COMMON BUT DIFFERENTIATED RESPONSIBILITIES
IN INTERNATIONAL LAW

By Christopher D. Stone

[The majestic equality of the laws... forbid[s] rich and poor alike to sleep under the bridges, to beg in the streets, and to steal their bread.

—Anatole France

The concept of "common but differentiated responsibilities" (CDR) is receiving increasing recognition in international law. "Common" suggests that certain risks affect and are affected by every nation on earth. These include not only the climate and the ozone shield, but all

1 Conventions that adopt the expression explicitly include the United Nations Framework Convention on Climate Change, opened for signature June 4, 1992, 31 ILM 849 (1992) [hereinafter FCCC]. Other conventions do not adopt the term, but do differentiate explicitly, including the Adjustments and Amendments to the Montreal Protocol on Substances That Deplete the Ozone Layer, June 9, 2000, 30 ILM 537, 541 (1991) [hereinafter Amendments to Montreal Protocol]. Several of the more veiled or encoded variants are illustrated in the United Nations Framework Convention on Biological Diversity, opened for signature June 5, 1992, 31 ILM 818 (1992) [hereinafter CBD]: for example, that each party do something "as far as possible and as appropriate," id., Arts. 5, 7–11, 14; that the benefits of resources be shared "in a fair and equitable way," id., Art. 15(7); and that for the purposes of financing, "[c]onsideration... be given to the special situation of developing countries." id., Art. 20(7). See generally PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 225–28 (2d ed. 2003); Duncan French, Developing States and International Environmental Law: The Importance of Differentiated Responsibilities, 49 INT’L & COMP. L.Q. 35 (2000); Daniel Barstow Magraw, Legal Treatment of Developing Countries: Differential, Contextual, and Absolute Norms, 1 COLO. J. INT’L ENVTL. L. & POL’Y 69 (1990); Lavanaya Rajamani, The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime, 9 REV. EUR. COMMUNITY & INT’L ENVTL. L. 120 (2000). Other conventions use close cognates. For example, the preamble to the 1982 UN Convention on the Law of the Sea references “the special interests and needs of developing countries.” United Nations Convention on the Law of the Sea, opened for signature Dec. 10, 1982, 1833 UNTS 397 [hereinafter LOS Convention]. In trade law, where conditions of trade access rather than provisions regarding public goods are typically at issue, “special and differential treatment” (S&D&T) is ordinarily used. But even in the WTO context, CDR, in those terms, has made an appearance. See infra note 41. For a critique of S&D&T, see Michael Hart & Bill Dymond, Special and Differential Treatment and the Doha “Development” Round, 37 J. WORLD TRADE 395, 395 (2003) (deeming “misguided and perverse” the theory that the economies of developing countries require sheltering from full application of liberalized trade rules; and arguing that differential trade treatment is “more likely to retard than aid economic development”).

2 The term thus has a common root with such international law expressions as “common heritage” and “common concern of mankind.” Note that, at least under the FCCC, supra note 1, not every country that faces the common problem shares in the common responsibility to fix it. The Kyoto Protocol to the FCCC divides the parties into four groupings. Kyoto Protocol to the United Nations Framework Convention on Climate Change, 3d Sess., Dec. 11, 1997, 37 ILM 32 (1998), available at http://unfccc.int/resource/docs/convkp/kpemb.htm [hereinafter Kyoto Protocol]. Annex II includes the Organisation for Economic Co-operation and Development countries. See infra text at notes 23–26. Annex I includes the Annex II countries, plus some countries in Central and Eastern Europe (CEE) and the newly independent states that resulted from the Soviet breakup. In 1995, the parties exempted non-Annex I countries from any new commitments (leaving, for example, reporting obligations untouched), but leaving further responsibilities to be divided among the richer (Annex I) parties exclusively. United Nations FCCC Conference of the Parties, 1st Sess. U.N. Doc. FCCC/CP/1995/7/Add 1, Decision 1/CP.1, at 4–6 (June 6, 1995) [hereinafter Berlin Mandate]. There is even a further qualification embedded in Annex B of the Kyoto Protocol that gives special consideration to the Annex I-listed “economies in transition.” Annex B differs from Annex I by the addition of Croatia, Liechtenstein, Monaco, and Slovenia and the removal of Belarus and Turkey. The non-Annex I parties’ “common
risk-related global public goods, including peace, public health, and terrorism. In reducing the mutual risks, all nations should "cooperate in a spirit of global partnership."5 Responsibilities are said to be "differentiated," however, in that not all countries should contribute equally. CDR charges some nations, ordinarily the Rich, with carrying a greater share of the burden than others, ordinarily the Poor.4

The meaning of "differentiated" is problematic. In some manner of speaking, every agreement differentiates. In an ordinary contract, one side undertakes to deliver coal, the other, to pay for it. If a group of nations agree that each shall decommission the same percentage of its fleet, the impact, measured in tons or vessels, may be different, depending on the relative size of each fleet to begin with.5 Nonetheless, differentiation in the CDR literature appears to be reserved for multilateral agreements that are nonuniform in how the undertakings are formally verbalized,6 not in how they affect each party.

The arbitrariness of the distinction can be illustrated by comparing two hypothetical air quality conventions. In the first, the agreement, in its terms, orders curtailments in the ratio of 4:2:1, but the baseline emissions are such that the quantity that each party is required to eliminate is the same. The expressly differentiated ratio marks it as a case of CDR. In the second agreement, nations with different levels of emissions agree to reduce by the same percentage with the consequence of differentiated cutbacks, in tons, in the ratio of 4:2:1. One could certainly argue that the second treaty should be considered no less an illustration of CDR than the first, and drawn into a unifying analysis. Nonetheless, because virtually every convention will have different effects on different parties, it seems prudent to follow the literature and restrict our focus to agreements that display their disparities in their wording, leaving aside variances that show up only "incidentally" in impacts.7

We can comb through existing conventions to illustrate the several dimensions along which differential terms can be provided. An agreement can make differential substantive responsiblities" are nominal, such as reporting requirements, thereby making the term somewhat misleading as applied to the FCCC. But see infra pp. 11–12 (discussing the possible obligation of the Poor to make low-cost abatement opportunities available to the Rich).


4 Not all differentiating agreements favor the Poor. One example is the Washington Treaty apportioning total permissible capital ships among the United States, the United Kingdom, (525,000 tons each), Japan (315,000 tons), France, and Italy (175,000 tons each). Multilateral Limitation of Naval Armament (Five-Power Treaty or Washington Treaty), Feb. 6, 1922, Art. 4, TS No. 671, 2 Bevans 351 (entered into force Aug. 17, 1925) [hereinafter Washington Treaty]. The 1972 London Convention illustrates obligations adjusted by reference to the "scientific, technical and economic capabilities" of the parties. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Dec. 29, 1972, Art. 2, 26 UST 2403, 1046 UNTS 120 (entered into force Aug. 30, 1975). Even within the framework of the FCCC and Kyoto Protocol, which generally soften demands on the poor, some comparatively rich countries, such as Kuwait, Saudi Arabia, and Singapore, have no emissions target while other comparatively poor countries, such as Greece and Portugal, do.

5 Note that arms limitations agreements, like climate change agreements, are responses to the problem of providing a public good: a reduced risk of war and its damages.


7 Other scoping questions remain. What about a nation that agrees to the same standards as the other parties but is subject to a common understanding that it will not really be held to them? Is a nation that signs a nondifferentiating treaty subject to a reservation unilaterally bringing about a de facto CDR? I incline to regard both as CDR, but others may disagree. The questions are only definitional and will not affect the analysis.
requirements, subject some parties to a more favorable compliance timetable, permit special defenses, make noncompliance, if not forgiven, overlooked, or afford qualified nations financial and technical contributions, either to absorb the costs of compliance, or as a pre-condition for their own participation.

Although the term CDR is recent, the practice of differentiating responsibilities in multilateral agreements is not. Differential demands appear no later than the Treaty of Versailles (1919) in which the International Labour Organisation (ILO) recognized “that differences of climate, habits and customs, of economic opportunity and industrial tradition, make strict uniformity in the conditions of labour difficult of immediate attainment.” The post-World War I naval agreements were explicitly nonuniform in the tonnage permitted national fleets. In 1965, the Contracting Parties of the General Agreement on Tariffs and Trade (GATT) added provisions to encourage nonreciprocal trade concessions in favor of developing countries and even, in 1979, expressly enabled “differential and more favorable” tariff treatment.

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8 See, e.g., Washington Treaty, supra note 4; Treaty on the Non-Proliferation of Nuclear Weapons, July 1, 1968, Art. III(2), 21 UST 483, 729 UNTS 161 (entered into force Mar. 5, 1970) (imposing different obligations on non-nuclear-weapon and weapon possessing states, for example, regarding the right to acquire special fissionable material); Kyoto Protocol, supra text at note 2. Kyoto Protocol Annex I parties have a joint goal (reduction of 5% of 1990-level emissions by 2008-2012), but the allocation required to meet the joint target is negotiated inter se and varies. Non-Annex I parties currently have no obligation to commit themselves to quantity limits. Annex II parties have further special obligations beyond those of other Annex I parties relating to the provision of financial resources, technology transfer, and capacity building. The European Union directive on combustion boilers, Council Directive 88/609/EEC, on the limitation of Emissions of Certain Pollutants into the Air from Large Combustion Plants, as amended, 1988 O.J. (L336), provides that four of the wealthier member states (Belgium, Germany, France, and the Netherlands) must reduce their sulfur dioxide emissions by 70% of 1980 levels of 1993; three of the poorer member states (Greece, Ireland, and Portugal) were allowed to increase their emissions over the same period by 6%, 2%, and 7%, respectively. See SANDS, supra note 1, at 337. Variations in demands are not always so express; they can be insinuated, for example, through clauses requiring performance “in so far as possible and as appropriate,” or the equivalent. See Magraw, supra note 1, at 91.

9 Article 5 of the Amendments to the Montreal Protocol, supra note 1, while not adopting the term “CDR” or a cognate, requires industrialized countries to halt production and import of chlorofluorocarbons (CFCs) in 1996, while developing countries, identified by their low levels of CFC and halon use (<0.5 kg per/cap), are given until 2002 to eliminate 50% CFC production and consumption, 2007 to eliminate 85%, and 2010 for complete elimination. Report of the Eleventh Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, Dec. 17, 1999, UNEP/OzL. Pro.11/10, available at <http://www.unep.org/ozone/11mop/report.htm>.

10 LOS Convention, supra note 1, Art. 71 (“The provisions of articles 69 and 70 [establishing fishing rights for landlocked and geographically disadvantaged states] do not apply in the case of a coastal State whose economy is overwhelmingly dependent on the exploitation of the living resources of its exclusive economic zone.”).

