (also known as a “Tobin tax”); or
10. Direct budget contributions.²³⁶

²³³ The remainder is generated through the sale of CERs to private parties under the CDM. See Pew, “Post-2012 policy brief: strengthening international climate finance,” supra note 224, p. 1.

²³⁴ The GEF distributes financing to developing countries via four distinct channels: a Trust Fund, a Least Developed Countries Fund, a Special Climate Change Fund, and an Adaptation Fund (which utilizes revenue generated from a 2% levy on CDM projects rather than donor country pledges). Global Environmental Facility, GEF-Administered Trust Funds, available at: <http://www.thegef.org/gef/node/2042> (last visited April 30, 2011). Several additional climate funds exist outside the UNFCCC. These include the Clean Technology Fund, the Strategic Climate Fund (which serves as the umbrella for several financing initiatives on REDD and adaptation) and the World Bank-administered Forest Carbon Partnership Facility. See Pew, “Post-2012 policy brief: strengthening international climate finance,” supra note 224, p. 2.

²³⁵ AGF “Report of the Secretary-General’s High-Level Advisory Group on Climate Change Financing,” supra note 232, para. 24.

²³⁶ *Id.*, para. 53.

Crucially, the AGF acknowledged practical difficulties associated with many of these public sources of funding. These range from political infeasibility in the case of carbon taxes and direct budget contributions to the relatively small scale of revenue generated from the removal of fossil fuel subsidies.²³⁷ To overcome these difficulties, the AGF recommended leveraging public funds and carbon market offsets to generate private financial flows, with revenue potential estimated to be “up to US\$500 billion in 2020” on the basis of a “leverage factor of between 2 and 4 on public flows.”²³⁸ The Cancún Agreements, although falling short of establishing specific pathways to reach the Copenhagen Accord’s stated goal of US\$ 100 billion per year, ratifies the AGF’s general approach of leveraging public capital to mobilize private sector financial flows.

b. Mobilizing private investment

Leveraging public financing to stimulate low-carbon private investment has become the preferred means by which developed countries aim to meet their goal of US\$ 100 billion in annual climate finance by 2020. A recent International Energy Agency report on energy efficiency aptly characterizes the ultimate climate finance goal as “government policies that can trigger a sustainable virtuous circle of [clean energy] investments” by the private sector.²³⁹ Similarly, the AGF final report stated that “the potentially large scale of private flows could be essential for the transition to a low-carbon world,” but cautions that “many low-carbon technologies still present higher costs than the high-carbon alternatives,” meaning that “private capital will be mobilized only with sufficient public finance.”²⁴⁰ This public finance may of course take a variety of forms, including direct subsidies and loan guarantees,²⁴¹ but private investment will always depend fundamentally on the risk-return ratio for a given project. Crucially, part of this ratio is determined, as the AGF pointed out, by the “investment climates in developing countries,” meaning the legal and regulatory frameworks governing the entry and treatment of low-carbon FDI.

Following the publication of the AGF final report, the United Kingdom Department for International Development (DFID) announced that the country was launching two initiatives, consisting of public-private initiatives, to finance clean energy

²³⁷ *Id.*, paras. 77-92.

²³⁸ *Id.*, para. 93.

²³⁹ International Energy Agency, “Money matters: mitigating risk to spark private investments in energy efficiency,” September 2010, p. 49, available at: http://www.iea.org/papers/efficiency/money_matters.pdf (last visited May 18, 2011).

²⁴⁰ AGF “Report of the Secretary-General’s High-Level Advisory Group on Climate Change Financing,” *supra* note 232, para. 93.

²⁴¹ See Center for American Progress, “Investing in clean energy: how to maximize clean energy deployment from international climate investments,” Global Climate Network Discussion Paper No. 4 (November 2010), available at: http://www.americanprogress.org/issues/2010/11/pdf/gcnreport_nov2010_exec_summ.pdf (last visited May 18, 2011) (discussing mechanisms such as loan guarantees, policy risk insurance, and a foreign exchange liquidity facility which can help to incentivize low-carbon FDI flows).

projects in developing countries.²⁴² The DFID announcement, made just weeks before COP-16 talks began in Mexico, was widely hailed as a prelude to further commitments from developed countries on climate finance. The DFID announcement emphasized the important leveraging role public finance must play in providing incentives and reducing risks for private investors in low-carbon development projects,²⁴³ articulating a growing consensus concerning the importance of mobilizing low-carbon FDI in the developing world.²⁴⁴ As this chapter was submitted for publication it was still too soon to reach conclusions about whether or not carefully crafted public incentives can indeed catalyze vast new flows of private investment in low-carbon energy and development projects. Researchers are no doubt already busy examining preliminary data, and will likely continue to study the topic for some time to come. The question here, then, becomes whether IIL will help, hinder or have no effect at all on such flows.

