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Compliance with the Ozone Treaty: Weak States and the Principle of Common but Differentiated Responsibility

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COMMENT

COMPLIANCE WITH THE OZONE TREATY: WEAK STATES AND THE PRINCIPLE OF COMMON BUT DIFFERENTIATED RESPONSIBILITY

NINA E. BAFUNDO*

INTRODUCTION	462
I. BACKGROUND	467
A. THE PRINCIPLE OF COMMON BUT DIFFERENTIATED RESPONSIBILITY	467
B. THE DEVELOPMENT OF THE MONTREAL PROTOCOL AND THE INCORPORATION OF CDR	469
C. COMPLIANCE THEORIES OF INTERNATIONAL ENVIRONMENTAL LAW AND THE STRUCTURE OF THE MONTREAL PROTOCOL	471
1. <i>Compliance and Why Scholars Consider It Important</i>	471
2. <i>Enforcement Strategies to Encourage Compliance</i>	473
3. <i>The Montreal Protocol's Progressive Structure</i>	475
D. WEAK STATES AND THE REALITY OF THE INTERNATIONAL COMMUNITY	476
E. WEAK STATES' NONCOMPLIANCE WITH THE MONTREAL PROTOCOL	477

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II. ANALYSIS.....	479
A. THE DISCONNECT BETWEEN MODERN COMPLIANCE THEORY AND WEAK STATES	479
B. ARTICLE 5'S GRACE PERIOD AND ITS CONTRIBUTION TO THE BLACK MARKET	481
1. <i>The CEITs as Proof of the Importance of Correctly Adjudging a State's Capacity and Administering Obligations Accordingly</i>	482
2. <i>Other Weak States as Breeding Grounds for ODS Trafficking</i>	484
C. WEAK STATES OFTEN FAIL TO MEET ARTICLE 7'S REPORTING REQUIREMENTS	485
D. ARTICLE 10'S COMPLIANCE ASSISTANCE PROVISIONS ARE INSUFFICIENT TO INDUCE COMPLIANCE.....	487
E. THE APPLICATION OF THE FORMAL NONCOMPLIANCE PROCEDURE (NCP) IS TOO LAX ON WEAK STATES	488
III. RECOMMENDATIONS.....	490
A. TACKLE THE BLACK MARKET WITH POSITIVE AND NEGATIVE ENFORCEMENT	490
B. DESIGN CAPACITY-BUILDING PROVISIONS FOR WEAK STATES	492
C. USE ALL OPTIONS UNDER THE NCP	493
CONCLUSION	494

INTRODUCTION

Despite international law's fundamental principle of sovereign equality, which treats all states equally regardless of their size or power, international environmental law distinguishes among states through the principle of "common but differentiated responsibility" ("CDR").¹ CDR seeks global solutions for global environmental

1. See PATRICIA BIRNIE & ALAN BOYLE, INTERNATIONAL LAW AND THE ENVIRONMENT 1-2 (2d ed. 2002) (explaining that although international environmental law is not its own discipline, but rather a subsection of international law, environmental concerns are considerable enough to warrant a body of law more specifically aimed at protecting the environment, such as the principle of CDR); see also Daniel Bodansky, *The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?*, 93 AM. J. INT'L L. 596,

concerns by considering states' differentiated degrees of responsibility for causing these problems and their divergent capacities to redress them.² Through multilateral environmental agreements ("MEAs"), international environmental law implements CDR with more lenient obligations for economically disadvantaged states.³

The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer ("Montreal Protocol") is one of the first MEAs to incorporate CDR into its provisions by administering different obligations for developed and developing states.⁴ The Montreal Protocol responds to

615 (1999) (defining the principle of sovereign equality, a basic tenet of traditional international law, as a transposition of individual liberalism to inter-state relations where states, like individuals, are free and equal in a state of nature). This principle justifies international legal rules like "one state, one vote." *Id.*

2. See Christopher D. Stone, *Common but Differentiated Responsibilities in International Law*, 98 AM. J. INT'L L. 276, 276-81 (2004) (describing all elements of CDR and noting that because richer countries have contributed more to environmental degradation, they share a greater burden for finding solutions); Michael Weisslitz, Comment, *Rethinking the Equitable Principle of Common but Differentiated Responsibility: Differential Versus Absolute Norms of Compliance and Contribution in the Global Climate Change Context*, 13 COLO. J. INT'L ENVTL. L. & POL'Y 473, 473-78 (2002) (defining CDR in the context of global warming and finding that CDR places much emphasis on socio-economic realities of the world).

3. See, e.g., United Nations Convention on the Law of the Sea pmbl., Dec. 10, 1982, 1833 U.N.T.S. 397, 398 (noting that developing countries have "special interests and needs," and that the Convention is drafted with particular regard to these special interests and needs).

4. Montreal Protocol on Substances that Deplete the Ozone Layer art. 5, Sept. 16, 1987, S. TREATY DOC. No. 100-10 (1987), 1522 U.N.T.S. 29, 34 [hereinafter Montreal Protocol] (defining a developing country as a party whose annual level of consumption of the prohibited controlled substances is less than 0.3 kilograms per capita and granting these countries the right to delay for ten years compliance with certain provisions in the Protocol); see also Copenhagen Adjustments and Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, Nov. 25, 1992, 32 I.L.M. 874 (introducing control measures for three new chemicals, as listed in Annex C, Groups 1 and 2 and E, Group 1); London Adjustments and Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, art. 10, June 29, 1990, 30 I.L.M. 537, 550-51 [hereinafter London Amendments] (establishing the financial mechanism for developed countries to provide financial and technical assistance to developing countries); U.N. Env't Programme [EP], *Report of the Eleventh Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, annex 5, U.N. Doc. UNEP/OzL.Pro.11/10 (Dec. 17, 1999) (establishing control measures for substances in Annex C, Groups 1 and 3, and imposing restrictions on

depletion of the ozone layer and regulates the use of ozone-depleting substances ("ODS") around the world.⁵

To assist developing countries, the Montreal Protocol grants a ten-year grace period during which such countries may delay compliance with the Montreal Protocol's control measures of ODS.⁶ The Protocol also stipulates that developed states must help developing ones comply through technical assistance and a sophisticated funding mechanism called the Multilateral Fund.⁷

Many international legal scholars hail the Montreal Protocol as one of the most effective MEAs to date because it boasts near universal participation, and scientific studies show that it has contributed to the recovery of the ozone layer.⁸ However, despite the

trade with non-parties); U.N. EP, *Report of the Ninth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, annex IV, U.N. Doc. UNEP/OzL.Pro.9/12 (Sept. 25, 1997) [hereinafter *Montreal Amendments*] (requiring licensing systems to control trade in ozone-depleting substances); Stone, *supra* note 2, at 279 (citing the Montreal Protocol as one of the first treaties to incorporate the concept of CDR without using the term in its provisions). For a compilation of an up-to-date version of the Montreal Protocol as adjusted and amended, see OZONE SECRETARIAT, U.N. EP, *THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER* (2000), <http://www.unep.org/ozone/Montreal-Protocol/Montreal-Protocol2000.shtml>.

5. Montreal Protocol, *supra* note 4, pmbl., 1522 U.N.T.S. at 29-30 (committing the parties to the ultimate goal of a complete phase-out of ODS); *see also* U.S. Environmental Protection Agency, Ozone, <http://www.epa.gov/epahome/ozone.htm> (last visited Jan. 14, 2006) (explaining the science of the ozone layer, and distinguishing the positive types of ozone from the detrimental types). In the troposphere, the air closest to the Earth's surface is the "bad" ozone—it is a pollutant that poses a significant health risk to people with respiratory diseases and harms plant life. *Id.* In the stratosphere, the "good" ozone layer extends upward from about six to thirty miles and protects the Earth from the sun's harmful ultraviolet ("UV") rays. *Id.* This second type of ozone is the ozone with which the Montreal Protocol concerns itself. *Id.*

6. London Amendments, *supra* note 4, art. 5, 30 I.L.M. at 547 (obligating developed countries to freeze their consumption of chlorofluorocarbons ("CFCs"), the most common type of ODS, ten years before developing countries).

7. *Id.* art. 10, 30 I.L.M. at 550.

8. *See, e.g.*, K. Madhava Sarma, *Compliance with the Montreal Protocol*, in *MAKING LAW WORK: ENVIRONMENTAL COMPLIANCE AND SUSTAINABLE DEVELOPMENT* 307 (Durwood Zaelke et al. eds., 2005) (reporting that the overall consumption of the primary ozone-depleting substance, CFCs, has fallen from 1.1 million tons in 1986 to 92,000 tons in 2002, and is still declining); *see also* Marsha Walton, *Ozone Layer Making a Recovery*, CNN, Sept. 2, 2005, <http://www.cnn>.

Protocol's successes, some developing states, particularly the weak ones, are in danger of not fulfilling their obligations under the Protocol.⁹ A weak state is one that lacks healthy economic, social, and political development, and these features lead to internal instability in all facets of society.¹⁰

Noncompliance issues with the Protocol include the growth of a black market in regulated ODS, failure to report national ODS use, and the inability to meet targets and timetables for controlled ODS following the grace period.¹¹ Weak states are particularly susceptible to noncompliance, because they are states where rule of law, infrastructure, and/or administrative capacity are inadequate.¹² Without full compliance with this agreement by all states, including

com/2005/TECH/science/09/02/ozonerecovery/ (reporting that the rate of the ozone layer's decline is decreasing steadily, with actual increases in the ozone layer in some parts of the world); U.N. Dev. Programme, *The Montreal Protocol, Phase Out Targets*, <http://www.undp.org/montrealprotocol/montreal.htm> (last visited Jan. 14, 2006) [hereinafter *Phase Out Targets*] (noting that as of September 2002, 183 countries have ratified the Protocol).