11 The double standard is most discussed in the human rights area. See generally Oona A. Hathaway, Do Human Rights Treaties Make a Difference? 111 YALE L.J. 135 (2002). See also Daniel Vive, Implementation of Biodiversity Treaties: Monitoring, Fact-Finding, and Dispute Resolution, 29 N.Y. J. INT'L L. & POL. 577, 631 (1997) (“State governments may feel that they can ratify . . . [environmental] treaties without fulfilling all of the treaty obligations, presenting the public image of an environmental commitment without having to dedicate resources to implementation.”).

12 See French, supra note 1, at 42–45.

13 Article 4(7) of the FCCC, supra note 1, suggests that “[t]he extent to which developing country Parties will effectively implement their commitments . . . will depend on” receipt of financial and technology transfers from the developed country parties. Article 20 of the CBD, supra note 1, adopts the same requirement. See Mark A. Drumbly, Northern Economic Obligation, Southern Moral Entitlement and International Environmental Governance, 27 COLUM. ENVTL. L. 363, 367 (noting that demands by the South for financial and technological support as a condition of participation in international environmental agreements has become widespread).

14 See infra note 22 and corresponding text.


16 For example, under the Washington Treaty, supra note 4, Japan was limited to 60% of the tonnage allotted to either the United States or the United Kingdom.

17 See General Agreement on Tariffs And Trade, opened for signature Oct. 30, 1947, Part IV, TIAS No. 1700, 55 UNTS 187. For the waiver of discriminatory tariffs (the General System of Preferences), see Decision of the Contracting Parties to GATT of 28 November 1979 on Differential and More Favorable Treatment Reciprocity and Fuller Participation of Developing Countries, GATT B.L.S.D. (28th Supp.) at 203 (1980). See Hart & Dymond, supra note 1, at 400–04 (maintaining that some differentiations proved counterproductive); see also GATT Art. XVIII (providing special dispensations for “contracting parties . . . the economies of which can only support low standards of living and are in the early stages of development”). Notwithstanding these exceptions, the overall thrust of GATT, as evidenced in Article I’s national treatment mandate, is certainly toward uniformity.
Both the World Bank\textsuperscript{18} and the United Nations\textsuperscript{19} have adopted formulas for assessing individual members that significantly discriminate in their demands.\textsuperscript{20}

The environment is emerging as the most fertile field for nonuniform obligations. The LOS Convention (1982) is permeated with special privileges for developing\textsuperscript{21} and fish-dependent nations.\textsuperscript{22} The landmark Stockholm Declaration of the United Nations Conference on the Human Environment (1972) endorsed “taking into account the circumstances and particular requirements of developing countries and any costs which may emanate from their incorporating environmental safeguards into their development planning and the need for making available to them, upon their request, additional international technical and financial assistance for this purpose.”\textsuperscript{23}

Consistently with the Stockholm Declaration, several ensuing multilateral environmental agreements (MEAs) began to differentiate in fact, without adopting the term. Among these are the 1991 protocol to the 1979 Convention on Long-Range Transboundary Air Pollution (LRTAP),\textsuperscript{24} and, even more dramatically, the 1987 Montreal Protocol to the Vienna Convention for the Protection of the Ozone Layer.\textsuperscript{25} The Montreal Protocol gave less-developed countries (LDCs) a grace period for coming into compliance, and established a fund to provide them with the incremental costs of implementation.\textsuperscript{26}

The first unambiguous adoption by a multilateral environmental agreement of “common but differentiated responsibilities,” in those words, was the United Nations Framework Convention on Climate Change (FCCC).\textsuperscript{27} Article 3(1) provides that “[t]he Parties should protect the climate system . . . on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.” In accordance with Article 3(1), the Convention has evolved along lines that allocate different responsibilities among different groups of parties. Under the Kyoto Protocol to the FCCC,\textsuperscript{28} the Annex I parties (developed countries)\textsuperscript{29} are obligated (as a group) to reduce their collective greenhouse gas (GHG)

\textsuperscript{20}Moreover, even without express formulas, it appears that the “burden sharing” in furtherance of other agreements has evolved informally. See supra note 9.
\textsuperscript{21}E.g., LOS Convention, supra note 1, Arts. 61(3), 62(3), 69(4), 70(5), 82, 140, 144, 148, 150, 152.
\textsuperscript{22}See id., Art. 71.
\textsuperscript{23}United Nations Conference on the Human Environment, Stockholm Declaration, June 16, 1972, UN Doc. A/CONF.48/14 (1972), princ. 12, reprinted in 11 ILM 1416, 1419 (1972) [hereinafter Stockholm Declaration]; see also id., princ. 23, at 1420:

Without prejudice to such criteria as may be agreed upon by the international community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries.

\textsuperscript{26}See Amendments to Montreal Protocol, supra note 1, Art. 10.
\textsuperscript{27}FCCC, supra note 1, Art. 3(1).
\textsuperscript{28}Kyoto Protocol, supra note 2.
\textsuperscript{29}See id., note 2.
emissions at least 5 percent below 1990 levels by 2008–2012, the non–Annex I (developing) countries are under no such obligation.\textsuperscript{31}

This differentiation, in particular the failure to extract reduction commitments from China and India, became a basis for the United States to sideline itself from Kyoto and therefore from much of the FCCC regime’s progress.\textsuperscript{32} Interestingly, the sense of the Senate does not appear to oppose CDR in principle. In fact, many senators are agreeable to subjecting developing countries to less restrictive constraints, not ruling out even an increase in emissions over the commitment period, as long as they make some commitment on paper.\textsuperscript{33} However, the eighth Conference of the Parties (COP–8) in 2002 ended with a declaration that clearly sidesteps any obligation by developing countries to declare emission targets, much less to reduce them.\textsuperscript{34} The FCCC regime has thus reached a stalemate—some would say collapse—while the world continues to warm.\textsuperscript{35} Disputes over the scope of CDR are a primary cause.\textsuperscript{36} And while

\textsuperscript{30} Notice that there are “differentials” even among the Annex I countries inter se. See supra note 2. Another sort of differential is illustrated by Article 2 of the Sulphur Dioxide Protocol to LRTAP, which provided for the parties to reduce their national annual sulfur emissions or their transboundary fluxes by at least 30% from 1980 levels by 1998; the same nondifferating percentage reduction may differentiate in terms of quantity or required level of effort. 1979 Convention on Long-Range Transboundary Air Pollution on the Reduction of Sulphur Emissions or Their Transboundary Fluxes by at Least 30 Percent, July 8, 1986, 27 ILM 698, 707 (entered into force Sept. 2, 1987). Depending on how we measure equality, the distinction between differentiating and nondifferating becomes ambiguous.

\textsuperscript{31} See supra note 2. Indeed, Arts. 3(5)–3(6) of the Kyoto Protocol, supra note 2, displays further differentiation in providing the “economies in transition” listed in Appendix I with the option of selecting a base year from which to make reductions more favorable than 1990.

\textsuperscript{32} See P. G. Harris, \textit{Common but Differentiated Responsibility: The Kyoto Protocol and United States Policy}, 7 N.Y.U. ENVTL. L.J. 27 (1999). A secondary reason is the present administration’s determination not to accept any measure that would undermine the U.S. economy. See Letter to Members of the Senate on the Kyoto Protocol on Climate Change, 37 WEEKLY COMP. PRES. DOC. 11 (Mar. 13, 2001) [hereinafter Bush Letter on Kyoto]. The \textit{Weekly Compilation of Presidential Documents} is available online at <http://www.whitehouse.gov>. It is unclear what degree of emissions reduction, if any, the administration deems consistent with the economic welfare of the United States, or even whether, at this point, the United States would sign the Kyoto Protocol under any conditions.

\textsuperscript{33} See Harris, supra note 32. President Bill Clinton intimated that it would be acceptable if commitments were made only by the “key” developing countries. See Rajamani, supra note 1, at 120, 120 n.1. In 2001, however, President George W. Bush omitted even these qualifications in indicating his determination to oppose the Kyoto Protocol “because it exempts 80 per cent of the world, including . . . China and India from compliance, and would cause serious harm to the U.S. economy.” Bush Letter on Kyoto, supra note 32. A more current presentation of President Bush’s position can be found in the \textit{Clear Skies and Global Climate Change Initiative}, 38 WEEKLY COMP. PRES. DOC. 232 (Feb. 14, 2002). Developed countries fear that if they tolerate the LDCs’ development to follow lax, environmentally destructive lines—possibly repeating the errors of developing countries—in fifteen or twenty years, when we hope that their economies will have changed, they may find bad habits hard to break. See Richard B. Stewart, \textit{Environmental Regulation and International Competitiveness}, 102 YALE L.J. 2039, 2080 (1993); Michael Weisslitz, \textit{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, 488–90 (2002). The environmental Kuznets curve argument suggests that with rising wealth, the LDCs will clean up naturally, but the effect is less clear when it involves remediying transboundary emissions.

\textsuperscript{34} The final text can be found in the Eighth Conference of the Parties to the UN Framework Convention on Climate Change, 12 EARTH NEGOTIATIONS BULL., No. 209, available at <http://www.iisd.ca/linkages/download.asc/embr12909e.txt>. The \textit{New York Times} reported that “the wording was a victory for the developing countries which fought hard to ensure that the declaration did not include any possible future measures they might have to abide.” \textit{Proposal to Reduce Greenhouse Gases Loses Momentum}, N.Y. TIMES, Nov. 2, 2002, at A4. Farhana Yamin, a close observer of the FCCC negotiations, observed that

many LDCs are very hesitant to accept targets because they feel they have too little control over their economies. Even more basically, they do not have the institutional capacity to monitor and track their own emissions. And of course, finally, many LDCs have not taken on more quantitative targets because they just want to see whether the LDCs meet their own targets—not very well thus far.

E-mail from Farhana Yamin, Fellow in Environment, Institute of Development Studies, University of Sussex, to Christopher D. Stone (Mar. 26, 2002, 09:24 PST) (on file with author).

\textsuperscript{35} See generally DAVID G. VICTOR, \textit{THE COLLAPSE OF THE KYOTO PROTOCOL} (2001), which provides a succinct critical examination of the breakdown at Kyoto and makes suggestions for getting the process back on a more realistic footing.


