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Intergenerational Equity

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Rüdiger Wolfrum · Chie Kojima (eds.)

Solidarity: A Structural Principle of International Law



Springer

the language of science

Intergenerational Equity

*Dinah Shelton**

We do not inherit the Earth from our ancestors,
we borrow it from our children.
American Indian Proverb

You can't always get what you want
But if you try sometimes you might find
You get what you need.
Mick Jagger and Keith Richards, 1968

The concept of international solidarity is usually invoked in reference to links across present-day affinities, but the allegiance of individuals and groups to their local community, State of nationality, ethnic group, religion, or the human species as a whole, probably pales in comparison with the strength of intergenerational family bonds. In most societies solidarity between generations is an expected part of family life and a part of the individual psychology of “self-transcendence”.¹ In the private sphere this is reflected in the families’ care of the elderly, support for minor and adult children, and financial or other bail-outs of siblings and cousins. Succession and inheritance laws reflect a general human desire to transmit the benefits and accumulations of the present to existing and future descendants and collateral relatives.

* Manatt/Ahn Professor of International Law, The George Washington University Law School. Address given at the Max Planck Institute for Comparative Public Law and International Law, Heidelberg, 29 October 2008. Thanks are owed to the symposium participants for their useful comments, to Chic Kojima for excellent editing, and to Chris Robinson for his generous and always helpful answers to questions about evolutionary biology.

¹ E. Partridge, “Why Care about the Future?”, in: E. Partridge (ed.) *Responsibilities to Future Generations*, 1981, 203 et seq. (204).

Evolutionary theory suggests that this desire is genetically predisposed, hard-wired into the makeup of every person (indeed, all primates).² Professor Paul Baressi has noted that evolutionary theory and experience suggests that the present generation cares for the future in proportion to our biological affinity for them:³ we look first to our lineal ascendants and descendants, then to siblings and their offspring, then cousins and so on. Thus, humans looking lineally as well as spatially tend to divide humans into categories of “we” and “others”. Developments in DNA analysis and genealogical research is continually expanding the “we”; indeed, it is now suggested that all humans descended from a single ancestral “eve” whose mitochondrial DNA persists in every living human, giving biological impetus to inter- and intragenerational solidarity.

Concern for survival of the family group means that even the childless will be concerned about the well-being of future generations of siblings, cousins and others related to them. While there is as yet no general agreement in evolutionary theory that each person is concerned with survival of other families or the species as a whole, there still may be genetic hard-wiring for intergenerational solidarity beyond the family. Some biologists and anthropologists argue that because a healthy species depends on genetic variation, which occurs through reproduction outside the kinship group, each family helps to promote its own success by ensuring that there is a strong and attractive gene pool from which to choose future mates. Thus, solidarity with “others” is necessary to preserve the “we”. There is also an element of reciprocity and self-interest: everyone with or without children may support education because they believe that an educated populace will produce more wealth to support assistance to them in their old age or because they believe that children in school are less likely to engage in destructive mischief that would harm them or others. Some may be willing to acknowledge a sense of moral responsibility about making decisions for future persons who cannot speak for themselves.

Leaving aside biology, efficiencies of scale and recognition of broader interests have led communities to accept intergenerational obligations.

² S. Sato, “Sustainable Development and the Selfish Gene: A Rational Paradigm for Achieving Intergenerational Equity”, *N. Y. U. Envtl. L. J.* 11 (2003), 503 et seq. (520-521).

³ P. Barresi, “Beyond Fairness to Future Generations: An Intragenerational Alternative to Intergenerational Equity in the International Environmental Arena”, *Tul. Envtl L. J.* 11 (1997-1998), 59 et seq. (72).

In domestic law and policy, the emergence of pension funds for the elderly and public schooling paid for through taxation by all individuals in the community, whether or not they have children, is a manifestation of intergenerational solidarity.⁴ Taking care of the elderly acknowledges that they have knowledge and traditions that may benefit present and future persons. Beyond the local community, each person on earth can be concerned about the rights, needs, and interests of future generations, and about how to counter the threats to their well-being, because many current threats have widespread negative impacts and the threats cannot be overcome or mitigated except by broad cooperative action. The dynamic planetary system, in which all are interrelated and interdependent, determines relationships in the contemporary world.⁵ In such a system, there can be no isolation or independence, because all parts of the system are interrelated and mutually dependent now and in the future. Greenhouse gas emissions provide just one example of activities today that will produce effects for a century or more to come. In international law, recognition of this fact has led to the identification of common interests or common concerns in a variety of circumstances where harm to one is harm to all and protection of one helps protect all:⁶ a “Three Musketeers” version of international law.⁷

In legal philosophy, most scholars view intergenerational equity both as a moral principle, that no generation has priority over another, and as a legal standard of equality among generations.⁸ What this means and

⁴ See, generally, E. Malinvaud, *Intergenerational Solidarity: Proceedings of the Eighth Plenary Session of the Pontifical Academy of Social Sciences, 8-13 April 2002* (2002), 27-28.

⁵ A. Kiss/D. Shelton, “Systems Analysis of International Law: A Methodological Inquiry”, *NYIL* XVII (1986), 45 et seq.

⁶ K. Wellens, “Solidarity as a Constitutional Principle: Its Expanding Role and Inherent Limitations”, in: R. St. J. Macdonald/D. M. Johnston (eds), *Towards World Constitutionalism* (2005), 775 et seq. One interesting question is whether common interest gives rise to joint responsibility, as when two debtors are jointly responsible: to the extent one cannot pay, the other must fulfil the entire obligation. At the least, global or regional interdependence means the common interest should be given priority over the interests of individual States.

⁷ In A. Dumas’ book of 1844 the motto of the three musketeers is “All for One and One for All” (“*Un pour tous, tous pour un*”).

⁸ J. Rawls, *A Theory of Justice*, 1970, 118 et seq.; Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and*

how it might be implemented in practice is the subject of this essay. It begins by considering the meaning of the two terms in the title: intergenerational and equity. It then looks at the various rationales given for concern with this topic and how they link to the topic of solidarity, followed by an overview of some of the main subject areas in which the issue of intergenerational equity arises. It proceeds to assess the status of intergenerational equity in international law and to identify various principles associated with the concept. Finally, it turns to a discussion of how intergenerational equity as a form of solidarity might be implemented in practice.

I. The Terms

A. Intergenerational

Alexandre Kiss noted the difficulty of defining a generation: life spans vary considerably among individuals, especially between those persons living in industrialised countries and those in the developing world.⁹ At each moment hundreds of human beings are born and die, with the result that some six billion people of all ages coexist. Professor Kiss proposed speaking of future humanity rather than future generations and to recognise the common concerns of humanity, including all present and future generations, as a basis for global action.¹⁰ Other authors have identified several different meanings of generation.¹¹ There is, first, a popular notion, reflected in terms like Baby Boomers, the Sixties Generation, and the Greatest Generation, that links individuals to historical, social or cultural events. It is a very imprecise notion of generation because all those alive at a particular time do not necessarily identify with the defining events. It is not clear, for example, where to draw the ending line of the Baby Boomer generation (whose beginning is set at the end of World War II in 1945). Common experience suggests that gen-

Intergenerational Equity, 1989; James C. Wood, "Intergenerational Equity and Climate Change", *Geo. Int'l Envtl. L. Rev.* 8 (1995-1996), 293 et seq.

⁹ A. Kiss/D. Shelton, *International Environmental Law*, 2004, 16-18.

¹⁰ *Ibid.*

¹¹ The three meanings discussed in the text are from L. B. Solum, "To Our Children's Children's Children: The Problems of Intergenerational Ethics", *Loy. L. A. L. Rev.* 35 (2001), 163 et seq. (169-171).

erational affinity takes place when adolescents start to self-identify with their peers rather than their family members and it continues until members of the group have their own children. Thus, the Sixties Generation is not composed of those born in the 1960s, but those who were of high school or university age during that period.

Much easier to delineate, at first glance, are generations of lineal descendants: grandparents, parents and children. This second meaning probably is the most commonly understood. But if the children who were born to grandparents are numerous (e.g. eight) and the births are spread out over time (e.g. 30 years), the first born grandchild may be close in age or even older than the last born child. With the progressive lengthening of human life, intergenerational relations are more common in up to four or five levels of ascendants and descendants. Descent works to divide those generations only if there is a single line of descendants.

Yet another meaning of generations thus has been proposed, usually when referring to the term “future generations”, to describe those who will not be born in the lifetime of anyone presently alive. Some laws appear to make distinctions on this basis, not only when looking forward, but also when looking back. Thus, customs and antiquities laws commonly define “antique” as something over 100 years old. Looking to the future, policies and laws to mitigate the consequences of natural disasters often require preparations based on the “100 year flood” or “100 year drought” – that is, the most catastrophic event predicted in a century.

