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Biodiversity Impacts of Investment and Free Trade Agreements

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ARTICLE

Biodiversity Impacts of Investment and Free Trade Agreements

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The following Article identifies the myriad ways in which international investment and free trade agreements interact with biodiversity. It categorizes these interactions into three main groups and provides a literature review of the various real-world and policy impacts. The first part analyses arbitration procedures in these agreements that investors and trade partners can invoke to protect their economic expectations from otherwise proper State action, including regulation that is intended to promote biodiversity. The next part evaluates biodiversity provisions that are included directly in the free trade and investment agreements themselves, or in side agreements thereto. Some of these provisions reference multilateral environmental treaties and attempt to provide stronger enforcement mechanisms for those obligations, while others create freestanding obligations between the contracting states and provide for dispute resolution procedures. The final part considers biodiversity as a form of intellectual property and a few of the various trade and investment agreements that regulate it as such. As the Article is not exhaustive of each interaction under every free trade or investment agreement, it is not possible to say empirically herein whether biodiversity is benefited or harmed on balance. But it is clear that over time these agreements are becoming more explicitly aware of their biodiversity impacts, and the contracting parties are striving for more of a balance between biodiversity protection and economic considerations. The Article is intended to provide insight into the wide range of biodiversity considerations that should be taken into account when drafting

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future free trade and investment agreements, as well as enforcing those currently in place. It is also intended to apprise environmental practitioners of the potential roadblocks and avenues that these agreements create.

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I. INTRODUCTION

International investment and free trade agreements affect biodiversity[1] in myriad ways. In some instances they may be used to promote biodiversity and hold contracting parties accountable to each other for their respective conservation obligations. In other circumstances they may be used as a tool to circumvent freestanding international commitments or even to forestall future governmental action intended to promote biodiversity and the environment. This Article surveys some of the key investment and free trade agreements and provides a literature review of the three principal ways in which they impact biodiversity. While this is not necessarily an exhaustive review of the ways in which these types of agreements affect biodiversity, it is intended to give a wide overview of the common practical interactions.

The Article proceeds in four parts. Part II addresses arbitration procedures in which investors and trade partners can attempt to hold contracting parties liable for State action which negatively impacts their economic expectations. This can include challenging legislation or regulation which is intended to protect biodiversity, but indirectly affects those investment or trade expectations. Part III evaluates provisions which create biodiversity conservation obligations for the contracting parties, either directly in the investment or free trade treaty, or through side agreements thereto. Some of these provisions will directly reference multilateral environmental treaties, such as the Convention on Biological Diversity, while others will create freestanding obligations between the parties and even establish separate procedures for dispute resolution. Part IV then considers biodiversity as a form of intellectual property and a few of the various trade and investment agreements that regulate it in that manner.

1. In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change ("IPCC") provides a useful definition of biodiversity, adopted here, as "variability among living organisms from terrestrial, marine and other ecosystems . . . includ[ing] variability at the genetic, species and ecosystem levels." Intergovernmental Panel on Climate Change [IPCC], *Climate Change 2014: Synthesis Report*, at 119 (2015), https://www.ipcc.ch/site/assets/uploads/2018/05/SYR_AR5_FINAL_full_wcover.pdf [https://perma.cc/RU7B-UJMW].

II. TRADE/INVESTMENT-PROTECTION ARBITRATION

One of the core features of many investment and free trade agreements is the establishment of a dispute resolution system whereby contracting parties or investors can seek review of potential breaches of the agreement. This Part considers the ways in which trade partners and investors can use those dispute resolution systems to challenge governmental action designed to protect biodiversity, to the extent that those measures arguably infringe on their trade or investment rights established under the agreements.

A. General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade[2] ("GATT") establishes important free trade requirements among its 164 contracting parties, as well as a dispute resolution system.[3] The three most important substantive requirements are: 1) the most-favored nation principle, 2) national treatment, and 3) a ban on quantitative restrictions.[4] The most-favored nation principle requires contracting parties to provide the same advantages to all trading partners for all "like" products.[5] National treatment

2. *See generally* General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A11, 55 U.N.T.S. 194 [hereinafter GATT]; *see also Understanding the WTO: The Organization, Members and Observers*, WTO, https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm [https://perma.cc/2E8U-89HU] (providing a list of current World Trade Organization members).

3. *Understanding the WTO: The Agreements*, WTO, https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm1_e.htm [https://perma.cc/E8JY-S8LShttps].

4. Olivier De Schutter, *Trade in the Service of Climate Change Mitigation: The Question of Linkage*, 5 J. OF HUM. RTS. & ENV'T 65, 73 (2014).

5. *See* GATT, *supra* note 2, at art. I § 1. The WTO Appellate Body has suggested a framework for examining "likeness" which includes four characteristics of the goods concerned: "'(i) the physical properties of the products; (ii) the extent to which the products are capable of serving the same or similar end-uses; (iii) the extent to which consumers perceive and treat the products as alternative means of performing particular functions in order to satisfy a particular want or demand; and (iv) the international classification of the products for tariff purposes.'" De Schutter, *supra* note 4, at n.29 (quoting Appellate Body Report, *European Communities – Measures Affecting Asbestos and Products Concerning Asbestos* (*EC – Asbestos*), ¶ 101, WTO Doc. WT/DS135/AB/R (adopted Apr. 5, 2001)) (emphasis removed).

requires all contracting states to treat all foreign imports and exports at least as favorably as they treat like domestic products.[6] Finally, the ban on quantitative restrictions precludes contracting states from setting import or export bans, as well as quotas on foreign products.[7] However, all of these requirements are subject to certain exceptions under Article XX, whereby contracting parties may adopt measures which would otherwise violate these obligations if they are, inter alia, "(b) necessary to protect human, animal or plant life or health,"[8] or if they "(g) relat[e] to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption."[9] These exceptions are in turn subject to the requirement that they may not be used as a disguise for restricting trade or used arbitrarily or unjustifiably to discriminate between countries.[10] Arguably, these exceptions could be used to justify measures designed to protect biodiversity which would otherwise violate one of the substantive requirements.

Several such measures aimed at protecting marine species have been challenged before the dispute resolution bodies established by the GATT. For example, in the 1990s, Chile enacted laws which limited swordfish catches and prohibited Chilean ports from accepting swordfish which had not been caught in accordance

6. GATT, *supra* note 2, at art. III § 4.

7. *See id*. at art. XI § 1. "This general rule, however, is tempered by some important exceptions, such as restrictions on agricultural and fishery imports to stabilize national agricultural markets." Thomas E. Skilton, *GATT and the Environment in Conflict: The Tuna-Dolphin Dispute and the Quest for an International Conservation Strategy*, 26 CORNELL INT'L L.J. 455, 464 (1993) (citing *GATT*, supra note 2, at art XI:2).

8. GATT, *supra* note 2, at art. XX.

9. *Id*. It might also be possible to rely on exception (a) if the measures are "necessary to protect public morals." *Id*. "The notion of 'public morals' was defined – in the context of [the General Agreement on Trade in Services] – as 'denot[ing] standards of right and wrong conduct maintained by or on behalf of a community or nation.'" De Schutter, *supra* note 4, at 84. For a discussion of several theories under which biodiversity is morally considerable, see J. Baird Callicott, *The Pragmatic Power and Promise of Theoretical Environmental Ethics: Forging a New Discourse*, 11 ENVTL. VALUES 3 (2002); *see generally* Katie McShane, *Anthropocentrism vs. Nonanthropocentrism: Why Should We Care?*, 16 ENVTL. VALUES 169 (2007) (discussing the practical importance of nonantrhropocentrism beyond its impact on policy).

10. GATT, *supra* note 2, at art. XX.

with the regulations.[11] This was done in order to curb the rapid decline in the swordfish population within Chile's Exclusive Economic Zone, brought about by an increase in commercial swordfish fishing in international waters in the Southern Pacific Ocean.[12] In response, the European Community brought proceedings before the World Trade Organization ("WTO") in 2000 claiming violations of, inter alia, the GATT Article XI ban on quantitative restrictions.[13] Chile then brought proceedings before the International Tribunal for the Law of the Sea to invoke its conservation interests.[14] Although the parties ultimately reached an agreement in 2001 and suspended both sets of proceedings, C. Leah Granger has argued that the international tribunals served to frame the issue in competing terms, i.e., free trade versus conservation, acted as signaling devices regarding the parties' commitments to their claims and provided political cover for the parties during the dispute.[15] Therefore, while there was no final decision under the GATT system holding as much, the dispute clearly pitted the economic obligations of the contracting parties under the GATT against Chile's biodiversity conservation aims.

There have also been several cases that concerned biodiversity protection measures which reached a decision under the GATT dispute resolution system. In the *Tuna-Dolphin* dispute between Mexico and the United States ("US"), Mexico brought proceedings before a GATT panel challenging a US regulation which banned all imports of tuna from countries that could not prove that they satisfied the dolphin protection standards set out in the US Marine Mammal Protection Act of 1972.[16] The act also required that intermediary nations—those nations that imported tuna and then exported it to the US—also ensured that they had similar bans on the importation of tuna that was not harvested in compliance with the US requirements.[17] The law was designed to ensure that

11. C. Leah Granger, Comment, *The Role of International Tribunals in Natural Resource Disputes in Latin America*, 34 ECOLOGY L.Q. 1297, 1318–19 (2007).