\textsuperscript{37} Speaking at the closing plenary meeting of COP–8, Steen Gade, who headed the European Union delegation, quoted a statement from Samoa’s representative: “We cannot just sit here through meeting after meeting, year after year, with one side of the room saying we cannot act alone, and the other side saying we cannot accept obligations.” \textit{Declaration Emphasizes Development Plan, Urges Swift Ratification of Kyoto Protocol}, 25 Int’l Envt’l Rep. (BNA) 1055
the FCCC is the most dramatic stage for CDR debate, the issues are not limited to climate change or even to the areas of global environment and resources. CDR is now being put forward by some developing countries—implausibly, I believe—as a “principle” of international law that should selectively relieve them from standards that the World Trade Organization may impose on the more developed countries. A certain momentum is thus building, notwithstanding the charge that “this so-called principle” is neither necessary nor “helpful . . . [t]he [being] no agreement on what it means and no agreement on when it applies.”

I. THE GENERAL BACKGROUND

On first acquaintance, the wide appeal of CDR seems unsurprising. Is it not right that the law should subject the rich to higher demands than the poor? But a moment’s reflection will show that the principle is neither universal nor self-evident. True, the rich pay a higher marginal tax rate than the poor. But differentiations in municipal legal systems are the exception. Poverty does not excuse theft. Domestic environmental regulations do not hold marginally profitable polluters to lower standards than their wealthy competitors.

Why should our posture be different—that is, why should we differentiate more liberally—in the international arena?

To begin with the principles of “customary international law,” I can think of none that does differentiate on the basis of wealth. Surely, the customary rules against piracy and abusing diplomats carve out no exceptions for the needy.

One might expect treaties and conventions to provide more fertile ground for differentiations because no nation can be compelled to join a convention; dangling “softer” commitments before marginally motivated parties is one way to broaden participation. The likelihood of nonuniform terms is increased in agreements, such as framework conventions, the details of which are typically worked out in sequential, multilateral negotiations—first for a broad general set of terms, then for increasingly detailed protocols. The complex, seriatim process should provide each potential party, particularly the nth signer of a requisite n-party (2002). Indeed, Article 3(9) of the Kyoto Protocol, supra note 2, appears to force opening negotiations on commitments beyond 2012, by 2005 at the latest. At this point, however, it is doubtful that the Bush administration would sign on the Kyoto Protocol under any conditions.

36 Daniel Bodansky, The United Nations Framework Convention on Climate Change: A Commentary, 18 YALE J. INT’L L. 451, 501–02 (1993) (indicating the express disavowal of industrialized countries that they were accepting CDR as a customary principle); see also Philippe Cullet, Differential Treatment in International Law: Towards a New Paradigm of Inter-state Relations, 10 EUR. J. INT’L L. 549, 579 (1999) (expressing skepticism that CDR has risen to customary international law); Rajamani, supra note 1, at 124 (“[CDR] cannot technically be termed a ‘principle’”). However, Edith Brown Weiss submits that “[i]though nonbinding, CDR has significantly affected international legal discourse.” Edith Brown Weiss, Common but Differentiated Responsibilities in Perspective, 96 ASIL PROC. 366, 366 (2002).

37 That is to say, applicable to all nations independently of their acceptance of treaties endorsing it.

38 See Committee on Trade and the Environment, World Trade Organization, The Effects of Environmental Measures on Market Access, Especially in Relation to Developing Countries, in Particular the Least-Developed Among Them, WTO Doc. WT/CEP/W/207 (May 21, 2002), available at <http://www.wto.org/mocal/negotiations/environment/pdf/wt/cep-w-207_market_access.pdf>. Paragraph 17, for example, states: “The CET needs to further debate the ways in which the negative effects of environmental measures on the market access of developing countries can be mitigated so as to achieve the objective of sustainable development in a manner consistent with the principle of common but differentiated responsibilities.”

39 Susan Biniaz, Remarks (on common but differentiated responsibility), 96 ASIL PROC. 359, 361 (2002). Biniaz argues that the “so-called principle . . . is over-argued; and . . . breeds laziness in the negotiating process.” Id.

40 The disregard of wealth is not without exceptions. See Gregory C. Keating, Pressing Precaution Beyond the Point of Cost-justification, 56 VAND. L. REV. 653, 687–97 (2003) (identifying several regulatory schemes that reject cost-benefit analysis in favor of “feasible risk reductions,” in which the costs of measures imposed to eliminate significant risks are constrained by the requirements of continued viability of the industry). The Restatement (Second) Torts makes an element in exacting damages for nuisance whether “the financial burden of compensat[ing] . . . would . . . make the continuation of the conduct not feasible.” RESTATEMENT (SECOND) OF TORTS §826(b) (1979).

41 That is, principles generally accepted as law based on general and consistent practices states have followed from a sense of legal obligation. RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES §102(2) (1987) [hereinafter RESTATEMENT (THIRD)].
protocol, considerable temptation to jockey away from the "standard" terms and extract some tailored advantage as the price of keeping the momentum moving.44 For these reasons, we should expect "selective incentives," as Mancur Olson termed them, to be rife.45 Indeed, a Realist critique of international law would predict selectivity that favored the powerful.46 Nonetheless, despite the inducements to differentiate, uniform terms remain the rule. Under the conventions governing the conduct of war, a belligerent's use of poison gas is not excused because it cannot afford canony. The Stockholm Declaration's principle 21 speaks in universal terms that "States have... the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."47 There is no qualification that a lack of resources to mitigate damage constitutes a defense.48 No one proposes adjusting the international standards for radioactive emissions to account for a nation's difficulties in meeting them.49

In fact, the real puzzle about differentiations is not why we have them, but why they emerged so late and appear no more frequently than they do. Differences in power and different "demands" for participation being so typical, it is curious that negotiators have not responded more regularly by offering different "products" in the form of tailored terms.

There are a number of possible explanations why differential obligations are the exception, rather than the rule. To begin with, some conventions, such as those opposed to torture, genocide, and piracy, are too morally unambiguous to admit exceptions (openly)—to agree, for example, that some torture is acceptable until the party in question reaches a higher level of economic development.

Second, one should not dismiss the force of good citizenship in international politics; for one nation to hold out and demand special treatment because its participation was required as the n-th signer would be considered "bad form."50


45 MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS 51 (1965); see also TODD SANDLER, COLLECTIVE ACTION: THEORY AND APPLICATIONS 56-60 (1992) (analyzing Olson's position that impediments to providing public goods can be addressed by selectively tying some parties' provision with private benefits as inducement). But as pointed out in the following text, the benefit need not be a favorable clause.

46 Richard H. Steinberg, In the Shadow of Law or Power? Consensus-Based Bargaining and Outcomes in the GATT/WTO, 56 INT'L ORG. 339 (2002). Steinberg raises the very issue in questioning why powerful entities, like the European Union and the United States, so often support consensus decision-making rules. Id. at 340. Steinberg's answer is that, in fact, the powerful states have not been restrained by formally "equal" rules from imposing their wills on the weak. Id.

47 Stockholm Declaration, princ. 21. The language of the principle, as endorsed by the Restatement (Third) of Foreign Relations Law is interesting in adding the italicized (by the author) qualification to a state's obligation "to take such measures as may be necessary, to the extent practicable, under the circumstances, to ensure that activities within its jurisdiction or control (a) conform to generally accepted international rules and standards for the prevention, reduction, and control of injury to the environment of another state." RESTATEMENT (THIRD), supra note 43, §601 (1) (a). It is uncertain whether this was intended to make an excuse for poorer nations as such; more likely a crude cost-benefit qualification was intended, one that might excuse the United States from responsibility in some circumstances.

48 The difficulties the Scandinavian countries have encountered stanching Russia's transboundary sulfur dioxide (SO2) fluxes from its nickel smelters on the Kola Peninsula may suggest that, in practice, principle 21 recognizes economic hardship de facto; but no one is suggesting that such hardships legitimate the damage. See generally Vladimir Kотов & Elena Nikitina, Nordisk Nickel: Russia Wrestles with an Old Polluter, ENV'T, Nov. 1996, at 6.


50 The rules of the Kyoto Protocol, supra note 2, do not go into force until ratified by nations whose emissions aggregate 55% of the global total. See id., Art. 25. With ratifications up to 44%, Russia, with its 17%, is capable of putting the Protocol over the top; sitting in the n-th signer's catbird seat, it enjoys strong courting from those most anxious for Kyoto to succeed. But, as of this writing, and even in the face of favorable side inducements in the form of technical assistance, it has not signed on. See EU Should Step up Efforts to Cajole Russia into Ratifying Kyoto Pact, Italian Official Says, 26 Int'l Env't Rep. (BNA) 669 (2003).
Third, favoritism even for good-faith bargainers expends the cooperative gains that motivated the original signers. At some point, a cumulation of special pleading exceptions, marking a movement toward the lowest common denominator of demands, will be unacceptable to the major forces. In the many cases where the participation of weak countries is only minimally required, special treatment is out of the question; nations whose impact is marginal may have to take the standard terms or leave them.

Fourth, even where the participation of weak, or of weakly motivated countries, is desirable, cooperation may be purchased through side payments less "expensively" without diluting the treaty's demands. Side payments can take the form of developmental aid, for example, light-water reactors to keep North Korea within the Nuclear Non-Proliferation Treaty, or a diplomatic "credit"—for example, toward gaining admission to the European Union. And of course, laws of universal application are probably less costly both to organize and to enforce. Scaling obligations may bring more players on board, but it also invites fricas over bad faith and rent seeking. How do the negotiators judge when a holdout's demands reflect legitimate claims, such as particularly high costs of compliance, or opportunistic posturing? It may be better to hold all parties to the same terms in the text and settle up, ex ante or ex post, outside it.

II. THREE VERSIONS OF CDR

There are thus several factors pressing for, and others against, the appearance of differentiated responsibilities in international agreements. But what more exactly are the normative stakes? Does CDR deserve support, if not, perhaps, as a principle of international law, then at least as a "guide to negotiations"? At this point, we have to divide CDR into its three possible versions.

In the first version, a proponent might simply be saying that some nonuniformities—which might be called rational bargaining CDR—should be expected and welcomed as natural outcomes

51 To seal the 1911 North Pacific Fur Seal Treaty, the United States made immediate side payments of $100,000 to both Great Britain and Japan. Scott Barrett, Environment and Statecraft 34 (2003). But as Barrett notes, the efficacy of ex ante side payments in the international arena is undermined by obvious enforcement difficulties; the signatory can accept the payment, join the agreement—and then withdraw. Id. at 336.

52 In 1994, the "price" for North Korea's continued participation in the Nuclear Non-Proliferation Treaty (abandonment of its nuclear weapons production and opening to inspection) was that the United States supply it with fuel oil and construct two light-water reactors. Alan Riding, U.S. and North Korea Sign Pact to End Nuclear Dispute, N.Y. Times, Oct. 22, 1994, at A5. There are widespread reports that the inducement for certain nonwhaling nations to join the International Whaling Convention (and to vote sympathetically with Japan) has been the lure of Japanese assistance in reducing depletion of the ozone shield. See Elizabeth Desombre, Distorting Global Governance: Membership, Voting, and the IWC, in Toward a Sustainable Whaling Regime 183, 187–88 (Robert L. Friedheim ed., 2001).