9. See, e.g., Elizabeth R. DeSombre, *The Experience of the Montreal Protocol: Particularly Remarkable, and Remarkably Particular*, 19 UCLA J. ENVTL. L. & POL'Y 49, 51-52 (2000) (fearing that the structure of the Protocol, with its more lenient provisions for developing states, make the agreement enticing to these states even though they may not be able to develop the capacity to comply).

10. See Jim Lobe, *Weak States Are "Sleeping Giants" for US Security* (June 9, 2004), <http://www.antiwar.com/lobe/?articleid=2774> (identifying weak states as those whose unstable institutions threaten the overall functioning and development of the country).

11. See ERIC NEUMAYER, *MULTILATERAL ENVIRONMENTAL AGREEMENTS, TRADE AND DEVELOPMENT: ISSUES AND POLICY OPTIONS CONCERNING COMPLIANCE AND ENFORCEMENT* 42 (2001), <http://www.lse.ac.uk/collections/geographyAndEnvironment/whosWho/profiles/neumayer/pdf/CUTS.pdf>.

12. See generally Robert I. Rotberg, *Failed States, Collapsed States, Weak States: Causes and Indicators*, in *STATE FAILURE AND STATE WEAKNESS IN A TIME OF TERROR* 3-5 (Robert I. Rotberg ed., 2003) (explaining that weak states typically fail their citizens' expectations of a competent government). However ineffective as weak states may be, they differ from failing states, which are deeply conflicted and marked by bitter violence. *Id.* at 5. North Korea, Belarus, Iraq, and Libya are examples of weak states, and failed states include Afghanistan, the Congo, and Sudan. *Id.* at 5, 10.

those that are weak, the risk of the ozone not replenishing itself is great.¹³

This Comment argues that the Montreal Protocol's incorporation of CDR is inadequate because the concepts of "developed" and "developing" states do not reflect the complicated nature of the international political system. Part I details how the Montreal Protocol incorporates CDR into its provisions. Part I then examines the current progressive compliance theories of international environmental law underlying the Montreal Protocol. Next, Part I defines weak states and the reality of the international political system. Finally, Part I highlights the specific difficulties that the Protocol faces today regarding weak states.

Part II analyzes the Montreal Protocol's structure and argues that its encouragement-based approach is insufficient to induce weak states into compliance.¹⁴ Part II also focuses on how weak states may exploit Article 5's grace period for developing states to contribute to the already thriving black market in ODS. Part II then examines how Article 10's compliance assistance mechanisms, the Multilateral Fund and technology transfer provision, cannot ensure weak state compliance with the Protocol. Part II concludes that parties' interpretation of the existing noncompliance procedure relies too heavily on the positive incentive approach to stimulate weak states into action. Lastly, Part III argues that parties can strengthen the Protocol by understanding weak state behavior, and by combining both a positive and negative incentive structure to target the compliance of weak states.

13. See DeSombre, *supra* note 9, at 51 (noting that the Friends of the Earth, an environmental organization, admitted that none of its scientific models predicting the recovery of the ozone layer took into account illegal trade and other noncompliance).

14. See discussion *infra* Part II.A (explaining that the modern compliance theory rests on the rational actor model, but weak states do not always behave rationally).

I. BACKGROUND

A. THE PRINCIPLE OF COMMON BUT DIFFERENTIATED RESPONSIBILITY

CDR seeks to remedy global environmental problems with participation from all corners of the world. "Common" suggests that global concerns, like ozone depletion, affect every country.¹⁵ "Responsibility" is "differentiated," or administered in distinct ways among developed and developing countries to address these concerns.¹⁶ CDR presumes that developed, industrialized countries are disproportionately responsible for creating global environmental problems, and thus they should take the lead in finding solutions.¹⁷ Further, because developing countries are unable to contribute financially to a global solution, the international community holds them to a much lesser degree of responsibility.¹⁸ However, CDR appreciates the importance of including developing countries in the search for solutions, because as their economies grow and industrialize, developing countries may cause massive environmental damage in the future.¹⁹

15. See Stone, *supra* note 2, at 276 (noting that serious environmental issues, like ozone depletion and global warming, have no geographic boundaries).

16. See Weisslitz, *supra* note 2, at 476 (differentiating between states to determine their degree of responsibility and find the most efficient solutions).

17. See *Proceedings of the Ninety-Sixth Annual Meeting of the American Society of International Law, Common but Differentiated Responsibility*, 96 AM. SOC'Y INT'L L. PROC. 358, 358 (2002) [hereinafter ASIL Proceedings 2002] (remarks of Christopher C. Joyner) (applying the concept of CDR to the international community's effort to deal with greenhouse gas emissions and climate change). Industrialized countries are responsible for the majority of these emissions, and thus the 1992 U.N. Framework Convention on Climate Change excludes poorer, developing countries from binding emissions reductions requirements. *Id.*

18. See Weisslitz, *supra* note 2, at 476 (noting that it is fair to hold developing countries less culpable because modern, industrialized economies are largely the culprit and have the resources to combat it).

19. See Duncan French, *Developing States and International Environmental Law: The Importance of Differentiated Responsibilities*, 49 INT'L & COMP. L.Q. 35, 50 (2000) (reporting that developing countries have about four-fifths of the global population and large areas of their land masses not yet industrialized).

Even though use of the phrase “CDR” is recent, the principle of differentiated responsibility has evolved over a number of years in international law.²⁰ The 1972 Stockholm Declaration of the U.N. Conference on the Human Environment cemented international environmental law as the premiere area of law giving credence to CDR, and recognized the need to protect the environment for present and future generations, without stifling economic growth.²¹ Twenty years later, in one of the most prominent applications of CDR, Principle 7 of the Rio Declaration on the Environment and Development explicitly stated for the first time that states “have common but differentiated responsibilities.”²² Since then, several MEAs incorporated CDR into their provisions, most notably the Montreal Protocol and the U.N. Framework Convention on Climate Change.²³

20. See Stone, *supra* note 2, at 278; see also General Agreement on Tariffs and Trade art. 18, Oct. 30, 1947, 61 Stat. A11, 55 U.N.T.S. 187, 252 (giving special consideration to “contracting parties . . . the economies of which can only support low standards of living and are in the early stages of development”); Constitution of the International Labour Organisation art. 427, June 28, 1919, 49 Stat. 2712, 2733-34, 225 Consol. T.S. 188, 385 (stating that differences of “economic opportunity” make it unlikely that all states would be able to adhere to universal labor standards immediately).

21. Conference on the Human Environment, June 5-16, 1972, *Report of the U.N. Conference on the Human Environment, Declaration of the United Nations Conference on the Human Environment*, princ. 9, U.N. Doc. A/Conf.48/14/Rev.1 (Jan. 1, 1973) (taking into account developing countries’ special economic situations and pledging to give them financial and technical assistance in making environmentally sound choices); see also Stone, *supra* note 2, at 279 (describing the environment as the “most fertile field for nonuniform obligations”); Weisslitz, *supra* note 2, at 480-81 (highlighting developing countries’ concern that prioritizing environmental issues over economic growth would stifle and impair their fragile economies).

22. See U.N. Conference on Environment and Development, June 3-14, 1992, *Report of the U.N. Conference on Environment and Development, Rio Declaration on Environment and Development*, princ. 7, U.N. Doc. A/Conf.151/26/Rev.1 (Jan. 1, 1993) (recognizing that developed countries have contributed more to the source of global environmental concerns and acknowledging that the responsibility lies with them to lead the pursuit for solutions).

23. Compare Framework Convention on Climate Change art. 3, May 9, 1992, S. TREATY DOC. NO. 102-38 (1992), 1771 U.N.T.S. 165, 169 (adopting the phrase CDR and declaring that parties should protect the climate system “in accordance with their common but differentiated responsibilities and respective capabilities”), with Montreal Protocol, *supra* note 4, art. 5, 1522 U.N.T.S. at 34 (applying the

B. THE DEVELOPMENT OF THE MONTREAL PROTOCOL AND THE INCORPORATION OF CDR

In the early 1970s, scientists first theorized that emissions of nitrogen oxides, or halocarbons, could reach and damage the stratosphere ten to fifteen kilometers above the earth's surface.²⁴ This layer protects the earth and its inhabitants from excessive ultraviolet ("UV") radiation, which can increase the incidence of skin cancer and cataracts, harm the body's immune system, and diminish the value of plant and food crops.²⁵

In 1977, the U.N. Environment Programme ("UNEP") established a committee for further study of the ozone problem and initiated diplomatic discussions to explore solutions.²⁶ The initial result of these discussions was the Vienna Convention for the Protection of the Ozone Layer in 1985.²⁷ However, the Vienna Convention was only a framework convention, providing for further Protocols to address ozone depletion.²⁸ The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer was the final product of these diplomatic efforts.²⁹

principle without explicitly using the phrase by requiring developed countries to halt production of CFCs ten years before developing countries), *and* Convention on Biological Diversity art. 20(7), June 5, 1992, 1760 U.N.T.S. 143, 156 (giving "consideration . . . to the special situation of developing countries").

24. See Sarma, *supra* note 8, at 293-94 (noting that despite the damage halocarbons—first invented in 1928—could cause, they were useful because of their long life and diverse functions in many industries, such as refrigeration, air conditioning, metal cleaning, and fire fighting).

25. See U.N. Dev. Programme, Ozone Problem, <http://www.undp.org/montrealprotocol/ozone.htm> (last visited Jan. 14, 2006) (noting that since CFCs and other ODS can stay in the earth's atmosphere for as long as one hundred years, the threat to the ozone layer is ongoing, even after humans discontinue their use of CFCs).

26. See Sarma, *supra* note 8, at 294 (reporting that to foster these efforts, the UNEP started the Coordinating Committee on the Ozone Layer).

27. Vienna Convention for the Protection of the Ozone Layer pmbl., Mar. 22, 1985, T.I.A.S. No. 11,097, 1513 U.N.T.S. 324, 325 (recognizing the need to conduct more research of the ozone layer in furtherance of its determination to protect humans from the ozone layer's adverse effects).