12. *Id.* at 1318–19.

13. *Id.* at 1319–20.

14. *Id.* at 1320–21.

15. *Id.* at 1318–24.

16. *See* Marine Mammal Protection Act of 1972, Pub L. No. 95-552, 86 Stat. 1027 (2018) (codified as amended at 16 U.S.C. § 1361 (2019)).

17. Skilton, *supra* note 7, at 459.

dolphins were not incidentally killed during commercial yellowfin tuna fishing operations using the purse seine method in the Eastern Tropical Pacific Ocean.[18] The US also adopted the Dolphin Protection Consumer Information Act[19] which precluded tuna products from being labelled as "Dolphin Safe" unless they met certain similar harvesting requirements.[20]

In a non-binding report that was circulated, but not adopted,[21] the GATT panel concluded that the measures in question qualified as quantitative restrictions, rather than internal regulations, and were thus in violation of GATT Article XI:1.[22] The US could not restrict imports based on the way in which the tuna was "produced," as opposed to the quality or content of the product itself.[23] The panel also concluded that the US could not rely on the Article XX(b) or (g) exceptions in order to justify the extraterritorial application of its domestic laws.[24] In this case it did not matter that the US was trying to protect animal health or exhaustible natural resources because the regulation went beyond what was necessary to fulfill its objective.[25] Finally, the panel concluded that the voluntary labelling scheme requirement was not inconsistent with the GATT.[26] However, the parties ultimately

18. Denis A. O'Connell, *Tuna, Dolphins, and Purse Seine Fishing in the Eastern Tropical Pacific: The Controversy Continues*, 23 UCLA J. ENVTL. L. & POL'Y 77, 77 (2005).

19. *See* Dolphin Protection Consumer Information Act, 16 USC. § 1385 (2012).

20. Report of the Panel, *United States–Restrictions on Imports of Tuna*, 39S/155 (Sept. 3, 1991), GATT B.I.S.D., at 5 (1991) [hereinafter GATT Panel Report].

21. Under the pre-1995 GATT system, parties to a dispute had to adopt the panel decision in order for it to be considered binding. Skilton, *supra* note 7, at 466.

22. GATT Panel Report, *supra* note 20, at 41.

23. *Mexico etc Versus US: 'Tuna-Dolphin'*, WTO, http://www.wto.org/english/tratop_e/envir_e/edis04_e.htm [https://perma.cc/9EFE-YFG4].

24. Skilton, *supra* note 7, at 469. The panel alternatively concluded that the measures did not satisfy the requirements under either of those exceptions. *Id.*

25. *See* GATT Panel Report, *supra* note 20, at 41.

26. *Id*. In 2008, Mexico again challenged the US "Dolphin Safe" labelling requirement. The WTO Appellate Body found that it constituted a technical regulation in violation of the Agreement on Technical Barriers to Trade. Appellate Body Report, *United States–Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, ¶ 407(a), WTO Doc. WT/DS381/AB/R (adopted May 16, 2012).

settled the issue outside of the GATT system.[27] In 1992, the European Economic Community also challenged the embargo measures before a GATT panel, which ultimately came to similar conclusions that the measures were inconsistent with GATT Article XI:1 and did not meet the requirements of the Article XX exceptions.[28]

Pursuant to the Endangered Species Act,[29] the US also issued regulations designed to protect sea turtles from being incidentally taken during shrimp trawling in 1987.[30] The US later passed a law which required imports of shrimp harvested from areas containing sea turtles to meet similar requirements as laid out in the regulations.[31] In 1996, India, Malaysia, Pakistan, and Thailand challenged those measures as inconsistent with GATT Article XI:1.[32] In this case, however, the WTO Appellate Body held that the US regulations fell within the Article XX(g) exception for the conservation of exhaustible natural resources, construing that provision to also apply to living species.[33] However, the Appellate Body further held that the US measures did not satisfy the

27. *Mexico etc. Versus US: 'Tuna-Dolphin'*, *supra* note 23.

28. Panel Report, *United States–Restrictions on Imports of Tuna*, ¶ 6.1, DS29/R, (June 16, 1994), GATT B.I.S.D., at 58 (1995). "Partially in response to the controversy that had developed over the GATT Tuna/Dolphin dispute, [the North American Free Trade Agreement] reproduced the GATT Article XX environmental exceptions within its text." Madison Condon, *The Integration of Environmental Law into International Investment Treaties and Trade Agreements: Negotiation Process and the Legalization of Commitments*, 33 VA. ENVTL. L.J. 102, 107 (2015). For a fuller discussion of the North American Free Trade Agreement dispute resolution system, see *infra* Part II.B.

29. *See* generally Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2018).

30. *See generally* Sea Turtle Conservation; Shrimp Trawling Requirements, 52 Fed. Reg. 24,244–24,252 (June 29, 1987) (describing the regulations as intending to "reduce the incidental catch and mortality of sea turtles in shrimp trawls").

31. Conservation of Sea Turtles; Importation of Shrimp, Pub. L. 110–162, 103 Stat. 1037 (codified at 16 U.S.C. § 1537(a)–(b) (1989)).

32. *See* Appellate Body Report, *United States–Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 1, WTO Doc. WT/DS58/AB/R (adopted Oct. 12, 1998).

33. *See id.* at ¶¶ 125–135.

requirements of the GATT Article XX chapeau,[34] and were thus inconsistent with the GATT.[35]

In summary, in several cases in which US marine biodiversity protection laws were challenged as inconsistent with the ban on quantitative restrictions under the GATT, the dispute resolution bodies ultimately found that the measures were in violation of that requirement and thus were inconsistent with the free trade system established by the GATT. And even in the absence of a final decision, resorting to the GATT dispute resolution system can serve to frame the conflict between free trade and conservation, and act as a signaling device of the parties' intentions, as it did in the dispute between Chile and the European Economic Community.[36] Therefore, the precedent analyzed here suggests that biodiversity conservation has generally been hampered by the GATT. However, it may be possible to draft future protection measures which fall within the Article XX(g) exception,[37] and simultaneously do not run afoul of the Article XX chapeau.

1. Comprehensive Economic and Trade Agreement

The Comprehensive Economic and Trade Agreement ("CETA") creates a free trade zone between the European Union ("EU") and Canada.[38] It is considered a new generation free trade agreement ("FTA"), in part because it is designed to ensure that the contracting parties have greater room to regulate in the public interest through the express incorporation of sustainable development as an equal objective.[39] Through CETA the

34. The chapeau requires that contracting parties not apply measures "in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade." GATT, *supra* note 2, at art. XX.

35. Appellate Body Report, *supra* note 32, at ¶ 186.

36. *See* Granger, *supra* note 11, at 1322–1323.

37. Alternatively, it may be possible to rely on one of the other General Article XX exceptions, such as (a) or (b). *See* GATT, *supra* note 2, at art. XX; *see also supra* text accompanying note 9.

38. *See generally* Comprehensive Economic and Trade Agreement, Can.-E.U., Oct. 30, 2016, O.J. (L 11) 23 [hereinafter CETA].

39. *See* Emily Hush, Note, *Where No Man Has Gone Before: The Future of Sustainable Development in the Comprehensive Economic and Trade Agreement and New Generation Free Trade Agreements*, 43 COLUM. J. ENVTL. L. 93, 144

contracting parties also intended to incorporate the relevant provisions of the GATT, namely Article XXVIII:3, which allow the parties to regulate in the public interest without the danger of violating their other obligations under the treaty. Moreover, according to Emily Hush, CETA "arguably incorporates the relevant case law of the WTO tribunals as well, as can be seen for example in Article: 28.3.1 of CETA, which explicitly cites to the holding of the *Shrimp-Turtle* case."[40] Therefore, the above discussion regarding the GATT and the cases challenging biodiversity conservation measures similarly applies to the trade relationship between the EU and Canada under CETA.

B. North American Free Trade Agreement

When the North American Free Trade Agreement ("NAFTA") came into effect on January 1, 1994, it established the "largest free trade region in the world" between Mexico, the US, and Canada.[41] NAFTA provides for three distinct forms of dispute resolution, the relevant one here being the Investor-State Dispute Settlement ("ISDS") system under Chapter 11.[42] The ISDS system allows investors to bring arbitration proceedings directly against one of the contracting parties to seek compensation for the nationalization or expropriation of their investment.[43] According to the Columbia Center on Sustainable Investment, "[m]ultinational companies are increasingly using ISDS to challenge the legal and regulatory systems and policy choices of the contracting states, posing a serious and growing risk to the ability of states to govern in the public interest."[44] There have been

(2018). Note also that removing or refusing to grant a subsidy does not constitute a breach of investment protection in and of itself under CETA. *Id.*

40. *Id.* at 130.

41. *A New Canada-United States-Mexico Agreement*, GOV'T OF CANADA, http://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/nafta-alena/fta-ale/background-contexte.aspx?lang=eng [https://perma.cc/DSL8-BMND].