Is it necessary to define a generation? Our ability to recognise the potential for human existence into the future and the legacies of the past may not demand a precise answer to the definitional question, but clearly raises numerous other issues: What will future humans be like and what will they want or need? If intergenerational equity is an accepted moral and legal principle, then how far into the past and the future do our obligations extend? Can future humans have “rights” we must respect?¹²

¹² There are strongly voiced opinions contrary to the idea that non-existent humans can have rights; but legal systems recognise several types of legal persons that are societal fictions, from States to corporations, and deem them to have rights – and in the case of corporations, even human rights. While there may be practical problems with determining who can speak for future generations, there is no theoretical reason why legal systems cannot recognise future generations to have claims on the present that can be denominated rights. The

Finally, it should be asked whether “future generations” is a concept that is limited to generations of humans only or whether there is a broader temporal axis that includes concern for future life and well-being of other species? If intergenerational equity is limited to human well-being, as some international texts seem to specify, a third dimension of solidarity needs to be considered beyond inter- and intragenerational equity: the solidarity of humans with other species, ecosystems and nature as a whole. While humans are, to use the current term, “embedded” in nature, it has also been recognised that the latter has its own intrinsic value, an inherent importance “independent of any awareness, interest, or appreciation of it by any conscious being”.¹³ Moreover, the very idea of “equity” and “inequity” as a manifestation of distributive justice is increasingly recognised to exist in other species; they have a moral life.¹⁴

B. Equity

In most legal systems, equity has traditionally played its major part in determining the distribution of rights and responsibilities in conditions of scarcity and inequality. In economic terms, equity is often contrasted with the single minded effort to maximise the future stream of utility.¹⁵ Equity normally should not arise as an issue with respect to access to or use of an unlimited resource, or where there is a non-exclusive exercise of a right. Exercising my right to vote, for example, does not take away or interfere with anyone else’s exercise of the same right. It is scarcity

European Court of Human Rights, while not deciding on the legal personhood of embryos, has nonetheless recognised that an embryo has protectable interests as a “potential human”. See below, note 20. Past humans are also protected: legal systems throughout the world have enacted anti-desecration laws and allow present persons to bring legal actions against those who wrongfully interfere with the remains of their deceased family members.

¹³ T. Regan, *All That Dwell Therein*, 1982, (199).

¹⁴ Recent studies have found that dogs, and perhaps all species for which cooperation is important, have evolved a sense of equity or “inequity aversion”. R. Stein, “Dogs Feel Envy – or At least Grasp Inequity When it Comes to Treats”, *Washington Post*, 15 December 2008, A6. Empathy and altruism has also been found in non-human species. See M. Bekoff/J. Pierce, *Wild Justice*, 2009.

¹⁵ W. Beckerman/J. Pasek, *Justice, Posterity and the Environment*, 2001, 46.

that produces questions of equitable allocation. In this context, the principle of non-discrimination demands that like cases must be treated alike and those that are different be handled otherwise, and in turn requires determining which similarities and differences are relevant in which situation. To cite an example from within national legal systems, income differences are generally accepted as a proper basis for allocating tax burdens but not for voting in elections.

Taking the above as a starting point, it may be asked whether there is any legitimate reason in allocating scarce resources or imposing burdens to make a distinction based on the timing of a person's life. Evolutionary biologists might argue that the future is always more important than the present because the measure of long-term success is survival and reproduction of the group.¹⁶ Economists respond that human nature always discounts for an uncertain future. Both these views, which have widely divergent consequences if implemented, have their adherents. The approach of Rawls and Weiss, positing no *a priori* preference of one generation over another, is probably most widely accepted. If timing of birth is not a reason for *a priori* allocation, then it becomes important to determine the appropriate principle on which to determine what is an equitable allocation – whether decisions should be based on need, capacity, prior entitlement, “just deserts”, the greatest good for the greatest number, or strict equality of treatment. Each factor may point towards allocation in favour of one generation or another. To complicate matters further, a single factor, such as need, may be asserted across generations.

Finally, are equity and solidarity the same thing? The Oxford English Dictionary defines solidarity as “unity or accordance of feeling, action, especially among individuals with common interest, sympathies, or aspirations”. Catholic social doctrine teaches that solidarity is “... a firm and persevering determination to commit oneself to the common good; that is to say, to the good of all and of each individual, because we are all really responsible for all”.¹⁷ Social solidarity “implies putting aside the simple pursuit of particular interests, which must be evaluated and harmonized ‘in keeping with a hierarchy of balanced values; ultimately,

¹⁶ There are certainly laws and policies that reveal a preference for protecting the future over the present: the “best interests of the child” text in custody disputes and other matters concerning minors is one example.

¹⁷ John Paul II, *On Social Concern*, para. 38 of 30 December 1987. See, generally, E. Malinvaud, “Intergenerational Solidarity in the Social Teaching of the Church”, see note 4, 39 et seq.

it demands a correct understanding of the dignity and the rights of the person".¹⁸ It seems then that solidarity is a sentiment, a feeling or intellectual recognition of affinity that may lend support to decisions based on equity; it is the foundation for expanding the "we" to include the "others". An EU Advocate General considered solidarity in terms of the actions that result: the "inherently uncommercial act of involuntary subsidization of one social group by another".¹⁹

Rudi Muhammad Riski, the UN Human Rights Council's special rapporteur on human rights and international solidarity, has focused mainly on intragenerational solidarity among the community of States, but he defines solidarity in a way that includes an intergenerational dimension: "the union of interests or purpose among the countries of the world and social cohesion between them, based upon the dependence of States and other international actors on each other, in order to preserve the order and very survival of international society, and in order to achieve collective goals which require international cooperation and joint action".²⁰ The UN General Assembly in its resolutions *on the Promotion of a democratic and equitable international order* and *on the University of Jerusalem "Al-Quds" for Palestine refugees* has referred to solidarity as "a fundamental value" that demands distributive justice: a fair distribution of the costs and burdens of global challenges.²¹ Distributive justice is inherent in the concept of solidarity, and also a fundamental part of equity.

Solidarity among generations can be defined narrowly as equity between copresent different age groups to ensure a just distribution of benefits and burdens among them, recognising that what is done to the young will affect their descendants and that what was done in the past

¹⁸ *Address of John Paul II*, see note 4, 27 et seq. (28), citing *Centesimus annus*, para. 47.

¹⁹ *Sodemare SA, Anni Azzurri Holding SpA and Anni Azzurri Rezzato Srl v. Regione Lombardia* C-70/95, ECR (1997), I-3395, para. 29. For further on the meaning of solidarity in the EU context, see C. Barnard, "EU Citizenship and the Principle of Solidarity", in: M. Dougan/E. Spaventa (eds), *Social Welfare and EU Law*, 2005; C. Barnard, "Solidarity and New Governance in Social Policy", in: G. de Burca/J. Scott (eds), *Law and New Governance in the EU and the US*, 2006, 153 et seq.

²⁰ *Human Rights and International Solidarity*, Note by the United Nations High Commissioner for Human rights, Doc. A/HRC/9/10, 15 August 2008, 4.

²¹ A/RES/56/151 of 19 December 2001, para. 3(f); A/RES/57/123 of 18 December 2002, para. 4(f).

often affects the present and those to come. Historic injustices that give rise to current consequences may need to be resolved equitably through judging the actions of past generations. Intergenerational equity or solidarity can also extend to the transmission of resources (cultural, ecological, and economic) from one generation to the next far into the future. This requires investing in the future and ensuring that production outweighs consumption in the present.

II. The Rationales for Intergenerational Equity

Bryan Norton asks "What do present people owe to people of the future?"²² This may be reformulated: "Do present people owe anything to people of the future and if so why?" Ultimately, all rationales for intergenerational equity rest on a single premise: that the survival of the human species is a good thing. If so, there is a moral obligation to contribute to human continuity by maintaining the essential natural and manmade resources necessary to life. Add to this, first, the foundational concept of human rights that each present and future person is entitled to a life of dignity and well-being, and, second, the reality that resources are finite and degradable, and the need for intergenerational equity emerges from scarcity.

John Rawls prescribed neutrality among individuals as the requirement of justice, including across generations.²³ His neutrality principle calls for allowing each person the fullest enjoyment of rights compatible with a similar enjoyment by any other person. Thus, persons in one generation have no claim to priority over members of any other generation: solidarity assumes that all persons are persons of equal concern, past, present and future. Other authors use the language of social contract, assuming it exists across past, present and future generations in an open-ended partnership.²⁴ Edith Brown Weiss expanded on these basic

²² B. Norton, "Ecology and Opportunity: Intergenerational Equity and Sustainable Options", in: A. Dobson (ed.), *Fairness and Futurity: Essays on Environmental Sustainability and Social Justice*, 1999, 122 et seq.

²³ Rawls, see note 8.

²⁴ Edmund Burke famously described the State in terms of a partnership over generations. See E. Burke, "Reflections on the Revolution in France (1790)", in: *2 Works of Edmund Burke*, 1854, 130 et seq. For a critique of this and Rawls theory of justice applied intergenerationally, see Solum, note 12, 205-208.

theories to establish a legal construct of trust: “each generation is a beneficiary of past generations and a trustee towards the future. In natural resource terms, this imposes an obligation of stewardship, so that present enjoyment does not endanger future access and beneficial use”.²⁵

A further rationale for intergenerational equity lies in the “just deserts” notion that those who cause harm are responsible for repairing or compensating for the damage caused to others (also known as the Shopkeeper’s Rule: “you break it, you own it”). From this perspective intergenerational equity is not a matter of distributive justice but of corrective justice. As the past and present negative impacts of human activities on the future are accelerating, the foreseeability of harm imposes responsibilities of prevention and mitigation. Even when scientific and technological changes have uncertain consequences over the long-term, our ability to create or destroy imposes obligations of risk assessment and precaution to ensure future survival of societies. Jared Diamond’s work has revealed the extent to which past unsustainable practices led to the collapse of various civilisations around the world and provides further justification for taking a long-range view of the consequences of present decisions.²⁶

Unjust enrichment has also been cited as the basis of duties towards future generations. The living are indebted for all that has been transmitted from the past, whether in medical advances, culture, art, or technology, all of which have contributed to present well-being. Those living have also received a heritage of natural resources which imposes on them a special obligation to maintain the planet’s integrity, because it has intrinsic worth and is essential to human survival. This limitation requires each generation to maintain the corpus of the trust and to pass it on in no worse condition than it was received. The debt to prior generations cannot be repaid to those who produced current welfare, and present generations would enjoy a form of “unjust enrichment” were the benefits not transmitted into the future.

