

Perspectives on Intergenerational Equity

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We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessing of Liberty *to ourselves and our Posterity*, do ordain and establish this Constitution of the United States of America.

The Preamble to the US Constitution was enacted 236 years and has provided for the establishment of many doctrines protecting the United States' citizenry. It explicitly "lays out the vision and wishes of the framers and adopters of the Constitution and that both the spirit and words of the Preamble direct our government to protect the interests of posterity." [10, p. 1913] The concept of protecting the interests of posterity is the topic I will be exploring in this paper. It is generally accepted that environmental degradation will have long term ramifications into the future and without proper mechanisms in place to ensure it's protection, the present generation may inevitably pass on a planet that will not meet the needs of future generations. [7]

One of the main issues is securing protections or considerations for the needs of the future is political short-termism, or shortsightedness, as can be seen in a recent example where "the disparity between long-term social needs and short-term political will contributed to Hurricane Katrina's eventual devastation" in New Orleans. [10, p. 1900] "The preference for

present-generation interests over future interests is based on the observer so if one had no affiliation with the present, one would not prefer present benefits over future benefits.” [10, p. 1910] Furthermore, “inattention and ignorance cause voters to notice (and oppose) only those policies that would impose large, direct short-term costs. Unfortunately, such policies... may benefit the general public in the long term, and an officeholder’s responsiveness to these narrow concerns serves the official’s reelection imperative more than the public’s interests.” [id. p. 1926] If a representative’s success in congress were dependent, in part, upon the outcomes of policy decisions, the policy myopia and indifference to future generations could be dramatically reduced. [id.] This is a concept I will explore in more detail below.

With ramifications in mind such as those witnessed in New Orleans in the aftermath of Katrina, or in Chernobyl after the nuclear disaster, I believe it to be extremely important for policymakers to consider what effects their actions have, not only in the present but in the future as well. Furthermore, with as much academic and legal research that has been performed on this topic, I have found there to be few international agreements which concretely and directly incorporate the principle of Intergenerational Equity (IGE) into the framework of the document, though there are many that embody its spirit. Therefore, it is from this perspective that I will first, review Green IR Theory (hereafter “Green Theory”) relating to IGE; second, provide a review of mechanisms that serve to incorporate and enforce IGE; third, review observed suggestions and ways of addressing the rights of future generations.

Part 1: An introduction to Green Theory

Green Theory began as a sub-field of IR, and saw its beginnings in the escalation of transboundary ecological problems starting in the 1970s. Evolving out of neorealism and neoliberalism, the research focused on international environmental cooperation primarily concerned with the management of natural resources through the study of environmental regimes. [1, p. 258] Increasing amounts of Green Theory has emerged that calls into question some of the basic assumptions, units of study, frameworks of analysis and implicit values of the discipline of IR. [id. p. 260] From outside of IR, some of the more radical green discourses have assisted in exposing the ecological blindness of IR theory through the application of International Political Economy (IPE) and normative international relations theories. [id.]

Within Green political theory, there are two branches of discourse that has emerged in opposition to neoliberal globalization. Challenging liberalism and socialism, the first is the normative branch. The second branch is one of political economy and is concerned with understanding the relationship between the state, the economy and the environment. [id. p. 261]

Rejecting the notion that humans have the right to exploit any and all natural resources, the first wave of green political theory formed as a critique of Western capitalism and Soviet-style communism. This branch embraces a new 'ecocentric' philosophy seeking to respect all life-forms and proposing that environmental governance should encompass protecting the entire ecosystem which includes future generations. [id.] This communicative rationality inspired the development of green explorations of the relationship between risk, science, technology and society and has resulted in a more cautious and critical approach to the assessment of new development proposals, new technologies and practices of risk assessment in general.

Matthew Paterson refines the concept of ecocentrism slightly. In chapter 10, Green Politics, from *Theories of International Relations*, he questions, from a normative perspective, the intellectual coherence and strategic viability of ecocentrism and argues for a ‘soft’ anthropocentrism as the basis for Green politics. [3, p. 239] Furthermore, Paterson cites Barry [4] who “argues that the rejection of anthropocentrism in much Green thought is misplaced” inasmuch as what Greens are rejecting is the ethical judgement that growth invariably benefits humans at the expense of other species. [3, p. 239] Paterson argues further that a proper respect for humanity may in fact itself lead to respect for other species. His conclusion here is that a “radical re-thinking of the ethical relationship between humans and the rest of ‘nature’ is a fundamental part of Green politics.” [id.]