42. *See* North American Free Trade Agreement, Can.-Mex.-U.S., § B, arts. 1115–1138, Dec. 17, 1992, 107 Stat. 2057, 32 I.L.M. 289 (1993).

43. *See* Daniel M. Price, *An Overview of the NAFTA Investment Chapter: Substantive Rules and Investor-State Dispute Settlement*, 27 INT'L L. 727, 730 (1993).

44. LISE JOHNSON, LISA SACHS & JEFFREY SACHS, COLUM. CTR. ON SUSTAINABLE INV., INVESTOR-STATE DISPUTE SETTLEMENT, PUBLIC INTEREST AND US DOMESTIC LAW 1 (2015).

some high profile ISDS proceedings, such as *Metalclad Corp. v. United Mexican States*, where the tribunals have awarded investors millions of dollars in compensation for the "indirect expropriation" of their investments through State regulations intended to protect biodiversity.[45]

In *Metalclad*, a US-owned company purchased a hazardous landfill site in Guadalcazar, Mexico.[46] Although the company had the proper federal and state permits, the local municipal government denied a construction permit after the site had already been opened.[47] The governor of the municipality then took action to protect a rare local cactus species by issuing an Ecological Decree which included the landfill site in a newly created protected natural area.[48] The company then brought NAFTA Chapter 11 arbitration proceedings against Mexico for indirect expropriation. The tribunal found that Mexico had indirectly expropriated the landfill and awarded the company approximately $16.7 million.[49] The award was ultimately reduced on appeal, but the tribunal affirmed that the Ecological Decree amounted to an expropriation.[50] It is worth noting that NAFTA also provides that the Convention on International Trade in Endangered Species of Wild Fauna and Flora[51] ("CITES"), the Montreal Protocol,[52] and the Basel Convention[53] should be given priority over NAFTA "in the event that a conflict of norms arose in a dispute," so long as the

45. Metalclad Corp. v. United Mexican States (US v. Mex.), Case No. ARB(AF)/97/1, Award, ¶¶ 107–108 (N.A.F.T.A. Arb. Trib. 2000), https://www.italaw.com/sites/default/files/case-documents/ita0510.pdf [https://perma.cc/PD8A-28QC] [hereinafter Metalclad Award].

46. *Id.* at ¶¶ 2–3.

47. *Id.* at ¶ 50.

48. *Id.* at ¶ 59.

49. *Id.* at ¶ 131.

50. *See* Vivian H.W. Wang, Note, *Investor Protection or Environmental Protection? "Green" Development Under CAFTA*, 32 COLUM. J. ENVTL. L. 251, 265–266 (2007).

51. *See generally* Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 1, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243.

52. *See generally* Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, 1522 U.N.T.S. 3.

53. *See generally* Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, 1673 U.N.T.S. 126.

treaties are applied "in the least NAFTA-inconsistent manner."[54] However, the tribunal did not address any of these treaties or any of the other environmental provisions of NAFTA in the opinion.[55]

In the case of *Clayton/Bilcon v. Government of Canada*, the investors planned to build a marine terminal in order to ship mined basalt from Nova Scotia.[56] However, the environmental assessment ("EA") recommended that the project be rejected.[57] During the ISDS proceedings, Canada argued that rejection was appropriate due to the project's location in an area "with an extremely productive ecosystem . . . [whose] waters are an important breeding and feeding ground for dolphins and endangered species such as whales and leatherback turtles."[58] The Canadian authorities were thus manifestly concerned with protecting the local biodiversity; nonetheless the investor objected to the EA. The tribunal ultimately found that Canada had failed to meet the requisite standards of fair and equitable treatment and full protection and security, and failed to provide national treatment to the investment.[59] The final award was recently upheld by the Federal Court of Canada.[60]

Cases like these highlight the fact that NAFTA has the potential to expose the contracting parties to ISDS proceedings simply for trying to protect their local biodiversity. They also establish precedent and might leave future environmental regulators with the choice of either exposing themselves to enormous liability, or choosing not to regulate at all. Such decisions may also influence the motivations for future EAs,

54. Condon, *supra* note 28, at 107–08.

55. *See id.* at 108.

56. Clayton v. Can., P.C.A. Case No. 2009-04, Amended Statement of Claim ¶ 19, (Perm. Ct. Arb. 2009), https://www.italaw.com/sites/default/files/case-documents/italaw1144.pdf [https://perma.cc/53BV-VG9J].

57. Clayton v. Can., P.C.A. Case No. 2009-04, Award on Jurisdiction and Liability ¶ 5, (Perm. Ct. Arb. 2015), https://www.italaw.com/sites/default/files/case-documents/italaw4212.pdf [https://perma.cc/E8AG-UQVF].

58. Valentina S. Vadi, *When Cultures Collide: Foreign Direct Investment, Natural Resources, and Indigenous Heritage in International Investment Law*, 42 COLUM. HUM. RTS. L. REV. 797, 876 (2011).

59. Clayton v. Can., Case No. 2009-04, Award on Jurisdiction and Liability, at ¶ 742(ii).

60. *See* Can. v. Clayton, 2018 F.C.R. 436, ¶ 200 (Fed. Ct.).

perhaps undermining their very rationality.[61] This all suggests that the ISDS system could have a chilling effect on biodiversity protection regulation, as well as environmental regulation more broadly.[62] As discussed further in the following Section, such precedent might also have a chilling effect with respect to the funding of certain biodiversity conservation projects.

1. Concerns with Using the North American Free Trade Agreement as a Model

The World Bank has funded a significant amount of biodiversity projects throughout the world.[63] As David MacArthur points out, in some instances these projects are State-run, and have the potential to negatively impact vested economic interests.[64] For example, in Mexico, the World Bank instituted the Consolidation of the Protected Areas System Project in order to "counteract the fact that '[t]he high biodiversity of Mexico is constantly being threatened by deforestation, over-exploitation, uncontrolled tourism, accelerated economic development and arbitrary settlement policies.'"[65] Since the project is government-sponsored, investors in such areas as logging, mining, and tourism, as well as landowners, could potentially bring ISDS proceedings under NAFTA.[66]

The World Bank also funded a $186.5 million Water Resources Management Project in Mexico.[67] Such a project could lead to establishing fishing quotas which in turn might negatively impact commercial fishing enterprises, opening up the Mexican

61. *See* Vadi, *supra* note 58, at 837–77. Valentina S. Vadi, who has proposed using EAs as a way to also take cultural impacts into account when assessing investment projects, finds this to be particularly problematic. *Id*.

62. JOHNSON, SACHS & SACHS, *supra* note 44, at 5.

63. David MacArthur, *NAFTA Chapter 11: On an Environmental Collision Course with the World Bank?*, 2003 UTAH L. REV. 913, 917–18 (2003).

64. *See id.* at 942 ("[I]t is not difficult to imagine foreign corporations with investments in coffee plantations soon to be inundated by a World Bank dam project filing suit against the sponsoring nation, or pharmaceutical companies with extensive research investments in tropical forests submitting an arbitration claim against a nation for the establishment of a 'Protected Area' under a biodiversity project funded through the World Bank.").

65. *Id*. at 943.

66. *Id.* at 943–44.

67. *See id.* at 944.

government to liability and potentially threatening its ability to repay the World Bank.[68] While both of these projects took place in Mexico, the World Bank also funds biodiversity projects in other countries at various stages of development.[69] Therefore, if the ISDS model is expanded to other FTAs, projects in the territory of contracting parties to those agreements could likewise be subject to liability, and the host countries could face increased hardship in repaying World Bank loans. Thus, David MacArthur argues that the NAFTA ISDS system, and similar systems in other investment agreements and FTAs, may have a chilling effect on the lending practices of the World Bank and similar institutions with respect to biodiversity projects in developing States.[70] This concern is not merely theoretical, as in practice NAFTA has actually influenced other FTAs, such as the Dominican Republic-Central American Free Trade Agreement ("CAFTA-DR").[71]

In 2005, CAFTA-DR established a tariff-free trade zone among the US, the Dominican Republic, and certain Central American countries.[72] CAFTA-DR is largely based on NAFTA, but "contains procedural and substantive changes that may affect the outcome of environment-related disputes."[73] As addressed below in Part III.B, CAFTA-DR does include some substantive environmental provisions directly within the agreement, allowing environmental regulations to take precedent over investment disputes in certain circumstances. However, not included within those provisions, and thus not shielded from the investment dispute mechanism, are regulations whose primary purpose is to "restrict[] the

68. *See id*.

69. *Id.* at 917–18.

70. *Id*. at 942; *see generally* Jessica S. Wiltse, *An Investor-State Dispute Mechanism in the Free Trade Area of the Americas: Lessons from NAFTA Chapter Eleven*, 51 BUFF. L. REV. 1145 (2003) (expressing concern that less restrictive environmental regulations in Latin America will not protect the region's rich biodiversity in the context of Free Trade Area of the Americas negotiations and NAFTA arbitration history).

71. *See* Wang, *supra* note 50, at 254 (suggesting that CAFTA drew heavily from NAFTA's provisions).