Finally, from a humanitarian perspective, “the moral obligation not to deprive future generations of resources essential to their avoiding impoverishment is part of our natural duty to avoid inflicting unnecessary suffering on other people”.²⁷ Poverty, environmental degradation, dis-

²⁵ Brown Weiss, see note 8.

²⁶ J. Diamond, *Collapsee: How Societies Choose to Fail or Succeed*, 2005.

²⁷ Beckerman/Pasek, see note 9, 68.

ease, and a host of other ills already disproportionately harm infants, children and the elderly. Future generations are being made worse off by present day malnutrition and unsafe water which cripple the learning capacity and the physical strength of the young.²⁸ Poverty is thus as much an issue of intergenerational equity as it is an intragenerational concern.

III. Issues of Intergenerational Equity

Intergenerational equity has been largely thought of in the context of natural resource conservation and use, but the issue is far more complex and far-reaching. It touches on public financing and budgets, social security and services for the elderly, education of the young, attention to pre-natal and neo-natal medical care, intergenerational transmission of wealth, and preservation of cultural goods and traditions. It also reaches back in time to address the need for reparations for historical injustices and their consequences today. Indeed, few areas of law are exempt from the implications of concern for equity and solidarity across generations, and the issues are often interrelated. Some of the major areas where the issue arises are discussed herein.

A. Economic Wealth and Development

The transmission of wealth across generations has macro and micro dimensions. Taking the latter first, in some legal systems, like the United States, descendants have no right to inherit from their parents or grandparents, because the transmission of wealth is a matter for decision-making by the person who accumulated the assets. Trusts may skip a generation, testators may choose to disinherit descendants or give preference to one over another, or they may decide to spend all their earnings before their demise. The law may presume that a decedent would

²⁸ The UN Special Rapporteur on the Right to Food, Jean Ziegler, has noted the intergenerational links in nutritional status, where underweight and malnourished mothers are more likely to give birth to underweight babies whose mental and physical capacities are reduced and who may never recover. Hunger then is passed on through the generations. *Report of the Special Rapporteur on the Right to Food, Jean Ziegler*, Doc. A/HRC/7/5, 10 January 2008, para. 34.

choose to transmit his or her estate to descendants before others, but the express wishes of that decedent in a properly executed will or testament will be given effect. In recent years, gifts during lifetime, especially payments for university expenses, weddings, and other expensive items, have been charged against inheritance.

Society does step in on occasion, mandating in particular support for minor children and for the surviving spouse through a fixed share of the assets. This is often based on the realistic assumption that solidarity and aid of all within the family helped to produce the wealth accumulated; in addition, there is a desire to avoid the survivors becoming a burden on the community. But the view that those whose efforts created the assets have the right to dispose of them is widely shared. Inheritance taxes are the primary mechanism used to reflect the notion of solidarity, in taking from a decedent the wealth it is no longer to use and sharing it among living, needy persons. Some research suggests that the redistribution does not go far enough because there is still a presumption that the decedent should control the transmission of wealth and maintain it within the family, however great the concentration of wealth might be compared to others in the community. Thus, disposal of the billions of dollars earned by Bill Gates or Warren Buffet during their lifetimes will be controlled by their dispositions, unless society requires a redistribution.

On the macro level, countries engaged in the process of economic development cite the right to development as a “solidarity right”.²⁹ The relatively recent shift towards the term “sustainable development” brings in intergenerational equity, as the term means development that is maintained over time. Thus the core idea of sustainable development has been described as a matter of preserving options and opportunities to give future generations freedom of choice.³⁰ Indeed, most theories of intergenerational equity in respect to development rely upon utility comparison, deeming fairness to the future to involve preserving the “opportunity of persons in future generations to be as well off as prior

²⁹ N. Roht-Arriaza, “Solidarity Rights (Development, Peace, Environment, Humanitarian Assistance)”, in: R. Wolfrum (ed.), *MPEPIL online edition*, 2008. Roht-Arriaza notes the origin of the term “solidarity rights” in an article by Karel Vasak written in 1977 for the UNESCO Courier.

³⁰ Norton, see note 22.

generations have been”,³¹ comparing aggregated welfare opportunities at different times.

Questions of fiscal policy and deficits divide scholars and politicians. While some argue³² that the level of economic growth already build into the system ensures that future generations will enjoy multiples of wealth beyond our current levels, despite current deficits, others critique national deficit spending as a drain on the wealth of future generations.³³ Those like Professor Buchanan who argue that government budget deficits will not cause hardships to future generations do so in assuming “no environmental tradeoffs”, an assumption that is highly questionable given the reliance of modern economies on non-renewable extractive resources. Nonetheless, they may be correct that the focus should be on the resource limitations and not on the fiscal policies.

Finally, and importantly, this category includes the issue of reparations for past injustices, a matter of corrective justice. History is replete with episodes of genocide, slavery, torture, and mass expulsions of peoples that remain alive in memory and sometimes resurge as a background to modern conflicts. Equity insists that present generations have a responsibility for the past. Every individual is born into a society or culture that has emerged over time and that shapes each person, making the past part of the present and giving everyone in the society a historic identity. Reparation claims help to determine the moral and political significance of past actions, identifying arguments that are relevant and contributing to the emergence of a common set of values to judge the acceptability of present and future acts, as well as providing accountability for the past. In addition, some historical acts were illegal under national or international law at the time they were committed. The victims have been unable to secure redress for political reasons, because evidence was concealed, or procedural barriers prevented them from

³¹ Ibid., 119.

³² E.g., N. H. Buchanan, “What do We Owe Future Generations?”, *Geo. Wash. L. Rev.* 77 (2009).

³³ E.g., C. D. Block, “Pathologies at the Intersection of the Budget and Tax Legislative Processes”, *B. C. L. Rev.* 43 (2002), 863 et seq. (925), asserting that “even in times of surplus, Congress has an obligation to future Congresses and to future generations to leave the surplus available to cover unforeseen costs, such as those of social security and the like”; D. N. Shaviro, “Accrual Accounting and the Fiscal Gap”, *Harv. J. Legis.* 41 (2004), 209 et seq., arguing that current fiscal policy includes entitlements as to which no extra financing is foreseen, leaving it to future generations to pay the bill.

presenting claims. In such circumstances, lapse of time should not prevent reparation for harm caused by the illegal conduct. Finally, communities, businesses and individuals have unjustly profited from many of the abuses, garnering wealth at the expense of the victims. The economic disparities created have continued over generations, often becoming more pronounced over time. As one author has put it: "not seeking financial restitution, in the face of documented proof that financial giants worldwide are sitting on billions of dollars in funds made on the backs of ... victims, which they then invested and reinvested many times over ..., amounts to an injustice that cannot be ignored".³⁴

Legal doctrine suggests that historical claims particularly warrant reparations in three circumstances. First, many historical wrongs have consequences that continue into the present; these continuing wrongs result in a convergence in the notions of inter- and intragenerational equity. Second, redress is due when the acts were illegal at the time committed and no reparations have been afforded.³⁵ Third, reparations are justified where reliance on the earlier law was not reasonable and expectations were not settled because the law patently conflicted with fundamental principles then in force.³⁶ Any benefit unjustly obtained may then be claimed by those who suffered or their descendants. When it is clear that there was considerable debate over the morality or legality of historical acts, it may be more justified to award reparations because the law at the time probably was not settled and those acting would have had some notice of the likelihood of change.

To most claimants, reparation is a moral issue involving a formal acknowledgement of historical wrong, recognition of continuing injury, and commitment to redress. Reparations are pursued because they are powerful acts that can challenge assumptions underlying past and pre-

³⁴ M. Bazyley, "The Holocaust Restitution Movement in Comparative Perspective", *Berkeley J. Int'l L.* 20 (2002), 11 et seq. (41).

³⁵ Traditionally, States could and often did renounce claims on behalf of their nationals in time of war and peace. With the widespread recognition of the right to a remedy as a human right, it is open to question whether such waivers continue to be valid in international law without alternative means of redress.

³⁶ E.g., *Altmann v Republic of Austria*, 317 F.3d 954 (2002), giving retroactive application to the expropriation exception to the Foreign Sovereign Immunities Act, 28 U. S. C. s 1605(a)(3) on the ground that Austria could not have had any settled expectation that the State Department would have recommended immunity for the wrongful appropriation of Jewish property in the 1930s and 1940s.

sent social arrangements. For those who are not claimants, participating in reparations and ensuring redress has been called an “expression of solidarity” and a means for the international community to “keep faith with the plight of victims, survivors and future human generations”.³⁷ At their best, reparations may involve restructuring the relationships that gave rise to the underlying grievance, address root problems leading to abuse and systemic oppression. This brings the notion of reparations close to the current idea of restorative justice as a potentially transformative social action. It also provides a reason why legislatures may be better suited to determine reparations: they are not bound by precedent and legal doctrine, but can fashion equitable remedies. Remedies thus become part of a healing process that may avoid the creation of future historical injustices.³⁸

B. Culture and Knowledge

The deliberate destruction of knowledge and culture, from the Taliban’s effacement of ancient Buddhist statues to the looting of museums in Baghdad and Kabul, strike many as particular egregious acts, because they erase generations of artistic achievement, cultural monuments and knowledge that could have provided the basis for further advancement in the human condition. The respect for libraries and museums and the desire to transmit their contents to future generations demonstrate intergenerational solidarity.

