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Revisiting the Doctrine of Intergenerational Equity in Global Environmental Governance

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In the absence of binding international enforcement mechanisms, global environmental governance must rely on a legal framework that has widespread normative force around the world. In addition, such a framework should be sufficiently detailed and pragmatic to allow for effective implementation, should achieve the goal of environmental protection, and should be reasonable in terms of the level of sacrifice expected of the present generation, particularly in the developing world. It is argued that the comprehensive doctrine of intergenerational equity is an effective and appropriate legal framework for global environmental governance. The doctrine of intergenerational equity posits the present generation of humans as simultaneously beneficiaries of the planetary legacy handed down from past generations, and trustees of that legacy for the future. The doctrine integrates the language of rights and responsibility, and incorporates viable implementation mechanisms. As a result, the doctrine of intergenerational equity is superior to the presently hegemonic paradigm of sustainable development. The author concludes that the international community should adopt the doctrine of intergenerational equity as a framework for global environmental governance.

En l'absence de mécanismes internationaux contraignants d'application des lois, la gouvernance en matière d'environnement doit reposer sur un cadre législatif qui a une force normative très répandue dans le monde. Ce cadre devrait en outre être suffisamment détaillé et pragmatique pour permettre la mise en œuvre efficace et pour permettre d'atteindre l'objectif de protection de l'environnement, et il devrait être raisonnable quant au niveau de sacrifices exigés de la génération actuelle, en particulier dans les pays en développement. L'auteure de cet article prétend que la doctrine de l'équité intergénérationnelle est un cadre législatif efficace et approprié pour la régie environnementale mondiale. La doctrine d'équité intergénérationnelle part de la notion que la génération actuelle est à la fois bénéficiaire de l'héritage planétaire que lui ont laissé les générations précédentes et fiduciaire de cet héritage pour les générations futures. La doctrine reprend le langage des droits et des responsabilités et englobe des mécanismes viables de mise en œuvre. Par conséquent, la doctrine d'équité intergénérationnelle est supérieure à l'actuel paradigme hégémonique de développement durable. En conclusion, l'auteure affirme que la communauté internationale devrait adopter la doctrine d'équité intergénérationnelle comme cadre d'action pour la régie environnementale mondiale.

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I. *Intergenerational equity: bridging the gap between rights and responsibilities in global environmental governance*

1. *The international contest between rights and responsibilities*

Although human societies may be governed by diverse values such as need, care, or love,¹ two dominant organizing principles are those of rights and responsibility (the latter encompassing both duty and obligation).² Indeed, the reification of rights or responsibility is a defining characteristic in many societies. In the West,³ “rights are the currency of political and legal discourse.”⁴ In contrast, “[duty] is the paradigm-creating fundamental [concept] in Islamic, Jewish, Hindu, Christian,

1. See, e.g., Timothy Wichert, “A Mennonite Human Rights Paradigm?” in Duane K. Friesen & Gerald W. Schlabach, eds., *At Peace and Unafraid: Public Order, Security, and the Wisdom of the Cross* (Scottsdale, PA: Herald Press, 2005) 331 at 331: “[for Mennonites], human rights language tends to be a ‘second language.’ Their preferred language is that of compassion, care, and community.” See also Michael A. Santoro, “Human Rights and Human Needs: Diverse Moral Principles Justifying Third World Access to Affordable HIV/AIDS Drugs” (2006) 31 N.C. J. Int’l L. & Com. Reg. 923 at 932-939.

2. See Jason Morgan-Foster, “Third Generation Rights: What Islamic Law Can Teach the International Human Rights Movement” (2005) 8 Yale Human Rts. & Dev. L.J. 67 at 74 [Morgan-Foster, “Third Generation Rights”]. See also Leon Trakman & Sean Gatién, *Rights and Responsibilities* (Toronto: University of Toronto Press, 1999).

3. I use the (admittedly vague) term “the West” herein to refer to the “industrialized democracies” of Europe, North America, Australia and New Zealand. See Alex Y. Seitá, “Globalization and the Convergence of Values” (1997) 30 Cornell Int’l L. J. 429 at 469. See also Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Touchstone, 1997) at 46-47.

4. Trakman & Gatién, *supra* note 2. See also Louis Henkin, *The Age of Rights* (New York: Columbia University Press, 1990). Although there is a rich and voluminous literature on the discourse of rights and responsibilities, I have chosen to rely substantially herein on the analysis of Trakman & Gatién because it is, in my view, particularly useful in the environmental context.

Confucian, and other cultures.”⁵ In the environmental context specifically, responsibility towards nature is the dominant paradigm in the discourse of ecological ethics,⁶ while the language of rights⁷ is increasingly invoked in the realm of environmental advocacy.⁸

It is clear that any system of global environmental governance must have legitimacy in both paradigms if it is to achieve widespread international compliance and support. Moreover, a system that integrates both rights and responsibility may be substantively more effective at achieving the twin goals of environmental protection and sustainable development than one based in either paradigm alone.⁹ Unfortunately, “[b]ecause the rights-based perspective and the duties-based perspective form such deep-seated paradigm-establishing assumptions in their respective legal cultures, it is not easy to reconcile the two approaches into a universally acceptable international theory.”¹⁰

This article will explore the doctrine of intergenerational equity as an integrative legal framework reconciling the two paradigms in the area of global environmental governance. Before proceeding further, it is necessary to define the terms of the inquiry.

2. *Definition of terms*

Although the concepts of “rights,” “duty,” “obligation,” and “responsibility” are undoubtedly fluid and contextual,¹¹ I will adopt the following definitions for the purpose of facilitating an intelligible analysis:

Rights are “‘interests’ or ‘benefits’ secured for persons by rules regulating relationships... A right-holder, X, has a right whenever the protection or advancement of X’s interest(s) is recognized as a reason for imposing obligations....”¹² An “obligation” may be defined as “a moral or legal requirement, duty,”¹³ while a duty is a “task or action that a person is

5. Morgan-Foster, “Third Generation Rights,” *supra* note 2 at 74.

6. Klaus Bosselmann, “Human Rights and the Environment: Redefining Fundamental Principles?” in Brendan Gleeson & Nicholas Low, eds., *Governing for the Environment* (Basingstoke: Palgrave, 2001) 118 at 126.

7. See Ronald Dworkin, *Taking Rights Seriously* (Cambridge, MA: Harvard University Press, 1977) at 184.

8. See Romina Picolotti & Jorge Daniel Taillant, eds., *Linking Human Rights and the Environment* (Tucson: University of Arizona Press, 2003); Sumudu Atapattu, “The Right to a Healthy Life or the Right to Die Polluted?: The Emergence of a Human Right to a Healthy Environment Under International Law” (2002) 16 *Tul. Envtl. L.J.* 65; Adriana Fabra Aguilar, “Enforcing the Right to a Healthy Environment in Latin America” (1994) 3 *R.E.C.I.E.L.* 215.

9. See Trakman & Gatién, *supra* note 2 at 215.

10. *Ibid.* at 102.

11. See, e.g., Ben Saul, “In the Shadow of Human Rights: Human Duties, Obligations, and Responsibilities” (2001) 32 *Colum. H.R. L. Rev.* 565 at 587-588.

12. Trakman & Gatién, *supra* note 2 at 3, n. 3.

13. Saul, *supra* note 11 at 581-582.

bound to perform for moral or legal reasons.”¹⁴ This article is concerned primarily with *legal* rights, obligations, duties, and responsibilities (i.e., those created and/or maintained by law).

Responsibility is related to, but distinct from, duty and obligation. Feinberg asserts that “[a] responsibility, like a duty, is both a burden and a liability; but unlike a duty it carries considerable discretion (sometimes called ‘authority’) along with it....[A] goal is assigned and the means of achieving it are left to the independent judgment of the responsible party.”¹⁵ Trakman and Gatién also view responsibility as distinct from duty and obligation:

[A] duty is an obligation correlative to a right. Duties [are] *external limits* on rights because A’s duties are generated by B’s rights. Responsibilities are [also]...correlative to rights but are not conceived of as *external limits* upon them. A’s rights, not B’s rights, generate responsibilities for A.¹⁶

[Further], [a] responsibility is generated when an important interest, *not protected by countervailing rights or state action*, is or would be detrimentally affected by the exercise of a right.¹⁷

Two important observations may be made concerning this formulation of responsibility. First, in Trakman and Gatién’s theory, responsibility may be seen as a kind of “gap filler,” arising in the situation where no duty or obligation exists. Second, responsibility in this formulation is *integrated* with the definition of the right; it alters the nature of the right from within, and originates with the right-holder’s moral agency.¹⁸ In the environmental context, I concur with the second proposition, and disagree with the first.

In my view, in the area of global environmental governance at least, it is most helpful to conceptualize responsibility as a broad overarching category that encompasses and overlaps with, but also extends beyond, the sub-categories of duty and obligation. In this formulation, although responsibility does perform a gap-filling function when no duty or obligation applies, it may also co-exist with a duty and/or obligation. In other words, some responsibilities will also be duties and/or obligations, while others will not. The exercise of a right will in many cases be subject to both internal (responsibility) and external (duty) limitations.

14. *Ibid.* at 581.

15. Joel Feinberg, *Rights, Justice, and the Bounds of Liberty* (Princeton: Princeton University Press, 1980) at 137, cited in Saul, *supra* note 11 at 582.

16. Trakman & Gatién, *supra* note 2 at 63, n. 43.

17. *Ibid.* at 10 [emphasis added].

18. See Trakman & Gatién, *supra* note 2 at 252-253 asserting that this model “reconstitutes” rights, to “reflect this reality: *rights are not free*. They come with responsibilities.” [emphasis in original].

Although I differ with Trakman and Gatien in adopting this broad definition of responsibility, I concur with their assertion that a responsibility should be seen as an internal limitation on a right. This “internal limit” model is particularly appropriate in the environmental context. It seems likely that an *ex ante* integration of rights with environmental responsibility will militate in favour of an ethic of precaution and sustainability. In contrast, the rights-duty equation, in which a right holder begins from a place of freedom and latitude in exercising the right, until and unless it collides with the right(s) of another, is more consistent with an ethic of consumption, with competing rights being addressed through mitigation (at best) or even outright opposition.¹⁹

Any proposal for rights reform at the global level faces the challenge of rights entrenchment in the West. As we will see, the version of rights theory that has evolved with Western liberalism is particularly absolutist, leaving little room for the discourse of responsibility. This theory, in which rights tend to supersede all other values, has been institutionalized and exported at the international level through international human rights law.

3. *The preeminence of rights in the West*

The hegemony of rights is a relatively new phenomenon in the history of Western thought. As Morgan-Foster explains, foundational Western thinkers including Aristotle,²⁰ Thomas Aquinas, and Niccolo Machiavelli all emphasized the centrality of individual duty to the community, the republic, and/or the divine.²¹ Indeed, duty (to the church, to the feudal lord, to the husband/father) was a central organizing principle in pre-modern Europe.²²

Enlightenment philosophers including Thomas Hobbes (1588-1679), John Locke (1632-1704) and Jean-Jacques Rousseau (1712-78) first posited the autonomous individual as a key player in Western political

19. See Trakman & Gatien, *supra* note 2 at 248 noting that the rights-duty (“external limit”) model requires several conditions to be met before it can result in environmental protection:

(1) There must be a subject willing to assert a right to protect the environment against the harmful exercise of a right by a state or other right-holder. (2) That subject’s right must prevail [or] (3) There must be some non-correlative duty that would limit the harm caused by the exercise of that [first right-holder’s] right.

Trakman and Gatien argue persuasively that these conditions are frequently absent, with the result that the traditional rights-duty equation is inadequate to achieve environmental protection.

20. Morgan-Foster, “Third Generation Rights,” *supra* note 2 at 76-79.

21. *Ibid.* See also David Selbourne, *The Principle of Duty: An Essay on the Foundations of the Civic Order* (Notre Dame, IN: University of Notre Dame Press, 2001) at 100.

22. See Saul, *supra* note 11 at 608.

theory.²³ The theory of the social contract, conceived by Hobbes and developed by Locke and Rousseau, took the then radical position that the individual (male) begins as a free and equal being with the right to live his life according to his own will.²⁴ The theory postulates that society, or the State, is formed when an aggregate of (male) individuals voluntarily consent to delegate their freedom to the collective for the purpose of maximizing their individual welfare.²⁵ The claims of the Enlightenment philosophers became the basis for liberalism,²⁶ and set the stage for the rise of rights and individualism in the West.

However, contemporary liberals' emphasis on individual rights as the preminent political value is a deviation from early liberal theory. Indeed,

[e]arly liberals were very conscious of the individual's connections with a wider community, nation, history, language, literature, custom, and tradition. John Stuart Mill wrote that "[t]he contented man, or the contented family, who have no ambition . . . to promote the good of their country or their neighbourhood . . . excite in us neither admiration nor approval." The very idea of Rousseau's social contract presupposed reciprocal rights and responsibilities, and "assumed a considerable degree of communal coherence, and the existence of a social ethic of public responsibility, as part of the heritage of feudal society."²⁷

Although Western liberalism had the historical and theoretical potential to recognize the importance of both rights and responsibility, contemporary Western thought operates on a clear hierarchy in which rights reign supreme. Thus, Dworkin has written that "[t]he language of rights now dominates political debate in the United States."²⁸ Selbourne, for his part, argues that:

[t]he notion...of the need for reciprocity or "balance" between rights and duties has survived in the corrupted liberal order, despite the attenuation of the principle of duty in practice, but in a mutant and a-civic form: under the rule of dutiless right and demand-satisfaction, the citizen-turned-stranger insists upon his *dutiless or absolute rights as citizen*, or

23. See generally David Boucher & Paul Kelly, eds., *The Social Contract from Hobbes to Rawls* (London: Routledge, 1994).

24. *Ibid.* For concise summaries of social contract theories, see also April L. Cherry, "Social Contract Theory, Welfare Reform, Race, and the Male Sex-Right" (1996) 75 Or. L. Rev. 1037 at 1044-1055; Liliya Abramchayev, "A Social Contract Argument for the State's Duty to Protect from Private Violence" (2004) 18 St. John's J. Legal Comment. 849 at 849-853.

25. *Ibid.*

26. See generally J. B. Schneewind, *The Invention of Autonomy: A History of Modern Moral Philosophy* (Cambridge: Cambridge University Press, 1997).

27. Saul, *supra* note 11 at 584 [footnotes omitted].

28. Dworkin, *supra* note 7 at 184.

ostensible citizen, on the one hand and upon the *rightless duties to him of the civic order*, or of its instrument the state, on the other.²⁹

Despite these concerns, the Western notion of preeminent rights has been incorporated into international law, through the construct of "human rights."

Contemporary human rights law is based philosophically in the Western traditions of natural law/natural rights and Enlightenment notions of the contingency of state legitimacy on respect for certain irreducible individual rights.³⁰ Historically, the creation of the foundational human rights documents came as a response to the abuses of the European nation-states and, most particularly, the atrocities of Nazi Germany.³¹ Although human rights law, like rights theory more generally, could have maintained a reciprocal recognition of responsibility, it has largely failed to do so.

Thus, Morgan-Foster writes that "[i]n human rights law, rights are explicit, while corresponding duties are implicit, controversial, and poorly theorized."³² Although a number of important human rights instruments do contain references to duty and/or responsibility,³³ it cannot seriously be questioned that rights remain hegemonic in the field.³⁴ Indeed, the human rights paradigm has arguably marginalized duty *intentionally*, viewing duty as antithetical to the rights of the individual. Saul explains:

In the West, the history of the human rights movement is, in part, a history of struggle...against the millstones of duty and obligation to the church; feudal lords and nobles; the monarch; the revolutionary, imperial, nationalist, fascist, or communist State; and to the husband and family. Over many centuries in Europe, these...institutions...commanded and

29. Selbourne, *supra* note 21 at 188-89, quoted in Morgan-Foster, "Third Generation Rights," *supra* note 2 at 84 [emphasis in original].

30. See Robert D. Sloane, "Outrelativizing Relativism: A Liberal Defense of the Universality of International Human Rights" (2001) 34 Vand. J. Transnat'l L. 527 at 541-543.

31. Note, however, that there were relevant precedents in existing international law. In particular, Steiner and Alston argue that human rights law was related to international humanitarian law (the laws of war), international law governing state treatment of aliens, and the regime of minority rights protection developed under the League of Nations. See Henry J. Steiner & Philip Alston, *International Human Rights in Context: law, politics, morals* (Oxford: Clarendon Press, 1996) at 26 ff. The prohibition of slavery was also an important precedent for international human rights law. See Makau Mutua, "Savages, Victims, and Saviors: the Metaphor of Human Rights" (2001) 42 Harv. Int'l L.J. 201 at 205 [Mutua, "Metaphor"].

32. Morgan-Foster, "Third Generation Rights," *supra* note 2 at 68.

33. See Saul, *supra* note 11.

34. The one notable exception, the *African Charter on Human and Peoples' Rights*, 27 June 1981, OAU Doc. CAB/LEG/67/3/Rev.5 (1981), reprinted in 21 I.L.M. 59 (1982) [*African Charter*], has been criticized for its attempt to integrate rights and duty/responsibility. See generally Makau Wa Mutua, "The Banjul Charter and the African Cultural Fingerprint: An Evaluation of the Language of Duties" (1995) 35 Va. J. Int'l L. 339 [Mutua, "Banjul Charter"].

enforced loyalty, allegiance, and obedience from their subjects, who were duty-bound by morality or law to fulfill numerous, often onerous social obligations.³⁵

Whether or not rights supremacy is appropriate in light of Western history, the export of a human rights paradigm arising out of the specific culture and history of the West has provoked sustained criticism from the non-Western world.

4. *Challenges to the human rights paradigm*

There is a rich and voluminous literature analyzing the merits and pitfalls of human rights law and discourse, and a fulsome evaluation of this question is beyond the scope of this article. I will not attempt to resolve the conflict between rights and responsibility as it has been articulated in critiques (and defenses) of human rights law.³⁶ However, I will introduce the key schools of human rights critique that are relevant to our inquiry, in order to situate the doctrine of intergenerational equity in its political and legal context.

a. *Cultural relativist challenges to the human rights paradigm*

States and scholars outside the West have criticized the international human rights regime as a Western imperialist project. Some strong cultural relativists dispute the existence of any inherent, “pre-social” human rights independent of cultural values.³⁷ In this view, international human rights law is seen as yet another colonialist “civilizing mission” in which the West – claiming access to absolute, transcendent Truth – attempts to impose its own culturally specific values on non-Western peoples.³⁸ Moderate cultural relativists, on the other hand, recognize the reality and validity of cultural difference, but still endorse the existence of an irreducible core of universal human rights.³⁹

35. Saul, *supra* note 11 at 608.

36. Ultimately, I will argue that the doctrine of intergenerational equity avoids (rather than resolves) the contest between rights and responsibilities by creating a site of reconciliation for the two paradigms in global environmental governance.