D.Rethinking International Investment Law

The reformation of the IIL regime is well underway. Responding to criticism from non-governmental organizations, international law scholars and even developing country governments,²⁴⁵ developed countries such as the United States have begun to reassess the general policy objectives of their extant IIAs, review their model BITs, and reexamine the specific treaty language currently under negotiation in bilateral and multilateral fora.²⁴⁶ Developing countries too are reevaluating their policies, renegotiating and, in some cases, terminating specific IIAs that they determine no longer serve their national policy objectives.²⁴⁷ In all, UNCTAD's 2010 World Investment Report counted

²⁴² United Kingdom Department for International Development (DFID), "Speech by Andrew Mitchell, International Development Secretary, at a Climate and Development Knowledge Network event at British Council," November 18, 2010, available at: <http://www.dfid.gov.uk/Media-Room/Speeches-and-articles/2010/Climate-change> (last visited April 30, 2011); Louise Gray, "Aid money to build solar panels and wind turbines in Africa," *The Telegraph* (UK), November 19, 2010, available at: <http://www.telegraph.co.uk/earth/environment/climatechange/8143697/Aid-money-to-build-solar-panels-and-wind-turbines-in-Africa.html> (last visited May 18, 2011).

²⁴³ United Kingdom Department for International Development (DFID), "Speech by Andrew Mitchell, International Development Secretary, at a Climate and Development Knowledge Network event at British Council," supra note 242 ("They will use public money to leverage private finance and direct it to where it is most needed, securing up to £ 9 of private investment for every £ 1 of public money spent.").

²⁴⁴ See, e.g., Center for American Progress, "Investing in clean energy: how to maximize clean energy deployment from international climate investments," supra note 241.

²⁴⁵ For a recent and widely circulated example of such criticism from the academy, see Osgoode Hall Law School, York University, "Public statement on the international investment regime," August 31, 2010, available at: http://www.osgoode.yorku.ca/public_statement (last visited April 30, 2011) (statement signed by forty-eight leading professors in law, economics, and international affairs). In recent years, developing countries such as Bolivia and Ecuador have withdrawn from IIAs and exited the ICSID. See Christina Viteri Torres, "Withdrawal of states' consent to ICSID arbitration: perspectives from the Bolivian and Ecuadorian cases," 6 *Transnational Dispute Management* 4 (December 2009); Luke Eric Peterson, "Ecuador becomes second state to exit ICSID," *International Arbitration Reporter*, July 17, 2009.

²⁴⁶ See, e.g., United States Department of State, "Report of the Subcommittee on Investment of the Advisory Committee on International Economic Policy regarding the model bilateral investment treaty," September 30, 2009, available at: <http://www.state.gov/e/eeb/rls/othr/2009/131098.htm> (last visited April 30, 2011).

²⁴⁷ See Viteri Torres, "Withdrawal of states' consent to ICSID arbitration: perspectives from the Bolivian and Ecuadorian cases," supra note 245.

sixteen countries which have revised or are currently revising their model BITs.²⁴⁸ The cumulative results of these reassessments, although still preliminary, indicate a growing recognition that IIAs must reflect countries' social and environmental goals as well as their need to foster sustainable economic growth through foreign investment. Building upon an already well-established trend, many recently concluded IIAs thus contain "certain innovative features aimed at rebalancing the agreements between the rights and obligations of investors and host countries, as well as between economic and other public policy objectives, such as the protection of the environment."²⁴⁹ Whether explicitly stated or not, these goals certainly include climate mitigation and adaptation.

Climate-friendly provisions in IIAs can take two forms. First, IIAs can be modified to preserve host country flexibility in promulgating climate regulations.²⁵⁰ Second, countries can make use of new and existing provisions in IIAs to incentivize low-carbon FDI flows. This Part addresses each of these approaches in turn.