72. *See generally* Dominican Republic-Central America Free Trade Agreement, Central American Common Market-Dom. Rep.-U.S., Aug. 5, 2004, 119 Stat. 463 [hereinafter CAFTA-DR].

73. Wang, *supra* note 50, at 254, 274–75 (explaining that the procedural changes include open hearings, publication of materials, explicit allowance of amicus briefs, inclusion of an appellate mechanism, and further requirements for environmental cases).

management of commercial harvest of natural resources."[74] Therefore, such regulations would be subject to the same attacks from investors as described above, *mutatis mutandis*.

C. Trans-Pacific Partnership

In 2013, Anastasia Telesetsky expressed doubt that either multilateral environmental agreements ("MEAs") or trade treaties would be effective in eliminating "perverse" fishing subsidies which improperly distort the market and lead to overfishing.[75] At the time there were two strong competing coalitions that were either pushing for or against further WTO measures dealing with these subsidies, or in favor of dealing with the issue in other forums.[76] Furthermore, none of the MEAs in force at the time dealt directly with the problem.[77] This was a pressing issue as almost 40% of harvested fish was traded internationally at the time.[78] In order to address this lacuna, Telesetsky suggested that States impose unilateral trade measures whereby they would eliminate their own perverse subsidies and require the same from their trade partners.[79] This strategy closely resembles the approach taken by the US in the *Tuna-Dolphin* and *Shrimp-Turtle* cases, discussed above in Part II.A. Therefore, such measures would be vulnerable to similar attacks from trade partners under the GATT. However, Telesetsky argued that such measures could be upheld under the GATT Article XX(g) exception and the *Shrimp-Turtle* case interpreting it,[80] so long as they were properly crafted.[81]

However, Telesetsky has been more optimistic with respect to multilateral solutions since the Trans-Pacific Partnership ("TPP") was signed in 2016 between twelve Pacific Rim States,[82] which

74. *Id*. at 277.

75. *See* Anastasia Telesetsky, *Follow the Leader: Eliminating Perverse Global Fishing Subsidies Through Unilateral Domestic Trade Measures*, 65 ME. L. REV. 627, 628–29 (2013).

76. *See id.* at 640–41.

77. *See id.* at 639–40.

78. *Id*. at 644.

79. *See id*.

80. *See supra* Part II.A (discussing GATT Article XX(g) and the *Shrimp-Turtle* case).

81. Telesetsky, *supra* note 75, at 644–48.

82. Anastasia Telesetsky, *Trans-Pacific Partnership: Leading the Way to an Environmentally Sustainable Global Economy*, GLOBAL TRADE (Mar. 24, 2016),

account for approximately 40% of the world's aggregate Gross Domestic Product.[83] Telesetsky lauded the TPP for addressing the issue by requiring the parties to remove subsidies that are harmful to global fish stocks.[84] She argued that this move "can have real implications for threatened species with Japan as a signatory of the TPP, which has historically assigned sizable subsidies to its distant water tuna fleets."[85] Although the US withdrew from the agreement on January 13, 2017,[86] a similar agreement has been signed among the remaining members.[87] Several parties to the new agreement are among the major players identified by Telesetsky in her 2013 article, including Japan.[88]

In addition to the fishing subsidies, Telesetsky has acknowledged that the TPP addresses the issue identified above with respect to the chilling effect that investor-state dispute claims can have on environmental and biodiversity protection regulations.[89] According to Telesetsky, not only does the TPP

https://www.globaltrademag.com/trans-pacific-partnership-leading-the-way-to-an-environmentally-sustainable-global-economy/ [https://perma.cc/Z2GH-3KH2].

83. *See* Kevin Granville, *What Is TPP? Behind the Trade Deal That Died*, N.Y. TIMES (Jan. 23, 2017), https://www.nytimes.com/interactive/2016/business/tpp-explained-what-is-trans-pacific-partnership.html [https://perma.cc/DRM2-RDG6].

84. Telesetsky, *supra* note 82 (explaining that the TPP also requires parties to "eliminate overcapacity of fishing vessels and deter illegal, unreported, and unregulated fishing").

85. *Id.*

86. *See generally* Ylan Q. Mui, *Withdrawal from Trans-Pacific Partnership Shifts US Role in World Economy*, WASH. POST (Jan. 23, 2017), https://www.washingtonpost.com/business/economy/withdrawal-from-trans-pacific-partnership-shifts-us-role-in-world-economy/2017/01/23/05720df6-e1a6-11e6-a453-19ec4b3d09ba_story.html?utm_term=.3c473065f9f5 [https://perma.cc/2QGP-6NCK]; *but see generally* Dominic Rushe, *Trump Said to be Reviewing Trans-Pacific Partnership in Trade U-Turn*, GUARDIAN (Apr. 12, 2018), https://www.theguardian.com/world/2018/apr/12/trump-trans-pacific-partnership-trade-deal-reversal [https://perma.cc/4FQQ-WTDT].

87. *See generally* Comprehensive and Progressive Agreement for Trans-Pacific Partnership, Mar. 8, 2018, *available at* AUSTRALIAN GOV'T DEP'T OF FOREIGN AFFAIRS AND TRADE, https://dfat.gov.au/trade/agreements/in-force/cptpp/official-documents/Documents/tpp-11-treaty-text.pdf [https://perma.cc/HZ3H-5KKR] [hereinafter CPTPP].

88. Those parties are Australia, Chile, Japan, New Zealand, and Peru. *See* Telesetsky, *supra* note 75, at 640–41.

89. Telesetsky, *supra* note 84 ("The TPP also enables countries to control company-sourcing practices for the purpose of environmental sustainability. The TPP is clear that countries can place requirements on the purchase or use of goods within its territory that justifiably protect 'human, animal or plant life or health'

provide considerable latitude for host states to regulate in order to protect public health and the environment, inter alia, it also allows the States where the investment originates to do the same.[90] Finally, as discussed in more detail below in Part III.C, the TPP and the replacement agreement both have chapters dedicated specifically to the environment which create commitments enforceable through the dispute settlement processes.[91]

D. Climate Change Impacts

Climate change is likely to negatively impact biodiversity in a multitude of ways. For example, climate change is projected to cause redistribution of species, tree mortality and worsening of forest fires, as well as ocean acidification and deoxygenation which could directly threaten the survival of marine species.[92] Moreover, some of these changes will create knock-on effects further contributing to the problem of climate change, for example through the loss of carbon sinks and the release of further emissions.[93] It is the goal of the parties to the United Nations Framework Convention on Climate Change to stabilize greenhouse gas ("GHG") concentrations "at a level that would prevent dangerous anthropogenic interference with the climate system . . . . within a time frame sufficient to allow ecosystems to adapt naturally to

or conserve 'living or non-living exhaustible natural resources.'"). *But see* Catherine Ho, *Fact-Checking the Campaigns for and Against the TPP Trade Deal*, WASH. POST (Feb. 11, 2016) (highlighting the concern of some that the "TPP will lead to more companies challenging environmental regulations in the arbitration process"), https://www.washingtonpost.com/news/powerpost/wp/2016/02/11/fact-checking-the-campaigns-for-and-against-the-tpp-trade-deal/ [https://perma.cc/LAX4-KHSA].

90. Telesetsky, *supra* note 84.

91. See *infra* Part III (further discussing environmental provisions and side agreements).

92. *See* IPCC, *supra* note 1, at 51, 64, 67; *see also* AUGUSTIN COLETTE, UNESCO WORLD HERITAGE CENTRE, CASE STUDIES ON CLIMATE CHANGE AND WORLD HERITAGE 29, 40 (2007) (detailing the predicted marine and terrestrial biodiversity impacts brought about by changing ocean chemistry, as well as "rising atmospheric temperatures, increasing atmospheric CO_2 concentrations, changes in precipitation patterns and hydrological cycles, increased frequency of extreme weather events, etc.").

93. *See* IPCC, *supra* note 1, at 51, 62, 67.

climate change . . . ."[94] However, it is unlikely that all species will be able to adapt naturally at the current warming rates projected by the Intergovernmental Panel on Climate Change.[95] Therefore, to the extent that international trade and investment agreements affect climate change, they can also be seen to impact biodiversity.

According to the WTO, the liberalization of trade generally can have both positive and negative impacts on climate change.[96] First, freer trade can result in increased economic activity and output, which in turn tends to increase energy consumption and GHG emissions.[97] However, the WTO also notes that increased income tends to allow societies to demand reduced emissions.[98] Second, freer trade incentivizes countries to take advantage of comparative advantages by reallocating resources to their most efficient use.[99] This can have either a positive or negative effect in any given State, depending upon whether it allocates its resources to sectors which are more or less energy intensive. Third, trade liberalization can allow for advances in energy technology—increasing efficiency, reducing emissions, and lowering costs.[100] Finally, increased trade necessitates increased transportation, and thus tends to raise GHG emissions in that sector.[101]

Valentina S. Vadi has argued that international investment law can help to mitigate climate change through encouraging foreign direct investment in renewables as well as by preventing parties from backsliding from earlier commitments.[102] Nevertheless, Vadi acknowledges that investment treaties can also

94. U. N. Framework Convention on Climate Change, art. 2, May 9, 1992, 1771 U.N.T.S. 107.

95. *See* IPCC, *supra* note 1, at 72.