28. See *id.* art. 8, 1513 U.N.T.S. at 329.

29. Montreal Protocol, *supra* note 4, pmbl., 1522 U.N.T.S. at 29; see also Sarma, *supra* note 8, at 294 (describing the Protocol's unique initial structure, in

The Montreal Protocol was one of the first MEAs to incorporate CDR through its differential treatment of developed and developing countries.³⁰ Although the Protocol does not explicitly use the phrase “common but differentiated responsibility,” it includes a number of CDR provisions.³¹ Article 5 famously gives developing countries, the “Article 5 Countries” (“A5Cs”), a ten-year grace period to comply with the treaty.³² Article 9 mandates that parties cooperate in promoting “research, development, and exchange of [scientific] information.”³³ Article 10 provides for a financial mechanism, to which developed countries must contribute to fund implementation projects in the developing world.³⁴ Moreover, Article 10A mandates parties to transfer available substitutes and technologies for ODS to developing countries.³⁵

which it listed only eight ODS and prescribed mild control measures, but did so by allowing adjustments and amendments for new technological and scientific developments).

30. See ASIL Proceedings 2002, *supra* note 17, at 361 (remarks of Susan Biniaz) (describing the Montreal Protocol as “an excellent example of an instrument that came before the articulation of any principle [of CDR]”).

31. See Sarma, *supra* note 8, at 308 (noting that the drafters of the Protocol recognized that over eighty-five percent of the world’s consumption of ODS comes from developed states, so they should bear the brunt of the remedy).

32. London Amendments, *supra* note 4, art. 5, 30 I.L.M. at 547 (requiring developed countries to halt production of CFCs in 1996, while giving developing countries until 2002 to eliminate fifty percent of CFC use, 2007 to eliminate eighty-five percent, and 2010 for complete phase-out).

33. *Id.* art. 9, 30 I.L.M. at 549 (obligating exchange of information because the Protocol takes into account “the needs of developing countries”).

34. *Id.* art. 10, 30 I.L.M. at 549-50 (establishing the Multilateral Fund and an Executive Committee to oversee the implementation and distribution of the fund for phase-out projects); see also Multilateral Fund for the Implementation of the Montreal Protocol, Institutional Arrangements, http://www.multilateralfund.org/institutional_arrangements.htm (last visited Jan. 14, 2006) (noting that the seven A5Cs and seven non-A5Cs comprise the Executive Committee, but the daily operations are carried out by the Montreal Protocol Secretariat).

35. London Amendments, *supra* note 4, art. 10A, 30 I.L.M. at 550 (stating that such transfers “occur under fair and most favourable conditions”).

C. COMPLIANCE THEORIES OF INTERNATIONAL ENVIRONMENTAL LAW AND THE STRUCTURE OF THE MONTREAL PROTOCOL

1. Compliance and Why Scholars Consider It Important

Today more than nine hundred international legal instruments either involve or contain important provisions regarding the environment.³⁶ The international community intends for MEAs to influence the behavior of both state and many non-state actors through provisions that carry substantial costs to these actors.³⁷ Although the principle *pacta sunt servanda* requires all parties to a treaty to comply in good faith, noncompliance with MEAs is common.³⁸ Such noncompliance with treaty obligations diminishes the value of well-drafted legal instruments.³⁹

“Compliance” measures the behavior of the targeted actors of an agreement,⁴⁰ focusing on whether a state complies with

36. Edith Brown Weiss & Harold K. Jacobson, *Strengthening National Compliance with International Environmental Agreements*, in MAKING LAW WORK: ENVIRONMENTAL COMPLIANCE AND SUSTAINABLE DEVELOPMENT, *supra* note 8, at 179, 179 (remarking that most of these instruments are legally binding, and as such, they are the international law’s primary means of effecting state behavior).

37. *See id.*

38. *See* Kal Raustiala, *Reporting and Review Institutions in 10 Multilateral Environmental Agreements*, in MAKING LAW WORK: ENVIRONMENTAL COMPLIANCE AND SUSTAINABLE DEVELOPMENT, *supra* note 8, at 233, 233 (observing a wide gap between the law of treaties and state behavior); *see also* Birnie & Boyle, *supra* note 1, at 13 (translating *pacta sunt servanda* to mean “treaties are made to be kept”); Vienna Convention on the Law of Treaties pmbl., May 23, 1969, 1155 U.N.T.S. 332, 332 (noting that the principle of *pacta sunt servanda* is “universally recognized”).

39. *See* NEUMAYER, *supra* note 11, at 4 (arguing that rules “are not worth the paper they are written on if the same rules are not complied with . . .”).

40. *See Proceedings of the American Society of International Law, Compliance with International Standards: Environmental Case Studies*, 89 AM. SOC’Y INT’L L. PROC. 206, 211-12 (1995) [hereinafter ASIL Proceedings 1995] (remarks of Edith Brown Weiss) (explaining that no empirical method measures compliance, making compliance a matter of judgment); *see also* Weiss & Jacobson, *supra* note 36, at 181 (explaining that treaties are meant to target not only the behavior of states, but also many non-state actors like industries, nongovernmental organizations, and individuals).

implementing actions in practice, not just on paper.⁴¹ This is to be distinguished from the distinct concept of “effectiveness” of an agreement, which refers to whether the parties are achieving the purposes of the treaty.⁴²

Scholars maintain that the two most critical factors that affect compliance are a state's capacity and intent to meet the treaty terms.⁴³ To have the requisite capacity, states need economic resources, but equally important are a transparent bureaucracy, public support, and technical expertise.⁴⁴ State intent, which is often difficult to ascertain,⁴⁵ can prove problematic because agreement at a formal meeting may not reflect the state's national practices.⁴⁶

41. See ASIL Proceedings 1995, *supra* note 40, at 211-12 (observing that the real goal of compliance is to change the behavior of states, so that states fulfill both the letter and the spirit of treaties); see also Kal Raustiala, *Compliance and Effectiveness in International Regulatory Cooperation*, 32 CASE W. RES. J. INT'L L. 387, 392-93 (2000) (arguing that to understand compliance fully, it is useful to distinguish compliance from related topics like implementation and enforcement); Edith Brown Weiss, *Understanding Compliance with International Environmental Agreements: The Baker's Dozen Myths*, 32 U. RICH. L. REV. 1555, 1562 (1999) (explaining that “implementation” refers to the actions that a country takes to give effect to a treaty, like the adoption of legislation, regulations, or judicial decrees). “Enforcement,” the punitive arm to compliance, is a backward-looking concept that focuses on bringing states into compliance after they violate agreements. *Id.* at 1564.

42. See Markus Ehrmann, *Procedures of Compliance Control in International Environmental Treaties*, 13 COLO. J. INT'L ENVTL. L. & POL'Y 377, 378 (2002) (theorizing that a high degree of compliance could still fail to make a treaty effective, such as when an “emission reduction of a certain hazardous substance is not likely to actually protect the environment”).

43. See, e.g., Weiss & Jacobson, *supra* note 36, at 181 (arguing that empirical studies prove that a composite of a country's intent and its capacity are the causes of either compliance or noncompliance).

44. See *id.* (noting that a state's capacity to comply likely will evolve, but an acute issue for states is the prioritization of the resources it does have); see also Ehrmann, *supra* note 42, at 388-89 (observing that because modern treaties aim to affect not only state behavior, but that of industries, NGOs and individuals, the treaties put enormous administrative and financial pressure on governments, sometimes crippling their capacity for compliance).

45. See Weiss & Jacobson, *supra* note 36, at 181 (noting that the only way to determine a state's intent is to analyze its behavior, which may be ambiguous and contradictory at times).

46. See *id.* (cautioning that a state's formal vote at an international meeting may not be the true intent of the state).

Because treaties are also political instruments, there are many reasons why a state may sign a treaty and intent to comply may not necessarily be one of those reasons.⁴⁷ Even if a state intends to comply initially, it may find later that it lacks the national political will to give the attention and resources needed for compliance.⁴⁸

2. Enforcement Strategies to Encourage Compliance

Three common types of international legal strategies promote compliance with treaties: (1) negative incentives, which include penalties and sanctions; (2) the “sunshine” method, which entails monitoring, reporting and NGO participation; and (3) positive incentives, which include financial and technical incentives.⁴⁹ Traditional international law remedies for breach of an agreement, as codified in the Vienna Convention on the Law of Treaties, also apply.⁵⁰

International environmental law tends to prefer the “carrot approach,” through positive incentives, rather than punitive “sticks,” to encourage compliance with MEAs.⁵¹ Because many proponents of the carrot approach argue that noncompliance is a result of a lack of capacity, these commentators do not believe that punitive measures

47. See Weiss, *supra* note 41, at 1559 (highlighting the many reasons why a state signs a treaty, such as responding to bribes by other states or simply to alleviate international pressure).

48. See Weiss & Jacobson, *supra* note 36, at 182 (finding that states may want to comply in the abstract, but the treaty quickly becomes too low of a priority for the state to put its paper obligations into action).

49. See *id.* at 182-91 (noting that negative incentives, like sanctions and the withdrawal of privileges, are most common in trade law, in which parties ban trade in certain products with violators of the agreement or deny privileges under that agreement to the violating party). For the “sunshine” approach, proponents of this strategy rely on the “reputation” factor of a party to induce compliance, where monitoring and reporting of parties’ practices become public. *Id.* International agreements that rely heavily on positive incentives, like financial and technical assistance or other assistance outside the convention framework, do so to target the lack of capacity in countries. *Id.*

50. Vienna Convention on the Law of Treaties, *supra* note 38, art. 60, 1155 U.N.T.S. at 346 (setting for the appropriate remedial actions for material breaches of a bilateral or multilateral treaty).