54 See James E. Krier, On the Topology of Uniform Environmental Standards in Federal System—and Why It Matters, 54 Md. L. Rev. 1226, 1290 (1995); Weisslitz, supra note 33, at 486. Weisslitz, citing Richard Stewart, also maintains that imposing less stringent rules on developing countries may come back to haunt all parties, the weak practices becoming disentrenchable. Id. at 489.

55 Swanson, supra note 44, at 129. In view of the added costs of differentiation, Swanson would approve it only in exceptional circumstances, where recognition of a criterion will not encourage opportunistic behavior; for example, recognizing geographic distinctions and predominant skin color in the context of ozone negotiations will not result in parties altering their location and skin color. Id. at 132–35. Swanson would admit developmental stage on the same basis, viz., the unlikelihood that a state will strategically elect to remain undeveloped in order to improve its future bargaining hand. But of course, once stage of development is admitted to be relevant, there are costs of sorting out who is "developed," particularly if no single metric, such as per capita gross national product, can command consensus. Such an issue has already broken out in the FCCC. Issues in the Negotiating Process, Request from a Group of Countries of Central Asia and Caucasus, Albania and Moldova Regarding Their Status under the Convention, at <http://unctccc.int/issues/caccm.htm> (updated Mar. 17, 2003) (documenting request by Armenia and others at the COP–6, pt. II (Bonn, July 2001), regarding the definition of the term "developing countries" as used in the Convention, the Protocol, and COP decisions to determine recipients of financial, technological, and capacity-building support).
of mutually beneficial negotiations among negotiants pursuing their own advantage in the most narrowly self-interested way. Such outcomes, with one party contributing or receiving more than another, could be supported as “efficient” in the sense of being Pareto-improving: they leave at least one party better off, and no party worse off than at the status quo’s no-agreement point.

A second version, what I will call equitable CDR, goes a step further, introducing constraints on unbridled bargaining, but without departing from the commitment to Pareto-improve. After all, the negotiators’ choice set typically includes a number of potential Pareto-improving outcomes, and CDR might be understood simply as constraining the parties to choose, from within this set, treaty terms that tilt the cooperative surplus more favorably toward a designated group of parties, paradigmatically the Poor.

A third position, what might be called inefficient CDR, goes a step still further in advantaging one group—again, say, the Poor. It would carry differentiation beyond the point of awarding them the entire net surplus of cooperation. In the interests of “righting” the inequity of the status quo ante, the Rich-Poor transfers would leave the Rich worse off than before negotiations began. The idea (as reflected in the Johannesburg summit) is that environmental negotiations, like any others, should be conscripted into the service of the overarching goal, wealth equalization.56

The three positions can be illustrated by imagining two adjacent coastal nations which jointly exploit a stock of fish that straddles their economic zones. The one country, R, is Rich, and enjoys a wide range of food sources. P is Poor, and heavily dependent on the sea for protein. By cooperating, the two nations can increase the value of the harvest. Cooperation could take the form of monitoring to diminish unlawful catches by third parties, restoring nursery areas, and so on. Suppose that for a mutual $100 investment they can increase the value of the harvest by $200; in other words, there is a potential $100 net gain from cooperation, perhaps in the form of raising maximum economic yield an additional one hundred fish per annum. How are they to divide the gain?

To accept CDR in the first sense of rational bargaining CDR is to accept whatever division of the net increase the parties hammer out. Of course, each party will require that, at a minimum, it be repaid the value of its investment. If they each put in $50, they would each have to get at least that amount in return. But to focus on the cooperative gain is to distribute the one hundred fish surplus. R and P could decide on a nondifferentiating 50:50 split, but R and P could also divide in the ratios 90:10, 10:90, or 99:1. Much depends on their bargaining skills, although the Nash solution to the bargaining problem suggests that, in rational (self-interested) bargaining between a Rich and a Poor bargainer, Rich, for whom failure to reach agreement would be less onerous (it needs the fish less than Poor does), will emerge with a more than equal share of the net benefit in dollar value.57 Rich in effect leverages its lower urgency into a higher payoff.58 The result is that if we rely on rational bargaining, unfettered by normative constraint, Rich might emerge with a 90:10 advantage.

CDR understood in the second sense, equitable CDR, would block Rich from such a one-sided, self-favoring result. A “fairness” norm would constrain Rich to accept 10:90 or even 1:99. Poor would get the lion’s share of the surplus, but Rich would be no worse off.

56 See, e.g., Johannesburg Declaration, supra note 5, para. 89 (urging debt relief and, as appropriate, debt cancellation).

57 J. F. Nash, The Bargaining Problem, 18 ECONOMETRICA 155, 155–62 (1950). The Nash solution locates the outcome at the point that maximizes the product of Rich and Poor’s utilities, which, assuming declining marginal utility of wealth, will not accord with a 50:50 division of the wealth-measured gains. The fact that Poor would be expected to draw less than 50:50 division is not, in and of itself, a moral argument that Poor ought to get less, without demonstrating that the “just” division is that which replicates the solution the parties would have achieved through rational bargaining. This is consistent with the Realist position that powerful states will dominate weak states. See Steinberg, supra note 46.

58 This explication of Nash owes to John Harsanyi. See Brian Barry, Theories of Justice 12–24 (1989).
The third, more extreme version, inefficient CDR, would commit Rich to favor Poor to an extent that not only improved Poor's welfare position, but also set Rich's back. For example, the agreement might give Poor the entire one hundred fish surplus, plus some fishing technology, plus a right to a fraction of the catch that was Rich's prior to the negotiation.

When we review the differentiating treaties recorded in the introductory pages, it is impossible to specify which version is reflected in which treaty. Plenty of literature suggests that some notion of fairness—on which the second and third versions rely—is a crucial consideration in concluding multilateral agreements.59 If true, that would diminish the scope of rational bargaining CDR and enlarge the scope of fairness/equity constraints. But the effective strength of fairness/equity concerns is controversial,60 and in all events unresolvable. Did the major players in the Montreal Protocol negotiations make concessions to LDCs to be “fair,” or because it secured them the best deal available?

The notion of “national self-interest” is so ill-defined that it is hard to interpret where the force of self-interest ran out and equity or some softer value took hold. But let us demonstrate that most of the differentiations that we have seen thus far are at least consistent with the parties' engagement in rational bargaining unbridled by “fairness.” To the extent a rational bargaining explanation holds, it undermines the claim that CDR has been operating as a normative constraint widely adopted in state practice.

Rational Bargaining CDR

Any claim about the pervasiveness of “rationality” risks its own oversimplification. The fact that there are so many sorts of multilateral negotiations makes it as difficult to generalize about what is “rational” as about what is fair.61 Some multilateral arrangements, typified by the World Health Organization's efforts to eliminate globe-spanning diseases, aim at the provision of pure public goods. There, each contributor's costs (contributions) are borne privately, while the benefits are conferred on the public at large. That is, the derived benefits of an AIDS-free world are available to all, whether they contributed or not. In still another set of negotiations, aimed at overcoming overuse of an open access commons, the costs (of congestion or reduced fish stocks) fall on the public in common, while the derived benefits of the corrective collective action (the reduced congestion, the added fish) are in the form of privately captured benefits.62 The level of some public goods, such as freedom from terrorism, tends to be set by the “weakest links.”63 The “rational” bargaining reaction shifts accordingly.

While there is thus no single model for multilateral agreements, we can take, as a crucial and typical illustration, negotiations aimed at reducing the risk of climate change, ozone shield
depletion, or the crash of a common pool fish stock. The prevailing level (of carbon, ozone-depleting agents, or fish) is a public good in that all parties “take” the supply that prevails, whether the country contributes to the improvement effort or not. Inasmuch as different nations attach a different value to each level of the good (each level of risk purged), differential contributions may be a perfectly rational outcome of self-interested negotiations, without any pressures of fairness.

To illustrate, let us again start with two countries, Rich and Poor, confronting the risks of climate change. The negotiating landscape is detailed in figure 1 (p. 287). In essence, it assumes that for Poor, with its lower level of wealth, reducing risk is of lower priority than other items on its agenda 64. The analysis demonstrates that if each party were to act solely in its own self-interest, the result would be for Rich to pay the entire cost of mutually desired risk reduction; the amount of protection that Poor would underwrite in its own interests would be underwritten by Rich independently, in its interests. As a result, Poor free rides on the supply Rich buys. The differentiation is total without any independent pressures of “fairness.”

Let us take the analysis a step further. Surely, if the parties cooperate rather than act independently, there is room for mutual gain. Cooperation can take several forms.

Cooperation in the form of pooling marginal costs. At any point in time, some countries (characteristically, Rich) will have made further investments than others (characteristically, Poor) in providing for a regional or global public good. As we have just illustrated, in some cases, all measures taken may have been undertaken by Rich. We know, too, from the increasing marginal costs of abatement, that the cheapest measures will have been taken first: Rich will have eliminated the ton of emissions it can eliminate at $1 before it advances on the ton it takes $2 to eliminate, and so on. At each level of elimination, Rich’s most effective step is to “pick off” the least costly ton it can find not only in its own territory, but on any territory, including those of the less-developed Poor. At some point, $1 spent at home will remove fewer global pollutants than an equivalent amount spent on the best opportunity abroad.

The negotiating space is illustrated in figure 2 (p. 289). What it demonstrates is that it is mutually beneficial for Poor to permit Rich to pick up Poor’s costs of abatement; in effect, to “lease” access to Poor’s supply of low-cost abatement opportunities. (Think of Poor’s lower costs as a valuable “resource” to the industrialized, like its oil.)

Notice that Rich gets further risk reduction, paying a lower unit price (P89) than it would have paid at home. Because the good (the reduced risk of climate change) is public, Poor shares the benefits of the further reduction. And it has paid nothing for it. Once again, what emerges—this time from an agreement—is a differentiation, but not one that requires departure from unalloyed, self-interested bargaining.

The strategy of figure 2 is in fact widespread. It underlies environmental agreements such as that establishing the Global Environment Facility (GEF) and the Montreal Protocol’s multilateral fund. These provide a vehicle for the Rich to pay the Poor, via multilateral funds, the “agreed full incremental costs” of certain risk-reducing projects. 65 The idea is for Rich to

64 A number of factors could lower Poor’s demand, including situational considerations (distance from equator in the case of ozone-shield-depleting agents) and differences in and marginal utility of wealth being tapped for amelioration of the risk. It is imagined that Poor, lagging behind Rich in stage of development, would not be at the same point on the environmental Kuznets curve, that is, would not have put as high a share of its national income into pollution abatement (amenities supply). It should be remembered that some risks, such as those of sea level rise from climate change, are especially severe for some Poor countries even in the medium term, e.g., island states.