The present generation has benefited from past knowledge and invention, including vaccines against diseases, pasteurised milk (indeed recognition of the value of non-human milk itself), musical compositions, art works and literature that must be preserved if only so future generations are not put to the trial and error of determining anew which mushrooms are poison. Our very ability to communicate is owed to the development of language over time: Shakespeare alone is said to have

³⁷ UN, *Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law*, adopted and proclaimed by A/RES/60/147 of 16 December 2005.

³⁸ S. Ratner, “New Democracies, Old Atrocities: An Inquiry in International Law”, *Geo. L. J.* 87 (1999), 707 et seq.; C. Hesse/R. Post (eds) *Human Rights in Political Transitions: Gettysburg to Bosnia*, 1999; K. Christie, *The South African Truth Commission*, 2000, 44.

added more than 1600 words to the English vocabulary. President Abraham Lincoln saw the cultural heritage of society as including law, political institutions, and rights; these benefits were inherited from prior generations as a legacy that present generations have an imperative duty to pass on.³⁹ Here as in other aspects of intergenerational equity, the idea of unjust enrichment is prevalent: the present generation is obliged to transmit access to and use of the resources it received because its own welfare has been enriched by those resources and this generation would be enriched at the expense of future generations were it not to transmit what it has received. Thus, support for and contributions to public education are critical to the well-being of future generations, also expressed in recognition of the duty to be educated.

C. Life and Well-being

At one end of the spectrum of life, allocation of scarce medical resources between elderly and younger persons, choices about prolonging life, and the care of the elderly have been the focus of numerous policy discussions. These debates are increasing as more societies face an aging population. At the other end of the spectrum, questions concerning abortion, embryonic stem cell research, maternal and foetal health care, genetic testing and manipulation, all raise ethical and legal issues that may pit individuals in the present generation against concern for potential or future life. Should the rights of the present generation (the mother or/and father) outweigh those of the foetus in decisions about abortion? Should the potential life of embryos preclude stem cell research that might devise a cure for current diseases? Is there a right to genetic integrity that excludes in vitro genetic changes? In some societies, concern for the well-being of the future generation has led to laws that limit the choices of the child-bearer or make individuals liable for harm to the unborn. Does society have the right to tell a mother she cannot smoke during pregnancy or eat poorly or refuse to take pre-

³⁹ A. Lincoln, *The Perpetuation of Our Political Institutions, Address Before the Young Men's Lyceum of Springfield, Illinois (January 27, 1838)*, cited in: B. M. Frischmann, "Some Thoughts on Shortsightedness and Intergenerational Equity", *Loy. U. Chi. L. J.* 36 (2005), 457 et seq. (463-464).

natal vitamins? These issues raise passionate feelings in many individuals today.⁴⁰

Reproductive rights appear to rest on the assumption that there is no obligation to reproduce, although traditionally a married woman had no right to refuse sexual relations with her husband.⁴¹ The reproductive right was rather one of choosing with whom to reproduce by selecting a marriage partner and thus choosing the potential identity of particular offspring (and in some societies, it remains the grandparents who make the decision through arranging marriages for their children). Individuals may also forego reproduction altogether. Thus, while society as a whole has an interest in having some future citizens, no particular individuals have a right to be brought into existence.

Laws and jurisprudence that recognise a constitutional or human right to privacy generally protect a right of access to contraception, allowing individuals or a couple to control their reproductive decisions.⁴² They thereby deny any claim that a specific “potential person” has a right to exist. Yet as a group, society depends upon reproduction to maintain itself over time. As Sherry Colb states it, “actual people have interests that include the existence of other people in the same generation who can assist them in caring for themselves and the older generation and the existence of a younger generation of people who can assist them in their old age”.⁴³ One can then view reproductive obligations as com-

⁴⁰ The release on December 12, 2008, of the Vatican’s Instruction on bioethics, *Dignitas Personae*, drew sharp responses and clear lines in the debates mentioned in this section. Among the matters it considers, the Instruction calls for a ban on embryonic stem cell research, human cloning, and in vitro fertilisation. The text approves in principle “somatic cell” gene therapy (correcting a specific genetic defect in the cells of an individual patient) but it raises special caution about “germ line” gene therapy which would affect future generations. The latter it says is not acceptable “in its current state”, due to its massive and unpredictable risks and its need to manipulate human embryos in the laboratory.

⁴¹ J. E. Hasday, “Contest and Consent: A Legal History of Marital Rape”, *Cal. L. Rev.* 88 (2000), 1373 et seq.

⁴² *Griswold v. Connecticut*, 381 U.S. 479 (1965), recognising a substantive due process protection for access to contraception for married couples; *Eisenstadt v. Baird*, 405 U.S. 438 (1972), extending the right to privacy to allow unmarried persons “the decision whether to bear or beget a child” by affording access to contraception.

⁴³ S. F. Colb, “To Whom Do We Refer When We Speak of Our Obligations to ‘Future Generations’? Reproductive Rights and the International Commu-

munal rather than individual and similar to the need to conserve other resources. This does not suggest that the individual decision to reproduce or not should be a communal one, although it may be affected by the incentives or disincentives societies determine are appropriate.

Are there obligations to protect the potential lives of future generations through recognising a right or interest in coming into being? Abortion can be seen either as preventing a person from coming into existence or killing an existing person. Since, as discussed above, no specific non-existent person has a right to come into being, the first option should not raise concerns about abortion. If, however, the foetus is viewed as an existing person, the issue is considerably more difficult as it involves the legality of terminating life. Some feminists have recast the abortion debate in recent years by conceding that the foetus is a person and asking under what circumstances that person may be killed, relying on traditional notions of self-defence against an aggressor, even one whose age or mental state makes them not responsible for their actions.⁴⁴ Where the presence of the foetus endangers the health and well-being of the mother, self-defence is argued to support the maternal decision to terminate the pregnancy. The balance shifts as the foetus matures towards viability, a person whose recognised rights may outweigh the mother's.

With in vitro fertilisation and other forms of assisted conception, further issues have arisen. Human embryos have been defined in at least three ways, as: (1) personal property of the donors, the IVF facility, or some combination thereof; (2) human beings with the full legal status afforded to children; or (3) as a *sui generis* intermediate category entitled to more respect than property because of the potential for human life the embryos represent. Most courts that have faced disputes over custody and disposition of embryos have opted for either the first or the last approach, without fully thinking through the implications of each one. In nearly all cases, the disputes have arisen in the context of divorce, where the couple disagreed about the disposition of the embryos. At least one case, however, was brought by an adoption agency

nity", paper delivered at the GWU Law School, 24 October 2008 (on file with the author).

⁴⁴ S. F. Colb, *When Sex Counts: Making Babies and Making Law*, 2007; E. McDonagh, *Breaking the Abortion Deadlock: From Choice to Consent*, 1996. The theory is based on G. P. Fletcher, "Proportionality and the Psychologic Aggressor: A Vignette in Comparative Criminal Theory", *Israel L. Rev.* 8 (1973), 367 et seq.

and raised the question of independent representation for the embryos, akin to the separate representation now afforded to children during custody disputes. Such representation might be required should any State adopt the approach of viewing the embryos as fully human, but to date no court or legislature has taken this view.⁴⁵

Twentieth century tort law over time increasingly recognised legal interests in pre-natal life. While in 1884, Justice Oliver Wendell Holmes held that there could be no recovery for pre-natal damages, on the assumption that a foetus had no legally-recognised existence, later cases allowed recovery if the foetus was viable and later born alive. In 1946, a U.S. federal district court for the first time held that injuries to a viable unborn child are compensable in a tort action brought by the child after birth. This rule is now well-established, even extending to maternal liability for injury to the foetus: a growing number of States provide for criminal prosecution of women who knowingly ingest harmful substances during pregnancy.⁴⁶ The rationale is that the pregnant woman is not only injuring a foetus but a future baby, a moral person. The impact of medical advances extending the period of viability has increased the period of time during which liability may be imposed as a practical matter, posing again the question of a dividing line between one who might exist and one who now exists and has current entitlements.

International human rights bodies have noted that the treaties contain no guarantees for foetal life. In *V.O. v. France*, the European Court of Human Rights faced the question of including pre-natal injuries in the scope of human rights protections. On this point, the Court compared the laws of Member States and found that there “is no consensus on the nature and status of the embryo and/or foetus, although they are beginning to receive some protection in the light of scientific progress and the potential consequences of research into genetic engineering, medically assisted procreation or embryo experimentation”. The Court found “common ground between States that the embryo/foetus belongs to the human race” and that the potential and capacity for it to become a person “require protection in the name of human dignity, without

⁴⁵ E.g., *In re Marriage of Witten*, 672 N.W.2d 768 (Iowa, 2003).

⁴⁶ M. Reutter, “Laws About Pregnant Women and Substance Abuse Questioned”, in: *News Bureau*, University of Illinois at Urbana-Champaign, 8 November 2005.

making it a “person” with the “right to life” for the purposes of Article 2”.⁴⁷

The question of equitable protection for future life arises also in respect to the question of whether there is a right to genetic integrity. Is each human entitled (or mandated) to retain the genetic code imprinted at fertilisation? The so-called right of genetic integrity is increasingly debated with (re-)emerging eugenics: the ability to select specific characteristics through genetic manipulation. Recently, a leading evangelical minister provoked considerable controversy with his published article raising the issue of what his adherents should do if in the future it is possible to determine *in utero* that a foetus will be born homosexual: have it, abort it, or “fix” it? Clearly, this is a long way from respecting the individual rights of the developing foetus and its personal “potential and capacity”. While genetic cures for life-threatening diseases such as leukemia might be acceptable to avoid a short life full of pain, allowing parents to select for appearance, gender and personality reduces the next generation to the equivalent of designer clothing.