37. For a summary and critique of this claim see Guyora Binder, “Cultural Relativism and Cultural Imperialism in Human Rights Law” (1999) 5 *Buff. H.R. L. Rev.* 211 at 214 ff.

38. See, e.g., Mutua, “Metaphor,” *supra* note 31 at 210: “the human rights movement is located within the historical continuum of Eurocentrism as a civilizing mission, and therefore as an attack on non-European cultures...”. See also David P. Fidler, “The Return of the Standard of Civilization” (2001) 2 *Chicago J. Int’l L.* 137 at 139.

39. See Morgan-Foster, “Third Generation Rights,” *supra* note 2 at 70 and, by the same author, “A New Perspective on the Universality Debate: Reverse Moderate Relativism in the Islamic Context” (2003) 10 *ILSA J. Int’l & Comp. L.* 35 [Morgan-Foster, “New Perspective”]. See also Dianne Otto, “Rethinking the ‘Universality’ of Human Rights Law” (1997) 29 *Colum. H.R. L. Rev.* 1.

As the Western-derived system of human rights has been applied worldwide over the past six decades, cross-cultural criticism has become crucially important, both because of the imperative of attaining cultural credibility in diverse settings, and because of the intellectual cross-fertilization available from non-Western schools of thought.⁴⁰ The relativist critique has challenged a number of culturally specific and potentially problematic aspects of Western liberalism, notably the primacy of the individual, a belief in the inherent superiority of democratic systems of governance, and the prioritization of rights over responsibility.⁴¹

b. Instrumentalist challenges to the human rights paradigm

In addition to concerns regarding cultural imperialism, a number of commentators both within and outside the West have asserted that human rights are simply ineffective – or even counterproductive – at maximizing human welfare in important areas. Critics from both the left and the right argue that the disproportionate emphasis on rights in Western society has had a negative impact on social relations and human happiness. The argument is that the rights paradigm “emphasizes a selfish separateness rather than the connections that make communal life possible and fulfilling.”⁴²

Others assert that the interests underlying certain kinds of rights are actually best protected through the mechanism of duty or obligation, rather than rights. Robert Cover, for example, asserts that the disproportionate emphasis on rights is unproductive because while the individualistic rights paradigm is well-suited to protecting certain kinds of interests (e.g., those pertaining to equality and political participation⁴³),

[t]he jurisprudence of rights has proved singularly weak in providing for the material guarantees of life and dignity flowing from the community to the individual. While we may talk of the right to medical care, the right to subsistence, the right to an education, we are constantly met by the realization that such rhetorical tropes are empty in a way that the right to freedom of expression or the right to due process are not. When the issue is restraint upon power it is intelligible to simply state the principle of restraint...The intelligibility of the principle remains because it is always clear who is being addressed - whoever it is that acts to threaten the right in question. However, the “right to an education” is not even an intelligible principle unless we know to whom it is addressed.

40. Morgan-Foster, “Third Generation Rights,” *supra* note 2 at 67-68.

41. See Sloane, *supra* note 30 at 540.

42. Philippa Strum, “Rights, Responsibilities, and the Social Contract” in Kenneth W. Hunter & Timothy C. Mack, eds., *International Rights and Responsibilities for the Future* (Westport, CT.: Praeger, 1996) 29 at 29.

43. Robert M. Cover, “Obligation: A Jewish Jurisprudence of the Social Order” (1987) 5 J.L. & Religion 65 at 73.

Taken alone it only speaks to a need. A distributional premise is missing which can only be supplied through a principle of "obligation."⁴⁴

Environmental protection is certainly a "material guarantee of life and dignity flowing from the community to the individual." Thus, if Cover is correct, then the rights paradigm alone is likely inadequate to the task of ensuring global environmental protection.

Ecological ethicists share this suspicion of the capacity for rights to benefit the environment.

c. *Ecological challenges to the human rights paradigm*

Ecological ethics challenges the human rights paradigm on two primary bases. First, the human rights paradigm is, by definition, inherently anthropocentric. A human rights approach reinforces notions of human separation from nature, and even superiority over the rest of the ecological community.⁴⁵ The concern here is that viewing environmental protection through the lens of *human* rights "subjugates all other needs, interests and values of nature to those of humanity,"⁴⁶ contravening the Deep Ecology notion of "biospherical egalitarianism."⁴⁷ Concern with the equality of human and non-human members of the natural world is a central preoccupation of ecological ethics. It is not limited to the Deep Ecology movement, and in fact was expressed by formative thinkers in the field of ecological ethics, including such icons as Aldo Leopold⁴⁸ and Rachel Carson.⁴⁹ Thus, the literature of ecological ethics, when it addresses rights

44. *Ibid.* at 71.

45. See Prudence E. Taylor, "From Environmental to Ecological Human Rights: A New Dynamic in International Law?" (1998) 10 *Geo. Int'l Envtl. L. Rev.* 309 at 352.

46. *Ibid.*

47. See Louis P. Pojman, ed., *Environmental Ethics: Readings in Theory and Application*, 3rd ed. (Belmont, CA: Wadsworth, 2001) at 147.

48. Leopold perceived humans and non-humans as equal members in the ecological community, and argued that the land ethic would serve to change the role of humans from that of conqueror to that of citizen in the land community. See Aldo Leopold, *A Sand County Almanac: And Sketches Here and There* (New York: Oxford University Press, 1949) at 224-225.

49. Carson lamented that:

[Humans] still talk in terms of conquest. We still haven't become mature enough to think of ourselves as only a tiny part of a vast and incredible universe. Man's attitude toward nature is today critically important simply because we have now acquired a fateful power to alter and destroy nature. But man is a part of nature, and his war against nature is inevitably a war against himself.

See Rachel Carson, "Obituary April 15, 1964" online: <<http://www.rachelcarson.org/index.cfm?v1=Memoriam>>.

at all, tends to focus on the rights of nature and corresponding human duties.⁵⁰

Second, and closely related to challenges targeting the “human” component of human rights, ecological ethicists are also suspicious of “rights” *per se*. Shiva, for example, asserts that:

[t]he separation of rights and responsibility is at the root of ecological devastation and gender and class inequality. Corporations that earn profits from the chemical industry, or from genetic pollution resulting from genetically engineered crops, do not have to bear the burden of that pollution. The social and ecological costs are externalised and borne by others who are excluded from decisions and from benefits.⁵¹

Hence, ecological ethicists tend to see the rights construct as part of the environmental problem, rather than the solution.

5. *The emergence of environmental human rights*

Despite the significant concerns of ecological ethicists regarding the subjugation of responsibility to rights, and the ongoing international controversy regarding the legitimacy of human rights law itself, the existence of urgent environmental threats to physical and cultural survival has provoked a movement towards a human rights approach to environmental predicaments. Scholars and advocates have attempted to secure environmental protection through the mobilization of existing human rights to address environmental harm, and the creation or codification of new environmental human rights, including both procedural and substantive components.⁵²

With respect to the first category, tribunals at the domestic, regional and international levels have found that environmental degradation may violate existing human rights. Indeed, the United Nations Human Rights Committee, the Inter-American Commission on Human Rights, and the European Court of Human Rights have all recognized actual or potential

50. Leopold, for example, exhorted humans to respect the “biotic right” of non-human organisms to exist. See Leopold, *supra* note 48 at 211. Deep Ecology, for its part, emphasizes the intrinsic value of nature, and the corresponding human duty to respect living beings’ “right to live and flourish.” See Arne Naess, “Ecosophy T: Deep Versus Shallow Ecology” in Pojman, *supra* note 47 at 152. Outside the Deep Ecology movement, Professor Christopher Stone advocated for the legal rights of natural objects in his famous 1972 article, “Should Trees Have Standing?” See Christopher D. Stone, “Should Trees Have Standing? – Toward Legal Rights for Natural Objects” (1972) 45 S. Cal. L. Rev. 450.

51. Vandana Shiva, “Paradigm Shift: Rebuilding true security in an age of insecurity” (2002) Resurgence, Issue 214, online: <<http://www.resurgence.org/resurgence/issues/shiva214.htm>>.

52. Cf. Dinah Shelton, “Human Rights, Environmental Rights, and the Right to Environment (1991) 28 Stan. J. Int’l L. 103 [Shelton, “Right to Environment”].

violations of the right to life through environmental harm.⁵³ Domestic tribunals in India, Pakistan, the Philippines, and several Latin American countries have also found violations of domestic constitutional rights to rights to life and/or health through environmental harm.⁵⁴ Scholars and jurists have similarly held that environmental harm may violate existing human rights to privacy and family life,⁵⁵ property,⁵⁶ suitable working conditions,⁵⁷ adequate standard of living,⁵⁸ and/or culture.⁵⁹

Procedural environmental rights, including access to environmental information, participation in environmental decision-making, and access to justice for environmental wrongs, have been enshrined in a number of significant soft law instruments and in two binding international Conventions.⁶⁰ The *World Charter for Nature*,⁶¹ *Agenda 21*,⁶² and the *Rio Declaration on Environment and Development*,⁶³ for example, all recognize procedural environmental rights. In the area of binding international law, the *Espoo Convention on Environmental Impact Assessment in a Transboundary Context*, the *Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental*

53. See *EHP v. Canada*, Communication No. 67/1980, in *United Nations, Selected Decisions of The Human Rights Committee Under The Optional Protocol*, vol. 2, U.N. Doc. CCPR/C/OP/2 (1990) 20 (recognizing that the threat posed by storage of nuclear waste raises serious concerns regarding the right to life); *Yanomami Indians v. Brazil*, Inter-Am. C.H.R. 7615, OEA/Ser.L V/II/66 doc. 10 rev. 1 (1985) (finding violations of the Yanomami people's rights to life, liberty and personal security through serious damage to the environment in which they lived); *Öneryıldız v. Turkey*, 48939/99 [2004] ECHR 657 (30 November 2004) (finding a violation of the right to life where the state failed to prevent a foreseeable methane explosion in a municipal waste disposal site).

54. See Luis E. Rodriguez-Rivera, "Is the Human Right to Environment Recognized Under International Law? It Depends on the Source" (2001) 12 *Colo. J. Int'l Envtl. L. & Pol'y* 1 at 18-20; Atapattu, *supra* note 8 at 108.

55. See Atapattu, *ibid.* at 102-03.

56. See Romina Picolotti & Jorge Daniel Taillant, *supra* note 8 at xiv (Introduction).

57. Shelton, "Right to Environment," *supra* note 52 at 112.

58. *Ibid.*

59. See Dinah Shelton, "The Environmental Jurisprudence of International Human Rights Tribunals" in Picolotti & Taillant, *supra* note 56, 1 at 19.

60. See Shelton, "Right to Environment," *supra* note 52 at 117. Shelton and a number of later commentators use the term "environmental rights" to refer to these procedural entitlements. See, e.g., Atapattu, *supra* note 8 at 72. I find the use of the facially broad term "environmental rights" to refer to rights that are strictly procedural in nature unduly confusing.

61. *World Charter for Nature*, GA Res. 37/7, UN GAOR, 37th Sess., Supp. No. 51, UN Doc. A/37/51 (1982).

62. *UN Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, Agenda 21*, UN GAOR, 46th Sess., UN Doc A/CONF. 151/26 Vol. III (1992) s. 23.2, online: <<http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21toc.htm>> [*Agenda 21*].

63. *Report of the UN Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, UN Division for Sustainable Development, 1992, UN Doc. A/CONF. 151/26 (Vol. I), Annex 1, online: <<http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>>.

Matters (the “Aarhus Convention”),⁶⁴ and numerous other multi-lateral and bilateral treaties⁶⁵ provide for procedural environmental rights.

The third approach to environmental human rights is the articulation of a substantive “right to environment,” independent of pre-existing human rights. A right to environment (variously modified as “healthy,” “safe,” “adequate,” etc.)⁶⁶ has been widely recognized in international soft law instruments, including such pivotal documents as the *Stockholm Declaration on the Human Environment*,⁶⁷ and the 1989 *Hague Declaration on the Environment*.⁶⁸ Beyond the realm of soft law, two binding regional instruments include a human right to environment—the *African Charter on Human and Peoples’ Rights*⁶⁹ and the *Additional Protocol to the American Convention on Human Rights in the area of Economic Social and Cultural Rights* (the *Protocol of San Salvador*).⁷⁰ Further, there is growing evidence of state action and *opinio juris* giving rise to a right to environment as a matter of customary international law.⁷¹ Most significantly, a majority of domestic constitutions enacted since 1970 recognize some kind of right to environment.⁷²

64. See *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, 25 June 1998, online: UNECE <<http://www.unecce.org/env/pp/documents/cep43e.pdf>>, 38 I.L.M. 517 (1999) [*Aarhus Convention*]. The *Aarhus Convention* has been ratified by twenty-seven states as well as the European Union. See “Aarhus Convention ratified by the European Community,” online: United Nations in Belarus <<http://un.by/en/news/world/2005/28-02-05-04.html>>.

65. Alexandre Kiss, “The Right to the Conservation of the Environment” in Picolotti & Taillant, *supra* note 8, 31 at 37-38. At the national level, sixteen countries have constitutional provisions recognizing the right to environmental information.

66. See Michael Burger, “Bi-Polar and Polycentric Approaches to Human Rights and the Environment” (2003) 28 *Colum. J. Envtl. L.* 371 at 376.

67. *Stockholm Declaration on the Human Environment*, 16 June 1972, UN Doc. A/CONF.48/14/Rev.1, 11 I.L.M. 1416 [*Stockholm Declaration*], Principle 1.

68. *Hague Declaration on the Environment*, 11 March 1989, 28 I.L.M. 1308.

69. *African Charter*, *supra* note 34 Article 24: “[a]ll peoples shall have the right to a general satisfactory environment favourable to their development.” There are more than fifty states party to the Charter, which entered into force on October 21, 1986. See African Commission on Human and Peoples’ Rights, online: <<http://www.achpr.org/>>.

70. 17 November 1988, O.A.S.T.S. 69, Article 11 (recognizing the right to a healthy environment and requiring States Parties to promote the protection, preservation, and improvement of the environment). The *Protocol of San Salvador* entered into force on November 16, 1999, and thirteen states have now ratified or acceded to it. See “Office of International Law: Multilateral Treaties,” online: Organization of American States <<http://www.oas.org/juridico/english/Sigs/a-52.html>>.

71. See generally John Lee, “The Underlying Legal Theory to Support a Well-Defined Human Right to a Healthy Environment as a Principle of Customary International Law” (2000) 25 *Colum. J. Envtl. L.* at 291-292; Rodriguez-Rivera, *supra* note 54; and Lynda M. Collins, “Are We There Yet? The Right to Environment in International and European Law” (copy on file with author).

72. See Rosaleen O’Gara *et al.*, *Environmental Rights Report 2007: Human Rights and the Environment* (Oakland, CA: Earthjustice, 2007) at 126-147.

In sum, it is clear that environmental human rights (in their various instantiations) have become firmly entrenched in international environmental law and policy. As a result, what is required is a counterbalancing of rights with responsibility in the realm of environment. The doctrine of intergenerational equity is an effective vehicle for accomplishing this balancing.

6. *The doctrine of intergenerational equity – balancing rights and responsibility*

The doctrine of intergenerational equity is a comprehensive policy and legal framework for global environmental governance developed by Professor Edith Brown Weiss in her 1989 book, *In Fairness to Future Generations*.⁷³ Intergenerational equity as articulated by Brown Weiss integrates rights and responsibility even more profoundly than the “internal limitation” theory discussed above. Brown Weiss integrates rights and responsibility at the level of moral/legal *identity*. She posits the present generation of humans as both beneficiaries of a planetary legacy passed down from the past *and* as trustees of the planetary legacy for future generations.⁷⁴ The doctrine recognizes the rights of the present generation to use and enjoy ecological resources and also its obligation to adequately conserve such resources for the future.⁷⁵ It validates both the interest of the individual in an adequate quality of life and the value of the inter-temporal world community in which every individual is situated.

The central claim of this Article is that the doctrine of intergenerational equity integrates the paradigms of rights and responsibilities, transcends the limitations of each paradigm taken separately, and has the potential to function as a universally acceptable framework for global environmental governance. I will further argue that the presently dominant paradigm of international environmental decision-making, that of sustainable development,⁷⁶ is inadequate with respect to the protection of future generations. The sustainable development paradigm eschews the language of both rights and responsibility, lacks any mechanism for effective implementation, and is highly ambiguous as a policy framework. As a result, a return to the rigorous, content-rich, and pragmatic doctrine of intergenerational equity is sorely needed.

73. Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity* (Tokyo: United Nations University, 1989) [Brown Weiss, *Future Generations*].

74. *Ibid.* at 20.

75. *Ibid.*

76. See Part III.1 below.

Part II will introduce the doctrine of intergenerational equity as developed by Brown Weiss in *In Fairness to Future Generations*.⁷⁷ I will describe the normative premises underlying the doctrine of intergenerational equity, the central components of the doctrine, and the major critiques of Brown Weiss's theory. Part III will examine the current legal status of intergenerational equity in international law, including the relationship between intergenerational equity and other emergent principles of international environmental law (in particular sustainable development, Common but Differentiated Responsibilities, and the right to environment). A brief conclusion will follow. I hope to demonstrate throughout that the doctrine of intergenerational equity is a site of reconciliation of rights and responsibility, and a useful legal and policy framework in global environmental governance.

II. *The doctrine of intergenerational equity*

1. *Introduction*

a. *Historical antecedents and cross-cultural analogues*

Throughout history, human societies have been concerned with the welfare of future generations. At a minimum, concern with the well-being of one's own progeny is a core evolutionary characteristic "hard-wired" into human (and non-human) organisms.⁷⁸ A broader concept of obligation towards future generations more generally also forms part of ethical and legal systems in diverse cultures around the world. Islamic law is perhaps most consistent with contemporary notions of intergenerational equity, conceptualizing Muslims as stewards and trustees of the natural world with duties towards both current and future generations.⁷⁹ Similarly, both

77. *Supra* note 73.