96. *See The Impact of Trade Opening on Climate Change*, WTO, https://www.wto.org/english/tratop_e/envir_e/climate_impact_e.htm [https://perma.cc/E4TM-X8MU] [hereinafter *WTO Trade Impact*].

97. *Id.*

98. *See The Multilateral Trading System and Climate Change: Introduction*, WTO, https://www.wto.org/english/tratop_e/envir_e/climate_intro_e.htm [https://perma.cc/9NLD-9YSE].

99. *WTO Trade Impact*, *supra* note 96.

100. *Id.*; *but see* De Schutter, *supra* note 4, at 69 ("[S]tudies are now converging to show that . . . the increased consumption allowed by trade expansion raises levels of [GHG] emissions more than the technological spillover effects of trade lead to GHG emissions being reduced.").

101. *WTO Trade Impact*, *supra* note 96.

102. Valentina Vadi, *Beyond Known Worlds: Climate Change Governance by Arbitral Tribunals?*, 48 VAND. J. TRANSNAT'L L. 1285, 1350 (2015).

hinder climate change mitigation where investors are able to challenge domestic environmental or clean energy regulations that negatively impact investments through arbitration proceedings, especially in the energy sector.[103] Shalanda H. Baker has also suggested that climate change may alter the investment environment conditions in developing countries such that they could be held liable in investment arbitration under investment treaties.[104] Baker suggests marshalling legal doctrines such as *rebus sic stantibus* in order to allow developing states impacted by climate change to exit or modify those agreements.[105]

III. BIODIVERSITY PROTECTION PROVISIONS AND SIDE AGREEMENTS

In addition to allowing investors and trade partners to challenge biodiversity protection actions through arbitration, international investment and free trade agreements may also directly address biodiversity obligations in the text of the agreement itself, or in agreements negotiated in parallel thereto. The following Part first reviews the North American Agreement on Environmental Cooperation, a side agreement to NAFTA, which establishes a claims process whereby an independent body may review whether the contracting parties are effectively enforcing their own environmental regulations. This process has been used in the context of biodiversity conservation, and has an analogue in the provisions of the CAFTA-DR, discussed thereafter. This Part then discusses the TPP, which includes biodiversity and other environmental provisions directly within the text of the agreement. Finally, it evaluates the US-Peru FTA as one example of the more recent trend of incorporating obligations from MEAs and/or domestic laws into the text of the free trade and investment agreements in order to create additional enforcement mechanisms for those obligations.

A. North American Agreement on Environmental

103. *Id.*

104. Shalanda H. Baker, *Climate Change and International Economic Law*, 43 ECOLOGY L.Q. 53, 93 (2016).

105. *Id.* at 82–83. The doctrine of *rebus sic stantibus* is employed to render treaty or contract provisions inapplicable in light of substantial changes in circumstances. *Id.*

Cooperation

The North American Agreement on Environmental Cooperation[106] ("NAAEC") is an agreement that was negotiated alongside NAFTA.[107] The NAAEC requires each of the contracting parties to provide information on its environmental laws and regulations, promote environmental education, report on the state of its environment, and promote research and technology development.[108] It further requires the contracting parties to enforce their environmental laws and regulations, provide appropriate enforcement proceedings, and ensure adequate access to private remedies.[109] The NAAEC also allows the parties to bring arbitration proceedings to investigate potential "persistent pattern[s]" of non-enforcement of another party's environmental laws.[110] If the arbitral panel finds such a violation, it will create an action plan to bring the party into compliance and can even impose a fine—the funds of which will ultimately be used to improve enforcement in that State.[111] In addition, the NAAEC established the Commission for Environmental Cooperation (the "Commission") which oversees various enforcement issues.[112] Finally, Article 14 allows non-governmental organizations or other persons to bring claims before the Secretariat of the Commission if one of the contracting parties is failing to enforce its own environmental laws.[113]

As identified by Aaron Holland, this claim process was used to challenge the "Hutchison Rider," which cut the budget of the US Fish and Wildlife Service for administering the Endangered Species Act, and proscribed it from listing any further species as endangered or threatened during the remainder of fiscal year 1995.[114] The petitioners challenged this action on the basis that it

106. *See generally* North American Agreement on Environment Cooperation, Sept. 14, 1993, 32 I.L.M. 1480 [hereinafter NAAEC].

107. Condon, *supra* note 28, at 107 (noting that "NAFTA was the first United States trade agreement to explicitly include environment provisions").

108. NAAEC, *supra* note 106, at art. 2, art. 4.

109. *See id*. at art. 5–art. 7.

110. *See id.* at art. 24.

111. *See* Condon, *supra* note 28, at 109.

112. NAAEC, *supra* note 106, at art. 8–19.

113. *Id.* at art. 14.

114. Aaron Holland, *The North American Agreement on Environmental Cooperation: The Effect of the North American Free Trade Agreement on the*

effectively suspended the enforcement of the Endangered Species Act.[115] The process was also used to challenge a similar rider which suspended enforcement of US logging laws.[116] However, the Secretariat of the Commission did not uphold either of the challenges because it found that each were legislative actions, and thus were outside the scope of the failure to enforce environmental laws or regulations provision.[117] Essentially, the riders were new US environmental laws and the implementing agencies were simply complying with the new requirements by not enforcing the older laws.[118]

Finally, the Commission can also consider environmental issues and provide recommendations to the parties.[119] On November 8, 2004, the Commission issued a report entitled "Maize and Biodiversity: The Effects of Transgenic Maize in Mexico," which addressed the spread and intermixing of genetically modified corn with native species in Oaxaca, Mexico.[120] There is concern that these genetically modified crops could "contaminate" the genes of native crops and damage the local biodiversity.[121] The Commission's report recommended various measures, including "additional research, a continuation of the moratorium on planting genetically modified corn in Mexico unless carefully planned and contained in an experimental setting, preservation of the genetic diversity of Mexican corn, and application of an 'as low as is reasonably achievable' standard in adopting risk-reducing policies."[122] Due to a prolonged legal battle, the temporary ban on

Enforcement of United States Environmental Laws, 28 TEX. TECH. L. REV. 1219, 1233–34 (1997).

115. *Id.* at 1234.

116. *Id.* at 1235–36.

117. *Id.* at 1236.

118. *Id.* Later treaties that include similar review procedures generally do not seem to address this issue. *See*, *e.g.*, CPTPP, *supra* note 87, at art. 20; CAFTA-DR, *supra* note 72, at art. 17.7.

119. NAAEC, *supra* note 106, at art. 10.

120. David W. Wagner & William L. Thomas, *International Environmental Law*, 39 INT'L L. 191, 203 (2005).

121. *See* Kate Wong, *GM Corn Contaminates Distant Native Plants*, SCI. AM. (Nov. 29, 2001), https://www.scientificamerican.com/article/gm-corn-contaminates-dist/ [https://perma.cc/XUF3-5LRY].

122. Wagner & Thomas, *supra* note 120, at 203–04.

planting genetically modified corn in Mexico has remained in place, and is likely to continue for at least several years.[123]

B. Dominican Republic-Central America Free Trade Agreement

Since the NAAEC was signed, environmental provisions, including those addressing biodiversity, have become increasingly common in investment and free trade agreements.[124] The more recent trend though, exemplified by the CAFTA-DR, has been to include the provisions directly within the text of the agreement itself, rather than in a side agreement thereto.[125] As mentioned above in Part II.B.1, CAFTA-DR establishes a free trade zone between the Dominican Republic, the US, and the Central American Common Market.[126] Included within Chapter 17—the environmental chapter—is a non-enforcement challenging process similar to that of the NAAEC, described above in Part III.A.[127] However, explicitly excluded from its scope are laws whose primary purpose "is managing the commercial harvest or exploitation, or subsistence or aboriginal harvesting, of natural resources."[128]

Vivian H.W. Wang has argued that Costa Rica's Biodiversity law could meet that description as it regulates the bioprospecting process of genome collection.[129] Ultimately, it will be a matter of interpreting what "primary purpose" means, as the law also addresses issues such as environmental impact reports and

123. David Alire Garcia, *Monsanto Sees Prolonged Delay on GMO Corn Permits in Mexico*, THOMSON REUTERS (Jan. 30, 2017), https://www.reuters.com/article/us-mexico-monsanto/monsanto-sees-prolonged-delay-on-gmo-corn-permits-in-mexico-idUSKBN15E1DJ [https://perma.cc/7A3E-2XGL].

124. *See* Condon, *supra* note 28, at 109–10. For an example of a nation advocating for the inclusion of environmental considerations into a trade agreement, see Katia Fach Gómez, *Latin America and ICSID: David Versus Goliath*, 17 L. & BUS. REV. AM. 195, 219 (2011) (discussing Bolivia's previously proposed bilateral investment treaty with the US which sought, inter alia, to "protect Bolivia's wealth of traditional knowledge and rich biodiversity").