Finally, on this point, the demography of future generations is a matter of great importance and will matter to them. What are the obligations of the present generations to manage the birthrate to ensure a future population, but to avoid overcrowding and resource shortages in the future? Can solidarity as intergenerational equity mean choosing not to produce some members of future generations? As with many other questions in which individual actions may impact the larger commu-

⁴⁷ See also *Boso v. Italy* (App. 50490/99), ECtHR Report 2002-VII, Admissibility Decision of 5 September 2002 in which the applicant challenged Italian Law no. 194 of 1978, under which his wife had been able to terminate her pregnancy, as a violation of article 2 (right to life) of the European Convention on Human Rights and Fundamental Freedoms. The European Court held that it was not required to determine whether a foetus may qualify for protection under article 2. Even supposing that, in certain circumstances, it might be considered to have rights protected by the Convention, the mother’s rights were also at stake. Evidence showed that the wife’s pregnancy was terminated in conformity with Italian legislation, which authorised abortion within the first twelve weeks of a pregnancy if there is a risk to the woman’s physical or mental health. It followed that abortions were performed to protect the woman’s health and, the Court held, “such provisions strike a fair balance between, on the one hand, the need to ensure protection of the fetus and, on the other, the woman’s interests”. In the particular circumstances of the case, the Court found that the respondent State had not gone beyond its discretion in balancing the rights and interests of the present and the future.

nity, perhaps the most fundamental question is that of who is entitled to make these decisions.

D. Natural Resources

Intergenerational equity in respect to natural resources is based on the recognition of three key points: (1) that human life emerged from, and is dependent upon, the Earth's natural resource base, including its ecological processes, and is thus inseparable from environmental conditions; (2) that human beings have a unique capacity to alter the environment upon which life depends and (3) that no generation has a superior claim to the Earth's resources because humans did not create them, but inherited them. Taken together, these three points have led many to the concept of trust: imposing obligations on present generations to conserve and maintain the planetary resources for future beneficiaries. In fact, the present generation is both beneficiary of the past and trustee for the future. Meeting the obligation does not mean that no development is possible, but it does call for minimising or avoiding long-term and irreversible damage to the environment.

There are already aspects of trust in international law, which recognises that certain resources, such as those on or under the deep seabed, belong to the common heritage of mankind by virtue of their location in commons areas. Inclusion of the word "heritage" connotes a temporal aspect in the communal safeguarding of areas or resources incapable of national appropriation. Based on this concept, special legal regimes have been created for the deep seabed⁴⁸ and the Moon. The nature of the common heritage is a form of trust, whose principal aims include restricting use to peaceful purposes, rational utilisation in a spirit of conservation, good management or wise use, and transmission to future generations. Benefits derived from the common heritage may be shared through equitable allocation of revenues, but this is not the essential feature of the concept. Benefit-sharing can also mean sharing scientific knowledge acquired in common heritage areas like Antarctica.

Climate change offers particularly difficult challenges to intergenerational equity. The greenhouse gases sent into the atmosphere in 2008

⁴⁸ UN, Division for Ocean Affairs and the Law of the Sea, *The Law of the Sea, Concept of the Common Heritage of Mankind*, 1996.

will be there for at least a century.⁴⁹ Thus, throughout the 21st century the world in general and the world's poor in particular will have to live with the consequences of human activities already undertaken or underway. The full consequences of today's actions may not be known, but the risks are: increased flooding, extreme storm activity, drought, melting sea ice, expanded range of disease vectors, and extreme heat events. In addition, the damage caused by present emissions may be irreversible. Development is already being hindered due to the consequences of climate change and this is likely to increase over time. There will be significant short term costs, but the cost of mitigation and adaptation will grow the longer action is delayed. Moreover, the impacts will be felt unequally, with the already poor and marginalised suffering disproportionately from the consequences of climate change. Future generations will inherit a more unequal world with potentially irreversible changes to the ecological resource base on which they depend. As Desmond Tutu has expressed it, there is an increasing "adaptation apartheid".

IV. The Status of Intergenerational Equity in International Law

Most of the existing references to intergenerational equity in international law are in the context of natural and cultural resources. Although mention of future generations can be found as early as the 1945 UN Charter⁵⁰ and the 1946 Convention for the Regulation of Whaling,⁵¹ it is only more recently that a growing number of binding and non-binding international instruments make reference to future generations or intergenerational equity. The 1972 Stockholm Conference on the Human Environment considered a proposal from the UN Secretary-General that the final declaration should proclaim the "duty of all na-

⁴⁹ UNDP, *Human Development Report 2007/2008: Fighting Climate Change, Human Solidarity in a Divided World*, 2007, at p. v.

⁵⁰ Charter of the United Nations (25 June 1945), 59 Stat. 1031, Preamble, "determined to save succeeding generations from the scourge of war..."

⁵¹ International Convention for the Regulation of Whaling, 2 December 1946, "Recognizing the interest of the nations of the world in safeguarding for future generations the great natural resources represented by the whale stocks..."

tions to carefully husband their natural resources and to hold in trust for present and future generations the air, water, lands, and communities of plants and animals on which all life depends".⁵² The United States similarly proposed that air and water be declared "a common trust".⁵³ Both of these far-reaching proposals were ultimately rejected in favour of the language of Principle 2: "The natural resources of the earth including the air, water, land, flora and fauna and especially representative samples of ecosystems must be safeguarded for the benefit of present and future generations through careful planning or management as appropriate".

Twenty years later, the Rio Declaration incorporated the reference to future generations into its statement on the right to development, reflecting the Brundtland Commission's definition of sustainable development,⁵⁴ a right which is to be fulfilled so as to equitably meet the developmental and environmental needs of present and future generations. Principle 6 calls for giving special priority to the situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable. While these principles focus on elements of need as a basis for distributive justice, Principle 7 shifts to take into account responsibility and capacity, with its enunciation of the principle of common but differentiated responsibilities. Thus, the declaration identifies at least three factors that could be taken into account in the equitable allocation of benefits and burdens: need, responsibility, and capacity.

In treaty law, the 1972 Convention for the Protection of the World Cultural and Natural Heritage is expressly aimed at conserving the world's cultural and natural patrimony for the future. It contains a duty on the part of States parties "of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage" situated on its territory (article 4). Numerous other treaties contain references to future generations in their pre-

⁵² Doc. A/CONF.48/PC/SG.1/CRP.4, 13 (1971).

⁵³ Secretary of State's Advisory Committee on the 1972 United Nations Conference on the Human Environment, Stockholm and Beyond 143 (May 1972). On the drafting history of the Stockholm Declaration, see L. B. Sohn, "The Stockholm Declaration on the Human Environment", *Harv. Int'l L. J.* 14 (1973), 423 et seq.

⁵⁴ *Our Common Future*, 1987; defining sustainable development as development which meets the needs of the present generation without compromising the ability of future generations to meet their needs.

ambles.⁵⁵ The parties to the 1992 Convention on Biological Diversity expressed their determination “to conserve and sustainably use biological diversity for the benefit of present and future generations,” establishing intergenerational solidarity as part of the general framework in which to apply the Convention.⁵⁶ The 1992 Climate Change has similar preambular language, but goes further in placing concern for future generations in article 3(1) of the Treaty as well. It provides that the parties 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 and respective capabilities”. A chapeau to article 3 insists that States are to be “guided by” these principles in their actions to achieve the objectives of the Convention, a chapeau apparently intended to limit the legal consequences of the principles. A similar chapeau is added to article 5(c) of the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and Lakes, which provides that water resources “shall be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs”. The 1997 International Atomic Energy Agency’s Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management is perhaps most specific on the duty to protect future generations. Article 4 of this convention obliges States parties to take steps to avoid actions that impose reasonably predictable impacts on future generations greater than those permitted for the current generation and generally to avoid imposing undue burdens on those to come.

Beginning in 2005, the UN Human Rights Commission began a study of human rights and international solidarity, much of which concerns

⁵⁵ E.g., 1968 African Convention on the Conservation of Nature and Natural Resources; 1973 Convention on International Trade in Endangered Species; 1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques; 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals; 1979 Berne Convention on the Conservation of European Wildlife and Natural Habitats; 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources.

⁵⁶ D. Bodansky, “International Law and the Protection of Biological Diversity”, *Vand. J. Transn’l L.* 28 (1995), 623 et seq. In addition to the CBD and UNFCCC, other examples of references to future generations as a motivating factor in taking action can be found in the preambles to the 1992 Convention on the Transboundary Effects of Industrial Accidents and the 1994 Convention to Combat Desertification.

the right to development and international cooperation to address current crises.⁵⁷ Recent resolutions adopted by a highly-divided Human Rights Council nonetheless recognise the link with intergenerational equity, asserting “the necessity to establish new, equitable and global links of partnership and intragenerational solidarity for the perpetuation of humankind”.⁵⁸ The 2008 resolution also “[r]esolved to strive to ensure that present generations are fully aware of their responsibilities towards future generations”, and that a better world is possible for present and future generations. It also “[e]xpress[ed] its determination to contribute to the solution of current world problems through increased international cooperation, to create such conditions as will ensure that the needs and interests of future generations are not jeopardized by the burden of the past, and to hand over a better world to future generations”. There is a clear emphasis on distributive justice as an expression of solidarity. With this in mind, the special rapporteur has been given the task of preparing a draft declaration on the right of peoples and individuals to international solidarity.