78. Charles Darwin, *The Origin of Species*, rev. ed. By Philip Appleman (New York: Norton, 1975) at 50, cited in Jack B. Weinstein, "Why Protect the Environment for Others?" (2003) 77 St. John's L. Rev. 217 at 222; Shorge Sato, "Sustainable Development and the Selfish Gene: A Rational Paradigm for Achieving Intergenerational Equity" (2003) 11 N.Y.U. Envtl. L. J. 503 at 520-521. Philosopher Avner de-Shalit suggests that apart from the genetic drive to care for future generations, humans have an innate psychological tendency to do so, as part of the broader phenomenon of "self-transcendence": "One's notion of one's identity extends into the future, including those times subsequent to one's death." Avner de-Shalit, *Why Posterity Matters* (London: Routledge, 1995) at 34. For the idea of "self-transcendence" de-Shalit cites Ernest Partridge, "Why care about the future?" in Ernest Partridge, ed., *Responsibilities to Future Generations* (Buffalo: Prometheus Books, 1981) 203 at 204.

79. See Azim Nanji, "The Right to Development: Social and Cultural Rights and Duties to the Community" in *Proceedings of the Seminar on Islamic Perspectives on the Universal Declaration of Human Rights*, UN Doc. HR/IP/SEM/1999/1 (PART II Sec. 2), (1999) at 346. Citing Qur'anic ayah 2:30, Nanji discusses "the concept of custodial trusteeship, expressed in the Qur'an through the notion of the individual's role as *khalifah*—stewardship—and hence accountability for the way in which such a role is undertaken for the betterment of society, and for future generations." This passage of Nanji is quoted by Morgan-Foster, "Third Generation Rights," *supra* note 2 at 106.

Judaism and Christianity include notions of collective human ownership of the natural world, entailing environmental stewardship obligations to future generations.⁸⁰

Streams of African customary law also include a notion of ownership/stewardship of land by the collective, including future generations. One Ghanaian chief has explained that in this conceptualization, "land belongs to a vast family of whom many are dead, a few are living, and [a] countless host are still unborn."⁸¹ Asian philosophical and religious traditions also include notions of responsibility to future generations,⁸² which in some cases are thought to include reincarnations of those currently living.⁸³ Similarly, in what is now known as North America, Haudenosaunee (or Iroquois) law explicitly requires decision-makers to take into account impacts extending seven generations into the future.⁸⁴

In the West, the civil law tradition in Germany explicitly subjects property ownership to social obligations arguably encompassing an inter-temporal dimension,⁸⁵ while Marxism conceptualizes the present generation as mere users, rather than owners, of the land, with a duty to pass it on in good condition.⁸⁶ Even the American constitutional tradition included recognition of duties to future generations. James Madison and Thomas Jefferson debated the issue of duties to future generations in a famous series of letters, with Jefferson arguing that passing on debt to future generations was an improper form of taxation without representation,⁸⁷

80. See David Rosen, "Judaism and Ecology" and Emmanuel Agius, "The Earth Belongs to All Generations: Moral Challenges of Sustainable Development" in Emmanuel Agius & Lionel Chircop, eds., *Caring for Future Generations: Jewish, Christian, and Islamic Perspectives* (Westport, CT: Praeger, 1998) at 62 and 103 respectively. Agius cites Genesis 17: 7-8: "I will maintain my Covenant between Me and you, and your offspring to come...I give the land you sojourn in to you and your offspring to come, all the land ... as an everlasting possession."

81. Brown Weiss, *Future Generations*, *supra* note 73 at 20.

82. *Ibid.*

83. *Ibid.* See also John M. Peek, "Buddhism, Human Rights and the Japanese State" (1995) 17:3 Hum. Rts. Q. 527 at 530: "the [Buddhist] theory of dependent origination argues that the existence of each of us is to a significant degree dependent on those who preceded us and those that share this world with us, and that in a like manner those yet to be born are dependent on all those that preceded them. A more forceful reminder of our gratitude to previous generations and of our responsibilities to future generations is hard to come by." See also The Fourteenth Dalai Lama, *My Tibet* (London: Thames & Hudson, 1990) at 79-80.

84. *The Great Law of Peace (Gayanashagowa)*, Part 28. See White Roots of Peace, *The Great Law of Peace of the Longhouse People* (Rooseveltown, NY: White Roots of Peace, Mohawk Nation of Akwesasne, 1973).

85. See R. Dolzer, *Property and Environment: The Social Obligation Inherent in Ownership* (Ottawa: IUCN, 1976) cited in Brown Weiss, *Future Generations*, *supra* note 73 at 19, n. 11.

86. Brown Weiss, *Future Generations*, *supra* note 73 at 20.

87. Letter from James Madison to Thomas Jefferson (4 February 1790), in James Morton Smith, ed., *The Republic of Letters: The Correspondence Between Thomas Jefferson and James Madison 1776-1826* (New York: Norton, 1995) at 634.

and Madison conceding that it is “indispensable in adjusting the account between the dead and the living ... that the debits against the latter do not exceed the advances made by the former.”⁸⁸

Thus, some notion of responsibility towards future generations can be found in diverse religious, cultural, and political traditions around the world.

b. *The ascendance of the present*

Despite the widespread cultural legacy of intergenerational thinking, contemporary legal and political systems in many areas have largely failed to give effect to this tradition of intergenerational concern. In democratic societies throughout the world, the politician’s desire for re-election has privileged short-term thinking in environmental decision-making.⁸⁹ Indeed, “[i]n politics, [the concept of] long-term often does not seem to go beyond the next election.”⁹⁰ Environmental regulators, in turn, ensure the preeminence of the present through the use of time “discounting” in cost-benefit analysis.⁹¹

Legal doctrine in many areas also systematically excludes the interests of the future. Consider, for example, how Western property law treats a landowner who harms her own land (thus depriving future generations of its benefits):

What about the landowner who ruins his own land, eroding its soil or polluting its waters? This we ignore; for where, we ask, is the harm? Not many generations ago the answer would have been obvious: the harm is to the landowner’s community, to the land itself, and to the future generations that will live there. But so far has community fallen in our thinking, so self-centered have we become, that today this answer is rarely voiced. Perhaps it is rarely imagined.⁹²

The notion of the landowner’s freedom (which is subject only to the rights of other existing landowners) is reflected in classical international law in the principle that states generally have a sovereign right to exploit their own

88. *Ibid* at 651.

89. See, e.g., Jörg Chet Tremmel & Martin Viehover, “The Dilemma of Short-Term Politics” (2002) 3 *Intergenerational Justice Review* 12 at 12: “The need to appease the electorate in regular five year or similar intervals means that politicians direct their actions according to the needs and desires of the present citizens—their electorate.”

90. Edward W. Ploman, “Foreword” in Brown Weiss, *Future Generations*, *supra* note 73 at xxvii.

91. This practice, discussed in greater detail in Part II.3.e below, discounts the economic value of future impacts to the point where impacts occurring more than a hundred years in the future may essentially be ignored in the decision-making process.

92. Eric T. Freyfogle, “Ethics, Community, and Private Land” (1996) 23 *Ecology L.Q.* 631 at 645.

natural resources subject only to a duty to avoid (present) transboundary environmental impacts.⁹³

Meanwhile, culture itself has perhaps undergone a shift away from the intergenerational perspective. A detailed analysis of this question would have to occur on a country-by-country and community-by-community basis, and is beyond the scope of this article. However, two modest claims can be made. First, despite the cultural legacy of an intergenerational ethic in some areas of the developing world, the urgency of poverty has surely—and appropriately—created an intense focus on satisfying the immediate needs of existing humans.⁹⁴ For the millions of people around the world who lack access to adequate food or shelter, concern for the future environment has likely become a luxury that will have to wait. Secondly (and ironically), even as desperate poverty has pushed the future out of view in some developing areas, Western culture is arguably too busy enjoying its opulence to worry about the future. There is convincing evidence that American culture in particular has adopted a largely present-oriented and individualistic perspective.⁹⁵

Unfortunately for the future, this turn away from responsibility to future generations has occurred just at the moment in history when our capacity to affect them has reached its apex.

2. *Contemporary emergence of intergenerational equity in the realm of environment*

In the modern environmental era, the case for recognizing responsibilities towards future generations has taken on a new cogency, as our ability to impact future quality of life, and indeed the very survival of humanity,

93. See generally Franz Xaver Perrez, "The Relationship Between 'Permanent Sovereignty' and the Obligation Not to Cause Transboundary Environmental Damage" (1996) 26 *Envtl. L.* 1187; see also Emeka Duruigbo, "Permanent Sovereignty and People's Ownership of Natural Resources in International Law" (2006) 38 *Geo. Wash. Int'l L. Rev.* 33.

94. See *United Nations Framework Convention on Climate Change*, 9 May 1992, 31 *I.L.M.* 849 (entered into force 21 March 1994), Article 4(7) [FCCC], cited in Christopher D. Stone, "Common but Differentiated Responsibilities in International Law" (2004) 98 *Am. J. Int'l L.* 276 at 295, n. 104 [Stone, "Differentiated Responsibilities"]: "economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties"; Ruixue Quan, "Establishing China's Environmental Justice Study Models" (2002) 14 *Geo. Int'l Env'tl. L. Rev.* 461 at 480: "[i]n most developing countries...environmental protection is still a 'luxury good'"; Loubna Farchakh, *The Concept of Intergenerational Equity in International Law* (Montreal: McGill University, Faculty of Law, Institute of Comparative Law, 2003) at 15-16, discussing the "priority given to poverty."

95. See, e.g., Christopher Lasch, *The Culture of Narcissism: American Life in an Age of Diminishing Expectations* (New York: Warner, 1979) at 21-26.

has reached an unprecedented level.⁹⁶ Indeed, Attfield asserts that it is “seriously possible” that current anthropogenic phenomena (e.g., climate change, the proliferation of nuclear weapons, etc.) could result in the extinction of human beings and most animal species.⁹⁷ In the alternative, present human activities could result in an “abysmally low quality of life” for future generations,⁹⁸ or in a significant impoverishment in quality of life through decreased biodiversity and/or the depletion of non-renewable resources.⁹⁹ As a result of the power of the present generation to unilaterally inflict enormous environmental harm on generations yet unborn, there is a clear need to address intergenerational relations within international environmental law.

The contemporary international legal community explicitly recognized the imperative of protecting future generations from environmental degradation in the 1972 *Stockholm Declaration on the*

96. Rachel Carson recognized this in her pivotal 1962 book *Silent Spring*, in which she wrote that “[o]nly within the moment of time represented by the present century has one species – man [sic] – acquired significant power to alter the nature of his world. During the past quarter century, this power has ... increased to one of disturbing magnitude...” Rachel Carson, *Silent Spring* (New York: First Mariner Books, 2002) at 5. See also paragraph 1 of the *Stockholm Declaration*, *supra* note 67, stating: “In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man [sic] has acquired the power to transform his environment in countless ways and on an unprecedented scale.” Note, however, that past human societies did have the power to profoundly affect future generations in their local area. In his illuminating examination of failed societies, Jared Diamond describes human-induced environmental disasters that, in some cases, resulted in the total extinction of the peoples involved. Diamond hypothesizes that if we do not alter our current environmental course, a partial collapse (involving a drastic decrease in quality of life rather than total human extinction) may occur. Jared M. Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking, 2005).

97. Robin Attfield, “Environmental Ethics and Intergenerational Equity” (1998) 41 *Inquiry* 207 at 208-209.

98. *Ibid.* at 209. Imagine, for example, a global environment so polluted that cancer and other illnesses become virtually universal. For an excellent discussion of the explosion in cancer rates associated with increased exposure to synthetic chemicals in the industrialized world, see Joe Thornton, *Pandora’s Poison: Chlorine, Health, and a New Environmental Strategy* (Cambridge, MA: MIT Press, 2000) at 155-199.

99. Attfield, *supra* note 97 at 210.

Human Environment.¹⁰⁰ Concern for future generations is evident in a number of provisions of the *Stockholm Declaration*, including Principle 1 (recognizing “a solemn responsibility to protect and improve the environment for present and future generations”), Principle 2 (“natural resources...must be safeguarded for the benefit of present and future generations”), Principle 3 (“the capacity of the earth to produce vital renewable resources must be maintained...restored or improved”), Principle 5 (duty to prevent future exhaustion of non-renewable resources), Principle 6 (prevention of serious or irreversible harm caused by pollution), and Principle 11 (environmental policies must not adversely affect present or future development of developing countries).

Although the *Stockholm Declaration* was a major step in establishing intergenerational duties in the realm of environment, it lacked any detailed framework for the balancing of present and future environmental interests. In 1989, Professor Edith Brown Weiss filled this theoretical vacuum with her pivotal book, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity*.¹⁰¹ *In Fairness to Future Generations* was the result of a United Nations-sponsored study and was viewed as both a conceptual tool-kit¹⁰² and a “normative call to action,”¹⁰³ responding in part to the recent publication of the Brundtland Commission report.¹⁰⁴ Brown Weiss explicitly sought both to make a case for extending fairness to future generations and to provide a conceptual vehicle for getting there. That vehicle is the doctrine of intergenerational equity.

100. *Stockholm Declaration*, *supra* note 67. See also *International Convention for the Regulation of Whaling*, 2 December 1946, 161 U.N.T.S. 72 [*Whaling Convention*], recognizing in its Preamble the “interest of the nations of the world in safeguarding for future generations the great natural resources represented by the whale stocks”; *African Convention on the Conservation of Nature and Natural Resources*, 15 September 1968, 1001 U.N.T.S. 3 [*African Conservation Convention*], stating in its Preamble that natural resources should be conserved, utilized and developed “by establishing and maintaining their rational utilization for the present and future welfare of mankind”; *Convention for the Protection of the World Cultural and Natural Heritage*, 16 November 1972, 1037 U.N.T.S. 151 [*World Heritage Convention*], providing in Article 4 that “[e]ach State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage...belongs primarily to that State” within its available resources; *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, 3 March 1973, 993 U.N.T.S. 243, 12 ILM 1085 [*CITES*], recognizing in its Preamble that “wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come.”

101. Brown Weiss, *Future Generations*, *supra* note 73. Note that there were antecedents to this work in the literature. See, e.g., Bryan G. Norton, “Environmental Ethics and the Rights of Future Generations” (1982) 4 *Env’l Ethics* 319.

102. Brown Weiss, *Future Generations*, *supra* note 73 at xxiii.

103. *Ibid.* at xxii.

104. *Ibid.* at xxv.

3. *Intergenerational equity as a legal doctrine*

Although international legal scholarship and law refer frequently to the “concept” or “principle” of intergenerational equity,¹⁰⁵ Brown Weiss actually articulated a detailed and coherent legal *doctrine* of intergenerational equity, allowing for a reasoned implementation of the principle of environmental fairness to future generations.

a. *Normative premises*

Although the doctrine of intergenerational equity incorporates both rights and responsibilities, Brown Weiss exhibits a communitarian orientation that appears to privilege responsibility to the (inter-temporal) human family as a starting point for the analysis. Brown Weiss argues that “[t]he purpose of human society must be to realize and protect the welfare and well-being of every generation,”¹⁰⁶ citing Edmund Burke’s theory of society as a partnership among generations.¹⁰⁷ The basic normative premise here is that the survival of human beings is a good thing, and indeed gives rise to a moral imperative which Jean Rostand called “the obligation to endure.”¹⁰⁸ Beginning with this notion that human society is an intergenerational partnership whose purpose is to assure the continued survival and well-being of each generation, Brown Weiss next examines a mechanism for establishing a just relationship between generations.

Taking a Rawlsian approach, she suggests a thought experiment in which no generation knows at what time it will be the living generation, how many members it will have, or how many generations there ultimately will be.¹⁰⁹ She argues that a generation in this position “would want to inherit the common patrimony of the planet in as good condition as it has been for any previous generation and to have as good access to it as

105. See, e.g., *Legality of the Threat or Use of Nuclear Weapons Case*, Advisory Opinion, [1996] I.C.J. Rep. 226 at 455, 502, online: <<http://www.icj-cij.org/icjwww/icas/ iunan/iunanframe.htm>> [*Nuclear Weapons Advisory Opinion*] where in his Dissenting Opinion Justice Weeramantry refers to intergenerational equity alternately as a “concept” or “principle”; Young-Gyoo Shim, “Intellectual Property Protection of Biotechnology and Sustainable Development in International Law” (2003) 29 N.C. J. Int’l L. & Com. Reg. 157, 216, describing the “principle of intergenerational equity” as “an element of sustainable development”; Sato, *supra* note 78 at 507, describing commitment to intergenerational equity as a “guiding principle” of sustainable development as articulated by the Brundtland Commission; Cherie Metcalf, “Indigenous Rights and the Environment: Evolving International Law” (2004) 35 Ottawa L. Rev. 101 at 139, describing intergenerational equity as a “core concept in international environmental law.”

106. Brown Weiss, *Future Generations*, *supra* note 73 at 23.

107. *Ibid.*; see also Edmund Burke, *Reflections on the Revolution in France*, ed. by J.G.A. Pocock (Indianapolis: Hackett, 1987) at 84-85.

108. Cited in Carson, *supra* note 96 at 13.

109. Brown Weiss, *Future Generations*, *supra* note 73 at 23.

previous generations.”¹¹⁰ Thus, the central justification for intergenerational equity is the notion of justice. Brown Weiss argues that international law has always been concerned with justice, and that the doctrine of intergenerational equity merely extends this notion further into the inter-temporal dimension.¹¹¹

Brown Weiss identifies four criteria which any theory of inter-generational equity must meet. First, the theory should be equitable among generations, “neither authorizing the present generation to exploit resources to the exclusion of future generations, nor imposing unreasonable burdens on the present generation to meet indeterminate future needs.”¹¹² Second, principles of intergenerational equity should be value-neutral; “[t]hey must give future generations flexibility to achieve their goals according to their own values.”¹¹³ Third, such principles “should be reasonably clear in application to foreseeable situations.”¹¹⁴ Finally, principles of intergenerational equity “must be generally shared by different cultural traditions and be generally acceptable to different economic and political systems.”