1.Preserving Flexibility for Climate Regulations

International investment law is changing as states renegotiate existing IIAs and adopt new treaties. Such modifications, some of which are reflected in certain recently concluded IIAs, include narrowing the definition of an indirect expropriation so that limits on GHG emissions are not deemed to violate a host country's treaty obligations. Likewise, climate-friendly changes to IIAs can include more explicit definitions of vague standards such as FET and MFN/national treatment. A related but conceptually distinct approach involves the creation of climate-specific carve outs, either through introducing new categories of exceptions to which an IIA will not apply or through effectively removing certain types of disputes from the scope of an ISDS clause by, for instance, requiring the exhaustion of local remedies by an investor prior to availing oneself of international arbitration.

a.Narrowing the definition of indirect expropriation

The 2004 United States Model BIT restricts the scope of cognizable indirect expropriation claims by indicating that, as under U.S. constitutional law, non-discriminatory regulations to protect public welfare do not constitute expropriations "except in rare circumstances."²⁵¹ This restriction, which follows the logic of arbitral awards such as *Methanex* and *Saluka*,²⁵² is clearly a step in the right direction in terms of protecting host country flexibility for climate-friendly regulations. Still, the model BIT

²⁴⁸ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, supra note 11, p. 85 (Russia, France, Colombia, Mexico, Austria and Germany have all recently reviewed their respective model BITs, while similar reviews are underway or soon to begin in Argentina, Venezuela, Ecuador, Morocco, Bolivia, South Africa, Turkey, Thailand, and India).

²⁴⁹ *Id.*, p. 82.

²⁵⁰ For an elaboration of issues relating to the reduction by IIL of a country's "policy space," see Cho and Dubash, "Will investment rules shrink policy space for sustainable development? Evidence from the electricity sector," supra note 2.

²⁵¹ See 2004 United States Model BIT, Annex B, supra note 133.

²⁵² See supra notes 152-153 and accompanying text.

provides no guidance as to what might constitute such “rare circumstances.”²⁵³ Learning from this, the 2004 Canadian Model BIT goes further, providing that, “Except in rare circumstances, such as when a measure or series of measures are so severe in light of their purpose that they cannot be reasonably viewed as having been adopted and applied in good faith [...]”²⁵⁴

Both the U.S. and Canadian Model BITs go a long way towards alleviating concerns that climate-friendly regulations, such as those challenged in the German Vattenfall arbitration,²⁵⁵ might be held to violate the terms of an investment treaty. The 2007 Investment Agreement for the Common Market for Eastern and Southern Africa (COMESA) goes further, distinguishing between a compensable indirect expropriation and the adverse effects endured by a foreign investor as a result of “bona fide regulatory measures [...] that are designed and applied to protect or enhance legitimate public welfare objectives, such as public health, safety and the environment.”²⁵⁶ This provision makes it clear, in a way that the U.S. and Canadian models do not, that a host country’s measures to protect the climate will not run afoul of its IIA obligations.

A different approach, utilized in the context of intellectual property but quite relevant to the issue of climate change, can be found in Article 10.8(5) of the Malaysia-New Zealand FTA (2009).²⁵⁷ That clause creates an explicit exception to the treaty’s expropriation obligation for the issuance of “compulsory licenses granted in relation to intellectual property (IP) rights in accordance with the WTO TRIPS Agreement.”²⁵⁸ Much like IP licenses granted pursuant to TRIPS, a country may implement its climate change obligations under the UNFCCC in such a way as to require investors to purchase and hold GHG emissions permits.²⁵⁹ Taking a cue from the Malaysia-New Zealand FTA, future IIAs might create specific carve outs under the expropriation, MFN, national treatment, or FET headings, for such permits.²⁶⁰

b. Clarifying FET and MFN/national treatment standards

Seeking to avoid excessive liability under overly broad interpretations of the FET standard, some countries have entirely excluded the FET clause from their recently concluded IIAs.²⁶¹ A less extreme option involves explicitly linking the FET standard to

²⁵³ See Marshall, “Climate change and international investment agreements: obstacles or opportunities,” *supra* note 2, p. 67.

²⁵⁴ See 2004 Canada Model BIT, Annex B.13(1)(c).

²⁵⁵ *Vattenfall*, *supra* note 6.

²⁵⁶ COMESA, Investment agreement for the COMESA common investment area, available at: http://programmes.comesa.int/attachments/104_Investment%20agreement%20for%20the%20CCIA%20FINAL%20_English_.pdf (last visited April 30, 2011).

²⁵⁷ New Zealand Ministry of Foreign Affairs & Trade, Malaysia-New Zealand Free Trade Agreement (2009), available at: <http://www.mfat.govt.nz/downloads/trade-agreement/malaysia/mnzfta-text-of-agreement.pdf> (last visited April 30, 2011).

²⁵⁸ *Id.*, art. 10.8(5).

²⁵⁹ See *supra* note 91 and accompanying text.

²⁶⁰ Other types of climate-specific carve outs are described in Part D.1(c), *infra*.