Existing human rights instruments express concern for future generations in specific treaties concerning children, as well as provisions in general human rights treaties on the rights of the child.⁵⁹ The Universal

⁵⁷ Doc. E/CN.4/RES/2005/55 of 20 April 2005. The mandate was reaffirmed in Doc. A/HRC/7/7 of 9 January 2008 by a vote that divided largely along North/South lines. Adopted by a recorded vote of 34 to 13. The voting was as follows: *In favour*: Angola, Azerbaijan, Bangladesh, Bolivia, Brazil, Cameroon, China, Cuba, Djibouti, Egypt, Gabon, Ghana, Guatemala, India, Indonesia, Jordan, Madagascar, Malaysia, Mali, Mauritius, Mexico, Nicaragua, Nigeria, Pakistan, Peru, Philippines, Qatar, Russian Federation, Saudi Arabia, Senegal, South Africa, Sri Lanka, Uruguay, Zambia. *Against*: Bosnia and Herzegovina, Canada, France, Germany, Italy, Japan, Netherlands, Republic of Korea, Romania, Slovenia, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland.

⁵⁸ A/HRC/9/7 of 18 September 2008. See also A/HRC/6/3 of 27 September 2007, adopted by a vote of 32-12, with one abstention. No industrialised western country voted in favour of the resolution; Switzerland abstained and the remainder voted against it.

⁵⁹ Convention on the Rights of the Child (CRC); Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography (CRC-OPSC); Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict (CRC-OPAC); Minimum Age Convention, 1973 (No. 138); Worst Forms of Child Labour Convention, 1999 (No. 182).

Declaration of Human Rights was the first to proclaim that childhood is entitled to special care and assistance. While there is no treaty on the elderly, the United Nations Principles for Older Persons, adopted by General Assembly resolution 46/91 of 16 December 1991, seeks to protect the participation, independence and rights of the elderly.⁶⁰ Humanitarian instruments also reflect concern for future well-being in prohibiting the employment of "methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment".⁶¹

V. Principles of Intergenerational Equity

Malaria is a serious problem in many parts of the world, causing numerous deaths. What are the options for confronting this problem in the present, while not causing undue problems for the future? Mosquito nets and anti-malarial medications can prevent or treat many current cases, without improving the situation for the future; spraying of pesticides could eliminate the present problem in some areas, while causing future health problems and reducing biodiversity. People could be moved away from areas where malaria is endemic, ceding the field to the mosquitoes and creating large numbers of displaced persons, with loss of culture, property and rights. Swamps and other wetlands could be drained to remove the mosquito habitat, but with attendant loss of ecosystems and biodiversity. Genetic engineering could be attempted on mosquitoes to eliminate their ability to be a malaria vector, with uncertain and unknowable consequences. What is the equitable option for present and future generations?

Intergenerational equity is primarily a principle of distributive justice, concerned with the allocation of benefits and burdens. In part it asks whether a given resource should be used today or saved for possible future use. From this perspective, the implications of the principle of solidarity with future generations are three: first, that each generation

⁶⁰ Other standards include the International Plan of Action on Ageing and the conventions, recommendations and resolutions of the International Labour Organization, the World Health Organization.

⁶¹ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol 1), adopted on 8 June 1977.

should conserve the diversity of the natural, cultural and economic resource base so that it does not unduly restrict the options available to future generations to satisfy their own values and needs. Second, the quality of ecological processes passed on should be comparable to that enjoyed by the present generation. Third, the past and present cultural and natural heritage should be conserved so that future generations will have access to it. Prior assessment should be done to ensure that the benefits from a proposed activity outweigh the costs and that the burdens are equitably borne by all or there is adequate compensation for those who bear the greater burdens. These rights and obligations derive from a notion of human solidarity that extends beyond the totality of the current planetary population, giving it a temporal dimension that places its focus on prevention of harm.

Economic analysis using traditional cost/benefit methods of valuation is inadequate because it gives preference to the present over the future. Economists measure the value of a benefit by the price a willing buyer would pay for it, discounted to the present on the assumption that individuals count immediate benefits more highly and discount deferred gratification due to uncertainties about future enjoyment. Future values thus are always corrected by a percentage that attempts to represent this discounting, usually by the rate of real interest. The time preference of an individual is assumed to correspond roughly to the price of money, the rate at which the individual could enhance money by loaning it out at the going rate of interest. Discounting is particularly problematic when applied to public goods, multi-generational goods, and especially to long-term intergenerational harms.⁶² The most significant objection is that it requires reducing future values and welfare to what present consumers are willing to pay to support them. Since future generations are not available, they cannot express their willingness and the present generation must estimate, but cannot know, the future preferences nor future risks. As traditional cost-benefit analysis examines alternative projects and selects those that maximise the present value of net benefits, it will reject any project yielding benefits only in the long term.⁶³ Only a zero discount rate counts the future for as much as the present.⁶⁴

⁶² Frischmann calls discounting the future unethical, see note 39.

⁶³ R. Solow, "The Economics of Resources or the Resources of Economics", *Am. Econ. Rev.* 64 (1974), 1 et seq.

⁶⁴ T. Cowen, "Caring about the Distant Future: Why it Matters and What it Means", *U. Chi. L. Rev.* 74 (2007), 5 et seq.

An assumption that generations should stand in equality one to another is basic to intergenerational equity, and arguably makes discounting morally impermissible. To take the example used by Cowen, a 5 percent discount rate means 1 death 200 years from now would be counted as equal in value to 131.5 deaths 300 years into the future. "Under a positive discount rate, no matter how low, one life today can be worth more than one million lives in the future, or worth the entire subsequent survival of the human race, if we use a long enough time horizon".⁶⁵ In fact, time preferences only work within a generation, where individuals can express a desire to have a given benefit sooner rather than later. Future generations are not deprived of a benefit now that they are not alive to enjoy.

Economic measures also are problematic when looking at intergenerational equity in respect to historic injustices. If slave reparations should be awarded for the value of unpaid labour during the 300 years of slavery, how should that be measured? Compounding interest would produce values in the trillions of dollars, but it is pure speculation to assume that the original amount due would have been invested at the time and passed on via slave descendants to the present without loss or diversion.⁶⁶

Economists are devising alternative methods to reflect intergenerational equity, including a method that eliminates discounting,⁶⁷ another that uses zero discount rates for projects with long-term benefits,⁶⁸ and one that applies a "generational discount rate".⁶⁹ Discounting for risk in-

⁶⁵ *Ibid.*, 9; Cowen objects that in addition to the inequality of numbers, the discount assumes that the lives are worth the same, but if a future life is happier and has greater well-being, any inequality should favour the future over the present. Theodore Seto also objects that discounted cost-benefit analysis fails miserably to consider the long-term consequences of the most important issues faced today; T. P. Seto, "Intergenerational Decision Making: An Evolutionary Perspective", *Loy. L. A. L. Rev.* 35 (2002), 235 et seq.

⁶⁶ Cowen notes that \$1000 wrongfully taken in 1850 and compounded at 7 percent would be worth roughly \$35 million today; Cowen, see note 64, 9, note 9.

⁶⁷ J. Broome, "Discounting the Future", *Phil. & Pub. Aff.* 23 (1994), 128 et seq.

⁶⁸ T. Cowen/D. Parfit, "Against the Social Discount Rate", in: P. Laslett/J. S. Fishkin (eds), *Justice Between Age Groups and Generations*, 1992, 144 et seq.

⁶⁹ Generally Woods, see note 8, 317 et seq. for the critiques to discounting and the alternatives.

stead of for value also supports the idea of caring about even the distant future.⁷⁰ An evolutionary perspective calls for a negative discount rate, because the future is always more important than the present because the present is only important as a prelude to the future. In other words, happiness or well-being today is completely irrelevant from an evolutionary perspective since it does not contribute to the long-term survival and reproduction of the group. Thus, “traditional economic discounting at market rates is revealed to be maladaptive, in evolutionary terms, to the survival of our species – an end which serves as the entire purpose of sustainable development ...”.⁷¹

Notions of entitlement stemming from prior uses, strict equality, proportional use based on population, and priority accorded to certain uses all have been asserted at one time or another as a basis for determining what is an equitable allocation. In some instances, the parties agree in advance on certain divisions or priorities. The idea of equitable utilisation today appears to recognise that some resource uses have priority over others. In the use of freshwaters, for example, emphasis is being placed on the satisfaction of basic human needs – that is, the provision of safe drinking water and sanitation. The Watercourses Convention provides that in the event of a conflict between the uses of an international watercourse, special regard is to be given to the requirements of vital human needs (art 10), while the UN Committee on Economic, Social and Cultural Rights, in its General Comment 12 on the Right to Water, insists that priority be given to safe drinking water and sanitation, with a guaranteed minimum amount to be provided to every person. Thus, a strictly legal approach grounded in human rights may alter the weighing of factors by designating one use as inherently more important than all others.

What specific principles are relevant to determine fairness or equity (distributive or corrective justice) between generations? And do they lead to the same result or outcome?

Formal equality is one method of allocating resources and burdens. As noted earlier, rules are generally deemed just if they apply to all without discrimination. Yet equal treatment may yield extreme outcomes when pre-existing economic or other inequalities already exist in society. In scholarship about intergenerational equity, equality surfaces as a key

⁷⁰ Cowen, see note 42, 6.