Although perhaps encompassed in the fourth criterion, it is unfortunate that Brown Weiss did not explicitly include the element of fairness between developing and developed nations at this stage. Brown Weiss does address this imperative through the articulation of an intra-generational component in the doctrine of intergenerational equity. However, the absence of an explicit recognition of the unique concerns of developing countries in the framing theoretical criteria may in part explain why the intra-generational element in Brown Weiss’s analysis has been viewed by some as underdeveloped.¹¹⁵

b. *Definition and content of intergenerational equity*

Taking the constituent terms separately, “equity” as used in the context of Brown Weiss’s formulation of intergeneration equity appears to refer primarily to a principle of distributive justice.¹¹⁶ That is, equity concerns the just allocation of benefits, in this case environmental benefits (and

110. *Ibid.* at 24.

111. *Ibid.* at 28, 34.

112. *Ibid.* at 38.

113. *Ibid.*

114. *Ibid.*

115. See Catherine Redgwell, *Intergenerational Trusts and Environmental Protection* (Manchester: Juris, 1999) at 109.

116. Brown Weiss, *Future Generations*, *supra* note 73 at 36-37.

presumably also burdens).¹¹⁷ “Intergenerational” as used in this context denotes relations between all those currently living, and generations yet unborn, indefinitely into the future.¹¹⁸ Although the term “intergenerational equity” could be used to refer broadly to distributive justice between or among generations (for example in considering the fairness of leaving future generations with a fiscal debt), the term as used in this Article refers to a specifically *environmental* legal doctrine.¹¹⁹

The environmental law doctrine of intergenerational equity as articulated in *In Fairness to Future Generations* holds that:

each generation receives a natural and cultural legacy in trust from previous generations and holds it in trust for future generations. This relationship imposes upon each generation certain planetary obligations to conserve the natural and cultural resource base for future generations and also gives each generation certain planetary rights as beneficiaries of the trust to benefit from the legacy of their ancestors. These planetary obligations and planetary rights form the corpus of a proposed doctrine of intergenerational equity, or justice between generations.¹²⁰

Brown Weiss identifies three distinct kinds of “equity problems” requiring an intergenerational approach: depletion of resources for future generations, degradation in quality of resources for future generations, and the problem of access to use and benefits of the resources received from past generations.¹²¹ Concomitantly, she elaborates three corresponding “principles” of intergenerational equity.

The first, which she terms “Conservation of Options”, requires the present generation to conserve the diversity of the natural and cultural resource base. This principle does not require the precise preservation of the *status quo*, recognizing both that ecological systems are inherently dynamic (and therefore the content of the biological resource base will inevitably change over time),¹²² and that technological advances may create substitutes for certain existing resources or significantly optimize

117. *Ibid.*

118. For an interesting discussion of alternative definitions of “generation” and “intergenerational,” see Lawrence B. Solum, “To Our Children’s Children’s Children: The Problems of Intergenerational Ethics” (2001) 35 *Loy. L.A. L. Rev.* 163.

119. Although the doctrine can and is being used in the domestic context, it includes content (e.g., the duty of states to future foreign nationals) that is distinctly international in character.

120. Brown Weiss, *Future Generations*, *supra* note 73 at 2.

121. *Ibid.* at 6.

122. *Ibid.* at 41.

their exploitation.¹²³ However, the principle requires that “on *balance* the diversity of the resource base be maintained.”¹²⁴

The second principle, “Conservation of Quality,” requires the present generation to pass the planet on to future generations “in no worse condition than that in which it was received.”¹²⁵ Again, this principle recognizes that the condition of the environment will undoubtedly change, but mandates that its overall quality must be maintained. Given the complexity of the science of ecology, it may fairly be argued that the notion of “overall” global environmental quality is so vague as to be meaningless. In this respect, Brown Weiss concedes that a more detailed framework must be developed for evaluating net impacts on environmental quality.¹²⁶

The third principle, “Conservation of Access,” requires that members of the present generation be provided with equitable rights of access to the planetary legacy, while conserving this access for future generations. Professor Redgwell explains that the principle of Conservation of Access “reflects a basic trust obligation, namely, the general duty of a trustee to maintain equality between the beneficiaries, and to act impartially between life tenant (the present generation) and ‘remaindermen’ (future generations).”¹²⁷ Brown Weiss argues that the principles of intergenerational equity, and Conservation of Access in particular, require wealthier members of the present generation to assist the poorer members in both carrying out their conservation obligations and enjoying their rights to benefit from the planetary legacy.¹²⁸

Although this approach may be an attempt to preempt developing world concerns with the theory, positing intra-generational equity as a component of inter-generational equity arguably obscures important conflicts between the two. The theory rests on a presumption that it is scientifically *possible* to adequately address present needs throughout the world while still passing on the planet to succeeding generations in no worse condition than that in which it was received.¹²⁹ To the extent that this presumption is false, Brown Weiss’s attempt to harmonize inter- and

123. *Ibid.* at 42.

124. *Ibid.* [emphasis in original].

125. Edith Brown Weiss, “Our Rights and Obligations to Future Generations for the Environment” (1990) 84 A.J.I.L. 198 at 202 [Brown Weiss, “Rights and Obligations”].

126. Brown Weiss, *Future Generations*, *supra* note 73 at 43, 128-144.

127. Redgwell, *supra* note 115 at 78.

128. Brown Weiss, *Future Generations*, *supra* note 73 at 45.

129. Consider, for example, the use of DDT to combat malaria in Africa. This practice may compromise future health and biodiversity but saves lives and prevents suffering in the present. See Carson, *supra* note 96, and David L. Mulliken, Jennifer D. Zambone & Christine G. Rolph, “DDT: A Persistent Lifesaver” (2005) 19:4 N.R.&E. 3.

intra-generational equity may prove to be problematic. Nonetheless, even if and where we are faced with open conflict between present and future generations, the framework developed by Brown Weiss may be useful in structuring our analysis of the interests that should be taken into account.

Brown Weiss asserts that, “[t]he dual role of each generation as trustee of the planet for present and future generations and as beneficiary of the planetary legacy imposes certain obligations upon each generation and gives it certain rights. These may be called planetary, or intergenerational, rights and obligations.”¹³⁰

c. *Planetary obligations*

The planetary obligations proposed by Brown Weiss flow directly from the principles of intergenerational equity described above. Thus, the obligations are to conserve diversity, quality, and access.¹³¹ Clarifying these obligations further, Brown Weiss argues that the three planetary obligations translate into five specific duties of use. First, the duty to conserve resources requires present generations to conserve both renewable and non-renewable natural resources.¹³² Endangered species and unique natural resources may require strict preservation,¹³³ but generally this planetary duty allows for the sustainable development of resources. Second, the duty to ensure equitable use, defined as “reasonable, non-discriminatory access to the [planetary] legacy”¹³⁴ includes both the negative obligation to refrain from infringing on the access rights of other beneficiaries and positive obligations to “assist those who would otherwise be too poor to have reasonable access and use.”¹³⁵

The third duty, the duty to avoid adverse impacts on the environment, flows from responsibilities both to present co-beneficiaries of the planetary trust and future generations.¹³⁶ It “emphasizes prevention and mitigation of damage”¹³⁷ and implicates procedural environmental rights and duties including notice, information, consultation, and environmental assessment.¹³⁸ With respect to environmental assessment in particular, Brown Weiss observes that intergenerational equity requires adequate consideration of long-term impacts.¹³⁹

130. Brown Weiss, *Future Generations*, *supra* note 73 at 45.

131. *Ibid.* at 47.

132. *Ibid.* at 50.

133. *Ibid.* at 51.

134. *Ibid.* at 55.

135. *Ibid.*

136. *Ibid.* at 59-60.

137. *Ibid.* at 60.

138. *Ibid.* at 60-61.

139. *Ibid.* at 63.

The fourth duty articulated by Brown Weiss as a component of planetary obligations is the duty to prevent disasters, minimize damage, and provide emergency assistance.¹⁴⁰ The duty to prevent disasters requires states, *inter alia*, to adopt adequate safety standards for hazardous activities and to monitor such activities.¹⁴¹ When an environmental disaster does occur, this duty obligates the affected state to minimize environmental damage as much as practicable, and similarly requires non-affected states to provide assistance in order to minimize the damage.¹⁴² Finally, there is the duty to compensate for damage to the environment.¹⁴³

Although planetary obligations theoretically attach to all members of the present generation, the State functions as the guarantor of these obligations.¹⁴⁴ Notably, Brown Weiss argues that planetary obligations are also owed by states to future nationals of *other* states.¹⁴⁵

d. *Planetary rights*

The content of planetary rights in the doctrine of intergenerational equity mirrors that of planetary obligations. Thus, planetary rights include the right to diversity, quality, and access. Three key observations may be made concerning the unique nature of rights within the doctrine of intergenerational equity. First, in a direct reversal of the traditional human rights paradigm, planetary rights in intergenerational equity are correlative with and possibly even secondary to obligations. “[P]lanetary rights are the *obverse* of the planetary obligations.”¹⁴⁶ Second, planetary rights in Brown Weiss’s formulation have a dual nature. The planetary rights of future generations are group rights, not individual rights; these rights should be asserted by a representative for the group as a whole.¹⁴⁷ This qualification appears to be Brown Weiss’s attempt to answer the argument that rights can only attach to an identifiable, existing party.¹⁴⁸

In contrast, planetary rights crystallize into individual rights within the present generation, though Brown Weiss notes that “the remedies for violations of these rights will often benefit the rest of the generation,

140. *Ibid.* at 70 ff.

141. *Ibid.* at 71.

142. *Ibid.* at 74-79.

143. *Ibid.* at 50.

144. *Ibid.* at 48.

145. *Ibid.* at 26-27.

146. *Ibid.* at 95 [emphasis added].

147. *Ibid.* at 96.

148. *Ibid.* at 96-97. See also Lynda M. Warren, “Legislating for Tomorrow’s Problems Today – Dealing with Intergenerational Equity” (2005) 7 *Env’tl L. Rev.* 165 at 169-170: “[i]n law, rights are associated with parties—individuals, corporations, States—and, indeed, can only exist where there is an identifiable beneficiary.”

not only the individual, and in this sense they may be said to retain their character as group rights."¹⁴⁹ Third, in keeping with the nature of planetary obligations (which again determines that of the corresponding planetary rights), the State is the guarantor of the planetary rights of both present and future generations.¹⁵⁰

e. *The time horizon*

If present generations are to take into account the needs of the future, we must determine how far into the future our planning horizon should extend. Cost benefit analysis (an increasingly dominant tool in environmental decision-making)¹⁵¹ generally applies a discount rate to future environmental (and other) costs and benefits roughly equivalent to the rate of inflation.¹⁵² Critics argue that "this practice has the ridiculous result that costs and benefits more than thirty years hence are treated as if they had quite miniscule significance, and the interests of generations of more than a hundred years hence as if they had no significance at all."¹⁵³ Thus, cost benefit analysis presumes no obligations to future generations beyond a few decades into the future.

Taking a middle ground, de-Shalit argues that "positive obligations" to future generations, that is the affirmative duty to provide resources, "fade away" as future generations become more remote in time.¹⁵⁴ Nonetheless, "[t]o people of the very remote future we [still] have a strong 'negative' obligation...to avoid causing them enormous harm or bringing them death...."¹⁵⁵

Brown Weiss takes the position that planetary rights inhere to "all generations" without limitation.¹⁵⁶ In theory, if the principles of intergenerational equity are respected, each generation will pass the planet on in as good condition as that in which it was received, and there should be no need for a "cut-off" point in the recognition of planetary rights. However, there may be substantial practical and psychological barriers to

149. Brown Weiss, *Future Generations*, *supra* note 73 at 97.

150. *Ibid.* at 109.

151. See Frank Ackerman & Lisa Heinzerling, *Priceless: On Knowing the Price of Everything and the Value of Nothing* (New York: New Press, 2004).

152. Attfield, *supra* note 97 at 213.

153. *Ibid.* There is a rich literature regarding the issue of discounting; see, e.g., Erhun Kula, *Time Discounting and Future Generations: The Harmful Effects of an Untrue Economic Theory* (Westport, Conn.: Quorum, 1997); Daniel A. Farber, "From Here to Eternity: Environmental Law and Future Generations" (2003) U. Ill. L. Rev. 289; Emilio Padilla, "Intergenerational Equity and Sustainability" (2002) 41 *Ecological Economics* 69.

154. de-Shalit, *supra* note 78 at 13.

155. *Ibid.* See also Daniel A. Farber, *Eco-pragmatism* (Chicago: University of Chicago Press, 1999) at 161: "the current generation has at least a responsibility to leave later generations the minimum requirements for decent lives, which means avoiding any severe, irreparable environmental damage."

156. Brown Weiss, *Future Generations*, *supra* note 73 at 97.

requiring present sacrificial action for the sake of protecting rights far into the future.¹⁵⁷

f. *Development vs. environmental protection*

The doctrine of intergenerational equity as articulated by Brown Weiss explicitly eschews a strictly preservationist model that would require present generations to make undue sacrifices in service of the future good.¹⁵⁸ At the same time, it rejects the opposite of preservationism, the “opulent model,” which presumes that the welfare of future generations is either irrelevant or is best served by maximizing the production of financial wealth in the present.¹⁵⁹ As Brown Weiss notes, the latter ignores the reality of ecological limits, including humans’ biological dependence on the rest of the ecosphere for survival.¹⁶⁰ Thus, like the concept of sustainable development, the doctrine of intergenerational equity attempts to strike a balance between use and enjoyment of the earth’s resources by the present, which will invariably result in changes to the ecological status quo, and conservation of adequate natural resources for the future. However, this aspect of the theory again runs into the difficulty of scientific feasibility. It is possible, for example, that the only option that can preserve the survival of the planet over the next five hundred years is strict preservation, or even preservation plus restoration.¹⁶¹

g. *Enforcement*

In the theory of intergenerational equity, although both rights and duties attach to individuals (and non-State groups of individuals), the State is the primary guarantor of planetary rights and obligations and also acts as “guardian *ad litem* for future generations.”¹⁶² Brown Weiss proposes that, in the international arena, appropriate enforcement mechanisms could include the creation of a Planetary Rights Commission analogous

157. See de-Shalit, *supra* note 78 at 14; Farber, *supra* note 155 at 153-154; Padilla, *supra* note 153.

158. Brown Weiss, *Future Generations*, *supra* note 73 at 22-24.

159. *Ibid.* at 23.

160. *Ibid.* See also Karin Mickelson & William Rees, “The Environment: Ecological and Ethical Dimensions” in Elaine Hughes *et al.*, eds., *Environmental Law and Policy* (Toronto: Emond Montgomery, 1998) 2 at 38:

On an infinite planet, it might matter little how far human perceptions of nature departed from the “true” nature of external reality. However, as the scale of the human enterprise approaches that of the ecosphere, it is essential that the internal structure and “variety,” and the behaviour of our management models mirror, or at least acknowledge, the corresponding characteristics of the natural world.

161. Brown Weiss is aware of the difficulty of scientific uncertainty and recommends increased monitoring, research, and development of predictive techniques. See Brown Weiss, *Future Generations*, *supra* note 73 at 43, 128-144.

162. *Ibid.* at 109.

to human rights tribunals.¹⁶³ She suggests that the jurisdiction of such a body should cover both public bodies and private multinational entities,¹⁶⁴ and should be empowered to take complaints from individual members of the present generation.¹⁶⁵ She suggests further that individuals and communities would be under a duty to report violations of planetary rights to the appropriate bodies.¹⁶⁶

Brown Weiss proposes the creation of a correlative body specifically to address planetary obligations, and the obverse planetary rights of *future* generations – an independent Commission on the Future of the Planet.¹⁶⁷ Commissioners would have “overall responsibility for monitoring compliance with our obligations to future generations and for assisting governments and other instrumentalities in meeting these obligations,”¹⁶⁸ while ombudspersons would be responsible for identifying risks to future generations, receiving complaints, and educating the public regarding conservation of the planet for future generations.¹⁶⁹

Brown Weiss further suggests that representatives of future generations should be granted standing in both international and domestic courts.¹⁷⁰

4. *Critiques and counter-arguments*

A rich body of literature has emerged critiquing the theoretical basis for intergenerational equity, marshalling arguments based in ethics, logic, and moral theory.¹⁷¹ The predominant arguments are as follows:

a. *Future generations are incapable of having rights*

A number of legal and philosophical commentators have challenged the notion of planetary rights (or rights of any kind) attaching to future generations. One interesting school of thought argues that it is inappropriate and perhaps self-defeating to recognize rights for future generations because our current choices will alter the identity of those who

163. *Ibid.* at 111.

164. *Ibid.*

165. *Ibid.* at 113.

166. *Ibid.* at 111.

167. *Ibid.* at 148-150.

168. *Ibid.* at 149.

169. *Ibid.*

170. *Ibid.* at 120-121.

171. See, e.g., Wilfred Beckerman & Joanna Pasek, *Justice, Posterity, and the Environment* (Oxford: Oxford University Press, 2001); Paul A. Barresi, “Beyond Fairness to Future Generations: An Intragenerational Alternative to Intergenerational Equity in the International Environmental Arena” (1997) 11 *Tul. Envtl. L.J.* 59; Jeffrey M. Gaba, “Environmental Ethics and Our Moral Relationship to Future Generations: Future Rights and Present Virtue” (1999) 24 *Colum. J. Envtl. L.* 249; Graham Mayeda, “Where Should Johannesburg Take Us? Ethical and Legal Approaches to Sustainable Development in the Context of International Environmental Law” (2004) 15 *Colo. J. Int’l Envtl. L. & Pol’y* 29.

are ultimately born. As a result, if we attempt to discharge environmental duties to future generations, we will inadvertently (but inevitably) deny some potential members of such generations the opportunity to be born.¹⁷² Gosseries provides an example:

If I take a car every day to go to my job, this will have two types of relevant consequences. It will have a negative impact on the present and future state of the atmosphere, given that it will increase emissions. However, it will also have an impact on the identity of my future child. For, coming back home earlier or later than if I had taken a bike will also affect the timing of my sexual intercourse. Hence, given the very large number of competing spermatozoa, it is very likely to affect the very identity of the child I will conceive together with my beloved.

...