51. See Weiss, *supra* note 41, at 1584; see also NEUMAYER, *supra* note 11, at 10.

would improve compliance.⁵² Accordingly, punitive measures are uncommon in international environmental law.⁵³

Scholars favor the carrot approach because compliance theory roots itself in the rational actor model, in which the actor applies science to policy through a rational legislative and administrative system.⁵⁴ To this end, many scholars observe that when there is compliance, it stems from some notion of reciprocity, where the state realizes its best interests are to meet the treaty terms.⁵⁵ But these scholars recognize that this principle does not operate conversely—noncompliance is not a result of a traditional cost/benefit analysis, but instead of other circumstances.⁵⁶

52. See NEUMAYER, *supra* note 11, at 12 (advocating the use of “carrots,” because “sticks” merely punish the recipient state and do nothing to enhance that state’s capacity to comply); see also Ehrmann, *supra* note 42, at 387 (reporting that those scholars who support the theory that intentional noncompliance and willful disobedience is the exception rather than the rule advocate a “cooperative approach” or “partnership method” to treaty management).

53. See Weiss & Jacobson, *supra* note 36, at 190 (stating that neither sanctions nor formal dispute resolution mechanisms are prevalent in this field of law). *But see* ASIL Proceedings 1995, *supra* note 40, at 212 (remarks of Edith Brown Weiss) (noting that formal sanctions are a major factor in trade-related environmental activities); Peter H. Sand, *Sanctions in Case of Non-Compliance and State Responsibility: Pacta Sunt Servanda – or Else?*, in MAKING LAW WORK: ENVIRONMENTAL COMPLIANCE AND SUSTAINABLE DEVELOPMENT, *supra* note 8, at 265, 267 (reporting that the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES”) made coercive the use of sanctions in at least forty cases).

54. See Piers Blaikie & John Mope Simo, *Cameroon’s Environmental Accords: Signed, Sealed, but Undelivered*, in MAKING LAW WORK: ENVIRONMENTAL COMPLIANCE AND SUSTAINABLE DEVELOPMENT, *supra* note 8, at 338 (noting that theories of compliance with international environmental law originate from the notions of the rational actor model, in which a state has an efficient, rational administration and the legitimacy to carry out beneficial programs).

55. See Ehrmann, *supra* note 42, at 387 (explaining that although treaties are the result of compromise, states generally realize the benefit of complying because during the development of a treaty, states already brought their interests to the table, and the treaty is likely to represent those interests).

56. See *id.* (arguing that when a state does not comply, it is generally the result of “unplanned circumstances,” like a change in financial position, and not because the divergent state thinks its best interest is to disobey).

3. The Montreal Protocol's Progressive Structure

Stemming from the rational actor theory and thus assuming that states realize that a reduction in ODS use is in their best interests, the parties to the Montreal Protocol use the encouragement-based approach to compliance.⁵⁷ For instance, Article 10's notable compliance assistance provisions are the Multilateral Fund, which meets the implementation costs of A5Cs, and the requirement of technology transfer to A5Cs.⁵⁸ Similarly, Article 5 provides that if an A5C has difficulty meeting its obligations, then the parties will take no action against the A5C until a Meeting of the Parties decides upon an appropriate non-punitive action.⁵⁹ The Meeting of the Parties provides regular opportunities to review the implementation of the Protocol and make any necessary adjustments.⁶⁰ In addition, Article 7 requires parties to submit regular reports of their ODS use to the Secretariat.⁶¹ The Implementation Committee, which reviews complaints of noncompliance, can make recommendations to a Meeting of the Parties about how to bring the noncomplying party back into compliance.⁶²

57. See *id.* at 393 (noting that during later Meetings of the Parties to discuss the future of the noncompliance procedure, developing countries favored the "encouragement-based approach," and won this debate over countries like the United States, which called for trade sanctions).

58. London Amendments, *supra* note 4, art. 10, 30 I.L.M. at 550-51 (establishing that non-A5Cs will fund the financial mechanism and make their best efforts to transfer technology and ODS substitutes to A5Cs). The U.N. Development Programme, the U.N. Environment Programme, and the World Bank act as the Fund's implementation agencies, giving advice and expertise to the parties. *Id.*

59. *Id.* art. 5, 30 I.L.M. at 548 (giving all the parties an opportunity to deal with noncompliance in a particular manner, rather than by rote punishment).

60. Montreal Protocol, *supra* note 4, art. 11, 1522 U.N.T.S. at 36-37 (declaring that parties should hold these meetings at "regular intervals" and giving a comprehensive list of the meetings' functions).

61. London Amendments, *supra* note 4, art. 7, 30 I.L.M. at 549 (requiring each party to submit statistical data on its ODS use, or its best possible estimates where the data is unavailable).

62. U.N. EP, *Report of the Second Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, annex 3, U.N. Doc. UNEP/OzL.Pro.2/3 (June 29, 1990) (establishing the Implementation Committee, which is comprised of five parties elected for two-year periods).

Article 8 provides the backdrop for the formal noncompliance procedure ("NCP"), and reads that, at a meeting, parties shall work to determine what noncompliance is and how to redress it.⁶³ At the Fourth Meeting of Parties in 1992, the parties adopted the NCP, which applies to all parties and excludes formal trade sanctions as a remedy for noncompliance.⁶⁴ The NCP's remedial options include the issuance of warnings and the donation of more assistance to ensure compliance.⁶⁵

D. WEAK STATES AND THE REALITY OF THE INTERNATIONAL COMMUNITY

As capacities of states vary greatly in the international community today, a continuum of states emerges, ranging from strong to weak to failed.⁶⁶ The distinguishing criterion between a strong and a weak state is the state's ability to provide political goods—intangible expectations and obligations that compose the social contract between a government and its citizens.⁶⁷ The most "critical" political good is the supply of human security, the primary function of states.⁶⁸

63. Montreal Protocol, *supra* note 4, art. 8, 1522 U.N.T.S. at 35 (noting that no NCP is set at the time of drafting, but parties will create it at their meetings).

64. See U.N. EP, *Report of the Fourth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, annex 5, U.N. Doc. UNEP/OzL.Pro.4/15 (Nov. 25, 1992) [hereinafter *Fourth Meeting*] (adopting the NCP as an annex to the Protocol and providing for a withdrawal of rights and privileges, rather than "trade sanctions").

65. *Contra id.* annex 5 (including in the list of measures against noncompliance the suspension of certain rights and privileges under the Protocol).

66. See Rotberg, *supra* note 12, at 3 (noting that the sheer increase in the number of states in the last century increased the range of economic productivity and social and political ambitions among states).

67. See *id.* at 3-4 (describing the social contract as the citizens giving the right to rule, and in turn the rulers providing the expected political goods to the citizens).

68. See *id.* at 3 (noting that the effectiveness of the state's "full spectrum of public security" cannot be mimicked by non-state actors); see also JEREMY M. WEINSTEIN ET AL., COMMISSION ON WEAK STATES AND NATIONAL SECURITY, ON THE BRINK: WEAK STATES AND US NATIONAL SECURITY 19 (2004), http://www.cgdev.org/doc/books/weakstates/Full_Report.pdf (citing security as the first capability that a state ought to provide). The next level of political goods is legitimacy, in the form of enforceable rule of law and citizen participation in political processes, which help to ensure "fair play." Rotberg, *supra* note 12, at 3;

Strong states perform well across all categories of political goods, but weak states' performance is mixed.⁶⁹ Exceptionally weak states run the risk of becoming failed states, which are those that perform the worst in all categories and cease to provide peace and order.⁷⁰ Weak states typically harbor intercommunal tensions, have high crime rates and levels of corruption, low economic performance, and poor infrastructure and rule of law.⁷¹

E. WEAK STATES' NONCOMPLIANCE WITH THE MONTREAL PROTOCOL

The Montreal Protocol mandates a staggered total phase-out of ninety-six listed ODS, grouped in nine categories based on their ozone-depleting potential and prevalence in industry, with A5C's obligations at least ten years behind non-A5Cs.⁷² The first deadline

see also WEINSTEIN ET AL., *supra*, at 22 (describing legitimacy, in part, as the ability of a government to maintain its citizens' confidence). Last is the general capacity of a state to meet its citizens' basic needs, through measures like a physical infrastructure and a banking and educational system. Rotberg, *supra* note 12, at 3-4; WEINSTEIN ET AL., *supra*, at 21-22 (noting that when a state lacks this capacity, it leaves its citizens open to humanitarian crises like epidemics and hunger).

69. *See* Rotberg, *supra* note 12, at 4 (explaining that the more poorly a state performs, the weaker it is); *see also* WEINSTEIN ET AL., *supra* note 68, at 19 (noting that in a weak state, there is a "gap" between how it delivers security, legitimacy, or capacity, and how a functioning state ought to perform).

70. *See* Rotberg, *supra* note 12, at 5 (defining a failed state as a deeply conflicted and dangerous state with great intercommunal tensions that often lead to intense violence among civil society and between civilians and the government).

71. *See* Lobe, *supra* note 10 (noting that the gaps in security, legitimacy, and capacity distinguish a weak state from a merely poor state); *see also* ANITA SUNDARI AKELLA & JAMES B. CANNON, CONSERVATION INT'L, CTR. FOR CONSERVATION AND GOV'T, STRENGTHENING THE WEAKEST LINKS: STRATEGIES FOR IMPROVING THE ENFORCEMENT OF ENVIRONMENTAL LAWS GLOBALLY 22-23 (2004), http://www.conservation.org/ImageCache/CIWEB/content/programs/policy/ccgenforcementreport_2epdf/v1/ccgenforcementreport.pdf (referring to legislation in the environmental arena, where weak states have poor legislation that suffers from inconsistencies and lack of clarity).