²⁶¹ See, e.g., Government of India, Ministry of Commerce & Industry, Department of Commerce, Comprehensive economic cooperation agreement between the Republic of India and the Republic of

the minimum standard of treatment under CIL.²⁶² Countries can make this linkage not only by referring to CIL explicitly in the FET provision of a treaty, but also by drafting binding interpretive statements clarifying the meaning of the obligation. This occurred most famously in 2001 when the NAFTA Free Trade Commission (FTC) issued a binding interpretation under Article 1131(2), which clarified that the FET obligation in Article 1105 is coextensive with the international minimum standard under CIL.²⁶³ Restricting FET to the narrow CIL standard, which arbitrators have generally agreed applies only to “egregious” or “outrageous” conduct by a host country,²⁶⁴ clearly ensures that many climate-friendly regulations will pass muster under an applicable IIA.

However, the FET standard can be clarified in other ways as well. For instance, following *EDF v. Romania* (2009),²⁶⁵ an IIA might address the issue of “legitimate expectations” by giving the concept a more precise definition than what has typically been read into FET.²⁶⁶ This clarification would have the salutary effect of blocking investor claims that arise from a changed regulatory landscape (such as would occur following the imposition of climate-friendly measures) while not going so far as to preclude FET claims that do not reach the level of egregiousness required under the CIL-only approach endorsed by the NAFTA FTC.

Furthermore, clarifying the FET standard to anticipate certain “legitimate expectations” claims could be particularly beneficial as states seek to create stable and predictable policy frameworks to incentivize clean energy investment. At present, countries that have imposed or considered imposing a price on carbon emissions are under tremendous pressure to renege on such innovations.²⁶⁷ As in the case of the annual renewal of subsidies for renewable energy, uncertainty about future market conditions can stultify low-carbon growth as investors take a wait-and-see approach to all but the most profitable investments.²⁶⁸ A less ambiguous FET standard in future IIAs, if drafted

Singapore, Chapter 6 (Investment), available at: <http://commerce.nic.in/ceca/ch6.pdf> (last visited May 18, 2011).

²⁶² See, e.g., 2004 United States Model BIT, *supra* note 133; CAFTA art. 10.5(1); ASEAN-NZ FTA, Chapter 11 (Investment); Mexico-Singapore BIT (2009).

²⁶³ Foreign Affairs and International Trade Canada, notes of interpretation of certain Chapter 11 provisions (NAFTA Free Trade Commission, July 31, 2001), available at: <http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/nafta-interpr.aspx?lang=en> (last visited May 18, 2011). For a discussion of this development, see Salacuse, *The law of investment treaties*, *supra* note 128, pp. 225-26.

²⁶⁴ See *Glamis Gold*, *supra* note 5, paras. 615-16.

²⁶⁵ *EDF v. Romania*, *supra* note 165.

²⁶⁶ See Pandya and Moody, “Legitimate expectations in investment treaty arbitration: an unclear future,” *supra* note 165, pp. 19-21.

²⁶⁷ The United States House of Representatives has passed several bills to strip EPA of its authority to regulate GHG emissions, *supra* note 106, and Australian Prime Minister Kevin Rudd was unable to prevail on his plan to impose a national cap-and-trade plan in 2010. See Peter van Onselen, “Politics trumps a moral challenge,” *The Australian*, April 29, 2010, available at: <http://www.theaustralian.com.au/news/features/politics-trumps-a-moral-challenge/story-e6frg6z6-1225859592923> (last visited May 18, 2011).

²⁶⁸ See Steve Hargreaves, “Wind energy, solar power face cloudy future,” *CNNMoney.com*, November 19, 2010, available at: http://money.cnn.com/2010/11/18/news/economy/renewable_energy_tax_credit/index.htm (last visited April 30, 2011).

properly, might in fact be able to split the difference between those “legitimate expectations” claims with the potential to undermine climate-friendly regulatory measures and those likely to result from a host country’s failure to maintain policies necessary to safeguard low-carbon investments.

Regarding MFN and national treatment, similar clarifications can help protect host country regulatory flexibility on climate. A “plain vanilla” MFN clause guarantees to all foreign investors the most favorable treatment a host country has ever granted to investors of any foreign country with which an IIA has been concluded. Because of this, a host country may find that climate-friendly provisions in newer IIAs are nullified by other IIAs, now or in the future, that do not contain such elements. Furthermore, a broad MFN clause may preclude a host country from differentiating between incoming FDI on the basis of, for instance, whether an investor’s home country has imposed a price on carbon emissions. Such differentiation may be an important component of national climate policies,²⁶⁹ making restrictions on the scope of the MFN and national treatment obligations quite desirable.