65 See Kyoto Protocol, supra note 2, Art. 11(2)(b) (providing such financial resources, including for the transfer of technology, needed by the developing parties to meet the agreed full incremental costs of advancing the implementation of certain commitments); Amendments to Montreal Protocol, supra note 1, Art. 10(1) (providing that the multilateral fund, funded by the developed parties, “shall meet all agreed incremental costs of such Parties in order to enable their compliance with the control measures of the Protocol”). The theoretical background of transferring money versus in-kind technology is examined in Simon Vicary & Todd Sandler, Weakest-Link Public Goods: Giving In-Kind or Transferring Money, 46 EUR. ECON. REV. 1501 (2002).
The x-axis represents the units of accumulated carbon reduced from the atmosphere; the origin is set at the present level of congestion; further right, further reductions. The y-axis represents the price each party is willing to pay (WTP) to achieve each unit of reduction. The demand (marginal benefit) curve for a Rich country is $D^R$. The curve slopes downward because the more congestion has been lowered—the more perils quelled—the less it is worth to eliminate the remaining risks. Poor’s demand, $D^P$, is represented as lower than Rich’s. The benefits curves are depicted as crossing the x-axis—falling to zero—based on the fact that some level of atmospheric blanket is a value crucial, indeed, to life on earth. How much of the current blanket is a risky “excess,” the removal of which each country will finance, depends strongly on its social rate of discount which I presume to be steeper in Poor than in Rich.

Rich’s and Poor’s upward sloping marginal costs reflect the fact that the costs of eliminating pollutants rise, the more units have already been removed. The effluents that are least costly to eliminate are selected for purging first (coal-fired plants or whatever); hence the costs increase with each additional unit. By positioning the two curves as virtually identical, we recognize that the shape and location of national marginal costs curves are subject to so many variables, including access to technology and capital, that it is impossible to generalize whose curve is higher or lower, Rich’s or Poor’s. In fact, the location “in general” does not matter, for we will see that some Rich, having already eliminated the emissions that are purged most costlessly in their own jurisdictions, will, in seeking further reduction opportunities, select as “partner” a (typically) Poor country that is facing lower reduction costs. Here, Rich will seek $Q^R$ (at a unit price $P^R$) that is beyond the reduction that Poor would finance from its own pocket, $Q^P$. But R “covers” P.
absorb any costs that Poor incurs to reduce the risks over the level that is cost-beneficial from Poor’s own, noncooperative perspective.66 The differentiation that results requires no notion of fairness to drive it.

**Cooperation in the form of pooling marginal benefits and dividing costs.** But agreeing to exploit the lowest cost abatement opportunities—pooling marginal costs—does not exhaust the zone of mutually beneficial cooperation. There remains some action that Rich would no longer find rational to pay for exclusively, but that would be rational if (and only if) Poor contributed something as well.

To illustrate, imagine a large-scale geo-engineering project to reduce carbon congestion, such as constructing a network of giant lasers to “scrub” greenhouse gases from the atmosphere.67 Assume that the economies of scale are such that the minimum feasible project costs $10 billion. The public goods benefits are such that at some division of costs it is to both Rich’s and Poor’s advantage to undertake the project; but neither will go ahead without assurances that the other party will put up some threshold portion.68

The bargaining field is depicted graphically in figure 3 (p. 289). The parties recognize that because the reduction of carbon congestion is a public good, they should not only pool their marginal costs, but consider the prospect of pooled benefits. The parties identify an area (the shaded triangle C-D-E) that offers mutual benefits—if they can cooperate in providing the costs (the checkered quadrilateral). This requires agreeing on a formula for dividing the costs. The problem is that if each party is “rational” in the narrowest sense, neither will make a concession. They are stuck, in the language of game theory, in a dominant Nash equilibrium in which, although cooperation would be Pareto-improving, neither party will unilaterally alter its noncooperative strategy.69

As in the illustration of the neighboring fishing nations, their progress toward the optimal solution, if any, and the division of the burden, is indeterminate.

Here, we reach a point where rational bargaining CDR might be adjudged inferior to equitable CDR—one in which there is an understanding that when bargaining gets “stuck,” it is Rich who should budge, abjuring hard bargaining, and perhaps accepting any outcome that leaves it no less well-off. What can be said about such an “equitable” understanding of CDR?

**Equitable CDR**

CDR might be understood to mean (say, as a soft principle of international law) that the Rich(er) at least concede the lion’s share or perhaps even all of the cooperative gains to the Poor(er).70 I want to put aside the question, Is it likely Rich would agree? and instead examine the normative question, Is placing the heavier burden on Rich morally persuasive? The moral grounding of CDR has been intuitive and vague from the start. As we have seen, it was not until the 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro

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66 A nice illustration of such cooperation is the GEF-backed Latvian waste management project. The target waste site in Riga not only pollutes groundwater, it generates methane, a greenhouse gas with far greater blocking power than CO2. GEF funds will support installation of technology that captures the methane and uses it to generate electricity, thereby reducing GHG emissions both directly, to the extent methane is replaced by more benign atmospheric input, and indirectly, to the extent the electricity provided through the captured methane relieves demand that would have been met through fossil fuels. See World Bank, Latvia—Solid Waste Management and Landfill Gas Recovery Project (GEF Project) (Feb. 28, 1998), at [http://www.wds.worldbank.org/servlet/WDS_IBank_Servlet?pcontentId=details&ei=000009265_3980429110806].

67 See William J. Broad, Scientists Dream up Bold Remedies for Ailing Atmosphere, N.Y. Times, Aug. 16, 1988, at Cl.

68 See Sandler, supra note 45, at 42–44.

69 See Todd Sandler, Economic Concepts for the Social Sciences 40 (2001); Sandler & Arce, supra note 62, at 357 (absent special circumstances, such as the game being played indefinitely and repeatedly with some threat-based strategy, the mutual contribution Pareto-optimal will not be achieved).

70 I put aside for a moment the more demanding alternative that the Rich redistribute even to the point of emerging less well-off (see below).

The two countries’ marginal costs, MC, curves are added horizontally to provide a social (combined) MC curve. Rich’s self-interest is now revisited to advance out to the level $Q^R$—marked by the intersection of its demand curve with the now-available social costs curve. The associated price is $p^R$, less than the original price, $p^R$. Rich’s potential gain is depicted in the shaded quadrilateral, $p^R-A-C-D$. Poor’s benefit is the checkered area, $Q^P-B-D-Q^R$. How far the combined curve rotates down is a function of the MC curve of the Poor partner and the countries’ relative production of pollutants.

The parties’ demand curves, $D^R$ and $D^P$, are summed vertically to reveal their mutual benefits, $D^{R+p}$. This is what they are rationally willing to pay between them for each level of improvement. The marginal costs, MC $^{R+p}$, remain pooled, as in figure 2. Rich, of its own, will not underwrite reduction beyond $Q^R$, located by the intersection of its own demand with the pooled costs. But when they consider the combined benefits, $Q^*$ is the efficient outcome. If additional investment—the checkered area—is forthcoming, R and P will realize the benefit, C-D-E, by extending reduction to $Q^*$. But to achieve C-D-E they must cooperate in providing the costs $Q^R$-C-E-$Q^*$. 
that CDR emerged as a distinct normative principle, complete with its own term.\textsuperscript{71} But the Rio Declaration alluded to several normative positions on which differentiation might be based.

Principle 6 introduced the theme: "The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority."\textsuperscript{72}

Principle 7 fleshed it out, stating:

In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.\textsuperscript{73}

These principles, taken together, advance at least three arguments for differentiation. Principle 6, in alluding to the undeveloped and vulnerable, suggests (1) differentiation in accordance with needs. Principle 7 begins on a note of differentiations in accordance with (2) the pressures each country places on the environment, and concludes with (3) differential capabilities in terms of wealth and technology.

One problem with these criteria is that they may conflict. A ranking of the most needy nations, generated under (1), does not necessarily mirror a ranking of the nations most responsible for damage, generated under (2); nor yet again are the states most responsible for damage necessarily those with (3) the superior capabilities.\textsuperscript{74}

But let us put this problem aside and ask, How coherent and convincing are any of these rationales for "equitable" differentiation?

\textit{Differentiation in Accordance with Needs}

Principle 6 calls attention to the fact that although some risks fall across all nations, some nations are more needful of help than others. For example, one consequence of climate change might be inundation of low-lying coastal areas. (Bangladesh and the Alliance of Small Island States (AOSIS) come to mind.) Some fear that the melting of Andean glaciers, a crucial source of freshwater for Bolivia and Peru, will shrivel them to critical levels in a matter of decades.\textsuperscript{75}

One might imagine that the need-based claims for differentiation require little justification. The position wins recognition, albeit nebulously, in the FCCC.\textsuperscript{76} But the normative implications of need are not self-evident.

To begin with, need, per se, is not ordinarily a sufficient moral condition for wealth transfers. Ordinarily, the person who needs something more is expected to pay more, not to be

\textsuperscript{71} Rio Declaration on Environment and Development, UN Conference on Environment and Development, UN Doc. A/CONF.151/5/Rev. 1 (1992), 31 ILM 874 (1992) [hereinafter Rio Declaration]. The principles are probably but guides to negotiation, not legally binding even as instantiated in the FCCC. See David Freestone, The Road from Rio: International Environmental Law After the Earth Summit, 6 J. ENVTL. L. 193 (1994). However, Freestone later ventures that

the Declaration reflects a real consensus of developed and developing states on the need for generally agreed norms of international environmental protection. Despite certain reservations on the part of the United States, the principles and rules it contains have a universal significance and cannot be dismissed as the work of one segment of international society.


\textsuperscript{72} Id., princ. 6.

\textsuperscript{73} Id., princ. 7.

\textsuperscript{74} Consider, in regard to this last point, the states of the former Soviet Union, which include some nations that are historically heavy GHG-emitters—high-ranking "causers"—but are relatively lower in capacity to remediate.

\textsuperscript{75} See Juan Forero, As Andean Glaciers Shrink, Water Worries Grow, N.Y. TIMES, Nov. 24, 2002, at A3.

\textsuperscript{76} FCCC, supra note 1, Art. 4(8) (enjoining the parties to "give full consideration to what actions are necessary... to meet the specific needs and concerns of developing country Parties"). Article 4(9) is similar.
subsidized by the person who needs it less. A person who lives on Los Angeles's fire-prone hillsides needs fire insurance more than the flatlanders—and pays a higher premium.