72. *See* OZONE SECRETARIAT, *supra* note 4, annexes A-E (listing all the controlled substances as adjusted and amended); *see also* Sarma, *supra* note 8, at 294 (noting that the phase-out timetables are gradual because the first deadline is a freeze of consumption, according to the levels of ODS a state needs for its industries, referred to as its "base-line data").

for A5Cs came as a 1999 requirement to freeze parties' consumption levels of chlorofluorocarbons ("CFCs"), with total phase-out currently set at 2010.⁷³ Examples of weak states that are not complying or potentially not complying with the Montreal Protocol's regulation of ODS include Bosnia and Herzegovina, the Islamic Republic of Iran, Fiji, the Libyan Arab Jamahiriya, Lebanon, Lesotho, and the Philippines.⁷⁴

The most common noncompliance issue is the failure of parties to submit regular reports on ODS use to the Secretariat.⁷⁵ The reporting requirement sets the entire NCP into motion by allowing the Implementation Committee to obtain data regarding use of ODS in that state and encouraging the Meeting of the Parties to make recommendations if a state is noncompliant.⁷⁶

Another pressing problem with noncompliance is illegal trade in ODS.⁷⁷ In the mid-1990s, illegal trade accounted for up to fifteen

73. See Phase Out Targets, *supra* note 8 (noting that after the CFC freeze dates are halons in 2002 and methyl chloroform in 2003 for A5Cs); see also U.N. EP, OzonAction Programme, *Glossary, Websites and References*, ILLEGAL TRADE IN OZONE DEPLETING SUBSTANCES: IS THERE A HOLE IN THE MONTREAL PROTOCOL?, 2001, at 27, <http://www.uneptie.org/ozonaction/library/mmcfiles/3617-e-oansupplement6IllegalTrade.pdf> (identifying CFCs as chemicals that contain chlorine, fluorine, and carbon, used as refrigerants, aerosol propellants, cleaning solvents, and in foam). Halons are brominated chemicals related to CFCs and used primarily in firefighting. *Id.*

74. See U.N. EP, *Report of the Sixteenth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, decs. XVI/20-31, U.N. Doc. UNEP/OzL.Pro.16/17 (Dec. 16, 2004) [hereinafter *Sixteenth Meeting*]; see also Rotberg, *supra* note 12, at 5, 17 (classifying Bosnia and Herzegovina, Iran, Fiji, Libya, Lebanon, and the Philippines as weak states due to their serious internal tensions, communal discontent, and government corruption and illegitimacy); U.N. EP, OzonAction Programme, *Countries Operating Under Article 5, Paragraph 1 of the Montreal Protocol*, <http://www.uneptie.org/ozonaction/compliance/protocol/article5.html> (listing all of the states operating under Article 5 of the Protocol).

75. See ASIL Proceedings 1995, *supra* note 40, at 209 (remarks of Winfried Lang) (noting that many states do not comply with the data reporting requirements, due to a lack of capacity and/or intent).

76. See *id.* at 209-10.

77. See *Sixteenth Meeting*, *supra* note 74, ¶ 317 (agreeing that illegal trade is one of the most "significant obstacles" the Protocol faces and requires "urgent action"); see also NEUMAYER, *supra* note 11, at 42 (referring to illegal trade as the "most important" noncompliance issue the Protocol faces).

percent of the world trade in CFCs and halons.⁷⁸ Today, although the extent of the black-market is unknown, this illegal trade is a highly lucrative business.⁷⁹ Among other weak states, Eastern European countries with economies in transition (“CEITs”) are particularly susceptible to the black market.⁸⁰ Although all the CEITs faced political and economic upheaval after the dissolution of the Soviet Union, the Montreal Protocol labeled half of the CEITs as developing and half as developed, irrespective of the fact that most share the common difficulties of meeting their obligations.⁸¹

II. ANALYSIS

A. THE DISCONNECT BETWEEN MODERN COMPLIANCE THEORY AND WEAK STATES

Modern compliance theory of international environmental law, based on the rational actor theory, does not appreciate the realities of

78. Duncan Brack, *The Scope of the Problem: An Overview of Illegal ODS Trade*, ILLEGAL TRADE IN OZONE DEPLETING SUBSTANCES: IS THERE A HOLE IN THE MONTREAL PROTOCOL?, 2001, at 4, <http://www.uneptie.org/ozonaction/library/mmcfiles/3617-e-oansupplement6IllegalTrade.pdf> (noting that the 1990s was when regulators first discovered illegal trade in CFCs, and the major trafficker was “almost certainly” Russia).

79. See DeSombre, *supra* note 9, at 63 (highlighting that in some U.S. ports, CFC smuggling is second in value to narcotics smuggling).

80. See U.N. EP, *supra* note 73, at 27 (defining CEITs as “Eastern European countries of the former Soviet Bloc who are transitioning from communism to a free-market economy”); see also DeSombre, *supra* note 9, at 64 (noting that financial incentives to sell illicit CFCs on the black market increase when a state experiences economic hardships).

81. See RASMUS RASMUSSEN ET AL., U.N. EP, OZONACTION PROGRAMME, A COUNTRY-DRIVEN APPROACH TO THE PHASEOUT OF OZONE-DEPLETING SUBSTANCES IN DEVELOPING COUNTRIES 73 (2001), <http://www.uneptie.org/ozonaction/library/mmcfiles/3394-e.pdf> (listing the non-Article 5 CEITS as: Azerbaijan, Belarus, Bulgaria, Czech Republic, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Poland, Russian Federation, Slovakia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan). The eleven remaining CEITs are ASCs. *Id.*; see also Volodymyr Demkine, *Facing the Challenge in Countries with Economies in Transition*, ILLEGAL TRADE IN OZONE DEPLETING SUBSTANCES: IS THERE A HOLE IN THE MONTREAL PROTOCOL?, 2001, at 9, <http://www.uneptie.org/ozonaction/library/mmcfiles/3617-e-oansupplement6IllegalTrade.pdf> (citing specific common problems in these countries, such as a lack of funding and institutional capacity, and inadequate information and training on the Montreal Protocol).

weak states. Weak states are notorious for being inefficient, corrupt, and sometimes irrational.⁸² Because the Montreal Protocol, like modern compliance theory, also stems from this progressive school of thought, the framers of the Montreal Protocol erroneously assumed that all its parties are rational actors. Because of these assumptions, parties now attribute noncompliance to a lack of capacity, not the intent to comply.⁸³

The Montreal Protocol's positive incentive structure is problematic for two principal reasons. First, it does not address willful disobedience or lack of intent to comply. Provisions such as Article 5's grace period and Article 10's technical and financial assistance address states' capacity, not their intent.⁸⁴ As weak states have unique agendas, like mending their broken economies, they may take advantage of the lax obligations for developing countries and concentrate on their domestic problems rather than on international agreements.⁸⁵

Second, even where a weak state may have the requisite intent to comply, the Montreal Protocol's compliance assistance provisions do not enhance weak states' capacity enough to enable their effective implementation of the Protocol. The technical and financial

82. See Rotberg, *supra* note 12, at 3-5 (noting that despots often rule weak states, whose governments are corrupt and lack transparency); see also Blaikie & Simo, *supra* note 54, at 339-40 (generalizing that colonialism truly left its mark on the socio-political system in Africa, where many "bureaucratic behaviors . . . are inimical to rational decision-making, leadership, and economic growth").

83. See Sarma, *supra* note 8, at 312 (reporting that the framers of the Protocol thought that noncompliance was a lack of not only administrative and financial capacity, but also of the capacity to inform its citizens of the dangers of ozone depletion). In addition, the framers chose this progressive structure in fear that harsher measures may drive a state to illegal trade in ODS. *Id.*

84. See London Amendments, *supra* note 4, arts. 5, 10, 30 I.L.M. at 547-48, 550 (giving a ten-year delay in obligations to developing countries and mandating that developed countries implement their obligations by giving assistance to developing countries); see also Weiss & Jacobson, *supra* note 36, at 187 (noting that assistance is an effective strategy only where the state wants to comply); *Fourth Meeting*, *supra* note 64, annex 5 (listing more technical and financial assistance as a remedial option for dealing with a noncompliant state).

85. See Blaikie & Simo, *supra* note 54, at 337 (predicting that the "laxity" of the Montreal Protocol's provisions may make a country like Cameroon, ravaged by economic crisis and political corruption, "less committed" to implementing the agreement).

assistance of Articles 9 and 10 are short-term aids for weak states, but do nothing to strengthen their socio-political systems for the future.⁸⁶ An independent judiciary, transparent government, educated and trained bureaucracy, and citizen respect for the rule of law are critical to translating an international accord into local law.⁸⁷ Without strengthening these institutions, it is unlikely that weak states will use the assistance to the fullest extent possible.⁸⁸ Thus, the modern compliance theory evident in the Montreal Protocol's positive incentive structure does not address the behavior and needs of weak states.

B. ARTICLE 5'S GRACE PERIOD AND ITS CONTRIBUTION TO THE BLACK MARKET

In addition to addressing only states' capacity to comply, Article 5 is also problematic because its differential phase-out dates contribute to the black market economy in ODS trade.⁸⁹ During Article 5's grace period, A5Cs can produce and consume ODS legally, even while the Protocol mandates that consumption in the developed world cease.⁹⁰ When regulators ban the production or use of any substance and alternatives are less attractive, the risk of illegal trade

86. See Mark A. Drumbl, *Does Sharing Know Its Limits? Thoughts on Implementing International Agreements: A Review of National Environmental Policies, A Comparative Study of Capacity-Building*, 18 VA. ENVTL. L.J. 281, 299 (1999) (arguing that the transfer of technology and money leave much to be desired for true capacity-building, which demands a restructuring of the financial, political, and social institutions of a country).

87. See ASIL Proceedings 1995, *supra* note 40, at 207, 213 (remarks by Winfried Lang & Edith Brown Weiss) (describing these domestic factors as the most influential on national compliance with international agreements).

88. See *id.* at 213 (remarks by Edith Brown Weiss) (urging the need "to do more" with compliance assistance because in countries with particularly weak institutions, the money does not go far).

89. See Brack, *supra* note 78, at 4 (anticipating that as the trade in CFCs and halons diminishes, illegal trade in other ODS substances with later phase-out schedules, like methyl bromide and hydrochlorofluorocarbons ("HCFCs"), will develop).