125. *See* Condon, *supra* note 28, at 109–10 (citing FTAs with Australia, Bahrain, Chile, Morocco, and Oman as other examples of such agreements).

126. *See* CAFTA-DR, *supra* note 72, at Preamble.

127. *Id.* at art. 17.7.

128. *Id.* at art. 17.13.

129. Wang, *supra* note 50, at 280.

conservation.[130] However, if it is ultimately determined to fall within the exception, there will be no effective review process for potential non-enforcement under CAFTA-DR, and the law itself may become the subject of the types of challenges addressed above in Part II. According to Wang, "the limitations on the scope of enforceable environmental law [under CAFTA-DR] facilitates the opening of Central America's biodiversity and other natural resources for market exchange and consumption."[131] Thus, while including a process for review of non-enforcement of domestic environmental laws may provide recourse for ensuring that trade and investment partners do not violate their biodiversity protection obligations, it is important to consider the exact scope of the process and evaluate how the review fits in with the rest of the text as a whole.

C. Trans-Pacific Partnership

The TPP is another example of an FTA that moves the environmental provisions directly into an environmental chapter in the main text.[132] It has been argued that the TPP presented an opportunity to protect the important biodiversity of the Pacific Rim States, including through the enforcement of CITES obligations.[133] In a 2011 Green Paper, the US promoted the inclusion of biodiversity protection provisions with specific emphasis on trade in protected wildlife, marine fisheries, and illegal timber logging.[134] The final TPP text seems to reflect this proposal to some extent by incorporating biodiversity provisions directly into the main text of the environmental chapter.[135] There is a general

130. *Id.*

131. *Id.* at 284.

132. *See* Trans-Pacific Partnership, art. 20, Feb. 4, 2016, *available at* OFF. OF THE U.S. TRADE REPRESENTATIVE, https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text [https://perma.cc/4DWH-LGM6] [hereinafter TPP].

133. *See* Matthew Rimmer, *Greenwashing the Trans-Pacific Partnership: Fossil Fuels, the Environment, and Climate Change*, 14 SANTA CLARA J. INT'L L. 488, 503 (2016); *see also* US TRADE REPRESENTATIVE, USTR GREEN PAPER ON CONSERVATION AND THE TRANS-PACIFIC PARTNERSHIP 3–4 (2011), https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2011/ustr-green-paper-conservation-and-trans-pacific-partnership [https://perma.cc/4VDV-YGNS] [hereinafter USTR GREEN PAPER].

134. USTR GREEN PAPER, *supra* note 133, at 4.

135. *See* TPP, *supra* note 132, at art. 20.13.

biodiversity protection article,[136] as well as an article which addresses illegal trade in protected species[137] and requires the parties to "exchange information and experiences on issues . . . including combating illegal logging and associated illegal trade . . . ."[138] Furthermore, as discussed in more detail above in Part II.C, the TPP also directly addresses marine fisheries practices.[139]

Although the TPP has not been ratified, it does provide an example of the more recent approach to including environmental and biodiversity protection provisions directly in the main text of the agreement. Furthermore, the TPP's biodiversity provisions have largely been adopted in the final text of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, which was signed by the remaining parties after the withdrawal of the US.[140] Under that agreement, each contracting party is required to ensure that there is effective access to private remedies for failure to enforce its relevant environmental laws, as well as to establish appropriate procedures for reviewing public submissions regarding the implementation of the environmental chapter.[141] Finally, the agreement establishes an Environment Committee designed to oversee the enforcement of the chapter.[142]

D. Agreements Referring to Environmental Treaties or Domestic Laws

As Madison Condon identifies, there is a recent trend—particularly within US FTAs—to incorporate obligations within the treaty that are created by MEAs or domestic environmental laws, including those affecting biodiversity, as independent

136. *Id.*

137. *Id.* at art. 20.17.

138. *Id.* at art. 20.17.3.

139. *Id.* at art. 20.16.

140. *See* CPTPP, *supra* note 87, at art. 20; *but see id.*, at art. 20.17.5 n. 6 (striking a portion of the correlating original TPP provision which required the contracting parties to take measures to address the take of, and trade in, species protected under the domestic law of another contracting party).

141. *See id.* at arts. 20.7–20.8.

142. *See id.* at art. 20.19. However, the role of the Environment Committee does not appear to be as expansive as that of the Commission for Environmental Cooperation established under the NAAEC. *Compare id.*, *with* NAAEC, *supra* note 106, at arts. 9–14.

obligations between the contracting parties.[143] At least with respect to US FTAs, this is due in large part to the Bipartisan Trade Deal reached on May 10, 2007, which required future FTAs to explicitly incorporate reference to a prescribed set of seven MEAs to which the US is a party.[144] The deal requires binding non-derogation obligations for domestic environmental laws and places environmental obligations on the same plane as the commercial obligations contained in the agreements.[145]

There are several motivations for including reference to such MEAs in investment and free trade agreements. Firstly, it lends stronger and more developed enforcement and adjudication mechanisms to agreements which otherwise lack effective bite.[146] According to Condon, this process of reference to MEAs works to "legalize" these international norms by increasing their "obligation, precision, and delegation."[147] Essentially, it delineates the exact requirements of the obligations and renders them binding through stronger enforcement mechanisms.[148] Secondly, increasing awareness of the inherent interactions between these agreements and environmental issues warrants addressing them together.[149] Additionally, such inclusion can also be influenced by

143. Condon, *supra* note 28, at 103–4, 110–11 (listing the recent FTAs with Peru, Colombia, South Korea, and Panama as examples of such agreements); *see also* CPTPP, *supra* note 87, at ch. 20. The EU-Peru and Colombia FTA similarly refers to MEAs which cover biodiversity. However, it excludes "tuna, whaling, and Antarctic marine life." Condon, *supra* note 28, at 114–15.

144. *See* Condon, *supra* note 28, at 110. The seven agreements are: CITES; the Montreal Protocol; the Convention on Marine Pollution, Inter-American Tropical Tuna Convention; the Ramsar Convention on Wetlands, International Whaling Convention; and the Convention on Conservation of Antarctic Marine Living Resources. *Id.* at 110 n.28. Note though that this list does not include the CBD, to which the US is not a party. *See List of Parties,* CONVENTION ON BIOLOGICAL DIVERSITY, https://www.cbd.int/information/parties.shtml [https://perma.cc/VMC4-838Y].

145. Condon, *supra* note 28, at 110–11.

146. *See id.* (citing Jorge E. Viñuales, *The Environment Breaks into Investment Disputes* 5, *in* INTERNATIONAL INVESTMENT LAW 1714–38 (M. Bungenberg, et al. eds., 2015)).

147. *Id.* at 115–18 (citing Kenneth W. Abbott et al., *The Concept of Legalization*, 54 INT'L ORG. 401 (2000)).

148. *See id.* at 115–18.

149. *See id.* at 350, 378–79 (citing Lise Johnson, *International Investment Agreements and Climate Change: The Potential for Investor-State Conflicts and Possible Strategies for Minimizing It*, 39 ENVTL. L. REP. 11,147 (2009)); *see also* Ibironke T. Odumosu, *The Antinomies of the (Continued) Relevance of ICSID to*

political realities as well as complex negotiation strategies.[150] However, Condon notes that this process also represents a dissemination of the priorities of the more dominant economic power, potentially at the expense of the political process of the other contracting State(s), as well as the principle of sovereign control over their own natural resources.[151]

In the context of an investment treaty that includes such provisions, Condon argues that certain investors, such as those "who establish forest preserves and nature sanctuaries,"[152] could bring claims against the host country should it fail to effectively enforce its own environmental laws or the obligations established under the designated MEAs.[153] The *Peter A. Allard v. Government of Barbados* arbitration provides an example of an attempt by an investor to bring such a claim.[154] In that case, a Canadian investor developed an eco-tourism site in Barbados.[155] The investor then claimed that Barbados violated its obligations under the bilateral investment agreement with Canada by failing to meet its international obligations under the Convention on Biological Diversity[156] ("CBD") and the Convention on Wetlands of International Importance,[157] as well as its domestic obligations under the Barbados Marine Pollution Control Act.[158] The investor

the Third World, 8 SAN DIEGO INT'L L.J. 345, 373–74 (2007) (arguing that because international investment dispute resolution impacts environmental protection and human rights in addition to economic development, the process should take these multiple and diverse interests into account).

150. *See* Condon, *supra* note 28, at 128–43 (reviewing negotiation theory in the context of FTAs).

151. *Id.* at 119–21. For an articulation of the principle of sovereign control over a country's own natural resources, see U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, Principle 2, U.N. Doc. A/CONF.151/26 (Vol. I) (Aug. 12, 1992).

152. Condon, *supra* note 28, at 126.

153. *Id.* at 125. For a fuller discussion of the impacts of investment-protection arbitration on biodiversity, see *supra* Part II.

154. *Id.* at 125.

155. Allard v. Gov't of Barbados, PCA Case No. 2012-06, Notice of Dispute, ¶¶ 1–5 (Perm. Ct. Arb. 2009), https://www.italaw.com/sites/default/files/case-documents/italaw7972.pdf [https://perma.cc/3NJ5-FHYC].