Principle 6, therefore, probably stands on its firmest moral ground when it is understood as favoring the needful, not in the sense of high-risk exposure, per se, but of exposure that is high in light of limited resources to mitigate the risks. In other words, to find moral support (Why ought we to favor them over us?) the "need" argument has to appeal to the same foundations that may oblige the wealthy to relieve victims of famine or earthquake in a distant, impoverished land.

Respectable philosophical arguments have been made for a duty to rescue strangers, from both neo-Kantian and utilitarian bases. But even if such arguments were accepted, the implications for any present international policy, using multilateral environmental agreements as "rescue" vehicles, for example, would remain unclear. In general, the poorer countries are probably more vulnerable to a broad range of climate change perils for the same reason they are more vulnerable to almost any perils—they have fewer resources with which to defend their assets and to adapt. But beyond that, we know so little about how, when, or where the perils of climate change might unfold (through droughts, freezing, desertification, pests, and so on) that it is hard to judge what differentiated measures a needs-regarding equitable CDR would call for.

Differentiation in Accordance with Harm Caused

Rio principle 7, in calling for the assignment of heavier contributions to developed countries in response to "the pressures their societies place on the global environment," shifts the focus from Poor’s needs to Rich’s wrongs. If we agreed to put the principle into action, it would mean that the Rich (and everyone else) should be confronted with the full social costs of their emissions. Thus understood, the principle is no more controversial, or peculiarly equitable, than declaring that the polluter should pay.

Principle 7 represents an equitable departure from efficiency, and becomes controversial, only when understood not as written, in the present tense ("their societies place"), but as past tense ("their societies placed"), so as to count against a polluter its historically cumulated emissions. If that is the claim, then it has indeed to appeal to some notion of fairness truly distinct from efficiency, which has nothing to say about past harms.

Claims for an accounting based upon past conduct are not unknown in the MEA context. Consider India’s 1989 demand that the developed nations transfer $2 billion as a precondition

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77 Consider the negotiations over ozone-depleting substances. The thinning of the ozone shield poses its gravenest risks to light-skinned populations living at high latitudes. That is because the thinning is most pronounced toward the magnetic poles and its principal direct human health hazard is skin cancer to which fair-skinned people are most susceptible. Therefore, it was not surprising, at the London ozone negotiations most markedly, to find (in the Northern Hemisphere) the Scandinavian countries, Germany, and Canada, and (in the Southern) New Zealand and Australia, taking the lead in pressuring for the most rapid phaseout of ozone-depleting agents. Their citizens needed the agreement more than the Indians and Chinese, who resisted signing onto the phaseout unless they were compensated by side-agreement for the higher costs of substitute refrigerants. The more vulnerable were expected to pay the less vulnerable.

78 The obligations of the Rich to succor the Poor are especially strong to the extent the Rich may be the cause of the Poor’s plight, and not merely bystanders to erratic nature. See ONORA O’NEILL, FACES OF HUNGER: AN ESSAY ON POVERTY, JUSTICE AND DEVELOPMENT 144–163 (1986).

79 See PETER SINGER, Famine, Affluence and Morality, in WRITINGS ON AN ETHICAL LIFE 105, 105–24 (2000).

80 Rio Declaration, supra note 71, princ. 7.

81 Many would ground a polluter pays principle on “fairness,” but in its welfare economic version an ideally efficient (Pigovian) tax is set at a level that induces efficient adjustments by the “victims” as well as by the polluters. Efficiency concerns dominate corrective justice. Unlike recovery in tort, the state, not the victim, collects the fee.

for it to sign the Montreal Protocol, on the grounds that “it is the Western nations that caused the ozone depletion.” Such a demand could find support in Locke’s “proviso” that asserts the right of each person to appropriate from the commons, viz., that the right exists only insofar as the appropriator leaves “enough and as good for others.” Conscripting this reasoning, a developing country might liken the risk-free absorptive capacity of the atmosphere to a “good” in the global commons. It could thereupon argue that the pressures it faces to reduce its emissions came about because the early industrializers had been congesting the atmosphere—over the past two centuries “taking” its safe-level absorptive capacities—without leaving, in the terms of Locke’s proviso, “enough and as good” for the late bloomers.

Carrying out this line of argument is not without difficulties. For one thing, it is not clear why a contemporary U.S. citizen should make amends for the overuse of the global commons during the stretch before her forebears had immigrated. The demand opens complex issues akin to those raised in demands that white people in the United States and Europe pay African nations for damages done during the slave-trade period.

Moreover, against the Poor’s imperfect argument for historical blame must be weighed the ironic argument for adverse possession and prescription available to the Rich, that after a long period of wrongfully occupying (or trespassing across) another’s land, the “wrongdoer” wins recognizable rights based on, among other things, morally salient reliance interests.

Indeed, the Kyoto Protocol might be viewed as recognizing the force of such interests in allocating targets among the Annex 1 countries; targets are expressed as a percentage decrease from a baseline year, thereby legitimating the rights of the heaviest polluters to continue the heaviest pollution.

Polluters are awarded, in effect, easements to continue to commit global nuisance based upon the hardship of surrendering “rights” won from historical “wrongs.”

**Differentiation in Accordance with Technological and Financial Resources**

To justify the second branch of principle 7, that the burden should be slanted toward those parties with greater resources, nothing is required beyond utility maximization coupled with the assumption of declining marginal utility of wealth. If a beggar and a millionaire each lose a dollar in the park, the loss represents a lesser reduction in utility to the millionaire. Similarly, demanding a differentiated, viz., heavier, contribution from the rich states in dollars may be (depending upon the level) asking no more than a ratable or even lighter contribution by the Rich in welfare measured by utility. It is such thinking that gives rise to the cry of developing countries that, in addressing reduction in GHG outputs, “luxury emissions” should not be treated on a par with “subsistence emissions.” Whether or not the Rich can be made to accept the argument—not the issue here—surely, equitable CDR can command strong intuitive moral appeal. At least as long as the Rich are made no less well off, why not shunt the lion’s share of cooperative gains to the Poor?

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82 In other words, the fisher’s ownership of the fish taken from a common pool is recognized, as long as the fisher leaves for others all that the others can use. See JOHN LOCKE, SECOND TREATISE ON GOVERNMENT §87 (Thomas P. Peardon ed., 1952) (1690).

83 It is tempting to sidestep these conundrums by refocusing the argument away from the damage formerly imposed and toward the continuing benefits received. The Poor can charge that those of us with the good fortune to have been born in the developed world are the beneficiaries of bygone extravagances, wherever our forebears were living in their lifetimes at the time of the conduct. We have (it may be argued) a differentiated responsibility rooted not as much in the duty to pay damages for consummated wrongs as, alternatively, in either the duty to make restitution of inequitable gains or to compensate for the higher costs that late industrializers face under the more confining legal targets required by the early industrializers’ appropriations.

84 Oliver Wendell Holmes rooted adverse possession in the claimant’s “deepest instincts” of resentment at having to relinquish property she had used as her own over a long period of time. Oliver Wendell Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 477 (1897).

85 Kyoto Protocol, *supra* note 2, Art. 3(3), (5), (7) and Annexes referred to therein.

In efficient CDR: Should Welfare and the Environment be Coupled?

But should we go further to alleviate the plight of the Poor? In bargaining outcome CDR (above), absent procedural defects such as information asymmetries, what is "legitimate" is whatever agreement (with its differentiations) emerges. In equitable CDR (above), the range of legitimate outcomes is confined to the set of Pareto-improvements, but within that set, distribution of cooperative benefits is allocated more heavily (or wholly) toward the Poor. This can easily command support. Controversy is more likely with inefficient CDR, which would advance Poor's welfare unconditioned by mutual, if even marginal, advances for Rich. Such a position underlies the demand, already alluded to, that Rich retroactively amend for damages, or unpaid-for advantages. The limits are to be set by some sort of corrective justice, not efficiency. The idea likewise underlies the calls, most recently at the Johannesburg summit, for debt relief, debt cancellation, and grants. After all, among the Poor, appeals to "efficiency" and "Pareto-possible improvements," which accept the status quo's (mal) distribution of wealth and proceed from there, ring hollow. In their minds, the starting point—the way things are—is not off the negotiating table but remains the key issue. That is the significance of elevating development to "an inalienable human right"; efficiency is out of court. The conviction that equity and fairness override efficiency runs so strong that proposals to award developed countries abatement credits for foreign-soil investments have been staked by objections that those who caused the problem ought not to be permitted to buy their way out on foreign soil—even if "leasing" low-cost opportunities is, as we have shown, mutually beneficial.

As for finding a moral foundation for a "tilt" toward the Poor not constrained within the limits of Paretoian efficiency, one approach would be through a "veil of ignorance" thought experiment. We might ask, What rules and institutions would be selected by an embryo who did not know whether its fortune would be to be born in the United States or in Bangladesh? Surely, even without the presumption of risk aversion, it is not hard to imagine that we would be attracted to institutions that leveled gross wealth disparities, perhaps grounded on economic or social "rights to development." But even if we suppose that the present worldwide distribution of wealth is so unsupportable that some Rich to Poor redistributions are in order, it is an additional leap to defend redistributions within the matrix of a particular framework, such as a multilateral environmental agreement. Why should redistribution be sought through exempting the Poor from

90 See supra pp. 291-92.
91 Johannesburg Declaration, supra note 3, Art. 89.
92 Daniel C. Esty & Robert Mendelsohn, Moving from National to International Policy, 51 POL'Y SCI. 225, 228 (1998). Esty and Mendelsohn tout efficiency, as many northern scholars would do, "as a step toward credibility." But whether demonstrating that a solution is efficient adds to credibility among the Poor is uncertain. See A. Dan Tarlock, Environmental Protection: The Potential Misfit Between Equity and Efficiency, 83 U. COLO. L. REV. 871, 876-81 (1992) (tracing "the historical roots of the subordination of equity to efficiency").
93 See Declaration on the Right to Development, GA Res. 128, UN GAOR, 41st Sess. (1986).
94 Tarlock observes that since the 1992 UNCED meeting in Stockholm, "developing countries have generally urged that they have an 'equitable' right to pollute." Tarlock, supra note 92, at 871 n.3.
98 A good and concise exposition of the daunting area of transnational and international distributive justice is found in Allen Buchanan & David Golove, Philosophy of International Law, OXFORD HANDBOOK OF JURISPRUDENCE AND PHILOSOPHY OF LAW 868, 897-902 (Jules Coleman & Scott Shapiro eds., 2002).
efficient environmental and resource standards—giving them a “right to pollute”—rather than through a more straightforward step-up in aid and development assistance?