90. London Amendments, *supra* note 4, art. 5, 30 I.L.M. at 547 (allowing the A5Cs to produce and consume ODS legally for ten years after the non-A5Cs must halt their use); see also DeSombre, *supra* note 9, at 49 (referring to the dichotomy of Article 5's obligations for developed and developing states).

typically arises.⁹¹ The fact that Article 5 allows A5Cs to use ODS legally, well past the deadlines for non-A5Cs, makes illegal trade even more likely.⁹² Further, when national regulations forbid using certain products while the use of the same products in other countries are less regulated, demand will drive the black market.⁹³ In this case, non-A5Cs, like the United States, have high excise taxes on ODS, which increases demand for cheaper, illegal ODS.⁹⁴ Thus, Article 5's grace period inadvertently provides the demand and supply needed for a black market economy in ODS.

1. The CEITs as Proof of the Importance of Correctly Adjudging a State's Capacity and Administering Obligations Accordingly

The special case of the CEITs presents a new obstacle to managing illegal trade in ODS, indicating that Article 5 does not fulfill the Montreal Protocol's goal.⁹⁵ Although the Protocol attempted to rectify the CEITs' inability to comply by permitting non-Article 5 CEITs to consume ODS for non-essential uses, Article

91. See Brack, *supra* note 78, at 4 (noting that more expensive alternatives are an incentive for illegal trade in all areas of environmental policy, especially in hazardous waste and endangered species). But not all the ODS alternatives are more expensive, such as the alternatives in solvents and aerosol industries. *Id.* However, alternatives in the refrigeration and air-conditioning industries require retrofitting of old technology, which is a more expensive process than simply using ODS. *Id.*

92. See *id.* (explaining that developing countries are producing or consuming ODS while the Protocol bans their use in developed countries, and this provides an easy supply of a product in high demand).

93. See DeSombre, *supra* note 9, at 65.

94. See *id.* (noting that some Americans in need of ODS prefer the cheaper, albeit illegal, ODS available through the black market).

95. See Demkine, *supra* note 81, at 9 (noting that illegal trade in ODS in the CEITs is a "cause of serious concern" because CEITs have so many difficulties complying with the Protocol); see also RASMUSSEN, *supra* note 81, at 70 (dividing the CEIT region into Central Europe: Czech Republic, Hungary, Poland, Slovakia, Slovenia; Southeastern Europe: Bulgaria, Albania, Croatia, Bosnia and Herzegovina, Macedonia, Romania, and the former Republic of Yugoslavia; and the Newly Independent States: Estonia, Lithuania, Latvia, Belarus, Ukraine, Russia, Moldova, Armenia, Azerbaijan, Georgia, Kazakhstan, Turkmenistan, Tajikistan, and Uzbekistan). All twenty-seven of these countries have ratified the Montreal Protocol. *Id.*

5 is still insufficient.⁹⁶ Several CEITS remain in a state of noncompliance, and there is speculation that illegal trade takes place between the CEITs themselves.⁹⁷ For example, the region's only major producer of ODS, Russia, has supplied ODS to other CEITs, and estimates reveal that most of the ODS entering Europe and the United States originates in Russia.⁹⁸ These estimates reveal that the CEITs exploit Article 5's grace period to trade and consume ODS illegally.

The Protocol's classification of the CEITs also fails to take note of the regional subdivisions that embody significant economic and political differences among the states.⁹⁹ Because countries in these regions share so many characteristics, the prospects for future compliance in the CEITs relate directly to these subdivisions.¹⁰⁰

The first of these subdivisions is Central European CEITs, which are likely in the best position for Article 5 compliance, as these states enjoyed a smoother economic transition to a modern, industrialized economy, and they are more politically and economically engaged with the European Union.¹⁰¹ In contrast, prospects for Article 5 compliance in the second subdivision, the Southeastern European

96. See U.N. EP, *Report of the Tenth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, decs. X/20-28, U.N. Doc. UNEP/OzL.Pro.10/9 (Dec. 3, 1998) (realizing that even the non-Article 5 CEITs were too weak to fulfill their obligations, so the Meeting extended non-Article 5 CEITs' deadlines for non-essential uses until 2002).

97. See *Sixteenth Meeting*, *supra* note 74, dec. XVI/21 (noting "with great concern" that data for 2001-2003 puts Azerbaijan in compliance with its obligations under Article 2A); see also Demkine, *supra* note 81, at 9 (explaining that because several CEITs are noncompliant, it is likely that they obtain the illicit ODS through illegal trade).

98. See Brack, *supra* note 78, at 9 (reporting that customs officers conclusively identified Russia as the origin of a substantial amount of illicit ODS).

99. See RASMUSSEN, *supra* note 81, at 70 (categorizing the CEITs as Central Europe, Southeastern Europe, and the Newly Independent States ("NIS")).

100. See *id.*

101. See *id.* at 83-84 (noting that these states' somewhat attractive economies make them significant trading partners with the EU, which opens the doors for EU accession, and the prospect of accession creates market and political incentives for compliance with the Protocol and also with EU environmental legislation). For example, compliance in Slovenia has been successful, with "virtually all of Annex A and B consumption phased out by 1996." *Id.* at 83.

CEITs, are more dismal, partly due to the former totalitarian regimes and sporadic resurgence of ethnic conflict in these states.¹⁰² Finally, prospects for compliance in the third subdivision, the Newly Independent States ("NIS") CEITs, combine the two extremes. In the European NIS (Estonia, Latvia, and Lithuania), EU accession is the incentive for compliance.¹⁰³

However, the classification of the Central Asian and Caucasus CEITs as mostly non-A5Cs (therefore obligating them to contribute to the Protocol's funding mechanism), and those states therefore lagged significantly in ratifying the London Amendment that created Article 5.¹⁰⁴ The somewhat arbitrary classification of only half the CEITs as A5Cs led to the evasion of strict and premature obligations, thereby indicating that an alternative type of classification is crucial for success.

2. Other Weak States as Breeding Grounds for ODS Trafficking

The rise of the black market in other weak states also casts doubt on the efficacy of Article 5's structure. Weak states, with loose customs regulations and border controls, are the ideal transit point for traffickers.¹⁰⁵ Weak states help fuel the frequent "triangulation" trade, where a non-A5C produces ODS legally, exports the ODS

102. *See id.* at 84 (highlighting the cases of Albania and Bosnia and Herzegovina, whose functioning is so weak, they are in "flagrant violation of even the reporting requirements of the Protocol"). In this region, governments focus "on the short-term survival of enterprises and society." *Id.*

103. *See id.* at 85 (noting that these countries have an extra incentive to conform to EU environmental policies, which are among the most progressive).

104. *See id.* (referring to the 1990 London Amendment, which requires all non-Article 5 countries to contribute to the Multilateral Fund, in the spirit of global partnership). These countries had lower GDPs and a difficult economic transition, so contributing to the fund was not feasible. *Id.* Delays in ratification resulted in delays in the formulation of implementation projects, so compared to their European counterparts, they were far behind. *Id.*

105. *See, e.g.,* Julie Newman, *The Tricks of Illegal Trade: How Criminals Smuggle ODS*, ILLEGAL TRADE IN OZONE DEPLETING SUBSTANCES: IS THERE A HOLE IN THE MONTREAL PROTOCOL?, 2001, at 19, <http://www.uneptie.org/ozonaction/library/mmcfiles/3617-e-oansupplement6IllegalTrade.pdf> (citing detected smuggling schemes in Pakistan, Indonesia, Malaysia, and Vietnam).

legally to an A5C, which then illegally re-imports the materials through a host of countries.¹⁰⁶

Unfortunately, the problem might worsen: the 1999 freeze for A5Cs has taken effect, and as the global supply of ODS decreases, the scarcity of the chemicals may drive up the market price, refueling the black market.¹⁰⁷ Article 5's current structure addresses the capacity of weak states to comply with the Montreal Protocol by extending their deadlines, but does little to bolster their compliance in light of the financial benefits from illegal trade.¹⁰⁸

C. WEAK STATES OFTEN FAIL TO MEET ARTICLE 7'S REPORTING REQUIREMENTS

By not fulfilling the reporting requirements, weak states thwart the purpose of Article 7, which is to give the Implementation Committee a chance to monitor ODS use and determine noncompliance.¹⁰⁹ Thus, as Article 7 stands, it is incredibly difficult to determine whether weak states are meeting their obligations to reduce ODS use.

106. See Brack, *supra* note 78, at 6 (noting that former European colonies in the developing world, such as Africa, "have often been used as re-entry points"); see also Newman, *supra* note 105, at 14-15 (reporting another major transit route in smuggled CFCs, which ends in Miami by way of a number of small, offshore Caribbean islands).

107. See Newman, *supra* note 105, at 14 (predicting that the demand for the black market will continue, and smugglers will adapt to new regulations because "as long as a market for ODS persists, there will always be someone willing to bend the rules to supply it").

108. For an example of one of the few provisions designed to induce compliance, see Montreal Amendments, *supra* note 4, annex 4 (amending the Protocol by requiring each state to establish a licensing system to help eradicate illegal ODS trade). However, the efficacy of this amendment is questionable. See Ezra Clark & Julian Newman, *Curbing Illegal Trade in ODS: Why the Montreal Protocol Needs an Enforcement Assistance Unit*, EIA Briefing (Env'tl. Investigation Agency, London, U.K.), July 2002, at 1-2, <http://www.salvonet.com/eia/cgi/reports/report-files/media31-1.pdf> (calling the Montreal Amendment a slow reaction to the problem of illegal trade and ineffective as an enforcement mechanism, and noting that only about half of the parties have ratified this amendment).