The second wave of green political theory has become more transnational producing new global environmental conceptualizations that have created a basic quest, or precautionary principle, for Green Theory which is to reduce ecological risks across the board and to prevent them from impacting innocent third parties in the present or the future. [1, p. 263] This quest centers around five essential demands: recognitions of the larger moral community to include all living beings and those yet unborn; participation by citizens of the entire community in all environmental decision-making; a precautionary approach to ensure risk minimization to the larger community; a fair distribution of those risks via democratic processes acceptable to all parties; finally, redress and compensation for parties suffering the effects of ecological problems. [id.] These five demands create the basis for the formation of Intergenerational Equity.

The discourse of sustainable development, eclipsing most other global dimensions of political economy, is widely embraced following the publication of The Report of the World Commission on Environment and Development (known as the Brundtland Report) which describes the opportunities for ‘decoupling’ economic growth and environmental deterioration by pursuing an environmentally friendly path. [id.] The Report defines sustainable development as “development that meets the needs of present generations without sacrificing the ability of future generations to meet their own needs.” [id.] Critics of The Report argue that the allocation of resources called for can neither ensure a fair distribution of wealth and income across generations nor ensure that the scale of the economy does not exceed the ecosystem in which it operates. They argue further that these matters should be addressed through the various other available channels such as education, community and international cooperation, regulation and negotiation.[id. p. 263-264]

Despite these opposing views, there is growing consensus, especially in Western Europe, that the new ecological modernization discourse will provide a ‘win-win’ approach which argues that “economic competition and constant technological innovation [can] produce economic growth that uses less energy and resources while producing less waste per unit of GDP.” [1, p. 264] The Aarhus Convention [2] is an example of The Report’s concepts in practice and represents the synthesis of both branches of Green Theory described above enacted in an international regime and addressing many of the concerns brought forth in the principle of IGE.

[2]

Defining itself in opposition to rationalist regime theory, Green Theory has challenged the dominant rationalist approach on four levels. [1, p. 266-267] First, it has exposed the problematic assumptions and ethical values that are implicit in neorealist and neoliberal analyses recalling Robert Cox's observation that "theory is always for someone and for some purpose." [1, p. 265] In response to these analyses, Green Theory argues for a change in the fundamental moral and analytical reference points in understanding security to incorporate human well-being and ecosystem integrity rather than simply viewing the basic units as the states. In contrast, neoliberals accept capitalist markets and sovereign states as background 'givens' to international regime negotiations, whereas Green IR theorists are concerned to expose the ways in which these social structures serve to thwart the development of more effective environmental initiatives. [1, p. 266]

While realists typically dismiss environmental problems as being outside the realm of international politics, neoliberals are more likely to advise methods of inducing cooperation within the climate change regime, whereas critical realists reject 'problem-solving' approaches that do not address the structures of domination. [1, p. 258] This makes Green Theory a truly alternative theory within IR as it seeks to "articulate the concerns of many voices traditionally at the margins of international relations... to promote more sustainable patterns of development in the North and South." [id., p. 265]

In sum, "this new scholarship has produced a more complex and layered picture of global environmental governance that is able to recognize new, hybrid, and/or network patterns of authority that straddle state jurisdictional boundaries or, in some cases, bypass the traditional

hierarchical forms of governance typical of nation states, making Green Theory a significant improvement over more mainstream IR theories.” [1, p. 268] Furthermore, this more pronounced consideration for needs of future generations is also a dramatic improvement on previous IR theories which fail to incorporate any meaningful form of representation of the needs of future generations.