In fact, while coupling clean air or other environmental policies with welfare goals may appear to be an obvious solution to the duality of the problems—pollution and poverty—coupling has drawbacks, which explains why it is so infrequently adopted. Put another way, should the fight against poverty extend to making poverty a defense against laws against pollution? The alternative is to entrust environmental aims to the environmental laws, and welfare to the welfare system. One reason to decouple is that the merging may lead to an outcome suboptimal to the achievement of both. To make matters worse, combining the two reduces transparency and accountability.

The California Motor Vehicle Code’s provisions for inspection and maintenance of catalytic converters provides a provocative illustration of what can go wrong when environmental and welfare policies are cobbled into one well-intentioned regime. The law caps the dollar cost of repairs that an owner may be required to pay, depending largely on the age of the car. The idea is to shoulder less economic burden onto the Poor, who are presumed to be the owners of the old cars. The problem is that from an air-quality perspective, the older cars are the dirtiest polluters, the ones we should be most concerned to repair or drive off the roads, not coddle. And from a welfare perspective, the law fares hardly better. The age of an owner’s car is an imperfect indicator of poverty. Vintage cars may be collector’s items for the very rich; and the most needy among us do not own a car at all. That is why no one who set out to attack poverty would go about it by distributing $400 to every Californian with a car thirty years old or older.

The ideal solution would be to devise the best auto emissions policies, with eyes on the worst polluters, and the best antipoverty policies, with eyes on the most needy. Of course, the world is not California. But there are real parallels. In MEA negotiations that combine environment with “need,” the countries that can extract the largest concessions in, say, transfers of technology, are not apt to be the poorest countries. Rather, the “winnings” will go to those poor countries that can most credibly threaten industrialization along “dirty” paths from which they must be diverted, or that are richest in biological hot spots.

99 However, institutional sympathy for variations in wealth may turn up at sentencing. See U.S. SENTENCING GUIDELINES MANUAL § 8(C)(3) (finding applicable to convicted organizations whose fine in strict accordance with the guidelines might “substantially jeopardiz[e] the continued viability of the organization”).

100 The position in the text is in accord with the Louis Kaplow and Steven Shavell warning that if independent weight is given to a notion of morality under a measure of social welfare, in some situations the utility of every individual will be lowered. Louis Kaplow & Steven Shavell, Non-Welfarist Method of Policy Assessment Violates the Pareto Principle, 109 J. POL. ECON. 281, 284 (2001).

101 The maximum repair bill that the owner can be forced to pay is $450, with caps declining for cars by age of vehicle, down to $300 for the oldest (1971 and earlier vintage). CAL. HEALTH & SAFETY CODE § 44016 (2003). In practice, the administration is complex, providing for consumer assistance centers that enable repairs by picking up some portion of the bill in accordance with owner’s income. Cal. Dep’t of Consumer Affairs—Bureau of Automotive Repair, “Smog Check Consumer Assistance Application Package” at http://www.smogcheck.ca.gov/tbp/pdfs/cap_app.pdf> (last visited Apr. 2, 2004). In some cases, excess repair bills of the Poor are shared by or picked up by the state, while in other cases, cars that cannot be brought into compliance may receive exemptions. See id.

102 Perhaps most crucially, California can tax and the United Nations cannot. See Louis Kaplow & Steven Shavell, Should Legal Rules Favor the Poor? Clarifying the Role of Legal Rules and the Income Tax in Redistributing Income, 29 J. LEGAL STUD. 821 (2000) (arguing that, assuming taxes are available, it is generally more efficient to transfer a dollar simply through raising taxes than through skewing regulatory regimes toward redistributive goals). But see Daniel A. Farber, What (If Anything) Can Economics Say about Equity? 101 Mich. L. REV. 1791 (2003) (maintaining that in some circumstances legal (regulatory) rules can be superior redistributive mechanisms, even from an efficiency perspective). Whoever is right, if taxation as an alternative is moot internationally, the case for “coupling” in the international arena, though complex, must be considered alive.

103 See Drumbl, supra note 13, at 370. Drumbl adds that transfers under international environmental agreements may exacerbate the developmental gap because, first, they may divert funds to resolve global-scale problems, thereby overlooking some of the worst environmental problems facing the very poorest countries, such as dirty water, which are local; and second, donors are likely to favor transfers to those nations with the best-developed regulatory and market institutions, and are therefore apt to provide a better return on the donors’ investments with lower transactions costs. Id. at 379–80.
Moreover, from the Poor nation’s perspective, there is no assurance that the bigger slice of gains that cooperation would enable in the environmental area will be handed back to the Poor as a bigger slice of aid, rather than be consumed by the Rich. That is an impediment to dividing negotiations into “pure environmental” and “pure aid” fora. And it explains why, at Johannesburg, while lip service was paid to the environment, development and elimination of poverty, pure and simple, were what dominated the LDCs’ agenda.\(^{104}\)

This is not to imply that the developing countries are indifferent to global-scale environmental problems. But development is more urgent. Recall, too, that as far as the global environment goes, the Poor already get considerable free-ride “cover” from public goods investments that the Rich will make, such as research and development to pave into a hydrogen economy, whether the Poor cooperate or not (figure 1).\(^{105}\) It is true that Poor could do better, environmentally speaking, by cooperating as figure 3 suggests. But the benefits Poor anticipates from the contribution that collective action requires, beyond what Rich will provide independently, may appear lower than what Poor would get from returns on investment in education, public health, and other infrastructure.

The trouble is this: from Rich’s point of view, as the share of cooperative contribution by the Poor diminishes (or turns negative!), it becomes increasingly attractive to identify and embrace environmental policies that are second-best.\(^{106}\) We can illustrate by returning to the lost inertia of the Kyoto negotiations.

Kyoto: The “Coupling” Dilemma Illustrated

It was the hope of many that the Kyoto Protocol would set up a capped-emission, permitting mechanism that would reduce climate change risks efficiently, within the bounds of mutually beneficial gains (figure 4, p. 296).\(^{107}\) But efforts to blend fairness into the architecture, under the banner of CDR, threaten to undermine the motivations that optimal cooperation, and welfare of the parties, require. This can be gleaned by considering the procedures from the perspective of the United States, whose potential gains from cooperation face gutting as the Poor are excused from contributing.

The U.S. dilemma is vividly demonstrated in table 1 (p. 297), which reflects global CO\(_2\) contributions of the top sixteen emitters, which together account for 74 percent of the world total.\(^{108}\)

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\(^{104}\) Johannesburg Declaration, supra note 3. Of course, they had always been part of the agenda; as the FCCC recites, “economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.” FCCC, supra note 1, Art. 4(7). But at Stockholm (1972), supra note 23, and Rio (1992), supra note 71, the environmentalists had lead, rather than shared, billing.

\(^{105}\) The Poor might want the Rich to do more to clean up the global environment. But this does not mean that, given the choice of the Rich putting another dollar into the cleanup and putting it into developmental aid, the Poor would prefer the former.

\(^{106}\) The theory of “second best” is that if policies are ranked in order of preference under certain conditions, and if those conditions are unrealized, the best alternative to the “first-best” choice is not necessarily the alternative that was next best under the unrealizable conditions, had they been obtained. The circumstances that make “first best” unrealizable may make it imperative to rerank all options from the start; the most viable of the new set of alternatives may be an option—the second best—that is other than the next ranked choice in the original ranking. See generally Richard G. Lipsey & Kelvin Lancaster, The General Theory of Second-Best, 24 REV. ECON. STUD. 11 (1956).

\(^{107}\) As illustrated by figure 4 and the accompanying text.

Another cooperative differentiating technique is to adopt mutual restrictions on effluents hinged on tradable permits. Imagine the original level for the onset of trading to be O, in figure 4, which we can identify with Q' in figure 2. (We have exhausted the benefits of Rich’s “leasing” of Poor’s marginal costs at Rich’s expense.) Permits for trading under the confined regime have been established and allocated between the parties. Because at the origin O the costs to Rich of purging a unit, C^R, exceed that to Poor, C^P, Poor will sell permits to Rich until the marginal costs of the emissions equate, at the equilibrium level Q. At that point Rich will have paid Poor O-A-B-Q for Poor’s rights it has acquired. Poor’s gain from trade is represented by the checkered, lower triangle; Rich’s, by the upper, shaded triangle. If the cap and allocation have been well established, Q will be the sought-for target of figure 3, Q'. Note that at the equilibrium both Rich and Poor are paying the same price for permits, C^E, but the scheme is based upon the parties being able to agree upon differentiated contributions arising from the negotiation over the cap and original allocations. Depending on the concessions on original entitlements, the regime could fall into any of the three versions of CDR.
### Table 1: CO₂ Emissions

<table>
<thead>
<tr>
<th>Country</th>
<th>CO₂ (1000 metric tons)</th>
<th>% among all countries</th>
<th>% among countries subject to Kyoto impact*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1,486,801</td>
<td>23.81%</td>
<td>51.60%</td>
</tr>
<tr>
<td>China</td>
<td>858,490</td>
<td>13.75%</td>
<td></td>
</tr>
<tr>
<td>Russian Federation</td>
<td>391,535</td>
<td>6.27%</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>309,353</td>
<td>4.95%</td>
<td>10.74%</td>
</tr>
<tr>
<td>India</td>
<td>289,587</td>
<td>4.64%</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>225,208</td>
<td>3.61%</td>
<td>7.82%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>148,011</td>
<td>2.37%</td>
<td>5.14%</td>
</tr>
<tr>
<td>Canada</td>
<td>127,517</td>
<td>2.04%</td>
<td>4.43%</td>
</tr>
<tr>
<td>Italy</td>
<td>113,238</td>
<td>1.81%</td>
<td>3.93%</td>
</tr>
<tr>
<td>Mexico</td>
<td>102,072</td>
<td>1.63%</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>100,951</td>
<td>1.62%</td>
<td>3.50%</td>
</tr>
<tr>
<td>South Korea</td>
<td>99,260</td>
<td>1.59%</td>
<td></td>
</tr>
<tr>
<td>Ukraine</td>
<td>96,510</td>
<td>1.55%</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>93,808</td>
<td>1.50%</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>90,470</td>
<td>1.45%</td>
<td>3.14%</td>
</tr>
<tr>
<td>Poland</td>
<td>87,807</td>
<td>1.41%</td>
<td></td>
</tr>
<tr>
<td>All Others</td>
<td>1,623,019</td>
<td>25.99%</td>
<td>9.71%</td>
</tr>
<tr>
<td><strong>Global Total</strong></td>
<td><strong>6,243,687</strong></td>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Derived from: Carbon Dioxide Information Analysis Center, 2002.