Imagine now a father having to face his daughter. Having grown 17 and having become a green activist, she asks him: "why did you not choose the bike rather than the car? The atmosphere would be much cleaner today! And given your circumstances at that time, you had no special reason not to take the bike!" The father may well answer: "True. Still, had I done so, you would not be here. Since your life in such a polluted environment is still worth living, why blame me? I certainly did not harm you. Which one of your rights did I violate then?"¹⁷³

The uncertain identity of future individuals undoubtedly raises difficult theoretical challenges to the recognition of rights for future generations. However, a compelling counter-argument recognizes that the present generation cannot help but affect the identity of future humans. The "do nothing" approach is itself a decision with substantial implications, and there is no tenable argument for the moral superiority of this alternative. Thus, Mary Anne Warren posits that "our duty to preserve the environment is a duty to the generation that does come into existence, regardless of whether it is the same generation that would have existed had we done

172. Derek Parfit, "On Doing the Best for Our Children" in Michael D. Bayles, ed., *Ethics and Population* (Cambridge, MA: Schenkman, 1976) 100 at 101, cited in Mayeda, *supra* note 171 at 43. At 44 Mayeda then quotes Anthony D'Amato, "Do We Owe a Duty to Future Generations to Preserve the Global Environment?" (1990) 84 Am. J. Int'l L. 190 at 191-92: "If in exercise of ... such an alleged duty [to future generations] we commit an act of environmental intervention that denies the opportunity to be born to [certain] individuals, we cannot possibly be making *them* better off by virtue of our intervention."

173. Axel Gosseries, "Constitutionalizing Future Rights?" (2004) 2 Intergenerational Justice Review 10 at 10-11.

nothing.”¹⁷⁴ Similarly, Brown Weiss asserts that “[t]o evaluate whether the interests represented in planetary rights are being adequately protected does not depend upon knowing the number or kinds of individuals that may ultimately exist in any given future generation.”¹⁷⁵

Perhaps more fundamental than the “identity challenge”¹⁷⁶ is the argument that because future generations do not yet exist, they simply cannot hold rights:

[T]he fact that future generations will have interests in the future, and may well have rights in the future, does not mean that they can have interests today, that is, before they are born. It may well be that having certain interests implies having certain rights. But future generations do not at this point in time...*have* any interests (emphasis in original).¹⁷⁷

The argument is undoubtedly attractive from a logical perspective. It is counter-intuitive to conceive of rights belonging to a non-existent entity such as unborn future generations. Proponents of rights for future generations answer the “impossibility” claim with the straightforward proposition that future generations can have rights if a critical mass of people in the present recognizes such rights. This line of thought reflects both a post-modernist recognition of the malleability of rights consciousness, and the positivist assertion that legal rights exist to the extent that they are incorporated into positive law.

Tremmel, for example, observes:

We possess a moral feeling for future generations. Due to this feeling we can ascribe moral rights to future generations. In this sense they do have “rights”...

[F]uture individuals... “have” moral rights as soon as mankind found [*sic*] a consensus about that. This becomes more clear when we take a look at how someone gets a legal right. He or she gets it as soon as it is codified by the lawmaker. If the lawmaker would codify rights of future generations, how can anybody renounce that future individuals “have”

174. Mary Anne Warren, “Future Generations” in Tom Regan & Donald VanDeVeer, eds., *And Justice for All* (Totowa, NJ: Rowman & Littlefield, 1982) 139 as quoted by Mayeda, *supra* note 171 at 44, n. 56. See also Joel Feinberg, “The Rights of Animals and Unborn Generations” in W. Blackstone, ed., *Philosophy and Environmental Crisis* (Athens, GA: University of Georgia Press, 1974) 43 at 65: “The identity of the owners of [future generations’] interests is now necessarily obscure, but the fact of their interest-ownership is crystal clear, and that is all that is necessary to certify the coherence of present talk about their rights.”

175. Brown Weiss, “Rights and Obligations,” *supra* note 125 at 205.

176. See Gosseries, *supra* note 173.

177. Beckerman & Pasek, *supra* note 171 at 21.

such rights?¹⁷⁸

Professor Stone, for his part, argues that even if future generations may not have *moral* rights, we could, “quite intelligibly,” accord them legal rights.¹⁷⁹

Finally (on this point), even if one were to accept that future generations cannot have legal or moral rights in the present, one can still recognize legal *obligations* on the part of the present generation towards future generations.¹⁸⁰ Thus, the notion that present generations are both beneficiaries of a planetary trust handed down from the past and trustees of that legacy for the benefit of future generations remains viable. Similarly, the planetary obligations to conserve biodiversity, quality, and access are untouched by the rights critiques, as are the planetary rights of present generations. Only the planetary rights of future generations are called into question, and the issue is academic if present generations acknowledge an obligation independent of the rights question. In other words, the doctrine of intergenerational equity, with some modifications, remains a viable legal framework irrespective of the debate regarding the viability of rights for future generations.

b. *The uncertainty of future generations' preferences*

Beyond the question of rights for future generations, some commentators claim that the formulation of obligations towards future generations is either impracticable or inappropriate because “[q]uite simply, we do not know what the future wants.”¹⁸¹ The argument is that we cannot have an obligation to protect the interests of future generations, because we cannot ascertain what those interests might be. Moreover, the actions taken by the present generation will shape future preferences, and, in particular future generations will be unlikely to desire a state of environment which they have never known.¹⁸²

Of course, the fatal flaw in this argument is that it ignores the biological bottom line of being human. Although human beings living a hundred or a thousand years in the future may have beliefs and preferences that differ substantially (or even radically) from the present, they will most

178. Jörg Chet Tremmel, “Is a Theory of Intergenerational Justice Possible? A Response to Beckerman” (2004) 2 *Intergenerational Justice Review* 6 at 8.

179. Christopher D. Stone, *The Gnat is Older Than Man* (Princeton: Princeton University Press, 1993) at 273 [Stone, *The Gnat*].

180. These obligations may either be viewed as present obligations correlated with future rights or as “non-correlative duties.” See Trakman & Gatien, *supra* note 2.

181. Gaba, *supra* note 171 at 260.

182. *Ibid.* at 264.

likely still need to breathe air, drink water, and eat.¹⁸³ Even if, through massive technological advances, it may one day be possible to replace or synthesize crucial natural resources such as air or water, to gamble on such a possibility would be an egregious violation of the Precautionary Principle.¹⁸⁴ As Attfield puts it, “future generations...[who] find that they have been deprived by earlier generations of opportunities for satisfying some of their more basic needs, could reasonably criticize their ancestors for failing to facilitate the satisfaction of foreseeable vital interests.”¹⁸⁵

Some commentators go beyond the argument that future interests are unascertainable, arguing that it is in fact inappropriate—a form of intertemporal imperialism—for present generations to assess the interests of those yet unborn. Mayeda, for example, argues that intergenerational equity may be used as a means to “import present values and impose these on the future” thus “restrict[ing] the liberty of future generations by binding them to [the present] concept” of the good.¹⁸⁶

But future generations are invariably bound by the decisions of the present. If we choose, for example, to deforest and desertify vast portions of the planet, future generations will be forced to deal with the resulting constraints on their opportunities. It is simply impossible to stay out of the affairs of future generations. The only question is whether the present generation will consciously consider future interests, or simply allow the future to unfold randomly, with potentially devastating impacts on unborn generations.

c. *Limits on future-oriented altruism*

A serious challenge to the credibility of the doctrine of intergenerational equity as articulated by Brown Weiss concerns its long time horizon. As noted above, Brown Weiss argues that planetary rights inhere in all

183. See B. Barry, “Justice Between Generations” in P.M.S. Hacker & J. Raz, eds., *Law, Morality, and Society: Essays in Honour of H.L.A. Hart* (Oxford: Clarendon Press, 1977) 268 at 274-75:

[Although] we don’t know what the precise tastes of our remote descendants will be... they are unlikely to include a desire for skin cancer, soil erosion, or the inundation of all low-lying areas as a result of the melting of the ice-caps. And, other things being equal, the interests of future generations cannot be harmed by our leaving them more choices rather than fewer.

184. The Precautionary Principle holds that “[w]hen there is substantial scientific uncertainty about the risks and benefits of a proposed activity, policy decisions should be made in a way that errs on the side of caution with respect to the environment and the health of the public.” David Kriebel *et al.*, “The Precautionary Principle in Environmental Science” (2001) *Envtl Health Perspectives* 109, no. 9 at 875. See also James E. Hickey, Jr. & Vern R. Walker, “Refining the Precautionary Principle in International Environmental Law” (1995) 14 *Va. Envtl. L. J.* 423 at 423, 425, 437.

185. Attfield, *supra* note 97 at 212.

186. Mayeda, *supra* note 171 at 61.

generations. As de-Shalit colourfully explains, whether or not this is true in the abstract, the theory underlying international environmental law

should not demand what is absolutely impossible. If people are told that they should share natural resources...with people who will be alive six or twelve generations from now, they will at least listen and may even tend to agree. But if they are told that they should share access to [natural resources] with someone in the year 2993 or 3993, the response will probably be, "To hell with morality and intergenerational justice! This is ridiculous; such policies do not make any sense because they are inconceivable!"¹⁸⁷

Thus, it may simply be unrealistic to expect to gain widespread support for a paradigm shift based on a notion of responsibility towards an amorphous and undifferentiated body of "future generations" to which present individuals share no particular connection. I concur with de-Shalit that it is likely most helpful to employ a planning horizon somewhere between six and twelve generations into the future. Traditional legal rules, such as the Haudenosaunee rule of seven generations, may assist in determining the appropriate guideline. At the same time, the time horizon should be context-specific. In particular, it may be appropriate to employ Brown Weiss's indefinite approach to situations raising a risk of catastrophic future harm.¹⁸⁸

d. *The intra-generational alternative*

In an important 1997 article, Paul A. Barresi suggests that Brown Weiss's doctrine of intergenerational equity ought to be rejected in favour of a theory based solely in intra-generational, intra-national, and individual rights and duties. Barresi argues that the goals of intergenerational equity could be accomplished by a theory based on an intra-generational, intra-national contract among present individuals made for the benefit of future nationals of their own state, as third party beneficiaries. "In such a contract, each present generation national of State A would promise each of the other present generation nationals of State A to use the Earth sustainably, and to do whatever else was necessary to achieve the[ir] intergenerational goals..."¹⁸⁹ Barresi notes that the latter clause of this "contract" would likely require present generation nationals of developed countries to provide aid to those in developing countries to enable them to practice sustainability.¹⁹⁰ In this scenario, "[t]he future generation nationals of State A would stand

187. de-Shalit, *supra* note 78 at 14.

188. See *ibid.* at 13.

189. Barresi, *supra* note 171 at 82.

190. *Ibid.*

as intended third-party beneficiaries to the contract. The present and future generation nationals of State B would stand as incidental third party beneficiaries to the contract."¹⁹¹ Barresi contends that his approach would more effectively accomplish the goal of environmental fairness to future generations than the doctrine of intergenerational equity (as articulated by Brown Weiss). His theory rests on two main propositions.

First, Barresi contends that any theory of environmental obligation to the future should account for biological limitations on human concern for future generations. According to Barresi:

Our concern for individuals in future generations tends to vary in proportion to the degree to which we perceive those individuals to be genetically related to us. Thus, we tend to care more about our own offspring than about the offspring of our siblings. We tend to care more about the offspring of our siblings than about the offspring of our distant cousins, and so on. We tend to care least about the offspring of people who seem to be the most distantly related to us. To a greater or lesser degree, the offspring of people of races, ethnic groups, or territorial jurisdictions different from our own tend to fall into this category.¹⁹²

Barresi concludes that the most effective way to achieve intergenerational environmental goals is to appeal to individuals' concern for their own genetic descendants, and that sustainability should therefore be pursued by way of an agreement among present generation nationals of the same state.

As with socio-biological analysis generally, this argument ignores the mutability and contingency of human emotional response. While the scenario presented by Barresi may be common, it is by no means universal. Adoptive parents, for example, exhibit care and concern for their adopted children (and grandchildren) despite the absence of genetic relation. Moreover, even in the scenario in which genetic relation does affect degree of care, Barresi's equation of genetic relation and nationality is untenable given the degree of migration and ethnic diversity in many countries.¹⁹³ In addition, the existence of affinity groups that transcend national borders,¹⁹⁴

191. *Ibid.*

192. *Ibid.* at 72-73.

193. See Edith Brown Weiss, "A Reply to Barresi's 'Beyond Fairness to Future Generations'" (1997) 11 *Tul. Envtl. L.J.* 89 at 92 [Brown Weiss, "A Reply to Barresi"], noting the increasing migration of individuals to and from different countries.

194. Consider, for example, that a member of a particular religion in State A may feel a greater concern for future members of that religion in State B than for future non-believers in State A.

and the increasing ease of international communication, have extended communities of care¹⁹⁵ well beyond the nation state.¹⁹⁶

Second, Barresi argues that the doctrine of intergenerational equity is an inappropriate tool for achieving environmental protection because it is inconsistent with Western values. He notes that Western nations bear primary responsibility for the current state of the global environmental and asserts that only the wealthy Western nations have the financial ability to arrest global environmental deterioration. Brown Weiss correctly counters that the success of the concept of intergenerational equity during the 1990s indicates that it does in fact resonate with Western values.¹⁹⁷ Perhaps more importantly, the rapid development of non-Western economies (e.g., India and China) strongly militates in favor of a legal framework consistent with diverse cultural traditions beyond the West.¹⁹⁸

e. *The North-South equity critique*

Professor Graham Mayeda argues that Brown Weiss's doctrine of intergenerational equity inappropriately underemphasizes the moral importance of the past, and, in particular the colonization and marginalization of the developing world by the developed.¹⁹⁹ Mayeda also asserts that intergenerational equity "undermines the importance of human dignity and the equal worth of all" because it treats the present generation as a mere means to the end of future generations' happiness.²⁰⁰ This latter argument is particularly cogent where, as in developing countries, presently existing humans have urgent, unmet needs. Indeed, in the absence of the intra-generational component in Brown Weiss's theory, one can imagine a highly unjust application of intergenerational equity, in which present humans who are living in poverty are required to refrain from resource use in order to provide environmental benefits to privileged future citizens of wealthy nations.²⁰¹

195. See Brown Weiss, "A Reply to Barresi," *supra* note 193 at 92, noting that "multinational corporations, ethnic minorities, subunits of national governments, local nongovernmental organizations, ad hoc associations, and illicit transnational actors" have all become highly significant members of the international community.

196. Even if Barresi's hierarchy of human concern were accurate, it would not be an appropriate basis for the formation of international (or domestic) law and policy. Rather, to the extent that it exists, the tendency to limit one's concern to members of one's own family, ethnicity, and nationality is one that international law and policy should seek to mitigate and counteract.

197. Brown Weiss, "A Reply to Barresi," *supra* note 193 at 90-91.

198. See Barresi, *supra* note 171 at 63-70 and Brown Weiss, "A Reply to Barresi," *ibid.*

199. Mayeda, *supra* note 171 at 54-56.

200. *Ibid.* at 45.

201. Consider, for example, whether existing humans living in poverty in developing countries should be prevented from consuming rainforest in order to protect future humans in wealthy Northern countries from adverse impacts on climate and global air quality.

At first blush, Mayeda's position appears to discount the explicit intra-generational component in Brown Weiss's doctrine of intergenerational equity. After all, the doctrine of intergenerational equity recognizes the present generation's right, as beneficiary of the planetary trust, to use and enjoy its planetary rights. With respect to the moral significance of the past, the doctrine includes a duty on the part of developed countries (many of which are former colonizers) to assist developing countries (largely former targets of colonization) in accessing the planetary legacy, and in meeting their planetary obligations to the future. Thus, one could argue that the doctrine's imposition of present duties is an appropriate response to past injustice. Nonetheless, Mayeda's critiques do point to the relative underdevelopment of intra-generational equity by Brown Weiss. Indeed, Redgwell observes that *In Fairness to Future Generations* contains only seven explicit references to intra-generational equity.²⁰²

More profoundly, characterizing intra-generational equity as a *component* of intergenerational equity obscures the real potential for conflict between the present and future. There may indeed be cases in which protecting the rights of future generations would entail treating the present generation as a mere means to the end of future generations' happiness, and present generations in the developing world are disproportionately vulnerable to the diversion of resources into the future.²⁰³ The intra-generational, developing world critique requires that the doctrine of intergenerational equity be interpreted alongside principles such as Environmental Justice (EJ) and Common but Differentiated Responsibilities (CDR).²⁰⁴ Intergenerational Equity may also need to be refined to address more explicitly those scenarios in which the welfare of the present and that of the future simply cannot co-exist.

Nonetheless, when complemented by EJ and CDR, the doctrine of intergenerational equity remains a cogent and viable legal framework for international environmental law and policy.

5. *The affirmative argument for environmental responsibility to future generations*

Thus far, I have examined the major critiques of the theory of intergenerational equity and concluded that the doctrine remains viable.

202. Redgwell, *supra* note 115 at 109, n. 208.

203. For a summary of other common arguments against duties towards future generations, see Kristin Shrader-Frechette, "Ethical Theory versus Unethical Practice: Radiation Protection and Future Generations" in Robert J. Goldstein, ed., *Environmental Ethics and Law* (Aldershot: Ashgate/Dartmouth, 2004) 593 at 603.

204. See *contra* Mayeda, *supra* note 171, positing CDR as an alternative (rather than a complement) to intergenerational equity.

However, I have intentionally avoided taking a position on the foundational question as to why present generations should be held responsible to the future. In my view this question is, at base, a philosophical one. Its answer depends almost entirely upon the worldview of the inquirer. From the Rawlsian perspective, fairness to the future flows from the realization that in designing a just society in the absence of information as to one's rank in that society, most of us would choose a system that provided equal opportunity among generations. Democrats may be motivated by a concern for preserving future generations' basic freedom to choose, while faith-based actors may be motivated by notions of a sacred trust, or stewardship obligation, arising from divine commandment. Humanitarians may simply be compelled to prevent unnecessary human suffering in the future. In my view, the sheer power of present generations to drastically affect future quality of life, and the profound vulnerability of the future to the present, give rise to moral responsibilities that ought to be incorporated in law.²⁰⁵

At the same time, any doctrine that recognizes legal responsibility to future generations must simultaneously recognize the right of the present generation to pursue its own well-being. Recognizing the equal humanity of present and future generations, the doctrine of intergenerational equity allows for the maximization of welfare both now and in the future.