Part 2: Implementations of Intergenerational Equity

The principle of Intergenerational Equity (IGE), developed by Professor Edith Brown Weiss in her 1989 book, *In Fairness to Future Generations*, “holds that presently existing human beings are simultaneously beneficiaries of a Planetary Trust passed down from our ancestors, and trustees of the planet for the benefit of future generations.” [5, p. 322] The idea of an intergenerational trust is ancient (with) jurists and scholars tracing it back to the laws of the Abrahamic faiths. Further, Professor Brown Weiss points out that in the Judeo-Christian tradition, “God gave the earth to his people and their offspring as an everlasting possession, to be cared for and passed on to each generation.” [13, citing *Genesis* 1:1-31, 17:7-8] Professor Weiss elaborates “that we, the human species, hold the natural environment of our planet in common with other species, other people, and with past, present and future generations. As members of the present generation, we are both trustees, responsible for the robustness and integrity of our planet, and beneficiaries, with the right to use and benefit from it for ourselves.” [7, p. 20] Within this framework, which necessarily incorporates the needs of future generations, there are several perspectives on how to address IGE, from justice to human rights to politics. These perspectives will be discussed in more detail below.

The premise of IGE gives us three categories of intergenerational obligations for protection of the Planetary Trust: first is the principle of *conservation of options* (defined as conserving the diversity of the natural and cultural resources base), second is the *conservation of quality* (defined as leaving the planet no worse off than received), and third is the *conservation of access*, (defined as equitable access to the use and benefits of the legacy). [5, p. 322] These principles are derived from each generation's position as part of the intertemporal entity of human society and provide a normative basis for the concept of sustainable development. [12, p. 23] They also satisfy the basic criteria of balance, flexibility, cultural acceptability, and clarity. According to Weiss Brown, "one criterion is to balance the needs of the future generations with those of the present, neither licensing the present generation to consume without attention to the interests of future generations nor require it to sacrifice unreasonable to meet indeterminate future needs." [11, p. 617]

As Weiss Brown mentions, the principles of *options*, *quality*, and *access* form the set of intergenerational obligations and rights, which one could refer to as planetary rights held by each generation. "Intergenerational rights, or planetary rights, may be regarded as group rights, rather than individual rights" which "exist regardless of the number and identity of individuals making up each generation." [id.] While some critics have argued that these rights can hardly be enforced due to lack of jurisprudential precedence or methodological means of measuring change over time, [8, p.2] there are international regimes currently in place that do provide a sound methodology. For example, according to the Antarctic Treaty System, developed in 1959, a Comprehensive Environmental Evaluation shall include, among many other things, a description of the initial environmental reference state with which predicted changes are to be compared and

a prediction of the future environmental reference state in the absence of the proposed activity. [9, p. 56] This could provide empirical grounds for a legally binding method of enforcing the planetary rights. In jurisprudential terms, the theory (of IGE) places a duty on the present generation to preserve the environment and correlative right on future generations to enjoy the same ecology that their ancestors enjoyed. [8, p. 5]

By virtue of IGE's creation of a duty to protect the environment and prevent exploitation of resources, the principle has the potential to become the basis for environmental protection. Generally, we measure the quality of the environment through standards put in place by the authorities which define the maximum allowable contamination in the air, water and soil. (For examples of several of these documents and how they incorporate principles of IGE, see Appendix A below). Environmental management therefore involves ensuring compliance to these standards, and a citizen's right to a healthy environment translates into the right of the individual to demand the maintaining of the ecological standards set up by law. [8, p. 6]

To realize such a regime, the precautionary principle of Green Theory mentioned earlier, with its rights of information and participation, must be implemented for, if not, events such as the Chernobyl nuclear catastrophe may occur. It was observed in that situation that the lack of reliable information on the nature of the disaster compounded the amount of losses. Therefore, the rights accorded by such a regime would be closely aligned to the concept of public participation and informed consent. However, it is argued by some that rights to environment are not actually rights but merely social intentions as they cannot be enforced fully, especially by recourse to the Court. [8, p.6] This argument is hard to accept, as this alone cannot be adequate

grounds for ignoring the right, nor do I believe the argument to be accurate due to particular structures currently in place I will review next.