Another simple measure might preclude investors from using an MFN clause to “import” into their disputes certain substantive or procedural protections from other IIAs. Both the Ethiopia-United Kingdom BIT (2009) and the ASEAN-China Investment Agreement (2009), for example, clarify that the MFN obligation does not encompass ISDS provisions from IIAs with third countries, making it harder for an investor to “import” the ability to circumvent local remedies.²⁷⁰ This is particularly relevant in cases where a host country may choose to require exhaustion of local remedies in climate-related disputes prior to gaining access to international arbitration.²⁷¹

In the case of national treatment, one additional option would be for a host country to establish a “non-exhaustive list of criteria for tribunals to consider when applying the national treatment standard.”²⁷² The COMESA Investment Agreement, for example, states that:

[E]ach Member State shall accord to COMESA investors and their investments treatment no less favourable than the treatment it accords, in like circumstances, to its own investors and to their investments [...] For greater certainty, references to ‘like circumstances’ in paragraph 1 of this Article requires [sic] an overall

²⁶⁹ In a related context, the question of whether climate-related border tax adjustments, known as border carbon adjustments [hereinafter BCAs], would be legal under the WTO has generated a great deal of attention. See Roland Ismer and Karsten Neuhoff, “Border tax adjustment: a feasible way to support stringent emission trading,” 24 *European Journal of Law and Economics* 137 (2007). Indeed, the Waxman-Markey legislation which passed the United States House of Representatives in 2009 contained provisions on the imposition of BCAs for products imported from countries which had not imposed a price on GHG emissions. American Clean Energy and Security Act, H.R. 2454, 111th Cong. § 768 (2009) (establishing an “international reserve allowance program” to “minimize [] the likelihood of carbon leakage”).

²⁷⁰ See UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, supra note 11, p. 87.

²⁷¹ See, e.g. Belgium-Colombia BIT, art. XII, supra note 140.

²⁷² Marshall, “Climate change and international investment agreements: obstacles or opportunities,” supra note 2, p. 65.

examination on a case by case basis of all the circumstances of an investment including, inter alia: [...] its effects on the local, regional or national environment, including the cumulative effects of all investments within a jurisdiction on the environment.²⁷³

The use of such an enumerated list cabins the discretion of arbitrators to find national treatment violations in host country climate regulations, while stopping short of creating an outright exemption to the general national treatment obligation. Such exemptions and carve outs, however, may have a place in future IIAs dealing specifically with climate change policy.

c. Climate-specific exemptions

Aside from the definitional changes identified above, countries are preserving regulatory flexibility for their climate policy objectives by including general exceptions clauses in IIAs. The India-Korea Comprehensive Economic Partnership Agreement (CEPA) (2009), for example, includes an exceptions clause that specifies measures “necessary to protect human, animal or plant life or health, or the environment.”²⁷⁴ Notably, this language closely mirrors that of GATT Article XX, the general exceptions clause applicable in certain parts of the international trade law regime.²⁷⁵ While debate is raging about whether and how GATT-specific standards, including exceptions, may be “imported” into the IIL regime or referenced therein,²⁷⁶ it seems clear that the approach taken by the India-Korea CEPA is a legitimate mechanism available to states by which to exempt certain regulatory activities from a host country’s investment law obligations.

Short of a general exceptions clause, a host country can also create narrower climate-specific exceptions for certain types of regulatory activities. UNCTAD points out that such a clause could be modeled after the exceptions for “legitimate public policies” in the Canada-Chile FTA (1996), the United States-Republic of Korea FTA (2007), and the United States-Singapore FTA (2003).²⁷⁷ By explicitly enumerating a set of climate-related measures that constitute legitimate public policies, a narrow exceptions clause could help to stabilize IIL. Another option, discussed above, would be for a host country to create a carve out from ISDS, national treatment or other substantive obligations for climate change measures, as under the Belgium-Colombia BIT (2009)²⁷⁸ and the COMESA investment agreement, respectively.²⁷⁹ All of these exceptions and carve outs,

²⁷³ COMESA investment agreement, supra note 256, art. 17.

²⁷⁴ India-Korean CEPA (2009), art. 10.18(1)(b), available at: <http://commerce.nic.in/trade/INDIA%20KOREA%20CEPA%202009.pdf> (last visited April 30, 2011).

²⁷⁵ General Agreement on Tariffs and Trade (GATT), art. XX, *opened for signature* Oct. 30, 1947, T.I.A.S. No. 1700, 55 U.N.T.S. 194.