6. *Preliminary conclusions – IGE as a legal framework for international environmental law and policy*

Kurt Lewin has written that “[t]here is nothing so practical as a good theory.”²⁰⁶ Expanding upon the four criteria identified by Brown Weiss (and discussed in Part II.3.a herein), I contend that intergenerational equity is a “good theory” to guide environmental law and policy globally for at least seven reasons.

First, the application of the doctrine of intergenerational equity would, by definition, accomplish the biophysical imperative of environmental protection. The doctrine requires conservation of both biodiversity and environmental quality, and would result in an adequate quality of life for both present and future generations of humans, as well as generating substantial benefits for non-human members of the ecological community.

Second, the doctrine of intergenerational equity is integrative; it recognizes the legitimacy of multiple claims and provides guidance for

205. See Part II.2, above.

206. Quoted in Morton Deutsch, “Co-operation and Competition” in Morton Deutsch & Peter T. Coleman, eds., *The Handbook of Conflict Resolution: Theory and Practice* (San Francisco: Jossey-Bass, 2000) 21 at 31.

resolving potential conflicts between these claims. In this respect, the doctrine explicitly recognizes the rights of members of the developing world to enjoy equal access to planetary resources, and the duty of the developed world to fund developing nations in meeting their planetary obligations to the future. This aspect of the doctrine should be further developed to address scenarios in which satisfying urgent needs of members of the present, particularly in developing nations, is simply inconsistent with future welfare.

Third, subject to the developing world critique (which is primarily a problem of ambiguity), the doctrine of intergenerational equity is generally reasonable in terms of the sacrifices expected of present generations. "Whatever may be true in the abstract about our duties to future generations, we know that people are willing to make some sacrifices for their descendants, but only within limits. Any practical scheme of environmental protection must function within those limits."²⁰⁷ By charting a middle ground between preservationism and the opulent model, intergenerational equity meets this criterion.

Fourth, intergenerational equity is a "good theory" because it is rooted in, or at least consistent with, major cultural and religious traditions. As Professor Stone has observed, in the absence of effective enforcement mechanisms, "cooperation in the international arena [is] all the more dependent on a feeling of rightness than on force."²⁰⁸ Thus, cultural legitimacy across a wide range of societies is a significant advantage in any doctrine of international environmental law. The philosophical and legal roots of intergenerational equity in a diversity of cultures and religions also make it possible to imagine a universal, but culturally diversified, application of the doctrine.²⁰⁹

Fifth, the doctrine of intergenerational equity is theoretically versatile. Present generations' environmental rights and responsibilities towards future humans under the doctrine of intergenerational equity can co-exist with responsibilities towards an intrinsically valuable natural world. However, the responsibilities of present generations under the doctrine of intergenerational equity are not contingent upon on the recognition of the intrinsic value of nature. Thus, intergenerational equity is a viable doctrine in our current, post-Rio anthropocentric theoretical framework, but can also allow for the evolution of international environmental law

207. Farber, *supra* note 155 at 153.

208. Stone, *The Gnat*, *supra* note 179 at 242.

209. This is especially important given that, in the coming decades, developing countries in diverse regions all over the world are likely to become more substantial contributors to environmental damage. See Brown Weiss, "A Reply to Barresi", *supra* note 193 at 91-92.

towards biocentrism. Indeed, Emmenegger and Tschentscher assert that the emergence of intergenerational equity in international law may actually assist in this process of evolution.²¹⁰

Sixth, and of particular importance for our purposes, intergenerational equity resolves the contest between rights and responsibilities in international environmental law. It answers the concerns of cross-cultural critics who oppose the hegemony of rights over responsibilities in conceptualizations of human relations.²¹¹ Similarly, the doctrine of intergenerational equity meets the more specific concerns of ecological ethicists who argue that the separation of rights from duties is a root cause of environmental degradation.²¹² At the same time, the explicit recognition of rights (present and future, individual and group rights) should allay the concerns of scholars such as Professor Saul, who have feared the potentially oppressive character of legal responsibility.²¹³

Finally, unlike the concept of sustainable development,²¹⁴ the doctrine of intergenerational equity is reasonably precise. The doctrine as developed by Brown Weiss is systematic, content-rich, and therefore eminently practical.

Thus, the doctrine of intergenerational equity has much to recommend it as a framework for international environmental law and policy. Having reviewed the theory of intergenerational equity, Part III will go on to assess its current status in international law.

III. *Status of intergenerational equity in international law*

1. *Introduction*

Four preliminary observations may be made regarding the international legal status of intergenerational equity. The first is that a number of the components of the doctrine of intergenerational equity as developed by Brown Weiss are already a part of international law.²¹⁵ Under the rubric of planetary obligations, for example, a number of sub-species of the duty to

210. Susan Emmenegger & Axel Tschentscher, "Taking Nature's Rights Seriously: The Long Way to Biocentrism in Environmental Law" (1994) VI:3 *Geo. Int'l Envtl. L. Rev.* 545 at 562-564.

211. See Morgan-Foster, "Third Generation Rights," *supra* note 2.

212. See Bosselmann, *supra* note 6 at 125.

213. See Saul, *supra* note 11.

214. The relationship between sustainable development and intergenerational equity will be discussed in greater detail in Part III, below.

215. See Redgwell, *supra* note 115 at 124.

conserve resources are set forth in various international treaties.²¹⁶ The duty to prevent disasters is related to the principle of state responsibility,²¹⁷ and has been codified in conventions dealing with the transport of hazardous substances.²¹⁸ Similarly, the principle of Conservation of Options is codified in the *Convention on Biological Diversity* and *CITES*,²¹⁹ and Conservation of Quality is reflected in numerous international treaties (and domestic legislation) governing pollution.²²⁰

Second, although certain components of the doctrine of intergenerational equity already have independent international legal force, the doctrine as a coherent whole has not been incorporated into international law. The doctrine as articulated by Brown Weiss has received some support at the International Court of Justice,²²¹ in several legal experts' reports, and in one notable soft law instrument, but has not been codified in any binding treaty and has not reached the level of customary international law.²²²

Third, a less specific concept of intergenerational equity, reflecting the core premise that the present generation has an obligation to maintain an adequate environment for future generations, has emerged in numerous international law sources (discussed below). "[A] number of binding and non-binding legal instruments make reference to present and future generations, and there is emerging a general consensus regarding the need to take the interests of future generations into account."²²³ Fourth, the doctrine of intergenerational equity is closely related to other emergent norms of international environmental law, including, *inter alia*, sustainable development, the right to environment, and Common but Differentiated Responsibilities.²²⁴

216. See Brown Weiss, *Future Generations*, *supra* note 73 at 53, collecting treaties. See also *Convention on Biological Diversity*, 5 June 1992, 1760 U.N.T.S., (1992) 31 I.L.M. 818 (entered into force 29 December 1993), online: <<http://www.biodiv.org/convention/articles.asp>> [*Biodiversity Convention*]. But see Redgwell, *supra* note 115 at 124 questioning the existence of a general duty to conserve outside the specified obligations in particular treaties.

217. Brown Weiss, *Future Generations*, *supra* note 73 at 72.

218. *Ibid.* See also *Basel Convention on the control of Transboundary Movement of Hazardous Wastes and their Disposal*, 22 March 1989, 1673 U.N.T.S. (entered into force 5 May 1992).

219. *Biodiversity Convention*, *supra* note 216, *CITES*, *supra* note 100.

220. See, e.g., *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, (1972) 11 I.L.M. 1294; *Stockholm Convention on Persistent Organic Pollutants*, (2001) 40 I.L.M. 532; *Convention on Long-Range Transboundary Air Pollution*, 1302 U.N.T.S., (1979) 18 I.L.M. 1442; etc. Citations collected in J. William Futrell, "Multi-Lateral Environmental Agreements" (2006) SL098 ALI-ABA 1 (WL).

221. See Part III.3 below.

222. Redgwell, *supra* note 115 at 115.

223. *Ibid.*

224. *Ibid.* at 127.

2. *Inclusion of IGE in international law instruments*

As Brown Weiss notes, the principle of responsibility towards future generations is not new in international law.²²⁵ Indeed, the *Charter of the United Nations* identifies as one of the UN's purposes "to save succeeding generations from the scourge of war."²²⁶ Concern with the specifically environmental interests of future generations is also reflected in a number of early international law instruments including the *International Whaling Convention*,²²⁷ the *World Heritage Convention*,²²⁸ and the *Convention on International Trade in Endangered Species of Wild Fauna and Flora*.²²⁹ Finally, the 1972 *Stockholm Declaration* introduced the notion of a general environmental duty to future generations.²³⁰

Since Stockholm, a number of international instruments have recognized environmental responsibilities towards future generations. *Agenda 21*, for example, exhorts governments to create sustainable development strategies with the goal of allowing development while "protecting the resource base and the environment for the benefit of future generations"²³¹ and acknowledges the interests of future generations in four other provisions.²³² Principle 3 of the *Rio Declaration on Environment and Development* provides that "[t]he right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations." Similarly, Principle 2(b) of the *Forest Principles*²³³ provides that "[f]orest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations." Of particular note for our purposes, the *Aarhus Convention* states in its Preamble, "every person has the right to live in an environment adequate to his or her health and well-being, and the duty, both individually and in association with

225. Brown Weiss, *Future Generations*, *supra* note 73 at 28.

226. *Ibid.*

227. See *Whaling Convention*, *supra* note 100; *African Conservation Convention*, *supra* note 100.

228. *World Heritage Convention*, *supra* note 100.

229. *CITES*, *supra* note 100.

230. See *Stockholm Declaration*, *supra* note 67.

231. *Agenda 21*, *supra* note 62 at s. 8.7.

232. *Ibid.* at s. 8.31 (identifying the need to avoid passing on environmental burdens to future generations as a "fundamental objective"); s. 33.3 (stating that assisting developing countries in implementing Agenda 21 will serve the "common interests of...humankind in general, including future generations"); s. 33.4 (noting that "inaction will narrow the choices of future generations"); and s. 38.45 (acknowledging "the proposal to appoint a guardian for future generations").

233. United Nations, *Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests*, A/Conf.151/26, Principle 2b, online: <<http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm>>.

others, to protect and improve the environment for the benefit of present and future generations.”²³⁴

Language reflecting respect for the interests of future generations may also be found in the Preambles of the 1992 *Convention on the Transboundary Effects of Industrial Accidents*,²³⁵ the 1994 *Convention to Combat Desertification in Those countries Experiencing Drought and/or Desertification, Particularly in Africa*,²³⁶ the 1996 *Habitat Agenda*,²³⁷ the *Convention on Biological Diversity*,²³⁸ the *Vienna Declaration and Programme of Action*,²³⁹ the *UN General Assembly*

234. *Aarhus Convention*, *supra* note 64.

235. *Convention on the Transboundary Effects of Industrial Accidents*, 17 March 1992, 2105 U.N.T.S. 460 (entered into force 19 April 2000) [*Transboundary Convention*]. The Preamble states that “[the Parties are] mindful of the special importance, in the interest of present and future generations, of protecting human beings and the environment against the effects of industrial accidents.”

236. 17 June 1994, 1954 U.N.T.S. 3, (1994) 33 I.L.M. 1328 (entered into force 26 December 1996). The Prologue states that “[the Parties] are determined to take appropriate action in combating desertification and mitigating the effects of drought for the benefit of present and future generations.”

237. *Istanbul Declaration on Human Settlements*, UN Conference on Human Settlements (Habitat II) in Istanbul, Turkey, June 3-14, 1996, Annex 1, UN Doc. A/CONF 165/15 (1996) at para. 10: “In order to sustain our global environment and improve the quality of living in our human settlements, we commit ourselves to sustainable patterns of production, consumption, transportation and settlements development; pollution prevention; respect for the carrying capacity of ecosystems; and the preservation of opportunities for future generations.”

238. *Biodiversity Convention*, *supra* note 216, Preamble: “Determined to conserve and sustainably use biological diversity for the benefit of present and future generations....”

239. *Vienna Declaration and Programme of Action*, adopted by the World Conference on Human Rights on 25 June 1993, A/CONF.157/23, at para. 11: “The right to development should be fulfilled so as to meet equitably the developmental and environmental needs of present and future generations.”

Millennium Declaration,²⁴⁰ the *Johannesburg Declaration on Sustainable Development*,²⁴¹ and the *Johannesburg Judge's Declaration*.²⁴²

The only binding instrument to include responsibilities to future generations in a substantive provision is Article 3(1) of the *United Nations Framework Convention on Climate Change* which provides that:²⁴³

[p]arties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities...

Article 3 has a chapeau characterizing it as merely one of the principles by which parties should be guided “in their actions to achieve the objectives of the Convention and to implement its provisions”. Professor Redgwell explains that

the clear intention of this wording is to confine the legal consequences of the principles articulated in Article 3 to the Framework Convention on Climate Change, [however] it is doubtful whether Article 3 may be ‘ring-fenced’ in this manner. At the very least the Convention may be viewed as beginning the process of defining the obligations of the present generation to absorb the costs of reducing the risk of global warming for future generations.²⁴⁴

240. See *United Nations Millennium Declaration*, GA Res. 55/2, UN GAOR, 55th Sess., UN Doc. A/RES/55/49 (2000) at para. 6, declaring “respect for nature” a fundamental value: “Prudence must be shown in the management of all living species and natural resources, in accordance with the precepts of sustainable development. Only in this way can the immeasurable riches provided to us by nature be preserved and passed on to our descendants”; also at para. 21: “We must spare no effort to free all of humanity, and above all our children and grandchildren, from the threat of living on a planet irredeemably spoilt by human activities, and whose resources would no longer be sufficient for their needs.”

241. *World Summit on Sustainable Development, Johannesburg, South Africa, Aug. 26-Sept. 4, 2002, Johannesburg Declaration on Sustainable Development*, PP 1, 8, UN Doc. A/CONF.199/20 [*Johannesburg Declaration*] at para. 26, recognizing that “sustainable development requires a long-term perspective” at para. 37: “we solemnly pledge to the peoples of the world and the generations that will surely inherit this Earth that we are determined to ensure that our collective hope for sustainable development is realized.”

242. *The Johannesburg Principles on the Role of Law and Sustainable Development* (adopted at the Global Judges Symposium, 18-20 August 2002), online: <<http://www.pnuma.org/deramb/publicaciones/GlobalJu.pdf>>:

We emphasize that the fragile state of the global environment requires the Judiciary ... to boldly and fearlessly implement and enforce applicable international and national laws which...will assist in alleviating poverty and sustaining an enduring civilization, and ensuring that the present generation will enjoy and improve the quality of life of all peoples, while also ensuring that the inherent rights and interests of succeeding generations are not compromised....

243. FCCC, *supra* note 94, Article 3.

244. Redgwell, *supra* note 115 at 117-118.

The prevalence of references to the interests of future generations in the preambles of numerous environmental conventions indicates that some general notion of intergenerational equity has likely emerged at least as a "guiding principle" in the interpretation of binding international environmental law.²⁴⁵ Taken together with the significant evidence in favour of a customary international law norm of sustainable development,²⁴⁶ these references support the emergence of a customary norm providing that the present generation has an obligation to future generations to preserve an environment adequate to meet their needs.

Thus, some progress has been made towards the recognition of a form of intergenerational equity. Indeed, the ubiquity of references to the environmental interests of future generations in treaties and soft law instruments indicates that the notion of environmental responsibility towards the future is becoming firmly entrenched in the international legal order. With the exception of one notable soft law instrument, however, international environmental law has not yet moved beyond this general formulation to recognize the detailed and content-rich doctrine of intergenerational equity articulated by Brown Weiss.

In *In Fairness to Future Generations*, Professor Brown Weiss advocated for the promulgation of an international Declaration of Planetary Obligations and Rights codifying the key elements of the doctrine of intergenerational equity.²⁴⁷ She recognized that such an instrument would constitute "soft law" but observed that it could lead to the conclusion of binding agreements, and/or the formation of customary international law.²⁴⁸ Shortly after the publication of *In Fairness to Future Generations*, the Cousteau Society drafted and sought support for an international Bill of Rights for Future Generations. The document declares that "[f]uture generations have a right to an uncontaminated and undamaged Earth" (Art. 1), and that "[e]ach generation, sharing in the estate and heritage of the Earth, has a duty as trustee for future generations to prevent irreversible

245. See *ibid.* at 123.

246. See Atapattu, *supra* note 8.

247. Brown Weiss, *Future Generations*, *supra* note 73 at 105.

248. In concert with the preparation of *In Fairness to Future Generations*, the United Nations Advisory Committee on International Law, Common Patrimony and Intergenerational Equity adopted the *Goa Guidelines on Intergenerational Equity* (Goa, 15 February, 1988). The Goa Guidelines simply summarize and endorse the principles set out in *In Fairness to Future Generations*, and the Guidelines were signed by the members of the Advisory Committee in their personal capacities. Thus, though worthy of mention, the *Goa Guidelines* have little significance regarding the legal status of intergenerational equity. Indeed, at para. 6 they re-state Brown Weiss's concession that planetary rights and obligations "will become enforceable as they find expression in customary and conventional international law." The *Goa Guidelines* are reproduced in *In Fairness to Future Generations* as Appendix A. See Brown Weiss, *Future Generations*, *supra* note 73 at 293.

and irreparable harm to life on Earth and to human freedom and dignity” (Art. 2).²⁴⁹ In 2001, UN Secretary General Kofi Annan formally accepted a petition from the Cousteau Society in support of the Bill of Rights counting nine million signatures from individuals around the globe.²⁵⁰

Interestingly, the Cousteau Society’s document, while linking rights with duties, clearly favours the rights paradigm (as evidenced by its name). One can speculate that, as a Western European-based organization, the Society acted on a presumption that rights are the preeminent means for securing important interests. Whatever the reasons for its existence, the Cousteau Society’s rights-based approach was turned upside down when, in 1993, UNESCO partnered with the Society to further develop the document. Although records of a 1994 experts meeting retain a focus on the rights of future generations,²⁵¹ by 1997, the “rights” of future generations had been replaced by the “needs and interests” of future generations. Again, we can speculate that UNESCO’s legal experts wished to avoid the difficult theoretical problems associated with according rights to future generations.²⁵²

The final version of the UNESCO General Assembly’s *Declaration on the Responsibilities of the Present Generations Towards Future*

249. European Cetacean Bycatch Campaign, “Cousteau Society: A Bill of Rights for Future Generations,” online: <<http://www.eurocbc.org/page721.html>>. The remaining articles in this brief document provide as follows:

Article 3. It is, therefore, the paramount responsibility of each generation to maintain a constantly vigilant and prudential assessment of technological disturbances and modifications adversely affecting life on Earth, the balance of nature, and the evolution of mankind in order to protect the rights of future generations.