156. *See generally* Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79.

157. *See generally* Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Feb. 2, 1971, T.I.A.S. No. 11084, 996 U.N.T.S. 245.

158. *Allard*, PCA Case No. 2012-06, Notice of Dispute, at ¶13.

alleged that Barbados failed to provide "full protection and security" as well as "fair and equitable treatment," as required under the agreement, and that Barbados had indirectly expropriated the investment.[159]

The United Nations Commission on International Trade Law tribunal first found that the government of Barbados had not caused any of the alleged environmental degradation,[160] meaning that the investor could not succeed on the indirect expropriation claim.[161] The tribunal also dismissed the fair and equitable treatment claim for lack of reliance by the investor on any specific representation by the government of Barbados,[162] and found that the investor "failed to establish that Barbados violated its obligations of the [full protection and security] standard."[163] Although the investor had originally sought approximately $34 million for these alleged violations,[164] the tribunal ultimately found against the investor, who was required to pay over $3 million in costs.[165] While this case clearly does not provide a model for leveraging investment agreements to force contracting parties to comply with their international and domestic biodiversity protection obligations, it remains possible that other claims brought under the various free trade and investment agreements that refer to such obligations may prove more effective in doing so.

1. United States-Peru Free Trade Agreement

The US-Peru FTA[166] provides an interesting example of an agreement which incorporates both domestic and international environmental law requirements with respect to logging. Peru's forests are home to many valuable hardwoods, including cedar and

159. *Id.* at ¶¶ 14, 16, 19.

160. Allard v. Gov't of Barbados, PCA Case No. 2012-06, Award, at ¶ 166 (Perm. Ct. Arb. 2016), https://www.italaw.com/sites/default/files/case-documents/italaw7594.pdf [https://perma.cc/4HVG-2RCW].

161. *Id.* at ¶ 265.

162. *Id.* at ¶ 226–27.

163. *Id.* at ¶ 252.

164. *id.* at ¶ 47(c).

165. *Id.* at ¶ 316.

166. United States-Peru Trade Promotion Agreement, Peru-U.S., Apr. 12, 2006, *available at* OFF. OF THE U.S. TRADE REPRESENTATIVE https://ustr.gov/trade-agreements/free-trade-agreements/peru-tpa/final-text [https://perma.cc/9C8C-BRE2] [hereinafter Peru-US FTA].

mahogany, which are logged in high quantities and shipped around the world.[167] Unfortunately, the region suffers from widespread illegal logging, in some cases of species protected under CITES.[168] According to some reports, illegal logging might account for as much as 80% of all Peruvian production.[169] There is a forestry governance regime in place, but corruption and implementation issues have rendered the system ineffective at stemming the flow of illegal timber.[170]

In 2006, the US signed an FTA with Peru in order to eliminate trade barriers and encourage investment.[171] The FTA includes an article on biodiversity protection,[172] as well as an annex which addresses governance of the logging industry in Peru and allows the US to supervise enforcement of Peruvian law (the "Forestry Annex").[173] Under the Forestry Annex, Peru is required to take steps to actually implement and enforce CITES,[174] which it had already ratified in 1975 but had not been effectively enforcing.[175] Madison Condon argues that, "Peru eventually signed on to the 'stick' of binding and enforceable forestry measures because it was also promised the 'carrot' of liberalized trade with the United States."[176] Therefore, the US-Peru FTA and its Forestry Annex can be seen as intended to strengthen the implementation of Peru's

167. *See* Matt Finer et. al., *Logging Concessions Enable Illegal Logging Crisis in the Peruvian Amazon*, 4 SCI. REP. 1, 1 (2014) .

168. *Id.* at 1–2.

169. *See* ENVTL. INVESTIGATION AGENCY, IMPLEMENTATION AND ENFORCEMENT FAILURES IN THE US-PERU FREE TRADE AGREEMENT (FTA) ALLOWS ILLEGAL LOGGING CRISIS TO CONTINUE 1 (2015) (citing MARILYNE PEREIRA GONCALVES ET AL., WORLD BANK, JUSTICE FOR FORESTS: IMPROVING CRIMINAL JUSTICE EFFORTS TO COMBAT ILLEGAL LOGGING (2012)), https://content.eia-global.org/posts/documents/000/000/325/original/Implementation_and_Enforcement.pdf?1468593199 [https://perma.cc/E9ZY-S9AL].

170. *See* Finer et al., *supra* note 167, at 1.

171. *See generally* Peru-US FTA, *supra* note 166.

172. *See* Condon, *supra* note 28, at 111–12. The article "contains mostly weak, non-binding obligations," but it closely tracks the language of the CBD, which the US has not ratified. *Id.*

173. *See* Peru-US FTA, *supra* note 166, at Annex 18.3.4 (Annex on Forest Sector Governance).

174. Condon, *supra* note 28, at 112–13.

175. *See id.* at 113 (noting Peru "sat comfortably in noncompliance for three decades" after signing CITES in 1975); *see also List of Contracting Parties*, CITES, https://www.cites.org/eng/disc/parties/chronolo.php [https://perma.cc/2557-F4D9] (providing a list of contracting parties).

176. Condon, *supra* note 28, at 137.

freestanding international biodiversity obligations by creating a higher cost for non-compliance, i.e., trade sanctions or dispute resolution with the US.

The Forestry Annex further requires Peru to pass new logging laws and regulations, increase criminal penalties and civil liability for violations, monitor CITES-listed species, and set quotas on exports of bigleaf mahogany.[177] The Forestry Annex also allows US officials to oversee compliance of logging imports from Peru.[178] Finally, Peru was required to pass ninety-nine laws regarding forestry and land ownership to meet its environmental obligations under the FTA, a few of which were ultimately repealed in response to violent protests.[179]

Since implementation began in 2009, the Forestry Annex has been criticized as actually enabling increased illegal logging in Peru,[180] and falsification of documentation remains ongoing.[181] According to the Environmental Investigation Agency, although the Forestry Annex contains "laudable and innovative" obligations, lack of implementation and enforcement has rendered them ineffective.[182] For example, while the Forestry Annex requires Peru to perform detailed audits at least every five years, none had been done by 2015.[183] Furthermore, at least through June 2015 "no one, in either Peru or the US, [had] been held accountable for well-documented illegalities."[184] However, in October of 2017, for the first time, the Office of the United States Trade Representative announced that it was taking steps to bar imports from a certain Peruvian exporter whom the Peruvian authorities had earlier found to be in violation of the relevant laws and regulations.[185]

177. Peru-US FTA, *supra* note 166, at Annex 18.3.4(b)–(f); Condon, *supra* note 28, at 112 (explaining that the Forestry Annex is also subject to the dispute settlement system established under the FTA).

178. Condon, *supra* note 28, at 112.

179. *Id.* at 113–14. Some activists also criticized the laws as potentially making it easier "for indigenous groups to sell off their lands for the establishment of biofuel plantations." *Id.* at 113.

180. *See* Finer et al., *supra* note 167, at 1; *see generally* ENVTL. INVESTIGATION AGENCY, *supra* note 169.

181. ENVTL. INVESTIGATION AGENCY, *supra* note 169, at 1.

182. *Id.*

183. *Id.* at 8.

184. *Id.* at 2.

185. *USTR Announces Unprecedented Action to Block Illegal Timber Imports from Peru*, OFF. OF THE U.S. TRADE REPRESENTATIVE (Oct. 19, 2017),

Therefore, while in theory the US-Peru FTA should incentivize Peru to come into compliance with its obligations under CITES, as well as the additional independent obligations established under the Forestry Annex, in practice it has not yet been entirely effective in accomplishing either. Nevertheless, the action recently taken by the US Trade Representative may be a signal that the US will take a stronger stance on enforcement of Peru's obligations under the Forestry Annex. This may provide the necessary push for Peru to ensure that it comes into compliance.

IV. BIODIVERSITY AS INTELLECTUAL PROPERTY

In addition to impacting biodiversity through investment and trade protection arbitrations, and through addressing biodiversity qua biodiversity in side agreements and environmental chapters, some agreements also regulate biodiversity as a form of intellectual property ("IP").[186] On the one hand, biodiversity can simply be exchanged for profit as if it were a commodity.[187] However, through the biotech industry, it has also become possible to turn biodiversity into "genetic gold" through such products as medicines, enhanced crops, and chemicals.[188] This process often relies upon national or regional IP regimes, which in some cases apply to genetic resources.[189] In many cases though, these laws violate the access requirements of the CBD.[190] Thus, Andreas

https://ustr.gov/about-us/policy-offices/press-office/press-releases/2017/october/ustr-announces-unprecedented-action [https://perma.cc/W3FC-UMQ4].

186. *See, e.g.*, CPTPP, *supra* note 87, at ch. 18.

187. Andreas Kotsakis, *Change and Subjectivity in International Environmental Law: The Micro-Politics of the Transformation of Biodiversity into Genetic Gold*, 3 TRANSNAT'L ENVTL. L. 127, 134 (2013).