²⁷⁶ See, e.g., Van Aaken, “Fragmentation of international law: the case of international investment protection,” supra note 1, pp. 111-17. For an interesting proposal on how the ICSID Convention could be amended to include GATT Article XX criteria, see Kate Supnik, “Making amends: amending the ICSID convention to reconcile competing interests in international investment law,” 59 *Duke Law Journal* 343 (2009).

²⁷⁷ *Id.* p 138.

²⁷⁸ Belgium-Colombia BIT, supra note 140.

²⁷⁹ COMESA Investment Agreement, supra note 256.

of course, push back somewhat against the pro-investment orientation of traditional IIAs, making it easier for host countries to take actions which negatively impact foreign investors. IIAs can also be modified, however, with features designed to affirmatively incentivize climate-friendly investments.

2.Incentivizing Low-Carbon FDI Flows

The second category of climate-friendly IIA modification involves not the preservation of a host country's ability to impose regulations on foreign investors but rather, in the words of UNCTAD's 2010 World Investment Report, "leveraging foreign investment for a low-carbon economy."²⁸⁰ Of course, there are myriad ways to incentivize climate-friendly FDI flows, many of which have very little to do with IIL. This section focuses on several of the ways in which new IIAs are being utilized to help ramp up cross border investments in low-carbon projects.

a.Changes to preambular language

Preambular language is often used to determine the content and scope of a given treaty's "object and purpose."²⁸¹ In cases where an ambiguous provision can be interpreted to impose an added obligation on a host country, narrow, pro-investment preambles have often led tribunals to find that a treaty's object and purpose require the resolution of disputes in favor of investors, even where challenged host country measures sought to achieve justifiable public policy objectives.²⁸² In order to ensure that preambles are used to uphold – rather than undermine – other legitimate regulatory aims, many countries are now making changes to preambular language in new IIAs. Thus, UNCTAD's 2010 World Investment Report highlights the possibility that preambular language can be drafted to affirm that "IIAs and attendant FDI flows aim to help address the climate change challenge."²⁸³

Beyond the simple mention of environmental objectives in a preamble, as in the 2004 United States Model BIT²⁸⁴ or the 2009 Japan-Swiss FTA,²⁸⁵ IIAs can go much further towards harmonizing climate change mitigation objectives and the strictures of investment law. The ECT, for instance, specifically refers to the UNFCCC in its preamble:

²⁸⁰ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, supra note 11.

²⁸¹ See Part B.1, supra.

²⁸² See supra note 131 and accompanying text.

²⁸³ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, supra note 11, p. 137.

²⁸⁴ See supra note 131 and accompanying text.

²⁸⁵ Ministry of Foreign Affairs of Japan, agreement on free trade and economic cooperation between Japan and the Swiss Confederation (2009), available at:

<http://www.mofa.go.jp/region/europe/switzerland/epa0902/agreement.pdf> (last visited April 30, 2011)

("Determined, in implementing this Agreement, to seek to preserve and protect the environment, to promote the optimal use of natural resources in accordance with the objective of sustainable development and to adequately address the challenges of climate change...").

Recalling the [UNFCCC], the Convention on Long-Range Transboundary Air Pollution and its protocols, and other international environmental agreements with energy-related aspects; and [r]ecognizing the increasingly urgent need for measures to protect the environment, [...].²⁸⁶

The inclusion of such a reference indicates the intent of the parties to harmonize, to the extent possible, their commitments under the UNFCCC and those undertaken herein. Thus, any tribunal attempting to resolve a future investment dispute involving a measure taken pursuant to an UNFCCC obligation would be able to say with much greater certainty that the parties intended the ECT to help achieve the goals of the UNFCCC, not stymie them.

The 2007 Norwegian Model BIT, although criticized for going too far in the direction of preserving host country flexibility, utilizes aspects of both the U.S. and ECT formulations while building upon them in a novel way, stating not only that the treaty's objectives should be achieved "in a manner consistent with the protection of health, safety, and the environment, and the promotion of internationally recognized labour rights," but also that "the provisions of this agreement and provisions of international agreements relating to the environment shall be interpreted in a mutually supportive manner."²⁸⁷

Other proposed changes to preambular language, although not adopted by any IIAs, go one step further. One suggestion, for instance, would have countries lift text directly from the UNFCCC itself and add it to the text of a BIT.²⁸⁸ By replicating the precise language of the UNFCCC's preamble, this would not only serve to underscore the import climate-oriented objectives of the investment treaty, but would also avoid any ambiguities in meaning, making it harder for investor-claimants to prevail on challenges to climate-friendly regulatory measures.

b.Low-carbon performance requirements

Although hitherto disfavored in the IIL regime, the inclusion of certain performance requirements in IIAs could help host countries ensure that incoming FDI flows generate climate change benefits, such as the transfer of clean energy technologies. Japan has been a leader in this regard. Both the Japan-Swiss FTA (2009) and the Brunei-Japan FTA (2009) contain provisions for the promotion of trade in environmental products and services. The Japan-Swiss FTA, for instance, states that:

The Parties shall encourage trade and dissemination of environmental products and environment-related services in order to facilitate access to technologies and

²⁸⁶ Energy Charter Treaty, (opened for signature 17 December 1994, entered into force 1998) (1994) 34 International Legal Materials 360 (1995).