Article 4. All appropriate measures, including education, research, and legislation, shall be taken to guarantee these rights and to ensure that they not be sacrificed for present expediencies and conveniences.

Article 5. Governments, non-governmental organizations, and the individuals are urged, therefore, imaginatively to implement these principles, as if in the very presence of those future generations whose rights we seek to establish and perpetuate.

250. Brown Weiss, “A Reply to Barresi,” *supra* note 197 at 97. See Cousteau Society, “Rights for Future Generations,” online: <http://www.cousteau.org/en/cousteau_world/our_programs/future_generations.php?sPlug=1>.

251. UNESCO, Director-General 1987-1999, “Discours de M. Federico Mayor, Directeur général de l’Organisation des Nations Unies pour l’éducation, la science et la culture (UNESCO) à la clôture de la réunion d’experts organisée par l’Institut tricontinental de la démocratie parlementaire et des droits de l’homme de l’Université de La Laguna sur les droits des générations futures (La Laguna, 26 février 1994) UNESCO Doc. DG/94/5, online: <<http://unesdoc.unesco.org/images/0009/000963/096321F.pdf>>.

252. See C. Zanghi, “Pour la protection des générations futures” in Boutros Boutros-Ghali, *Amicorum Discipulorumque Liber. Paix, Développement, Démocratie/Peace, Development, Democracy* (Bruxelles: Bruylant, 1998) at 1459-1478.

*Generations*²⁵³ incorporates many of the key components of the doctrine of intergenerational equity as articulated by Brown Weiss, but arrives at them through the mechanism of present responsibility, rather than future rights. Article 1 holds present generations responsible for safeguarding the needs and interests of both present and future generations, thus addressing both intra- and intergenerational equity. Article 2 mandates the preservation of future generations' "freedom of choice," analogous to the notion of Conservation of Options. Article 3 reflects the "obligation to endure," discussed in Part II, requiring the present generation to "strive to ensure the maintenance and perpetuation of humankind with due respect for the dignity of the human person...." Article 4 corresponds to Brown Weiss's Conservation of Quality, providing that:

The present generations have the responsibility to bequeath to future generations an Earth which will not one day be irreversibly damaged by human activity. Each generation inheriting the Earth temporarily should take care to use natural resources reasonably and ensure that life is not prejudiced by harmful modifications of the ecosystems and that scientific and technological progress in all fields does not harm life on Earth.

Article 5 mandates sustainable development, pollution prevention, resource preservation, and the consideration of future generations in the assessment of major projects. Article 6 requires the safeguarding of the human genome, while Article 7 requires the preservation of cultural diversity and cultural heritage. Article 8 addresses the planetary rights of the present generation, while steadfastly avoiding the actual language of rights; it states that the present generation "may use the common heritage of humankind...provided that this does not entail compromising it irreversibly."²⁵⁴

Finally, Article 12 takes a rather soft approach to implementation, stating that the UN, states, and non-state actors, "should assume their full responsibilities in promoting, in particular through education, training and information, respect for the ideals laid down in this Declaration, and encourage by all appropriate means their full recognition and effective

253. UNESCO, *Records of the General Conference, 29th session, Paris, 21 October to 12 November 1997*, v.1 (UNESCO: 1998) at 69, online: <<http://unesdoc.unesco.org/images/0011/001102/110220e.pdf>>.

254. Articles 9 and 10 address future generations' right to peace and development respectively. Article 10 also provides that education "should be used to foster peace, justice, understanding, tolerance and equality for the benefit of present and future generations." Article 11 provides that "present generations should refrain from taking any action or measure which would have the effect of leading to or perpetuating any form of discrimination for future generations."

application.” Earlier references to the formation of an organ to facilitate implementation of the Declaration²⁵⁵ were removed from the final draft.

Although the UNESCO Declaration is not binding law, UNESCO includes 191 Member States (and six Associate Members), a significant proportion of the international community.²⁵⁶ Thus, the Declaration provides some evidence of emerging *opinio juris* concerning present environmental duties towards future generations. Perhaps more importantly, the document provides a useful template for the distillation of the doctrine developed over several hundred pages in *In Fairness to Future Generations* into a workable international Declaration.

3. *IGE at the ICJ*

Both the doctrine of intergenerational equity as articulated by Brown Weiss, and the more general principle of environmental obligation towards future generations have received significant support at the ICJ. Judge Weeramantry has been the leading proponent of intergenerational equity at the ICJ, but the majority of the Court has also endorsed the principle that present generations have a responsibility to preserve an adequate environment for future generations.

In *Denmark v. Norway*,²⁵⁷ concerning maritime delimitation between Greenland and Jan Mayen, Judge Weeramantry’s separate opinion undertook an exhaustive analysis of equity in international law, including consideration of principles of intergenerational equity. Judge Weeramantry noted specifically that diverse legal traditions around the world have recognized principles of intergenerational equity:

A search of global traditions of equity in this fashion can yield perspectives of far-reaching importance in developing the law of the sea. Among such perspectives deeply ingrained therein, which international law has not yet tapped, are concepts of a higher trust of earth resources, an equitable use thereof which extends inter-temporally, the “*sui generis*”

255. See UNESCO, *Projet de Declaration sur la Sauvegarde des Generations Futures*, 151st Sess., Annexe, Point 3.5.2, UNESCO Doc. 151EX/18 (1997) at art. 13(3), online: <<http://unesdoc.unesco.org/images/0010/001064/106455F.pdf>>.

256. See UNESCO, “The Organization,” online: “Member States and Associate State Members” <http://portal.unesco.org/en/ev.php-URL_ID=3329&URL_DO=DO_TOPIC&URL_SECTION=201.html>.

257. *Case Concerning Maritime Delimitation in the Area Between Greenland and Jan Mayen (Denmark v. Norway)*, [1993] I.C.J. Rep. 38 [*Denmark v. Norway*]. For helpful discussions of this case, as well as the 1995 *Nuclear Tests Case*, *infra* note 260, and the 1996 *Nuclear Weapons Advisory Opinion*, *supra* note 105, see Brown Weiss, “A Reply to Barresi,” *supra* note 195 at 93-95; Greg Maggio & Owen J. Lynch, “Inter-Generational Equity in Case Law” in *Human Rights, Environment, and Economic Development: Existing and Emerging Standards in International Law and Global Society* (1997), online: Center for International Environmental Law, <<http://www.ciel.org/Publications/olpaper3.html>>.

status accorded to such planetary resources as land, lakes and rivers, the concept of wise stewardship thereof, and their conservation for the benefit of future generations. Their potential for the development of the law of the sea is self-evident.²⁵⁸

Justice Weeramantry cited *In Fairness to Future Generations* in support of this proposition, and also “for the fact that intergenerational fairness can be addressed under principles of equity in accordance with a long tradition in international law of using equitable principles to achieve a just result.”²⁵⁹

Two years after *Denmark v. Norway*, Justice Weeramantry took the opportunity to develop his analysis of intergenerational equity in the *Nuclear Tests* case of 1995.²⁶⁰ He devoted an entire section of his dissenting opinion to the “Concept of Intergenerational Rights,” and characterized the principle of intergenerational equity as “an important and rapidly developing principle of contemporary environmental law.”²⁶¹ Most notably, Justice Weeramantry addressed the role of international tribunals and states in protecting intergenerational rights as follows:

In a matter of which it is duly seised, this Court must regard itself as a trustee of [the] rights [of future generations] in the sense that a domestic court is a trustee of the interests of an infant unable to speak for itself... New Zealand’s complaint that its rights are affected does not relate only to the rights of people presently in existence. The rights of the people of New Zealand include the rights of unborn posterity. Those are rights which a nation is entitled, *and indeed obliged*, to protect (emphasis added).²⁶²

In the 1996 *Nuclear Weapons* Advisory Opinion,²⁶³ both the majority opinion and Justice Weeramantry recognized the interests of future generations. The majority opinion noted that “[t]he destructive power of

258. *Denmark v. Norway*: Separate Opinion of Judge Weeramantry, [1993] I.C.J. Rep. 211 at 274, para. 235. See also 276, para. 240, recognizing that diverse global legal traditions incorporate equitable principles including “[n]otions of...harmony of human activity with the environment, respect for the rights of future generations, and the custody of earth resources with the standard of due diligence expected of a trustee” though these principles “ha[d] yet to be woven into the fabric of international law.”

259. *Ibid.* at 277, para. 240, n. 1.

260. *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court’s Judgment of 20 December 1974 in the Nuclear Tests (New Zealand v. France) Case*, Order of 22 September 1995, [1995] I.C.J. 288 at 317, online: <<http://www.icj-cij.org/icjwww/icasess/inzfr/inzfrframe.htm>> [*Nuclear Tests Case*].

261. *Ibid.* at 341.

262. *Ibid.* For the majority decision, see online: <http://www.icj-cij.org/icjwww/icasess/inzfr/inzfr_iorders/inzfr_iorder_19951022.pdf>.

263. *Nuclear Weapons* Advisory Opinion, *supra* note 105.

nuclear weapons cannot be contained in either space or time. They have the potential to destroy all civilization and the entire ecosystem of the planet ... the use of nuclear weapons would be a serious danger to future generations.”²⁶⁴ The Court went beyond mere recognition of potential future impacts—explicitly stating that it would actually give consideration to the possible impacts on future generations in interpreting applicable law.

in order correctly to apply to the present case the Charter law on the use of force and the law applicable in armed conflict, in particular humanitarian law, it is imperative for the Court to take account of the unique characteristics of nuclear weapons, and in particular...*their ability to cause damage to generations to come.*²⁶⁵

The majority stated that the environment “represents the living space, the quality of life and the very health of human beings, including generations unborn.”²⁶⁶

The majority of the ICJ reiterated this intergenerational definition of the environment in the subsequent case of *Hungary v. Slovakia*.²⁶⁷ In that case, Judge Weeramantry once again endorsed “the principle of trusteeship of earth resources, [and] the principle of intergenerational rights.”²⁶⁸

4. *IGE in international experts' reports*

The doctrine of intergenerational equity as developed by Brown Weiss has received substantial support from the international legal community. The 1995 Legal Experts Report for the United Nations Commission on Sustainable Development devoted a section of its analysis to “equity,” stating that equity “has been invoked as a principle of international law” and that it includes both intergenerational equity and intra-generational equity.²⁶⁹ The report adopted Brown Weiss’s definition of intergenerational equity, citing *In Fairness to Future Generations*, and specifically adopted

264. *Ibid.* at 243-44.

265. *Ibid.* at 244 [emphasis added].

266. *Ibid.* at 241.

267. *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v. Slovakia)*, [1997] I.C.J. Rep. 7, online: <http://www.icj-cij.org/icjwww/idocket/ihs/ihsjudgement/ihs_ijudgment_970925_frame.htm>.

268. *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v. Slovakia)*, Separate Opinion of Vice-President Weeramantry, [1997] I.C.J. Rep. 88 at 110, online: <http://www.icj-cij.org/icjwww/idocket/ihs/ihsjudgement/ihs_ijudgment_970925_frame.htm>. Judge Weeramantry included these two concepts in a list of “principles of traditional systems” that should be incorporated into modern environmental law.

269. United Nations Commission on Sustainable Development, *Report of the Expert Group Meeting on Identification of Principles of International Law for Sustainable Development, Geneva, Switzerland, 26-28 September 1995* at para. 38.

Brown Weiss's three principles of intergenerational equity: conservation of quality, options, and access.²⁷⁰ It asserted that "[i]ntergenerational equity is well-known to international law"²⁷¹ and cited environmental treaties recognizing duties to future generations, as well as the ICJ's decision in the 1995 Nuclear Test Case.²⁷²

The 1996 UNEP Legal Experts Report similarly endorsed intergenerational equity, stating that "[a]n integrated intergenerational equity approach should constitute an underlying part of any sustainable development strategy in international law."²⁷³ The *travaux préparatoires* for the 1997 Resolution of the Institut de Droit International on "Responsibility and Liability under International Law for Environmental Damage" characterized the concept of intergenerational equity as "paramount" among emerging principles of international environmental law.²⁷⁴ Most recently, in a 2005 report on national strategies for sustainable development, the OECD characterized intergenerational equity as "a fundamental principle of sustainable development."²⁷⁵

5. *Intergenerational equity and other principles of international environmental law*

Redgwell asserts that although intergenerational equity has not reached the level of customary international law,

a process of 'creeping intergenerationalisation' may be observed emanating from two processes. First, there is the 'spillover effect' of preambular recognition of future generations in the interpretation and application of substantive treaty provisions. Second, other substantive principles of international environmental law embody an intertemporal dimension.²⁷⁶

In Redgwell's view, there are five principles of international environmental law that have particular relevance to the doctrine of intergenerational equity. These are sustainable development, the common heritage of humankind,

270. *Ibid.* at para. 42.

271. *Ibid.* at para. 46.

272. *Ibid.* at paras. 46-47.

273. See U.N. Environment Programme, *Final Report of the Expert Group Workshop on International Environmental Law Aiming at Sustainable Development*, UNEP/IEL/WS/3/2 (1996) 13-14, para. 30, 44-45.

274. The Environment, *Travaux préparatoires*, (1997) 67:1 *Annuaire de l'Institut de Droit International* 312.

275. OECD, *National Strategies for Sustainable Development: Good Practices in OECD Countries*, SG/SD(2005)6 at para. 16 reviewed in UNDS, *Expert Group Meeting on Reviewing National Sustainable Development Strategies New York, 10-11 October 2005* UNDS/EGM/NSDS/2005/CRP.9, online: <http://www.un.org/esa/sustdev/natlinfo/nsds/egm/crp_9.pdf>.

276. Redgwell, *supra* note 115 at 126.

the principle of custodianship or stewardship, the precautionary principle, and the principle of common but differentiated responsibilities.²⁷⁷ For the purposes of this article, I will focus on the relationship of intergenerational equity with sustainable development, common but differentiated responsibilities, and the right to environment.

a. *IGE and sustainable development*

Defined by the Brundtland Report²⁷⁸ as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs,”²⁷⁹ sustainable development is the preeminent organizing principle in the discourse of environmental decision-making worldwide.²⁸⁰ Put another way, “sustainable development has emerged as an international paradigm for the new millennium in reconciling and integrating the goals of economic development, social development, and environmental protection.”²⁸¹ A number of commentators have argued that the principle of sustainable development has now reached the level of customary international law.²⁸²

The close relationship between sustainable development and a general concept of intergenerational equity²⁸³—the notion that the present generation’s use of natural resources must be limited to safeguard the ecological needs of future generations—is self-evident and has been widely

277. *Ibid.* at 127.

278. World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987) [*Brundtland Report*].

279. *Ibid.* at 43.

280. See Atapattu, *supra* note 8 at 70: “almost all recent international environmental instruments make specific reference to [sustainable development] and states seem to have accepted it as a norm which should be taken into account when making decisions on the environment.”

281. Ved P. Nanda, “Sustainable Development, International Trade and the Doha Agenda for Development” (2005) 8 *Chapman L. Rev.* 53 at 54.

282. See Varamon Ramangkura, “Thai Shrimp, Sea Turtles, Mangrove Forests and the WTO: Innovative Environmental Protection under the International Trade Regime” (2003) 15 *Geo. Int’l Envtl. L. Rev.* 677 at 682: “the last twenty years have brought the acceptance of the principle of sustainable development as a rule of customary international law”; Hari M. Osofsky, “Defining Sustainable Development After Earth Summit 2002” (2003) 26 *Loy. L.A. Int’l & Comp. L. Rev.* 111 at 112, noting “international recognition of sustainable development as part of customary international law”; Nicholas A. Robinson, “‘Coming Round the Bend’ - Global Policy Trends and Initiatives” (2005) *American Law Institute*, SK046 ALI-ABA 179 (WL) at 261: “there are plentiful indications...of that degree of ‘general recognition among states of a certain practice as obligatory’ to give the principle of sustainable development the nature of customary law.”

283. See, e.g., Sato, *supra* note 78 at 504: “Insofar as its primary purpose is to balance the survival concerns of the future with the needs of the present, the philosophy of sustainable development is highly concerned with intergenerational ethics: mapping out the interdependent relationships, obligations, and expectations of past, present, and future generations”; cf. Sharon Beder, “Costing the Earth: Equity, Sustainable Development and Environmental Economics” (2000) 4 *N.Z. J. Env’tl L.* 227, at 227: “The central ethical principle behind sustainable development is equity and particularly intergenerational equity.”

acknowledged.²⁸⁴ In contrast, the detailed *doctrine* of intergenerational equity developed by Brown Weiss is not reflected in the sustainable development paradigm. This migration of intergenerational environmental concern from the highly specific doctrine of intergenerational equity to the sustainable development model is problematic for at least two related reasons.

First, the concept of sustainable development is notoriously vague.²⁸⁵ Environmental groups interpret a norm of sustainable development as requiring a high level of environmental protection, while industry views sustainable development as encouraging the exploitation of natural resources (with environmental mitigation) so as to effectuate the right to development.²⁸⁶ “So frequently adopted by so many groups with wildly varying agendas—from the Sierra Club to the coal industry—the term might seem to be well on its way to becoming meaningless.”²⁸⁷ The difficulty is that the concept of sustainable development lacks a coherent and sufficiently rigid legal framework to contain and define its content. Like an amoeba, the concept can morph this way and that, drawn in turn by public relations considerations, project financing, or regulatory approval.²⁸⁸

Second, in addition to its substantive ambiguity, the principle of sustainable development also lacks *normative* specificity. Thus, even if we could pin down the meaning of the term, the nature and degree of the obligation to pursue “sustainable development” is undefined. Crucial

284. Indeed, in the author’s view, a general principle of intergenerational equity is wholly integrated with the principle of sustainable development such that evidence for the emergence of a customary international norm of sustainable development is simultaneously evidence of the emergence of this broad principle of intergenerational equity, and *vice versa*.

285. But see Alhaji B.M. Marong, “From Rio to Johannesburg: Reflections on the Role of International Legal Norms in Sustainable Development” (2003) 16 *Geo. Int’l Environ. L. Rev.* 21 at 44, noting that “many scholars argue that sustainable development is too vague a concept and too ambiguous in meaning for it to have normative status.”