The normative principles heretofore discussed provide a framework from which legal structures can be built. The Aarhus Convention embodies these principles while addressing the observed requirements for a successful and enforceable international regime. The importance of this convention was succinctly underscored by Kofi Anan, former Secretary general of the UN who said that the Convention is “the most ambitious venture in the area of environmental democracy so far undertaken under the auspices of the UN.”[2] Similarly, the US EPA states that “Environmental Justice is the fair treatment and *meaningful involvement* of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” [6, emphasis added] Moreover, one of the papers cited within this review, *Climate Change, Intergenerational Equity, and International Law* by Professor Edith Brown Weiss, was prepared as a background paper for the Villach Conference (Villach Article). [11, p. 615] The discourse generated by The Article led to the development of such legal systems as The Vienna Convention for the Protection of the Ozone Layer in 1985, and two years later the Montreal Protocol on Substances that Deplete the Ozone Layer. [id., p. 617] In 1992, the United Nations Framework Convention on Climate Change was finalized and as of 2008, 192 countries are parties to the convention. As of 2000, there were over 1000 international legal agreements either partially or fully concerned with the environment and environmental rights. [id.] Finally, at least five international treaties and three declarations refer to future generations (see Appendix A below). [13, p. 22-29] Point two of the UN Millennium

declaration concisely sums the importance of these principles by stating that “we have a collective responsibility to uphold the principles of human dignity, equality and equity at the global level. As leaders we have a duty therefore to all the world’s people, especially the most vulnerable and, in particular, the children of the world, to whom the future belongs.” [14]

Part 3: Observed Suggestions and Ways to Address Issues of Posterity

Within all of the legal precedence around the world, from the EU to India to the United States, three discrepancies seem to recur: “lack of representation for future generations, a short time horizon, and overall efficacy (as measured by environmental outcomes).” [5, p. 106]

Several proposals have been made, here in the US and in Europe, to provide representation for future generations via courts, guardians, trustees, ombudsmen, and particularly direct representation.

Courts, as a traditional mechanism with several having addressed intergenerational equity in their decisions, can interpret the law to recognize the importance of intergenerational equity, grant standing to sue to those seeking to represent future generations, and provide a check on the actions of governments with regards to future generations. Ombudsman, generally possessing a broad advisory authority, can review and make recommendations on environmental policies with intergenerational equity in mind; they can also serve as mediators between governments and representatives of future generations. Guardians can represent future generations as they represent other voiceless people in specific situations, such as negotiations and litigation. [5, p. 2, 8]

In Europe, when proposals for an “Ombudsman for Future Generations” were not acted upon, Non-governmental Organizations took up the challenge by establishing their own independent Ombudsman who publishes annual reports in parallel to the state’s official Ombudsman [5, p.329] Panel discussions have been held by a pan-European NGO based in Germany with Members of the European Parliament regarding representation for future generations, and “the European Social Forum held in London in October 2004 included a workshop on the rights of future generations producing demands which included representation for future generations. [id.]

In regards to the short time horizon, specifically here in the US, American legislators have strong ties to the present and thus have strong incentives to avoid dealing with future problems. “Because politicians are concerned with getting reelected, they have limited time horizons, leading them to ‘prefer policies that yield tangible benefits for constituents in the near term.’” [10, p. 1911] Moreover, “a policy that will not ripen until after the next election has about as much value as a bank note that will not mature until several generations after its holder’s death. Politicians in democratic states, who are elected for relatively short periods and who are judged by voters largely in terms of the immediate results of their actions, also have strong incentives to over discount the future in the policy-making process.” [id.] Simply put, future generations do not vote; they have no political or financial power; they cannot challenge our decisions.