²⁸⁷ American Society of International Law, international law in brief, April 21, 2008, available at: <http://www.asil.org/ilib080421.cfm#t1> (last visited April 30, 2011) (reproducing 2007 model Norwegian BIT).

²⁸⁸ Marshall, "Climate change and international investment agreements: obstacles or opportunities," supra note 2, p. 62.

products that support the environmental protection and development goals, such as improved sanitation, pollution prevention, sustainable promotion of renewable energy and climate-change-related goals.²⁸⁹

Notably, this obligation is vaguely worded and is not located in the investment chapter of the agreement. Problematically, the treaty includes a flat prohibition on performance requirements in Article 96, which incorporates, *mutatis mutandis*, Annex 1A of the WTO Agreement on Trade-Related Investment Measures (TRIMs).²⁹⁰ This makes the encouragement (let alone requirement) of clean technology transfers much less feasible.

As UNCTAD argues, however, IIAs might include such features in their investment chapters and, possibly, accompanying carve outs from the prohibition on performance requirements.²⁹¹ Besides specific obligations related to technology transfer, other low-carbon performance requirements might call for investors to engage in capacity building for local communities. Especially in the case of investments in the forestry sector under REDD, the training and involvement of communities is instrumental in ensuring the integrity of avoided deforestation emission credits.²⁹² Narrowly defined performance requirements in IIAs may thus serve to strengthen any future REDD regime.

c. New home country obligations

The IIL regime has traditionally been oriented to restrain host country governments and protect foreign investors, not to impose affirmative obligations on these investors' home countries. As global investment flows become increasingly multidirectional, however, such distinctions are breaking down, leading developed and developing countries to seek to rebalance their foreign investment policies.²⁹³ One way to do this would be to strengthen provisions in IIAs that have hitherto been merely hortatory in order to impose new, binding obligations on home countries. These obligations might include, *inter alia*, provisions on "investment promotion" that specifically focus on low-carbon investments or provisions on technology transfer that specifically refer to clean energy technologies.²⁹⁴

²⁸⁹ Japan-Swiss FTA, art. 9, *supra* note 285.

²⁹⁰ *Id.*, art. 96.

²⁹¹ UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, *supra* note 11, p. 137.

Notably, similar problems present themselves in the context of international trade law, where the national treatment requirement for "like" goods under Article III:4 of the GATT has bumped up against states' attempts to impose restrictions on the process and production methods employed in the manufacture of certain goods. This issue was dealt with most prominently in the WTO Appellate Body's ruling in the *Tuna/Dolphin* case. See Michael Trebilcock and Robert Howse, *The regulation of international trade*, 3d ed. (New York: Routledge, 2005), pp. 111-122.

²⁹² See Meridian Institute, "Reducing emissions from deforestation and forest degradation (REDD): an options assessment report prepared for the Government of Norway," *supra* note 214, pp. 25-28 (discussing "options to promote effective participation of indigenous peoples and local communities").

²⁹³ See *supra* notes 12-14 and accompanying text.

²⁹⁴ See UNCTAD, *World Investment Report 2010: Investing in a low-carbon economy*, *supra* note 11, p. 137 (citing as examples the Japan-Switzerland FTA (2009) and the Brunei-Japan FTA (2009)).

Particularly in light of the enormous subsidies granted by developed country governments to high-carbon industries, including to fossil fuel exports and fossil fuel-oriented FDI,²⁹⁵ and taking into account the G20's commitment to phase out such subsidies,²⁹⁶ the imposition of new host country obligations in IIAs related to incentives for climate friendly investment seem eminently reasonable. The European Commission's July 2010 Communication on international investment policy, although largely silent on this issue, did include one notable reference to the home country (and investor) obligations:

A common investment policy should also be guided by the principles and objectives of the Union's external action more generally, including the promotion of the rule of law, human rights and sustainable development (Article 205 TFEU and Article 21 TEU). In this respect, the OECD Guidelines for Multinational Enterprises, which are currently being updated, are an important instrument to help balance the rights and responsibilities of investors.²⁹⁷

While the inclusion of this reference in the Communication does not lock the European Union into any specific language on home country obligations, it is telling that the world's largest economic union is considering reorienting its investment policy in this direction.