109. See *Sixteenth Meeting*, *supra* note 74, dec. XVI/17 (noting that the Article 7 reporting requirements enable the Implementation Committee to effectively track the progress of the parties, and also declaring Lesotho noncompliant for failure to submit reports). Other states that have not submitted reports are Botswana, Liberia, the Federated States of Micronesia, Turkmenistan, and the Russian Federation. *Id.*

Further, although reporting requirements can be a useful tool in promoting compliance with treaty obligations, there are problems with their application in weak countries.¹¹⁰ First, as the Montreal Protocol requires self-reporting, in which the state reports on its own ODS use, these requirements are successful only if countries do not misrepresent the data.¹¹¹ Weak states' notoriety for corruption creates a high likelihood of intentionally inaccurate data.¹¹²

Compounding intentional production of misinformation, Article 7 also fails to properly address the fact that weak states generally lack the capacity to produce accurate data.¹¹³ Thus, the existing data for the monitoring authorities is often unreliable.¹¹⁴ The amount of time allocated to the vast undertaking of self-reporting requirements diverges energies better spent on reaching the substantive targets of the agreement.¹¹⁵ If weak states do not successfully complete their reports, then determining their noncompliance will be a difficult feat for the Implementation Committee and the Secretariat. To be effective, Article 7 must address this problem.

110. See Weiss & Jacobson, *supra* note 36, at 182.

111. See *id.* at 185 (noting that reporting "is linked with transparency to states," and that those monitoring compliance rely on this transparency).

112. See, e.g., *Sixteenth Meeting*, *supra* note 74, pt. VI (declaring Bangladesh to be in a state of noncompliance, pursuant to its self-reporting, which indicated ODS use exceeding the regulations). Bangladesh, in turn, argued that it may have just made a mistake in its reports, and that it was actually compliant. *Id.*; see also Weiss & Jacobson, *supra* note 36, at 185 (noting that it is common for countries to report inaccurate data).

113. See ASIL Proceedings 1995, *supra* note 40, at 213 (remarks of Edith Brown Weiss) (noting the importance of a country's administrative capacity to comply effectively with treaty obligations).

114. See RASMUSSEN, *supra* note 81, at 7 (explaining that for many countries, there is no reliable data to determine how much more ODS these countries need to phase out).

115. See Weiss & Jacobson, *supra* note 36, at 185 (noting that scholars refer to the problem of devoting too much time on reporting as "congestion in treaty reporting").

D. ARTICLE 10'S COMPLIANCE ASSISTANCE PROVISIONS ARE
INSUFFICIENT TO INDUCE COMPLIANCE

Article 10 does not fulfill its intended purpose because weak states are not meeting their targets, despite the compliance assistance that Article 10's Multilateral Fund and technology transfer provision provide.¹¹⁶ Article 10's assistance may be insufficient for weak states that lack economic and administrative capacity even when compared to other A5Cs.¹¹⁷ Without efficient institutions, weak states cannot use these so-called capacity building provisions, and are still in a poor position to comply.¹¹⁸ At best, these provisions are "band-aid solutions" that do not encourage a weak state to deliver long-term environmental management.¹¹⁹

Apart from these inadequacies in Article 10, other drawbacks are associated with its funding provision. Weak states' implementation programs almost completely depend on the Multilateral Fund to design and manage their own environmental policies.¹²⁰ As a result, the state has little involvement in managing the environmental concerns itself, which defeats the purpose of building capacity.¹²¹

116. See *Sixteenth Meeting*, *supra* note 74, decs. XVI/20-31 (declaring Bosnia and Herzegovina and Iran, among other weak states, as potentially noncompliant, and Fiji, Lesotho, and Libya as noncompliant). Potentially noncompliant states will be formally noncompliant if they do not submit a justified explanation for their 2003 reported data, which indicated high levels of use for the controlled ODS methyl chloroform. *Id.*

117. See Drumbl, *supra* note 86, at 287 (reporting that empirical studies show that money and technology yields "limited results" when a state's institutions are weak and capacity is low).

118. See Michael Holley, *Sustainable Development in Central America: Translating Regional Environmental Accords into Domestic Enforcement Action*, 25 *ECOLOGY L.Q.* 89, 111 (1998) (noting the danger of leaving environmental enforcement to weak institutions, whose inevitable enforcement failures could jeopardize the advancements made on the international level).

119. See Drumbl, *supra* note 86, at 301.

120. See *id.* at 302 (reporting that in some developing countries, their national environmental programs rely on eighty percent of their funding to be through international aid).

121. See *id.* (noting that external financial dependence causes a "top-down communications approach," giving the citizens a lesser role in managing the environmental issues).

Further, reliance on the Multilateral Fund creates a moral hazard for weak states and other A5Cs because it can create a situation in which these states improve their environmental programs only enough to make the Multilateral Fund available to them.¹²² Alternatively, some states like Iran exploit Article 5, which allows states to excuse their noncompliance by reference to insufficient assistance received under Article 10.¹²³ Thus, Article 10's current structure makes weak states entirely reliant on compliance assistance without strengthening their own means of implementing the Montreal Protocol.

E. THE APPLICATION OF THE FORMAL NONCOMPLIANCE PROCEDURE (NCP) IS TOO LAX ON WEAK STATES

The NCP is problematic because the parties focus on its nonconfrontational provisions to address noncompliance and this myopic approach is not productive when addressing weak states.¹²⁴ Although the NCP provides various routes to ensuring compliance, the parties—through actions taken at the official “Meetings of the Parties”—have yet to use all of the provisions available to them.¹²⁵ The current application of the NCP, which follows in the spirit of the

122. See Desombre, *supra* note 9, at 73 (warning that developing countries may forego implementing actions because they can persuade international donors to do it for them).

123. See London Amendments, *supra* note 4, art. 5, 30 I.L.M. at 458 (permitting a party to notify the Secretariat in writing of its inability to meet its control measures “due to the inadequate implementation of Article 10 and 10A,” and the Secretariat will take this excuse into account at the next Meeting of the Parties); see also *Sixteenth Meeting*, *supra* note 74, pt. VI (reporting that Iran disapproval when the Meeting of the Parties deemed it noncompliant, and argued that the Multilateral Fund allegedly did not donate sufficient funds for Iran to meet its targets); *id.* dec. XVI/31 (considering requests from Lebanon and the Philippines to increase their baseline data, which would allow those countries to use more ODS and remain funded for their implementation efforts).

124. See Raustiala, *supra* note 41, at 418 (describing the NCP as a “managerial” process, whereby the parties address a noncompliant state with open discussions resembling an administrative style, rather than a judicial approach, where the state in question defends itself through legal arguments).

125. See *Fourth Meeting*, *supra* note 64, annex V (providing three remedial options to noncompliance: more assistance, warnings, and the suspension of rights and privileges); see also Sarma, *supra* note 8, at 305 (reporting that parties have never suspended any rights or privileges of a state).

Montreal Protocol's encouragement-based approach, fails to fully utilize the NCP's potential to be a strong enforcement tool. Such unitary tertiary use of the NCP suggest that the NCP has the potential to be a stronger enforcement tool than it is now.

A key problem in the NCP exists in the section that allows a party suspected of noncompliance to permit the Implementation Committee to conduct information-gathering in its territory, but only upon invitation by the suspected party.¹²⁶ Parties have never used this provision, for fear of deviating from the consensus process to a confrontational one, leaving the Implementation Committee to rely entirely on self-reported data.¹²⁷ Weak states that are willfully disobeying the Protocol are not likely to invite a review body into their territory, and consequently, there will be no means to detect their noncompliance.

Further, although the NCP provides that parties can address the Secretariat with reservations regarding another party's compliance, no party has used this provision either.¹²⁸ This could be a particularly helpful tool in discovering unscrupulous activity, which the Secretariat may have no other means of discovering. Again, by not using these provisions, the parties are not taking full advantage of the NCP's potential.

Before addressing these problems, the parties should consider the following observations. Meetings of the Parties have hesitated to declare any A5C as formally noncompliant for fear of discouraging their progress.¹²⁹ When Meetings do address an A5C's official

126. See *Fourth Meeting*, *supra* note 64, annex IV (permitting the Implementation Committee to conduct further investigations when it is suspicious of a state's behavior).

127. See Sarma, *supra* note 8, at 302, 312 (noting the Implementation Committee refrains from any confrontational acts, weary of causing a dispute between parties, that could then increase ODS use as in retaliation).

128. See *Fourth Meeting*, *supra* note 64, annex IV (providing that parties can address their concerns about other parties to the Secretariat, if they have some valid and corroborating evidence); see also Sarma, *supra* note 8, at 303 (noting that the Implementation Committee has only addressed noncompliance that it discovered through the regular reports parties submitted to the Secretariat).

129. See Sarma, *supra* note 8, at 305 (noting that the Meetings first declare an A5C as "potentially" noncompliant, giving the party in question a second chance to justify its activities).

noncompliance, the remedies have been either more international assistance or mere warnings, but never the third option provided under the NCP—the suspension of rights and privileges.¹³⁰ This method of assessing warnings and providing additional assistance to noncomplying parties seems illogical when applied to weak states that lack the political will to comply with the treaty obligations. As used currently, the NCP is not tailored in its potential application to weak states.

III. RECOMMENDATIONS

The parties to the Montreal Protocol must account for the behavior of weak states since the Montreal Protocol's current structure does not. In designing MEAs, drafters should use a mix of strategies to ensure that states have both the intent and the capacity to comply with the terms of the treaty.¹³¹ The nonconfrontational carrot approach to compliance is an important component, but the parties to the Montreal Protocol should use both incentives and disincentives to address weak states' compliance.

A. TACKLE THE BLACK MARKET WITH POSITIVE AND NEGATIVE ENFORCEMENT

To manage the black market in ODS, sanctions may be the appropriate mechanism to deter this highly lucrative illegal behavior.¹³² Other treaty regimes already use sanctions in the area of illegal trade, yet enforcement practices under the Montreal Protocol

130. See U.N. EP, *Report of the Seventh Meeting of Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, decs. VII/14-19, U.N. Doc. UNEP/OzL.Pro.7/12 (Dec. 27, 1995) (noting noncompliance by several CEITs, acknowledging their efforts, and recommending more international assistance as the remedy); see also Sarma, *supra* note 8, at 305 (reporting that to date no A5C has lost its assistance or other rights as a punishment).

131. See Weiss & Jacobson, *supra* note 36, at 181 (arguing that parties must employ the appropriate mixture of cooperative and punitive strategies to encourage compliance in states with different capacities and objectives).