188. *See id.* at 130–33.

189. *See id.* at 142 (arguing that biodiversity can have asset rather than commodity value, similar to a patent, under the right regulatory framework).

190. *Id.* at 142 n.93 (citing Article 15(2) of the CBD as an example: "Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources . . . and not to impose restrictions that run counter to the objectives of the [CBD]."). The CBD also includes provisions on access and benefit sharing for genetic resources. This can be used as a tool either to fight against IP rights, or to "obtain favorable terms for commercial exploitation." Sam F. Halabi, *International Intellectual Property Shelters*, 90 TUL. L. REV. 903, 947–48 (2016).

Kotsakis has argued that, unsurprisingly, "the market rationality of genetic gold won over the formal legal discourse of the CBD."[191]

It is often the case that stronger IP standards are established in developing countries at the behest of more developed countries through international FTAs.[192] This can have the effect of creating tensions among the world's wealthiest nations and developing countries.[193] Keith Maskus and Jerome Reichman have argued that this "could raise fundamental roadblocks for the national and global provision of numerous . . . public goods, including scientific research, education, health care, *biodiversity*, and environmental protection."[194] This Part thus briefly looks at some of the ways that biodiversity is regulated as a form of IP, and its interactions with investment and free trade agreements.

A. The Agreement on Trade-Related Aspects of Intellectual Property Rights

Under the auspices of the WTO, the Agreement on Trade-Related Aspects of Intellectual Property Rights[195] ("TRIPS") establishes baseline free trade and protection obligations for the member countries.[196] Although biotechnology inventions would generally be subject to the patent requirements of the agreement,[197] TRIPS also provides that the contracting parties may "exclude from patentability . . . plants and animals other than

191. Kotsakis, *supra* note 187, at 143.

192. Keith E. Maskus & Jerome H. Reichman, *The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods*, 7 J. OF INT'L ECON. L. 279, 281 (2005).

193. Halabi, *supra* note 190, at 922–23. It can also have the effect of raising prices of the ultimate products such that many consumers in the developing countries are unable to afford them. *Id.* Low- and middle-income states have begun to push back against the international IP regimes, and have sought specific agricultural IP protections. *Id.* at 937–39.

194. Reichman & Maskus, *supra* note 192, at 283 (emphasis added)*; see also* Halabi, *supra* note 190, at 930 (noting that IP protections have undermined the ability of developing states to provide for certain public goods, including the traditional preservation of natural resources).

195. *See generally* Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS].

196. *See* Aman Gebru, *The Global Protection of Traditional Knowledge: Searching for the Minimum Consensus*, 17 J. MARSHALL REV. INTELL. PROP. L. 42, 58 (2017).

197. *See* TRIPS, *supra* note 195, at art. 27.1.

micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes."[198] However, the contracting parties must "provide for the protection of plant varieties either by patents or by an effective *sui generis* system,"[199] such as the International Union for the Protection of New Varieties of Plants ("UPOV").[200]

1. International Convention for the Protection of New Varieties of Plants

UPOV is an intergovernmental organization which aims to promote the development of new plant varieties and provide IP protection for them.[201] The most recent UPOV convention, signed in 1991, establishes that the breeder of a uniform, distinct, stable, and new plant variety must first provide authorization for another party to take certain actions such as selling or trading the plant, or producing it.[202] Thus, under the UPOV system, the breeder holds IP rights over the new variety for a certain time frame.

However, the United Nations Women entity has found that this protection can also preclude local rural community members, especially women, from sharing seeds as a matter of "ensuring sustainability, resilience, and biodiversity, and reducing input costs."[203] This can be the case even where those plant varieties have been used by the local community for many years prior to the granting of IP rights to foreign companies.[204] In many cases, these women possess local knowledge and engage in traditional practices

198. *Id.* at art. 27.3(b).

199. *Id.*

200. *See* Halabi, *supra* note 190, at 930.

201. *See International Convention for the Protection of New Varieties of Plants (UPOV)*, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/ip-policy/patent-policy/international-convention-protection-new-varieties-plants-upov
[https://perma.cc/XYM8-UN8R] (last modified Jan. 8, 2019).

202. *See id.*

203. Rep. of the Expert Group Meeting on the CSW 62 Priority Theme: Challenges and Opportunities in Achieving Gender Equality and the Empowerment of Rural Women and Girls, at 12, U.N. Doc. EGM/RWG/Report (Sept. 20–22, 2017).

204. *Id.* at 13. The report cites the historical medicinal use of *pueraria mirifica* by women in northern Thailand as an example of a plant that has now been patented by a foreign country. This patent may curtail the traditional use of the plant. *Id.*

which are vital for maintaining the resilience and production of the crop.[205] While the 1991 UPOV convention does provide an exception for "small landholders who grow subsistence crops," this could disproportionately impact women, since proof of secure landholdings is required.[206] Thus, although the UPOV system is designed to protect IP rights with respect to new plant varieties, it can be used to exclude local communities from using or sharing the variety and may fail to consider traditional local knowledge and practices for maintaining the plant, which in some cases go back generations.[207]

B. Traditional Knowledge

Traditional knowledge of indigenous communities is often important for preserving and extracting value from biodiversity,[208] especially with respect to the genetic resources of plants.[209] Although various MEAs such as the CBD and the Nagoya Protocol[210] address and protect traditional knowledge,[211] it is not recognized under TRIPS.[212] However, according to Aman Gebru, there is an increasing recent trend to include provisions on

205. *Id.* at 11.

206. *Id.* at 13.

207. Another example of a treaty which impacts crop biodiversity is the International Treaty on Plant Genetic Resources for Food and Agriculture. That treaty "recognizes farmers' rights" and "creates a multilateral system for access and benefit sharing." Halabi, *supra* note 190, at 950.

208. Gebru, *supra* note 196, at 49.

209. *Id.* at 57.

210. *See generally* Nagoya Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising from their Utilization, Oct. 29, 2010, UNEP/CBD/COP/DEC/X/1.

211. Gebru, *supra* note 196, at 56–57. The CBD includes aspirational provisions on the protection of traditional knowledge. The Nagoya Protocol establishes binding obligations regarding access and benefit sharing by requiring compliance checkpoints and domestic remedies, as well as the prior informed consent of knowledge providers and benefit sharing. *Id.* at 56–57. The Nagoya Protocol also "aimed to encompass the broader universe of drugs, medical therapies, agrochemical products, vaccines, and other products derived from genetic resources not regulated by other international instruments . . . [by] regulat[ing] access to genetic resources in party states . . . ." Halabi, *supra* note 190, at 954.

212. Gebru, *supra* note 196, at 58. However, the Global South is pushing for its inclusion therein. *Id.* at 58. There is also a potential conflict as to whether TRIPS or CBD would take precedence when evaluating traditional knowledge protection measures. *Id.* at 59.

traditional knowledge protection in FTAs.[213] In contrast to other IP issues, these provisions are generally sought by developing countries rather than developed countries, who usually opt for more aspirational language.[214] One such example is the TPP, which provides aspirational provisions in Articles 18 and 20.[215] The US-Peru FTA also includes an agreement on biodiversity and traditional knowledge which includes aspirational language addressing obtaining prior informed consent, equitable benefit sharing, patent examination, and access to information.[216]

V. CONCLUSION

It has been seen that investment and free trade agreements interact with biodiversity in a variety of sometimes conflicting manners. Firstly, investors and trade partners can use the dispute resolutions systems established under the agreements to protect their economic interests, including potentially at the expense of the contracting parties' biodiversity conservation measures. However, in many of these agreements there are certain public interest exceptions that may be used in order to defend those protection measures, if properly crafted. Secondly, investment and free trade agreements increasingly are expressly addressing biodiversity conservation objectives in the text of the agreements themselves, thereby creating binding obligations for the parties to enforce their own environmental and biodiversity protection laws. Furthermore, many agreements also reference the obligations established by MEAs as similarly enforceable obligations. Finally, investment and free trade agreements can also regulate biodiversity as a form of IP, with various ensuing interactions with other multilateral agreements and systems, such as UPOV.

In many of the examples analyzed in this Article, economic considerations prove to outweigh more purely conservationist concerns when the two conflict in the context of these agreements. However, this Article is not an exhaustive overview of the various

213. *Id.* at 84.

214. *Id.* at 84–86.

215. *See id.* at 86–90.

216. *See* Understanding Regarding Biodiversity and Traditional Knowledge, Peru-U.S., Apr. 12, 2006, *available at* https://ustr.gov/sites/default/files/uploads/agreements/fta/peru/asset_upload_file719_9535.pdf [https://perma.cc/C6E2-2FP4].

interactions under investment and free trade agreements, and thus it is impossible to draw definitive empirical conclusions herein regarding whether these agreements generally promote or hinder biodiversity conservation. One pattern that may be gleaned, however, is that over time these agreements have become more explicitly conscious of these inherent interactions, and the parties often seek to draw an appropriate balance between expansion of free trade and investment on the one hand, and their obligations to promote and protect biodiversity on the other. This is the case both where those obligations arise under domestic or international law, or are even established as freestanding under the agreement itself.