Low-carbon investment promotion incentives are relatively simple measures and could be easily included in future IIAs. Much more controversial are additional substantive standards relating to specific actions to be undertaken by home country governments. Some NGOs and scholars have proposed a range of new obligations in this regard,²⁹⁸ while UNCTAD has cited as a key example the Cotonou Agreement between the European Union and ACP Countries.²⁹⁹

²⁹⁵ For an excellent analysis of the difficulties facing the Export-Import Bank, the United States export credit agency, in scaling back support for fossil fuels while ramping up low-carbon exports, see United States Government Accountability Office, report to Congressional committees, "Export-Import Bank: reaching new targets for environmentally beneficial exports presents major challenges for bank," July 2010, GAO-10-682, available at: <http://www.gao.gov/products/GAO-10-682> (last visited April 30, 2011).

²⁹⁶ See supra note 63 and accompanying text.

²⁹⁷ European Commission communication, supra note 14, art. 3(c).

²⁹⁸ See Muchlinski, "The framework of investment protection: the content of BITs," supra note 132, p. 65 (citing both UNCTAD's World Investment Report 2003 and the *Model international agreement for sustainable development*, published by the International Institute for Sustainable Development). For a far-reaching discussion of the challenges of imposing home country obligations, see generally Christen Broecker, "'Better the devil you know': home state approaches to transnational corporate accountability," 41 *NYU Journal of International Law and Politics* 159 (2008).

²⁹⁹ Partnership Agreement between the members of the African, Caribbean and Pacific Group of States of the one part, and the European Community and its Member States, of the other part (Cotonou Agreement) (concluded 23 June 2000, entered into force 1 April 2003), ACP/CE/en 1, available at: http://www.acpsec.org/en/conventions/cotonou/pdf/agr01_en.pdf (last visited April 30, 2011).

Conclusion: Harmonizing Climate and Investment Law

Policies undertaken to combat climate change are increasingly oriented towards the mobilization of low-carbon forms of FDI, such as renewable energy projects and tropical forest conservation schemes. International investment agreements are being renegotiated and amended to include new protections for host country environmental regulations and incentives for climate-friendly investments. The conventional wisdom on climate policy and international investment law holds that conflict between the two regimes is largely inevitable, as the imperative to regulate GHG emissions cannot be squared with obligations such as the requirement to guarantee fair and equitable treatment to foreign investors and the protection of their investments from expropriation. Yet the conventional wisdom is wrong. Trends in climate policy – especially those related to climate finance and technology transfer – highlight the importance of FDI in solving the climate conundrum, while IIAs are undergoing significant transformation to better reflect the balance between investor rights and the need for host countries to maintain flexibility in promoting public welfare, including through specific actions taken to mitigate and adapt to climate change.

The principle of “systemic integration,” distilled from Article 31(3)(c) of the Vienna Convention on the Law of Treaties, is instructive here.³⁰⁰ In those cases where a party to an IIA is also a party to the Kyoto Protocol or another international environmental agreement, Article 31(3)(c) can provide a guide for a tribunal’s decision-making process. By requiring the tribunal to take into account “any relevant rules of international law applicable in the relations between the parties,” Article 31 makes it less likely that a tribunal will find a climate regulation taken pursuant to Kyoto a violation of an IIA. As explained throughout this chapter, however, many important elements of the “regime complex” for climate are not subject to international treaties and therefore are not covered by the Vienna Convention’s rules of interpretation. These climate measures are taken bilaterally, regionally, nationally or sub-nationally, and feature the involvement of private investment in lieu of – or in addition to – public governmental action. As a rule of decision, “systemic integration” is a rather weak standard by which to resolve conflicts between climate regulations and IIA obligations. Fortunately, developments in both areas are generating a form of “bottom up” integration across regimes. Those shaping climate policies and renegotiating BITs would do well to take note.

³⁰⁰ Vienna Convention, *supra* note 126, art. 31(3)(c). Article 31(3)(c) lay dormant and was underutilized for many years. See Philippe Sands, “Treaty, custom and the cross-fertilisation of international law,” 1 *Yale Human Rights and Development Law Journal* 85 (1998), p. 95. More recently, it has been invoked and applied by a variety of international courts and tribunals, leading scholars to breathe new life in the principle of systemic integration. See Chester Brown, *A common law of international adjudication* (New York: Oxford University Press, 2007), pp. 49-52.