On the topic of representation, I think the most actionable idea was presented by Matthew Wolfe in *Shadows of Future Generations* where he reviews three proposals for representation of future generations that have merit stemming from the Preamble of the US Constitution: “We the

People... and secure the Blessing of Liberty *to ourselves and our Posterity*, do ordain..." [10, p. 1913, emphasis added] "Because of its express reference to posterity, the Preamble seems the most appropriate starting place for institutional reform" and the creation of a representative body for future generations. [id.] Professor Kristian Skagen Ekeli's proposal is the third and is a synthesis of the previous two which he justifies 'with general concern that deliberative democracy is illegitimate without posterity's voice and without the added value the representations of future generations would bring to policy decisions.'" [id., p. 1917] The proposal would reserve some seats in the legislative assembly for future generation representatives (F-representatives) who would be elected by the general voting populace and would then function as ordinary legislators. Furthermore, the proposal would allow a supermajority of F-representatives to delay, but not block, a proposal for a period of time or until elections occur. Professor Ekeli gives us three reasons in support of his model: (1) expertise about future-oriented issues will improve the public dialogue, (2) F-representatives will serve as stewards of future generations in present political decisionmaking process (similar to the guardians described above), and (3) political institutions will be more future oriented. [id., p. 1917]

There are some concerns expressed about posterity-oriented legislatures. Most particular are the concerns about the structure of such a legislative body and the apportionment of representatives to future generations. "If the representative is truly representing all future generations and not just one future generation, the claimed constituency will dwarf the present-generation constituency," therefore, a discount rate would need to be applied so that F-representatives "will be fewer in number than the numerical weight of their interests would

warrant.” [id., p. 1919] To avoid interest groups from exploiting the system, or disenchanting parties from seizing the opportunity to represent their own short-term needs, Professor Ekeli suggests these F-representatives be directly chosen by voters. This structure would also have the added benefit of monitoring the election of F-representatives to balance the greater of two goods (past and present) within the legislative process.

The discussion thus far has not addressed the methodology for evaluating the weight given to interests of posterity nor how to ensure the legislators themselves will uphold the values they were elected to represent. For one possibility of placing a value on the interests of future generations, we can look to ethicist Daniel Callahan who offers the following possibilities:

- a. Do nothing which could jeopardize the very existence of future generations
- b. Do nothing which could jeopardize the possibility of future generations exercising those fundamental rights necessary for a life of human dignity
- c. If it seems necessary, in the interests of the existing rights of the living, to behave in ways which could jeopardize the equivalent rights of those yet to be born, do so in that way which would as far as possible minimize the jeopardy.
- d. ... Calculate... whether an act with uncertain consequences would be harmful to one's own children. If you would not conjure up the possibility of magical solutions occurring to save your own children at the last moment from the harmful consequences of your gambling with their future, do not do so even with future generations. [10, p. 1923]

A plausible solution by which a legislative body could not only hold the representatives accountable for their votes but also provide a method by which to judge the long-term efficacy of

a particular policy initiative would be to modify the pension system such that payments are tied to the outcomes - or the more refined projections - of policies developed, sponsored, or voted for by the legislator while in office. [id., p. 1926] Professor Ekeli details how individual votes could be converted into a futures commodity where voting for or against a bill would entail the same initial cost. The price of this commodity could then fluctuate based on the likelihood of reaching the policy's embedded expectations and could be traded freely among both current and former legislators to ensure that the price is a fair predictor of the expectations. For example, "if policy A was a cap-and-trade program that successfully reduced carbon emissions consistent with expectations, then the 'yea' vote would be worth more, and legislators that had this vote in the portfolios would ultimately receive large pension payments. Conversely, those that opposed this bill would see a corresponding decrease in the value of their portfolio." [id., p. 1928]

To implement such a structure a method by which to evaluate the outcome is needed. For one possible implementation, Professor Dennis Thompson, in his work *Democracy in Time: Popular Sovereignty and Temporal Representation* (2005), suggests a concept he calls "posterity impact statements, which would justify any adverse effects their actions might have on the democratic capacities of future sovereigns... [and] (sic) show that the Government's actions were necessary to implement the will of a current majority, and that no other actions less restrictive of future majorities could achieve this end at reasonable cost." [id., p. 1927, citation 158] This proposal may initially seem unlikely, but there is a successful precedent in the Iowa Electronic Market (IEM) that 'is a real-money, small-scale futures exchange in which the ultimate values of the contracts traded are determined by political events, financial events and economic indicators.