⁷¹ Sato, see note 2, 506.

concept. Rawls⁷² and Sen⁷³ both emphasise equality of opportunity as a crucial element in distributive justice between generations. Goodin calls for guarantees that each generation will have roughly equal benefits.⁷⁴ When resources are finite, however, is equality of allocation the appropriate principle? Most people would probably not view equality as an appropriate measure of intergenerational equity, because they hope that future generations will be better off, just as they are thankful not to have lived in the less salubrious conditions of the distant past. Equality, perhaps, may be viewed as the floor, not the ceiling, in terms of transmission to future generations. In other words, it is unjust to make future generations worse off through no fault of their own, recognising that this may produce its own inequality as the present generation makes sacrifices for the future. This inequality may be justified, however, because we have an inequitable advantage over those who lived earlier; we cannot rectify their poor living conditions, but we can reduce our welfare in some small amount in favour of the future. Also as a practical matter, we cannot determine our equal share of resources in the absence of knowledge about the total amount of resources and the number of future generations (assuming an infinite number of generations, the present share of resources would be zero).

Notions of *entitlement* uphold the existing distribution of goods if they were justly acquired according to the rules in force at the time of acquisition. Entitlement protection is contained in some environmental laws and agreements that "grandfather" existing activities by exempting them from retrofitting to meet more exacting and newly enacted standards or allowing emissions to continue at pre-existing levels. For example, some international environmental agreements, such as the 1987 Sulphur Protocol to the Convention on Long-Range Transboundary Air Pollution, require equal reductions in pollution from historic baseline levels. The rewards that this system grants to those who have the goods may be too high to result in what is considered to be a fair distribution. An entitlement approach may also serve to deny essential goods to others in the future.

Traditional international law protects entitlement. All States, including those newly created, have equality of opportunity as sovereigns, but

⁷² Rawls, see note 8.

⁷³ A. Sen, *Inequality Reexamined*, 1992.

⁷⁴ R. Goodin, "The Ethics of Destroying Irreplaceable Assets", *International Journal of Environmental Studies* 21 (1983), 55 et seq.

pre-existing natural endowment and activities make older States substantially stronger in wealth and power and developing States substantially stronger in natural (biological) resources. Since traditional international law entitles all States to an equal right to obtain or use common resources, from fish in the high seas to the geostationary orbit, technologically advanced States have the ability to, and may choose to, acquire the greatest part of the resources from the common area. Equality of rights, however, does not necessarily bring about equality of outcomes and the least favoured may find themselves in a continually declining position.

Different *capacities* may be the decisive factor chosen to achieve distributive justice with regard to future generations, because those presently living are the only ones who can protect or waste resources needed by the future. Inequalities in the ability to access the benefits of natural resources and address environmental impacts are evident. While the reality of interdependence imposes a need for cooperation, States are impacted differently by specific threats, have greater or lesser interest in or impact on a particular problem, and may lack the human or financial capacity to take actions deemed prudent or necessary by the international community. It is clear that the expenditures necessary to prevent or abate certain environmental hazards, for example, can be high in the short term. This factor often provokes in developing countries rational fears that participation in international environmental treaties may decelerate or limit industrial development. The principle of common but differentiated responsibilities takes into account these differences of capacity.

Different *needs* (to each according to her need) as a basis for equitable allocation are recognised in the Rio Declaration and reappear, for example, in the UNFCCC. In implementing the convention, the parties are to be guided by "the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the convention".⁷⁵ The question of what would be "disproportionate" is left open. Article 4(8) adds that all parties are to consider what actions, including funding, insurance, and transfer of technology, may be necessary to meet the specific needs of specially affected States. Determining need, like determining capacity,

⁷⁵ Art. 3.2 of the UN Framework Convention on Climate Change.

may require the development of objective criteria and the assessment of the situation over time of each State party.

Different *historical responsibility* or “just deserts” – that is, past and present contribution to present and future harm, another factor in allocating benefits and burdens. The 1991 Beijing Declaration on Environment and Development stated the view of the developing world that “the developed countries bear responsibility for the degradation of the global environment. Ever since the Industrial Revolution, the developed countries have over-exploited the world’s natural resources through unsustainable patterns of production and consumption, causing damage to the global environment, to the detriment of the developing countries”. Fairness and a morally coherent response suggest that these States, which attained their current developed status through imposing noninternalised costs on the environment, take the major abatement actions, rather than demanding that everyone equally mitigate the externalities, including those not responsible for initially creating the problem. Equity, in this sense, is justified as a means of corrective justice, requiring remedial conduct to correct past wrongs. The polluter pays principle is compatible with corrective justice since it serves a reparative function by making those States that caused most environmental harm pay for the remediation or losses suffered by others. Similarly, compensatory or reparative justice for historical wrongs and takings may be a basis for equitable (preferential) treatment for developing countries, especially where colonising States built their industrial development on the exploitation of natural resources of their colonies.

VI. Implementing Intergenerational Equity

Any move from morality and ethics to law poses questions of process: who is to decide what to preserve and what costs should be imposed on today’s generations in favour of the future? How far into the future and the past should we look? At the outset, when specific legal protection is sought for future generations, it may be objected that there are no rights-holders present to correspond to the obligations being imposed and that without identifiable individuals there can be no rights and duties. Edith Brown Weiss posits that the rights-holders are not individuals, who remain in the future and cannot be identified, but generations, some of which are here and some of which are in the future. Generations hold these rights as groups in relation to other generations. Since the future individuals are indeterminate, a guardian or a representative

of the group may enforce their rights.⁷⁶ For example, in *Minors Oposa v. Secretary of the Department of Environment and Natural Resources*, the Philippine Supreme Court found that present generations have standing to represent future generations in large part because “every generation has a responsibility to the next to preserve that rhythm and harmony for the full enjoyment of a balanced and healthful ecology”.⁷⁷

It is clear that many legal mechanisms that aim to protect present generations (intra-generational equity) and the legacy of past generations from harm also serve to represent future interests. The EU introduced in 1998 a “solidarity mechanism” in its Regulation reducing the total allowable catches for stocks of overfished highly migratory fish.⁷⁸ The mechanism operated to reduce the tonnage of bluefin tuna for three States in favour of two other States in which the quota reduction had the greatest impact. The redistribution of the fish was upheld by the European Court of Justice.⁷⁹ The measure is both intra- and intergenerational in its impact: the reduction of quotas generally serves to restrict present day takings to preserve fish stocks for future generations, while the benefits and burdens of the present generation were redistributed. The idea of marine reserves for the protection of fish stocks, as public trusts, has been proposed as a better example of intergenerational equity⁸⁰ because simply regulating over-fishing is inadequate: other environmental problems, including pollution, interactions of various species, weather and climate, pose even greater threats to the marine ecosystems.

Economists have constructed various proposals for implementing intergenerational equity. For natural resources, Daly and Cobb proposed adding to national income accounts a category of natural capital that could be depreciated to ensure that the impacts of currently unsustainable consumption patterns and environmental degradation are correctly recognised and measured. They do this by creating an Index of “Sustainable Economic Welfare” on which they deduct an amount estimated

⁷⁶ Brown Weiss, see note 8, 95-97.

⁷⁷ *Minors Oposa v. Secretary of the Department of Environment and Natural Resources*, Philippine Supreme Court, reprinted in *ILM* 33 (1994), 168 et seq.

⁷⁸ EU Council Res. 49/1999, O. J. (1999) L13/64.

⁷⁹ *Italy v. Council*, C-120/99, ECR (2001) I-7997.

⁸⁰ D. R. Christie, “Marine Reserves, The Public Trust Doctrine and Intergenerational Equity”, *J. Land Use & Envtl. L.* 19 (2003-2004), 427 et seq.

to compensate future generations for the loss of services from non-renewable resources, loss of wetlands and croplands, etc. as depreciation of natural capital. Resources necessary for the future are equated with the income stream from a trust fund. The problem with the proposal is that money today cannot substitute for loss of a critical resource in the future – you can't drink money. Both "fair savings" and compensation for resource loss essentially constitute "polluter pays" systems that compensate for destruction, based on inability to know needs and desires of future generations and an assumption of fungibility among resources. Instead, sustainability structured according to solidarity with future generations must identify features and processes that are essential for future well-being – any bequest to the future which does not protect them will inevitably leave the future worse off than they would have been had these features been protected. There is no fungibility and no amount of money can compensate for loss of critical natural base.

Another approach places its focus on externalities and demands that the costs of decisions made by each generation should be fully borne by that generation. Assuming that future well-being includes aesthetic and cultural values, wilderness and art need to be protected as well as freshwater and soil. Integrated planning that takes into account all the complexities is most likely to preserve the options. This is reflected today in strategic environmental evaluation, which looks at entire sectors of the economy, such as transportation, and develops long range policies and plans. What does not seem adequate is the market, which persists in emphasising short-term profits over long-term planning. The emphasis on deregulation and privatisation that emerged in the 1980s has proven inadequate for ensuring intergenerational equity.