132. See Sand, *supra* note 53, at 270 (theorizing that sanctions are only effective when they prohibit access to a commodity that has a great deal of economic clout for the violating country).

do not.¹³³ Trade sanctions could be instrumental against weak states, whose economies typically are too small to produce ODS domestically and are dependent on ODS imports.¹³⁴ If the parties deem a state noncompliant, then the parties could enact temporary trade sanctions, which would prohibit ODS imports until the violating country proves it is not trading illegally any longer.¹³⁵

Acknowledging that not all weak states willfully disobey the Protocol, establishment of an Enforcement Assistance Unit ("EAU") under the Protocol could also help control the black market.¹³⁶ The EAU would gather and analyze data on illegal ODS trade, a task that also alleviates the burden of reporting on parties.¹³⁷ Further, the EAU could be an expert liaison that trains governments on how to recognize illegal trade, while coordinating with international law enforcement agencies like Interpol and the World Customs Organization.¹³⁸ Other treaty regimes already have EAUs, which

133. See ASIL Proceedings 1995, *supra* note 40, at 212 (remarks of Edith Brown Weiss) (explaining that sanctions have been relevant only in trade-related activities of international environmental law, such as the trade in endangered species).

134. See *id.* at 212, 217 (noting that sanctions have been successful when treaty regimes used them against small and weak states to affect a change in domestic legislation and policy); see also U.N. EP, OzonAction Programme, Frequently Asked Questions, What Part Have Developing Countries Played in Ozone Depletion?, <http://www.uneptie.org/ozonaction/faq/faq.html#developing> (Sept. 8, 2003) (reporting that developing countries typically lack a robust industrialized economy, so they do not manufacture large quantities of ODS). But in the early 1990s, larger developing countries like India and China began to catch up to the industrialized world in their ODS production. *Id.*

135. Cf. Sand, *supra* note 53, at 270.

136. See CLARK & NEWMAN, *supra* note 108, at 2 (arguing that the Protocol should establish an EAU, which would give assistance to ASCs who do not detect illegal trade).

137. See U.N. EP, *Study on Monitoring of International Trade and Prevention of Illegal Trade in Ozone-Depleting Substances, Mixtures and Products Containing Ozone-Depleting Substances*, ¶ 116, U.N. Doc. UNEP/OzL.Pro/WG.1/22/4 (Apr. 23, 2002) [hereinafter *Illegal Trade Study*] (acknowledging that because developing countries often lack the capacity to design and implement enforcement operations, an EAU could aid their efforts).

138. See CLARK & NEWMAN, *supra* note 108, at 3 (listing the tasks an EAU could perform with as little as two to three staff members who would collaborate with other agencies to streamline efforts and enhance intelligence).

satisfy the dual roles of expert adviser offering assistance and detector for noncompliance.¹³⁹

B. DESIGN CAPACITY-BUILDING PROVISIONS FOR WEAK STATES

The Montreal Protocol should increase the participation of domestic citizens to give weak states true ownership of their implementation programs and the opportunity to maintain them for the future.¹⁴⁰ While all developing states require capacity strengthening to implement the Montreal Protocol, weak states need even more compliance assistance to build capacity.¹⁴¹ Without widened participation, weak states' ability to comply will remain tied to the Protocol's assistance.¹⁴²

One suggestion is to make the Multilateral Fund's financial assistance contingent on adequate national implementation legislation that affects all members of the community. Weak state legislation undermines the enforcement of the Montreal Protocol because internal regulators leave illegal behavior unchecked.¹⁴³ Domestic legislation should be well-defined, feasible to implement, but above all, its penalties should make the cost of noncompliance

139. See *Illegal Trade Study*, *supra* note 137, ¶ 117 (noting that the Montreal Protocol's EAU could resemble that of CITES, which provides technical assistance to countries, conducts missions to countries experiencing particular difficulties with implementation, and also coordinates with law enforcement agencies).

140. See U.N. EP, DIVISION OF ENVTL. POL'Y IMPLEMENTATION, GUIDELINES ON COMPLIANCE WITH AND ENFORCEMENT OF MULTILATERAL ENVIRONMENTAL AGREEMENTS 6 (2001), http://www.unep.org/DEPI/programmes/UNEP-Guidelines_for_MEAs-English_Edition.doc [hereinafter *UNEP Guidelines*] (suggesting that the participation of many domestic stakeholders enables the country to develop its institutions by increasing its decision-making capabilities and upgrading other administrative skills).

141. See Drumbl, *supra* note 86, at 303 (arguing that the Montreal Protocol, among other MEAs, has a very narrow interpretation of capacity-building, and it should involve an overhaul of political, economic, and social institutions).

142. See *id.* at 302 (noting that the disenfranchisement of affected citizens in formulating environmental policy leaves developing countries dependent on international agencies to design their own policies).

143. See AKELLA & CANNON, *supra* note 71, at 22 (noting that weak laws, those that are ambiguous or have disproportionately low penalties, cause domestic enforcement agencies to be inadequate).

greater than compliance.¹⁴⁴ To accomplish this, part of the non-A5Cs' obligations should be to provide legal advice to the A5Cs in drafting their own legislation and creating sound national policies.

Further, more financial aid from the Multilateral Fund ought to go to enhancing the technical skills of existing personnel in local communities. The Montreal Protocol focuses on increasing technical capacity of developing states by mandating trade in technology, but lacks any provisions that require the training of local public-sector employees.¹⁴⁵ The Montreal Protocol should include training provisions for all members of the enforcement community, from high-level government officers to low-level personnel, on issues ranging from detecting illegal ODS use to sharing enforcement techniques among various agencies.¹⁴⁶

With increased capabilities, weak states may have a better chance of fulfilling their reporting requirements under the Montreal Protocol. Ultimately, the aim for weak states will be to establish performance monitoring agencies capable of sophisticated monitoring of their ODS use.¹⁴⁷ Until weak states are able to maintain these agencies on their own, more financial assistance should go towards developing these essential monitoring agencies.¹⁴⁸

C. USE ALL OPTIONS UNDER THE NCP

The parties should use all the tools provided in the NCP, and include trade sanctions as a remedial option to address noncompliance. The NCP is not an inadequate framework, but the

144. See *UNEP Guidelines*, *supra* note 140, at 9.

145. See London Amendments, *supra* note 4, art. 10, 30 I.L.M. at 550 (requiring developed states to share technology and information as a means of compliance assistance on a national level); see also AKELLA & CANNON, *supra* note 71, at 24 (arguing that budgetary constraints leave personnel undereducated and ill trained to perform their jobs adequately, which adversely affects the entire enforcement community).

146. See *UNEP Guidelines*, *supra* note 140, at 11.

147. See AKELLA & CANNON, *supra* note 71, at 26 (noting that a general enforcement problem with weak states is the lack of performance monitoring agencies capable of systematic and routine monitoring).

148. See *id.* (demonstrating that performance monitoring agencies are so crucial because without the ability to assess their own performance, governments cannot identify where their overall weaknesses lie).

problem with it lies in the parties' reluctance to use the confrontational provisions, such as the withdrawal of rights and privileges when a party is noncompliant.¹⁴⁹ Because the reluctance of parties to use formal trade sanctions reveals a concern about this form of punishment, parties instead could use this withdrawal option first to see how states react to punitive measures.¹⁵⁰

Although the parties prefer a facilitative, consensus-driven approach to the NCP, the behavior of weak states indicates that a more deterrence-oriented emphasis could be helpful.¹⁵¹ For instance, the parties should amend the provision that permits the Implementation Committee to conduct information-gathering only upon the suspected party's invitation.¹⁵² Perhaps if this provision were to allow the Committee to investigate noncompliance without invitation from the suspected party, then it would serve as a deterrent for potentially violating parties that hope to avoid further implication of the NCP. Along these lines, the Meetings of the Parties should not be so hesitant to declare a state noncompliant, for this declaration alone would serve as its own mild type of sanction.¹⁵³

CONCLUSION

CDR addresses the reality that not all states are equal in their abilities to comply with international law, but CDR leaves much to

149. See Sarma, *supra* note 8, at 305 (reporting that at most, parties have given warnings of suspending rights under the Protocol).

150. See *id.* at 308 (noting that the framers wanted universal ratification of the Protocol and thought punitive measures would discourage signatories).

151. See Peggy Rodgers Kalas & Alexia Herwig, *Dispute Resolution Under the Kyoto Protocol*, 27 *ECOLOGY L.Q.* 53, 80 (2000) (observing that the parties themselves, rather than a judicial body, handle compliance issues in a way "akin to a diplomatic negotiation").

152. See *Fourth Meeting*, *supra* note 64, annex IV (allowing the Implementation Committee to conduct deeper investigations when it is suspicious of noncompliance); see also discussion *supra* Part II.C (detailing the tools provided under the formal NCP).

153. See Robin R. Churchill & Geir Ulfstein, *Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-Noticed Phenomenon in International Law*, 94 *AM. J. INT'L L.* 623, 646 (2000) (referring to the naming of a state in noncompliance as a form of "shaming," a situation most states would want to avoid publicly).

be desired with its overly simplistic binary classification of the world into developed and developing states. The Montreal Protocol incorporates CDR into its provisions with modern compliance theories of law that focus on compliance assistance, rather than punishment. But weak states are a special subset of developing states, to which the theories that the Montreal Protocol subscribes may not be applicable.¹⁵⁴

Instances of weak states' noncompliance with the Montreal Protocol, like the thriving black market and the failure to meet the basic reporting requirements, indicate that the Protocol's progressive structure fails weak states. However, by tempering the Montreal Protocol's approach with both positive and negative enforcement, designing stronger compliance assistance provisions, and interpreting the NCP more strictly, the parties to the Montreal Protocol can help ensure compliance for weak states.

154. See discussion *supra* Parts I.D, II.A (describing the characteristics of weak states and explaining that weak state behavior is inimical to the state behavior that scholars regularly understand).