Like a real market, investors use their own money to trade listed contracts for loss or profit.’ [id., 1929]

Each contract to be listed on the IEM is defined in terms of a name (to uniquely identify the contract), a “fundamental” on which the contract is based, an expiration date, and a liquidation value. The fundamental consists of some statistic or set of statistics which can be objectively measured, and the liquidation value will depend upon the value of the fundamental on some pre-specified date. Typically, each contract will be part of a set of contracts, and all contracts in a set will be based on the same fundamental. [15]

The system proposed by Professor Ekeli would work in a similar fashion with the ‘fundamental’ being the set of expected outcomes embedded in the legislation and those opposing the legislation would function as the other side of the contract. Another benefit of this structure is its potential for long-term effects. If legislation were structured to be revenue-generating, legislators could earn a percentage of the proceeds. “Legislative initiatives would likely extend beyond a given legislator’s career,” however, “the likelihood of future effectiveness could still be gauged to some extent and the past policy action valued accordingly. Thus, political accountability would extend even beyond the legislators’ retirement.” [10, p. 1929]

In sum, what would change as a result of the proposed structure is the political discourse. Posterity would no longer be simply a legislative issue but would become a campaign issue. “How candidates consider future interests and to what extent they factor into issue positions would affect the present-generation electorate’s voting behavior.” [id., p. 1930] In addition, rather than depending upon rhetoric to formulate their opinion, voters would have tangible proposals with a built-in accountability system on which to base their choices. Moreover, “the

creation of this market would make the future success of policies a commodity and tie politicians' future incomes to this commodity. They would have real incentive to care about future generations and monitor past policies so that they positively affect their own interests and, consequently, posterity." Simply put, "it builds in accountability by connecting present actors with future interests." [id., p. 1931]

Conclusion

The prospect of human caused global climate change has created a shift in the international discourse towards a more conscious position relative to the needs of future generations. With so many examples, from the disaster in New Orleans and the effects Hurricane Katrina wrought on the population, to the devastation of the Chernobyl incident in the Ukraine, to the melting of the polar ice caps, the "failure to invest current resources for future benefit can be explained by the widely-recognized "shortsightedness" bias in government decision making." [10, p. 1900] The principle of Intergenerational Equity provides us with a unique system in which the present generation owes a duty to future generations to conserve *options*, *quality*, and *access* to the Planetary Trust. Sustainability politics and IGE "increasingly will involve many centers of power and decision-making, connected by public-private partnerships and civil society coalitions reaching out across space and time to connect global to local and here and now to the distant future." [16, p. 40] However, "the difficulty with sustainable development as a legal principle is that it lacks specificity, normative force (including reference to rights and responsibility), and built-in implementation mechanisms, whereas IGE is specific and detailed, explicitly normative (recognizing both rights and responsibilities), and self-executing in the sense that the doctrine as

developed by Professor Brown Weiss identifies specific implementation and enforcement mechanisms.” [5, p. 331]

The principles can be enforced through various means. “In addition to receiving help from judicial decisions, present generations can live up to their responsibility to ensure intergenerational equity by adopting and creating appropriate protection mechanisms and institutions,” [13, p. 16] using a range of options from those less radical solutions such as ombudsman or guardians for future generations to more radical proposals such as modifying the pension structure of current legislators to encourage considerations for the needs of future generations. In particular, “our capacity to harm the environment globally forces us for the first time to be concerned at a global level with survival of the natural and cultural heritage that we pass to future generations.” [10, p. 1908, citation 53] Indeed, “ if human rights exist to protect the vulnerable from the powerful, it is difficult to imagine a demographic more in need of environmental human rights protection than future generations.” [5, p. 331]

Appendix and Bibliography

Appendix A (from Appendix C in Raffensperger)

Examples of International Legal Frameworks to Protect Future Generations

Declarations

Rio Declaration on Environment and Development

Principle 3, U.N. Doc. A/CONF.151/26 (Vol. I) (1992)

“The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.” (*Principle of sustainable development, recognition of needs of both present and future generations*)

Stockholm Declaration on the Human Environment of the United Nations Conference on the Human Environment

Principle 1, Jun. 16, 1972, 11 I.L.M. 1416

“[Humanity] bears a solemn responsibility to protect and improve the environment for present and future generations.” (*General responsibility to present and future generations*)

United Nations Educational, Scientific and Cultural Organization Declaration of the Responsibilities of the Present Generations Toward Future Generations

Articles 1-5, Records of the General Conference, Paris, Oct. 21 – Nov. 12, 1997

“Article 1 - Needs and interests of future generations

The present generations have the responsibility of ensuring that the needs and interests of present and future generations are fully safeguarded.