In domestic law, many countries have relied on the long-established property doctrine of public trust to protect for the future those resources deemed to fall within the public domain.⁸¹ It is a doctrine that

⁸¹ One author asserts that "[e]ach of the successful provisions [in state constitutions] invokes some combination of the concepts undergirding the public trust doctrine: conservation, public access, and trusteeship", M. T. Kirsch, "Upholding the Public Trust in State Constitutions", *Duke L. J.* 46 (1997), 1169 et seq., 1173. Provisions that refer to "trust", include Haw. Const. art. XI; Pa. Const. art. I, para. 27; Va. Const. art. XI, Para. 3. For provisions outlining public trust principles, see Ala. Const. art. VIII; Cal. Const. art. X, para. 2; Fla. Const. art. II, para. 7; La. Const. art. IX; Mass. Const. art. 97; Mich. Const. art. IV, para. 52; Mont. Const. art. IX, para. 1; N.M. Const. art. XX, para. 21; N.Y.

recommends itself to international law, which could modify and adapt the notion of common heritage of mankind into a global public trust for the high seas, the atmosphere and the ozone layer. The doctrine of public trust traditionally held that navigable waters, the sea, and the land along the seashore are common property open for use by all.⁸² Modern courts have adopted and applied the public trust doctrine, conferring trusteeship on governments, with an initial focus on fishing rights, access to the shore, and navigable waters and the lands beneath them.⁸³ After the publication of Joe Sax's influential law review article in 1970,⁸⁴ courts began to expand the doctrine and apply it to other resources, including wildlife and public lands.⁸⁵

The public trust doctrine emphasises the duties of the trustee rather than the individual rights of the beneficiaries, often imposing a constitutional obligation on the government to conserve the corpus of the trust and ensure common access to and use of it by present and future generations.⁸⁶ The grant of a constitutional right to a specific environmental quality adds to the public trust guarantees. While both doctrines impose duties on the public authorities in favour of the environment, the public trust doctrine extends only to those natural resources that are viewed as part of the corpus of the trust and not to the environment as a whole.⁸⁷ Public lands may be included, but not the regulation of activities on private property, unless they impact on public lands.

Const. art. XIV; N.C. Const. art. XIV, para. 5; R.I. Const. art. 1, para. 17; Tex. Const. art. XVI, para. 59.

⁸² *Institutes of Justinian* (T. Sanders Trans., 1st Am. ed., 1876), 2.1.1.

⁸³ E.g., *Illinois Central Railroad Co. v. Illinois*, 146 U.S. 387 (1892); *City of Milwaukee v. State*, 214 N.W. 820 (1927). Fishing rights, free access to the shore, and navigation are traditional rights that are reaffirmed in several State constitutions as well as in jurisprudence; E.g., Cal. Const. art. I, section 25; R.I. Const. art. I, section 17; Ala. Const. art. I, section 24.

⁸⁴ J. Sax, "The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention", *Mich. L. Rev.* 68 (1970), 471 et seq. See also B. Cohen, "The Constitution, the Public Trust Doctrine, and the Environment", *Utah L. Rev.* (1970), 388 et seq.

⁸⁵ E.g., *Wade v. Kramer*, 459 N.E.2d 1025, 1027 (Ill. App. Ct. 1984).

⁸⁶ Alaska's constitution guarantees the latter: "Wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use", Ala. Const. art. VIII, para. 3.

⁸⁷ For various approaches to the reach of the public trust, see: S. W. Reed, "The Public Trust Doctrine: Is it Amphibious?", *J. Envtl L. & Litig.* 1 (1986),

Article I, section 27 of the Pennsylvania State constitution provides an example of a constitutional public trust doctrine. It sets forth:

Section 27 Natural resources and the public estate

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

There are several evident features about this text. First, it declares the "people's" right to environmental amenities with a directive to the State to act as a trustee for the "public natural resources" of the State (excluding private property). The resources mentioned are declared to be common property and held for future as well as present generations. Hawaii's constitution created a public trust over all of the State's natural resources, again with reference to future generations:

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of the people.⁸⁸

The adoption of a public trust concept at the international level could bring with it several subsidiary rules from domestic trust law that would help effectuate the principle of intergenerational equity, such the requirement that the trustee to monitor and report on the status of the trust corpus. Such monitoring and reporting requirements are already common in national and international environmental law,⁸⁹ and, in a

107 et seq. (107-108, 118); C. F. Wilkinson, "The Public Trust Doctrine in Public Land Law", *U.C. Davis L. Rev.* 14 (1980), 269 et seq. (316); A. Rieser, "Ecological Preservation as a Public Property Right: An Emerging Doctrine in Search of a Theory", *Harv. Envtl. L. Rev.* 15 (1991), 393 et seq. (398-399).

⁸⁸ Haw. Const. art. XI, para. 1.

⁸⁹ Monitoring and reporting are required of States Parties to most major environmental agreements, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora, art. VII; the Convention on Biological Diversity, art. 26; the UN Framework Convention on Climate Change,

few instances, the gathering and dissemination of information is implicitly or explicitly linked to intergenerational equity. The International Convention for the Regulation of Whaling, for example, establishes a commission that collects and analyses statistical information on the current condition and trend of whale stocks and the effects of whaling activities on the "great natural resource" of whales, which the preamble says should be safeguarded for future generations.⁹⁰ Article 4 of the UNESCO Convention for the Protection of the World Cultural and Natural Heritage requires each State party to ensure the identification, protection, conservation, presentation, and transmission to future generations of the cultural and natural heritage situated in its territory. Each State party is asked to submit to the World Heritage Committee an inventory of property forming part of the cultural and natural heritage. The committee keeps the list up to date and also periodically prepares a list of world heritage in danger.

Going further than public trust concepts, rights-based approaches emphasise the right to a certain quality of environment because that quality is linked to, indeed a prerequisite for, the enjoyment of a host of internationally and domestically guaranteed rights. Rights-based approaches were initially thought to have the defect of being non-justiciable, however courts are increasingly enforcing constitutional and international rights to environmental quality.⁹¹ Many courts have broadened standing to permit legal redress for violations of environmental rights, without requiring individualised injury to health or property, because one major motive for guaranteeing environmental

art. 12; and the Montreal Protocol on Substances That Deplete the Ozone Layer, art. 7.

⁹⁰ International Convention for the Regulation of Whaling, Washington, DC, 2 December 1946, 161 *UNTS* 72 at Preamble, para. 1, "recognizing the interest of the nations of the world in safeguarding for future generations the great natural resources represented by the whale stocks" and art. 4.

⁹¹ The Montana Supreme Court indicated some of the parameters of its constitutional provision in the case *Cape-France Enterprises v. The Estate of Peed*, 305 Mont. 513, 29 P.3d 1011 (2001), describing the right to a clean and healthful environment as "a fundamental right that may be infringed only by demonstrating a compelling state interest..." one that is, "at a minimum, some interest 'of the highest order and ... not otherwise served', or 'the gravest abuse endangering [a] paramount [government] interest []'". *Armstrong v. State Mt.* 261, 296 Mont. 361, 989 P. 2d 364 (1999), note 6.

rights is to prevent injury from occurring.⁹² The ability to pursue a rights-based approach has been extended to future generations in at least one case⁹³ in which the Supreme Court of the Philippines granted standing to sue in *obiter dictum*, to present children on behalf of future generations.

VII. Conclusions: Equity Matters in a Just Society and Instrumentally

There is growing recognition of the interdependence of States and of problems that are insoluble through unilateral action, leading to acceptance of the moral principle of solidarity or partnership. Interdependence underscores the search for a just global society, which is a quest as old as human civilisation. To many, a just society involves ensuring that the natural components of the environment continue to sustain life in all of its diversity and that the natural benefits that humans enjoy are fairly shared among all those present and to come. The moral dimension of equity is such that it is often deemed synonymous with justice and is an end in itself.

The recognition that global resources are shared or of common concern or heritage has given rise to a duty to assist those States unable to participate in the utilisation of the resources. Equity in international environmental law thus means a rational sharing of the burdens and costs of environmental protection, discharged through the procedural and substantive adjustment of rights and duties. Equity in the sense of fairness also means warning States of imminent peril and cooperating to resolve problems that will impact the ecological processes or resources on which future well-being depends.

Equity is important and, with its emphasis on fairness, is more attractive to many than economic efficiency or open conflict as a means of

⁹² E.g., *Montana Environmental Information Center v. Department of Environmental Quality*, 296 Mont. 207, 988 P. 2d 1236 (1999).

⁹³ *Oposa v. Factoran*, 224 SCRA 792 (1993), reprinted in *ILM* 33 (1994), 173 et seq. For a critique of the case, see D. Gatmaytan, "The Illusion of Intergenerational Equity: *Oposa v. Factoran* as Pyrrhic Victory", *Geo. Int'l Envtl. L. Rev.* 15 (2003), 457 et seq.; arguing that the distinction between present and future generations was inconsequential in the case because the rights of future generations require protecting the rights of the present.

deciding how to allocate and sustain limited commons resources. Without a cooperative and equitable solution to the issue of allocation, competitive utilisation of the resource may continue until the resource is depleted. Equitable or differentiated obligations may induce participation in action among the competing States as well as among States that may not have any direct interest in a specific environmental issue.

Equity also may be justified on the basis of self-interest. Environmental protection is in everyone's interest, and the adjustment of legal obligations to achieve better protection is self-interested. An allocation of burdens that takes into account the more vulnerable position of future generations may benefit all. Moreover, Scott Barrett's work has indicated that agreements perceived to be fair are not only likely to induce greater participation but are more likely to be self-enforcing and thus successful over the long term.⁹⁴

In sum, equitable approaches are not only based in morality and a sense of justice but may also foster more effective action on issues of common concern and more effective implementation of norms. Fairness and legitimate decisions may produce more or better compliance with legal obligations. Yet, it should not be forgotten, as Thomas Franck has noted, that "[t]he law promotes distributive justice not merely to secure greater compliance, but primarily because most people think it is *right* to act justly".⁹⁵ We could do well to consider the Iroquois Law of Seven Generations, a centuries-old tradition that all major decisions must be based on how those decisions will affect the next seven generations.⁹⁶

⁹⁴ S. Barrett, *Environment and Statecraft: The Strategy of Environmental Treaty-Making*, 2003.

⁹⁵ T. M. Franck, *Fairness in International Law and Institutions*, 1995, 8.

⁹⁶ Iroquois [League of Six Nations], "The Great Law of Peace of the Longhouse Peoples", in: *Akwesasne Notes* (1978) section 28.