*Assuming ratification. Neither the United States nor Australia has ratified. Excludes both countries not subject to target under Annex B and "economies in transition" whose targets are fixed at nonconstraining levels in the First Compliance Period (2008–2012).
The United States is the largest with 24 percent. In the far right column we have restated the percentages subject to cutback when we have eliminated both the Poor (non-Annex I) countries that are under no obligation, and some "nations in transition" from socialism which, because of their industrial contraction from baseline years, do not face constraint from business-as-usual paths. (Indeed, they may stand to reap huge "hot air" windfalls.)

In the restated figures, with China, India, the Russian Federation, and other similarly situated countries pulled out, the U.S. share—what the United States is being asked to bring to the table—rises to more than 50 percent. Of the 186 nations that started out as FCCC ratifiers, only 25 of the Annex I countries, which alone are on the line for curtailment, have signaled willingness to remain in play by ratifying the Protocol. Of the top 16 emitters, only 6, representing merely 16.4 percent of the global total, are still "in." The national shares of countries not on the chart are insubstantial.

In other words, from the U.S. vantage point, the first-best outcome may well have been a fully cooperative trading regime with all (major) polluters participating. But as emitters defect, its second best is less likely to be to remain in a broad multilateral framework. To take other, second-best measures does not (hopefully) imply a business-as-usual scenario for U.S. policymakers. But it almost certainly will encourage the United States, in determining the magnitude and timing and mode of its response, to make fewer accommodations aimed at salvaging reciprocal advantages from collective efforts.

To illustrate, consider how the United States is likely to divide its efforts, such as they may be, between cooperative preventive measures, in the Kyoto spirit, and adaptations that are deferred until a future time when local threats have become better defined. Measures that aim at preventing GHGs from invading the atmosphere, such as switching to alternative energy sources, require a nation to clean up at its own expense for a benefit that will inure in large part to others, whether they participate or not. Such measures are therefore hard to motivate on a broad scale, as we anticipate from theory and know from the Kyoto experience. Of every $1.00 we spend on prevention, $.50 goes to the benefit of others.

By contrast, the benefits of adaptive techniques, such as water conservation programs, micro-irrigation, and seawalls, are typically fully internalized by the state that invests in them, and can be pinpointed to those areas that will need the interventions if, when, and where trouble develops. Viewed by the global community, $1.00 spent on adaptation may be less effective than $1.00 spent on prevention; but because there are adaptation opportunities whose benefits are largely internalized, a well-aimed adaptation investment of the same $1.00 may pay its investor $1.25 in benefit.

Diminished emphasis on prevention would not entail that all U.S. investments be at home, adaptive, and unilateral. Some selective preventive measures taken abroad might be highly beneficial, perhaps, for example, a bilateral agreement to pay for, and provide technology for, plugging leaks in the gas delivery system of the Commonwealth of Independent States and reducing its flaring of associated gas at oil wellheads. The United States might well

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109 By some estimates, Russia and Ukraine, whose carbon-generating industries have collapsed since their Kyoto baseline years, could turn around and sell their "hot air" entitlements, which they could not use anyway, for $20 to $170 billion. See Victor, supra note 35, at 10.


undertake some such measures through modest multilateral frameworks, which is a way it can get other developed countries to "match," and therefore amplify, its own contributions.\textsuperscript{112} 

My impression is that the multilateral fund established under the Montreal Protocol to underwrite phasing out emissions of ozone-depleting agents has been successful.\textsuperscript{113} But such funds will not extend much beyond the level where there is payoff for the donors—if at all. At that boundary, the donors may prefer channeling assistance through frank and (hopefully) well-tailored aid and development programs, rather than through concessions in environmental accords.

Unfortunately, the Poor recognize that the "ideal" separate welfare system is just that—an ideal. The reality is that global development and welfare transfers are miserly.\textsuperscript{114} And, for that matter, the "aid" that is provided is all too often designed to address donor priorities.\textsuperscript{115} In this context, efforts of the Poor to extract "inefficient" benefits under the cover of MEAs—or through any other means—are not surprising. Nor do they appear likely to meet with much success.

III. Conclusion

"Common but differentiated responsibilities" puts a fresh label on a longstanding practice. The idea is that some countries should contribute more than others to the provision of global public goods, usually but not inevitably divided along a Rich-Poor axis. CDR is being pressed most vigorously in regard to the repair of the global environment. But the same issues arise in all areas that may benefit from collective action, ranging from peace and control of terrorism to regulation of epidemics and trade.

The practice of differentiating responsibilities has not, despite occasional claims by its proponents, been elevated to the status of a customary principle of international law. In general, the terms of customary international law and multilateral conventions apply universally.


\textsuperscript{112} In 2002, the Bush administration increased its contribution to the Global Environment Facility, the premier multilateral funding mechanism for global environmental protection, by $70 million, pledging $500 million over four years, as part of a $2.92 billion replenishment to further the GEF through June 2006. See Eryn Gable, Development: Nations Agree to $36 ENVRO Fund Replenishment, GREENWIRE, Aug. 8, 2002, § International.

\textsuperscript{113} See Timothy Swanson & Robin Mason, The Impact of International Environmental Agreements: The Case of the Montreal Protocol (Fondazione Eni Enrico Mattei Note di Laboro, Working Paper No. 81, 2002), available at <http://www.feem.it/NR/rdonlyres/5542BA50-4119-4546-8989-3D4CC55CEA87/184/8102.pdf> (arguing that the cooperative path promoted by the regime has significantly diminished CFC emissions from their precooperative trajectory, and also suggesting that developing countries bear disproportionately larger costs). The wheels for success are greased by side payments organized under the multilateral fund, see Amendments to Montreal Protocol, supra note 1, Art. 10, which cases developing countries away from ozone depleting agents (ODAs) through a combination of tailored investment, noninvestment, policy, and regulatory support measures. As of the close of 2001, the World Bank and its country partners had phased out more than 80% of the total amount of ODAs to be phased out under the multilateral fund, with grant financing of over U.S.$420 million (about 45% of the funding available for investment projects). See World Bank to Finance Projects in Four Countries to Fight Global Warming: Projects Worth USD35 Million will Protect the Ozone Layer, Dec. 7, 2001, M2 PRESSWIRE (Ozone Depletion Network Online Today). See generally WORLD BANK MONTREAL PROTOCOL: 2002 GROUP BUSINESS PLAN, at <http://www.worldbank.org/montreaprotocol>. Whether the marginal cost of the reductions, $3.81/kg/ODA, id. at 16, is efficient, is of course harder to say.


\textsuperscript{115} "USAID appears to have established as a priority the importance of influencing domestic policy in the recipient countries." Benjamin F. Nelson, International Affairs Budget: Framework for Assessing Relevance, Priority and Efficiency (Washington, DC: General Accounting Office, Oct. 30, 1997) (statement of Benjamin F. Nelson, director, international relations and trade issues, National Security and International Affairs Division, General Accounting Office, before the Senate Committee on the Budget), at <http://www.conginst.org/resultsact/PDF/NS980818.PDF>.
Lack of resources is no more a defense to transboundary pollution or trading in endangered species than it is to abusing ambassadors or practicing piracy.

It appears that as the number and reach of multilateral treaties has increased, so, too, has the incidence of obligation-differentiating agreements. But that falls short of proof that a new normative "principle" is in play. Different nations anticipate different costs and benefits from any single set of terms. Thus, one would expect some heterogeneity in terms just from rational, self-interested bargaining among parties with heterogeneous interests and resources.

Indeed, the fact that negotiations produce different burdens is less in need of explaining than why we do not see differences more frequently. Part of the answer is that we just do not see them, because they commonly occur in ways that preserve formal equality within the instrument's four corners and leave the discriminating to the margins. These extratextual discriminatory devices include reservations; unilateral "understandings"; side payments; de facto, informally differentiated commitments to agencies and funds; and clauses that, while formally equal, are known to be uneven in impact. The two routes are not equivalent. Side payment, for example, invites free riding—which party will pay the holdout?—and recipients may pocket an ex ante payoff and drop out. Universal terms are presumably easier to negotiate and administer than equality-riddling exceptions.

Sometimes, however, inequalities do find their way into the text. Those are the cases that present technical CDR, with its coinage of candidly differentiated formal terms. But even then, CDR is not a single notion. The form and scope may vary in ways not well marked in the literature. One version is rational bargaining CDR. It holds nothing more than that we accept as legitimate the outcome of unrestricted bargaining, notwithstanding that the burden falls unevenly, for example, by giving Poor countries a free ride on the contributions of Rich. Such outcomes, with one party contributing or receiving more than another, are "efficient" in the sense of being Pareto-improving; they leave at least one party better-off and no party less well-off than under the status quo. This version can hardly be controversial.

A second position, equitable CDR, would also confine the range of legitimate outcomes to a Pareto-improving set. But within that set, considerations of "fairness," based on differences in wealth or perhaps historical responsibilities, constrain distribution of cooperative gains more favorably toward the Poor than would occur under unfettered bargaining. The legitimacy of such an appeal, if hard to prove, is hard to deny.

The third version, however, inefficient CDR, demands that Poor's welfare be advanced unconditioned by mutual, if even marginal, reciprocal advances for Rich. In this view, given the global disparity in wealth and opportunity, there is no reason to protect Rich from emerging worse off than at the nonagreement point. The language of "efficiency" and "Pareto," which accept the status quo, is considered irrelevant or premature. The inequity (perhaps "iniquity") of the status quo is the very top item on the agenda.116

The stronger the version of CDR, and the more it seeks to override unbridled national self-interest and even to resettle wealth, the more resistance can be expected. The more the resistance, the heavier the burden on its proponent to come up with some "efficiency"-countervailing force, either in moral theory or in human understanding.

Moreover, even assuming that a moral or a humane (or even a pragmatic) argument can be made for some global wealth redistribution, it is not clearly wise to accomplish the transfers under the umbrella of multilateral negotiations aimed at other goals, such as environment or health. Such coupling may produce results that are suboptimal from both their

116 And there is the ominous prophesy of the Johannesburg Declaration, supra note 3, Art. 12: "The deep fault line that divides human society between the rich and the poor and the ever-increasing gap between the developed and developing worlds pose a major threat to global prosperity, security and stability."
wealth-equalizing and substantive perspectives. The ideal would be to have one set of institutions focused on optimal substantive policies and another group focused on poverty and development. Coupling the ambitions threatens to produce suboptimal outcomes for each.

But the first best is not always achievable, less often so in the international than in the domestic arena. In the international arena, the realization of cooperative maxima is undermined by state sovereignty; free riding; the absence of any integrated, accountable government to tax, spend, and make and enforce rules; and the fragmentation and impotence of international governmental organizations that have been inserted to fill in the gaps. Moreover, from Poor's perspective, there is no assurance that the Rich will redirect their share of cooperative gains into higher budgets for development and aid.

We have not, by any means, heard the last of CDR, nor should we have. But we should proceed to address the issues it raises with greater clarity and understanding.