286. Patricia Nelson, “An African Dimension to the Clean Development Mechanism: Finding a Path to Sustainable Development in the Energy Sector” (2004) 32 *Denv. J. Int’l L. & Pol’y* 615 at 615.

287. *Ibid.*

288. Consider, for example how Ismail Serageldin of the IBRD interprets sustainable development as permitting the ongoing exploitation of fossil fuels:

We are able to set aside a foolish yet still prevalent view ... that sustainability requires leaving to the next generation exactly the same amount and composition of natural capital as we found ourselves, by substituting a more promising concept of giving them the same, if not more, opportunities than we found ourselves ... This immediately opens the door for substituting one form of capital for another ... [I]t is indeed most worthwhile to reduce some natural capital (for example, reducing the amount of oil in the ground) to invest in increasing human capital (for example, by educating girls)....

Ismail Serageldin, *Sustainability and the Wealth of Nations: First Steps in an Ongoing Journey* (Washington, D.C.: World Bank, 1996) at 7.

questions regarding the length of the time horizon, the content of the duties of use flowing from the environmental interests of the future, and the nature of the legal relationship between present and future generations remain unanswered. More particularly, the principle of sustainable development says nothing about the respective rights and responsibilities of present and future generations; it fails to mobilize the legal and moral power inherent in these constructs. Finally, the principle of sustainable development does not include any explicit implementation mechanisms.

In contrast to the principle of sustainable development (and the general concept of intergenerational equity reflected therein), the doctrine of intergenerational equity as developed by Brown Weiss is detailed and specific, employs the language of rights and responsibilities, and incorporates specific implementation mechanisms. The doctrine of IGE is therefore a superior framework for environmental decision-making around the globe.

b. *IGE and common but differentiated responsibilities*

The principle of Common but Differentiated Responsibilities (“CDR”) recognizes that all nations of the world share responsibility for protecting the global environment, but that identical obligations should not be imposed upon developing and developed nations. Instead, the measures required of developing and developed countries should be differentiated in accordance with their respective historical contributions to the problem, as well as their technical and financial ability to respond.²⁸⁹ CDR approaches have been adopted in a number of important multilateral environmental treaties.²⁹⁰ As Maggio explains:

The notion of common but differentiated responsibilities is closely linked to intergenerational equity; CDR predicates responsibility for environmental protection on both past consumption of natural resources and present capacity to shoulder the burden of maintaining and improving environmental quality...

...

From the standpoint of developing countries, the impact of “common but differentiated responsibilities is to transform the normative character of financial and technical resource transfers between industrialized and developing countries from the realm of “aid” to the category of

289. See Mayeda, *supra* note 171 at 33, 50; Stone, “Differentiated Responsibilities”, *supra* note 94 at 276-277.

290. See Stone, “Differentiated Responsibilities”, *supra* note 94 at 276, n.1 (collecting references).

international legal obligation.²⁹¹

Intergenerational equity as articulated by Brown Weiss expressly includes a requirement on the part of wealthier nations to assist developing countries to meet their conservation obligations.²⁹²

The doctrine of intergenerational equity as articulated by Brown Weiss also addresses the concerns embodied in the notion of Environmental Justice,²⁹³ through the requirement that members of the present generation – the beneficiary class of the planetary trust – assist all members of the class to access planetary resources.²⁹⁴ Given that planetary resources clearly include clean air and water, the doctrine of intergenerational equity would also appear to require that pollution burdens be equitably allocated within the present generation.

c. *IGE and the right to environment*

The right to environment is clearly analogous to the “Planetary Rights” component of the doctrine of intergenerational equity, at least in its individual aspect. The difficulty with the right to environment as it is currently emerging in international law is that it does not address the consequences of such a right *for the right holder*.²⁹⁵ It is clear that a right to environment would impose correlative duties on the state, but not at all clear that the right holder would have an obligation to protect the substance of the right. Under a pure rights-based system, the right holder could exercise her right to environment until and unless her conduct impinged upon the rights of other existing humans. Thus, conduct causing little or no discernible environmental harm in the present, but having the potential to

291. G.F. Maggio, “Inter/Intra-Generational Equity: Current Applications under International Law for Promoting the Sustainable Development of Natural Resources” (1997) 4 Buff. Envtl. L.J. 161 at 206-207.

292. Brown Weiss, *In Fairness to Future Generations*, *supra* note 73 at 45. See contra Mayeda, *supra* note 171, who views intergenerational equity as an inadequate response to global inequalities and posits a combination of CDR and the Precautionary Principle as an alternative to intergenerational equity.

293. Brown Weiss, *In Fairness to Future Generations*, *supra* note 73 at 45.

294. *Ibid.* at 27-28.

295. Note, however, that at least one important international formulation of the right to environment does include recognition of future-oriented limits. See Review of Further Developments in Fields with Which the Sub-Commission Has Been Concerned, Human Rights and the Environment: Final Report Prepared by Mrs. Fatma Zohra Ksentini, Special Rapporteur, U.N. ESCOR Commission on Human Rights, Sub-Commission on Prevention of Discrimination and Protection of Minorities, 46th Sess., Agenda Item 4, UN Doc. E/CN.4/Sub.2/1994/9 (1994) (“[a]ll persons have the right to an environment adequate to meet equitably the needs of present generations and that does not impair the rights of future generations to meet equitably their needs”).

cause severe environmental harm in the future,²⁹⁶ may not be in violation of the right to environment in its current formulation. The doctrine of intergenerational equity recognizes the right to environment, but balances this right with environmental responsibility to the future.

6. *Intergenerational equity at the domestic level*

a. *IGE in domestic case law*

At least one domestic court has relied on the concept of intergenerational equity in deciding an environmental dispute. In *Oposa v. Factoran*,²⁹⁷ a group of Philippine children brought an action to quash timber licensing agreements, on behalf of themselves and future generations. The court supported the children's standing to sue on behalf of future generations, stating that:

[t]heir personality to sue in behalf of the succeeding generations can only be based on the concept of intergenerational responsibility insofar as the right to a balanced and healthful ecology is concerned. Such a right, as hereinafter expounded, considers the "rhythm and harmony of nature." Nature means the created world in its entirety. Such rhythm and harmony indispensably include, inter alia, the judicious disposition, utilization, management, renewal and conservation of the country's forest, mineral, land, waters, fisheries, wildlife, off-shore areas and other natural resources to the end that their exploration, development and utilization be equitably accessible to the present as well as future generations. Needless to say, every generation has a responsibility to the next to preserve that rhythm and harmony for the full enjoyment of a balanced and healthful ecology. Put a little differently, the minors' assertion of their right to a sound environment constitutes, at the same time, the performance of their obligation to ensure the protection of that right for the generations to come.²⁹⁸

Although the *Oposa* decision is likely too isolated to contribute to the legal status of intergenerational equity, the case provides a useful example of

296. Take, for example, the phenomenon of "groundwater mining," or the unsustainable extraction of groundwater from an aquifer. The present generation may be able to continue to withdraw sufficient drinking water resources for decades or longer, but may ultimately exhaust the aquifer with disastrous results to future generations. See generally Eric Ryan Potyondy "Sustaining the Unsustainable: Development of the Denver Basin Aquifers" (2005) 9 U. Denv. Water L. Rev. 121; Ronald Keiser & Frank F. Skillern, "Deep Trouble: Options for Managing the Hidden Threat of Aquifer Depletion in Texas" (2001) 32 Tex. Tech. L. Rev. 249.

297. 224 SCRA 792 (1993), 33 I.L.M. 173.

298. *Ibid.* at 802-803.

the implementation of intergenerational equity in judicial environmental decision-making.²⁹⁹

b. *Future generations in domestic constitutions*

The domestic Constitutions of twenty-two countries explicitly recognize the environmental interests of future generations.³⁰⁰ At least sixteen of these provisions were promulgated since 1990, suggesting the evolution of intergenerational equity as an emergent principle of customary international law since that time. Some domestic constitutional provisions explicitly recognize environmental “rights” of future generations, while others provide for State duties or obligations towards future generations.³⁰¹ Germany’s constitution provides, for example, that “the State protects... with responsibility to future generations the natural foundations of life.”³⁰² In a section entitled “National Goals and Directive Principles,” the constitution of Papua New Guinea expressly calls for “wise use to be made of natural resources and the environment... in the interests of development and in trust for future generations.”³⁰³

Interestingly, and in keeping with the theory of intergenerational equity as articulated by Brown Weiss, some domestic constitutions recognize non-State duties towards future generations. Article 225 of Brazil’s constitution, for example, states that “the Government and the community have a duty to defend and preserve the environment for... future generations.”³⁰⁴ The Republic of Vanuatu has taken a unique approach, providing in its constitution that every person has the duty “to himself and his descendants and to others... to safeguard the natural wealth, natural

299. But see Dante B. Gatmaytan, “The Illusion of Intergenerational Equity: *Oposa v. Factoran* as Pyrrhic Victory” (2003) 15 *Geo. Int’l Env’tl. L. Rev.* 457 (arguing that *Oposa* added nothing to Philippine law, which already recognized the environmental rights of future generations, and noting that it did not result in increased environmental protection, since the Supreme Court cancelled no TLAs, and the petitioners abandoned the case once it was remanded for trial).

300. Albania, Andorra, Argentina, Brazil, East Timor, Eritrea, Georgia, Germany, Ghana, Guyana, Iran, Malawi, Micronesia, Namibia, Norway, Papua New Guinea, Poland, Qatar, South Africa, Uganda, Vanuatu, and Zambia. See Marcello Mollo *et al.*, *Environmental Human Rights Report: Human Rights and the Environment - Materials for the 61st Session of the United Nations Commission on Human Rights, Geneva, March 14-April 22, 2005* (Oakland, California: Earthjustice Legal Defense Fund, 2005), A-1.

301. For Constitutions see *ibid.* at 86 (Albania and Andorra), 88 (Brazil), 93 (Eritrea), 94 (Georgia and Germany), 95 (Ghana and Guyana), 98 (Malawi), 99 (Namibia), 102 (Qatar), 107 (Uganda).

302. Constitution of the Federal Republic of Germany (1949), art. 20a. cited in Mollo, *supra* note 300 at 94.

303. Mollo, *ibid.* at 101.

304. *Ibid.* at 88 [emphasis added]. See also Article 6(1) Constitution of East Timor cited in Mollo, *ibid.* at 93 (“All have the right to a humane, healthy and ecologically balanced environment and the duty to protect and improve it for the benefit of the future generations”).

resources and environment in the interests of the present generation and of future generations.”³⁰⁵

National constitutional provisions may be evidence of general principles of law common to major legal systems.³⁰⁶ In the realm of human rights specifically, provisions of national constitutions enacted pursuant to a perceived international legal obligation may also constitute state practice giving rise to customary international law.³⁰⁷ Constitutional recognition of the environmental rights of future generations and/or present obligations towards them remains the exception rather than the rule. However, the prevalence of intergenerational concern in recently enacted constitutions arguably supports the emergence of a broad principle of environmental responsibility towards future generations as a principle of customary international law.³⁰⁸

c. Domestic IGE implementation mechanisms

In 2001, the Israeli Knesset passed a law establishing a Commission for Future Generations.³⁰⁹ The Commission is an “organ of the parliament” with a mandate to review legislation and prevent the introduction of laws that have the potential to negatively effect the “needs and rights of future generations”.³¹⁰ The Commission also has the authority to introduce bills for the benefit of future generations.³¹¹ The Israeli Commission for Future Generations considers issues bearing on the environment and natural resources, but also broader social issues bearing on the future including health, education, and technology.³¹² Finland’s parliamentary “Committee for the Future” similarly considers future implications of both environmental and non-environmental decision-making.³¹³

In 1995, France created a “Council for the Rights of Future Generations”, appointed by the President. However, Jacques Cousteau, its first chairman, resigned in response to France’s resumption of nuclear testing in the Pacific. The Committee has apparently been relatively inactive in the intervening

305. Mollo, *ibid.* at 108.

306. See *Statute of the International Court of Justice*, (June 26, 1945), art. 27(c).

307. See Restatement (Third) of Foreign Relations § 701, cmt. a (1987) at § 701, reporter’s note 1 cited in Lee, *supra* note 71 at 313-316.

308. See Lee, *supra* note 71 at 339.

309. Knesset, The Commission for Future Generations (Jerusalem: Knesset), online: <http://www.knesset.gov.il/sponsorship/future/eng/future_index.htm>.

310. *Ibid.*

311. *Ibid.*

312. *Ibid.*

313. See World Future Council Initiative, “Writings: Local Councils” online: <<http://www.worldfuturecouncil.org/>>.

years.³¹⁴ Canada, the Netherlands, Norway, Germany, Belgium, Britain, Sweden, Jamaica, Barbados, Dominican Republic all have governmental organs responsible for implementing sustainable development, and/or considering the broader future implications of governmental action.³¹⁵

These initiatives likely constitute state action, perhaps motivated by *opinio juris*, so as to provide evidence of a rule of customary international law. However, the number of states that have adopted implementation measures to effectuate environmental obligations towards future generations is not high enough to justify a claim of generalized state practice.

7. *Conclusion on the legal status of intergenerational equity*

Redgwell concludes that "at best, intergenerational equity may be said to constitute a 'guiding principle' in the application of substantive norms, including existing treaty obligations, under international law."³¹⁶ In my view, this conclusion is overly cautious. It is true that the detailed doctrine of intergenerational equity has not been incorporated into international law, and that the broader principle of environmental obligation towards future generations (whether framed in the language of sustainable development or intergenerational equity) suffers from significant ambiguity. Nevertheless, given the repeated recognition of environmental obligations towards future generations in the preambles of environmental conventions, in soft law instruments, and in international jurisprudence, there is ample evidence of the emergence of a principle of customary international law providing that the present generation owes a duty to preserve an environment in which future generations' have the ability to meet their needs.³¹⁷

However, in the end, the question of the legal status of intergenerational equity will certainly be overshadowed by the issue of implementation. If states adopt intergenerational equity as a guiding principle in the formation of environmental policy, then the doctrine will make a significant impact on inter-temporal environmental quality regardless of its legal status.

314. *Ibid.*

315. *Ibid.* at 11-15 summarizing the various institutions and their mandates.

316. Redgwell, *supra* note 115 at 123.

317. It must be conceded, however, that neither intergenerational equity nor sustainable development will meet their full potential without the development of a detailed and coherent legal framework. (See Redgwell at 143 ("[f]or a mechanism taking future generations into account effectively to function, it is of critical importance to develop a clear definition")). I have argued that the doctrine of intergenerational equity as articulated by Brown Weiss in *In Future Generations* is an appropriate framework.

Conclusion

The state of the world today invites a question basic to the human future: by what set of consensual rules for collective human behavior, interacting on a finite planet, can this World be governed to safeguard its stability and continuity?³¹⁸

I have argued (in common with many other scholars) that rights and responsibilities are two dominant governing principles in human societies, and further that the relationship between these two paradigms is hotly contested internationally. Even within the environmental field, ecological ethicists and environmental advocates have disagreed as to the utility and validity of the rights paradigm as it relates to environmental protection. I have further argued that the doctrine of intergenerational equity, as developed by Edith Brown Weiss, effectively integrates the paradigms of environmental rights and responsibility. Moreover, the doctrine of intergenerational equity provides a coherent and practicable set of legal rules to govern human conduct in the area of environment.

Since the publication of *In Fairness to Future Generations*, the notion of environmental responsibility toward future generations has been expressed in international law through “soft law” instruments, preambles to environmental treaties, and state practice in the form of domestic constitutional recognition. However, to a large extent the concept of intergenerational environmental responsibility has been co-opted and diluted through the hegemonic paradigm of sustainable development. In my view, the relative ascendance of sustainable development over the doctrine of intergenerational equity has resulted in at least two significant losses for the international community.

First, as argued above, the disproportionate emphasis on the amorphous principle of sustainable development has allowed the international community to neglect the difficult but crucial details of intergenerational environmental justice. In sum, having excised the language of rights and responsibility, the principle of sustainable development fails to provide adequate protection to the environmental interests of future generations.

Second, the failure to seriously grapple with the respective environmental rights and obligations of present and future generations has been a missed opportunity for cooperative international environmental governance. Rather than merely eschewing these paradigmatic constructs, as does the principle of sustainable development, the doctrine of intergenerational

318. Lynton K. Caldwell, “Is World Law an Emerging Reality? Environmental Law in a Transnational World” (1999) 10 *Colo. J. Int’l Envtl. L. & Pol’y* 227 at 229.

equity seeks to engage, reconcile, and integrate the powerful language of rights and responsibility. Thus, the doctrine of intergenerational equity presents a unique opportunity to integrate and operationalize foundational cultural, political, and legal premises from diverse cultures.

Nevertheless, it seems clear that sustainable development will likely remain the dominant paradigm for international environmental decision-making for the foreseeable future. Given the continued dissatisfaction with the ambiguity of the concept, however, there may be some possibility of reinvigorating the doctrine of intergenerational equity by importing it into the law (and policy) of sustainable development. More specifically, I would assert that the doctrine of intergenerational equity should be viewed as the legal *mechanism*, or *framework*, for achieving the *goal* of sustainable development.

For the reasons discussed in Parts Two and Three, intergenerational equity constitutes an appropriate and effective legal framework for sustainable development. In particular, the doctrine of intergenerational equity is environmentally protective, integrative, reasonable in terms of the sacrifices expected of present generations, cross-culturally appropriate, theoretically versatile, and consistent with the discourses of both rights and responsibility. It is also sufficiently detailed and robust that it would dispel the existing ambiguity of the concept of sustainable development and provide viable avenues for implementation.

Although it is not necessary to adopt every particular of the doctrine as developed by Brown Weiss, intergenerational equity should at least be understood to include the three Planetary Obligations and Rights (Options, Quality, and Access), the five correlative duties of use,³¹⁹ the intra-generational equity component, independent representation for future generations, the application of intertemporal responsibility beyond national borders, and an explicitly defined time horizon. The latter should extend into the remote future for impacts that could cause catastrophic devastation.

In the end, the doctrine of intergenerational equity has the potential to play a significant role in assisting human societies to govern our conduct in a way that preserves the awesome ecological legacy of Planet Earth for the future. In my view, the enormous value of that project is self-evident.

319. See Part II.3.c., *supra*.