Article 2 - Freedom of choice

It is important to make every effort to ensure, with due regard to human rights and fundamental freedoms, that future as well as present generations enjoy full freedom of choice as to their political, economic and social systems and are able to preserve their cultural and religious diversity.

Article 3 - Maintenance and perpetuation of humankind

The present generations should strive to ensure the maintenance and perpetuation of humankind with due respect for the dignity of the human person. Consequently, the nature and form of human life must not be undermined in any way whatsoever.

Article 4 - Preservation of life on Earth

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

Article 5 - Protection of the environment

1. In order to ensure that future generations benefit from the richness of the Earth's ecosystems, the present generations should strive for sustainable development and preserve living conditions, particularly the quality and integrity of the environment.
2. The present generations should ensure that future generations are not exposed to pollution

which may endanger their health or their existence itself.
3. The present generations should preserve for future generations natural resources necessary for sustaining human life and for its development.
4. The present generations should take into account possible consequences for future generations of major projects before these are carried out.” (*General responsibility to present and future generations*)

Conventions:

Convention Concerning the Protection of the World Cultural and Natural Heritage

Article 4, Nov. 16, 1972, 1037 U.N.T.S. 151

“Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage . . . situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.” (*General responsibility to future generations*)

Convention on the Protection and Use of Transboundary Watercourses and International Lakes

Article 2(5)(c), Mar. 17, 1992, 31 I.L.M. 1312, art. 2(5)(c)

“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.” (*Principle of sustainable development, recognition of needs of both present and future generations*)

North American Agreement on Environmental Cooperation

Preamble, Sept. 13, 1993, 32 I.L.M. 1480

“CONVINCED of the importance of the conservation, protection and enhancement of the environment in their territories and the essential role of cooperation in these areas in achieving sustainable development for the well-being of present and future generations.” (*Principle of sustainable development*)

Stockholm Convention on Persistent Organic Pollutants

Preamble, paragraph 2, May 22, 2001, 40 I.L.M. 532

“Aware of the health concerns, especially in developing countries, resulting from local exposure to persistent organic pollutants, in particular impacts upon women and, through them, upon future generations.” (*Recognition of potential to affect present and future generations*)

UN Framework Convention on Climate Change

Preamble, Article 3, opened for signature May 9, 1992, U.N. Doc. A/AC.237/18 (Part II) (Add. 1), 31 I.L.M. 848.

“Recalling the provisions of General Assembly resolution 44/228 of 22 December 1989 on the United Nations Conference on Environment and Development, and resolutions 43/53 of 6 December 1988, 44/207 of 22 December 1989, 45/212 of 21 December 1990 and 46/169 of 19 December 1991 on protection of global climate for present and future generations of mankind, . . . Determined to protect the climate system for present and future generations . . .

Article 3

PRINCIPLES

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

1. 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. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.” *(Recognition of needs of both present and future generations)*

Appendix B (from Appendix C in Raffensperger)

Examples of Domestic Legal Frameworks to Protect Future Generations (with a focus on U.S. Law)

Non-U.S. Constitutions:

Constitución Política de la República de Bolivia

Article 7 (1967, as amended 2002), available at <http://pdba.georgetown.edu/Constitutions/Bolivia/consboliv2005.html>

“Every person has the following fundamental rights . . . m) to enjoy a healthy environment, ecologically balanced and adequate for his wellbeing, safeguarding the rights of future generations.”

Constitution of Japan

Articles 11 and 97 (November 3, 1946), available at <http://www.constitution.org/cons/japan.txt>

“Article 11

The people shall not be prevented from enjoying any of the fundamental human rights.

These fundamental human rights guaranteed to the people by this Constitution shall be conferred upon the people of this and future generations as eternal and inviolate rights.

Article 97

The fundamental human rights by this Constitution guaranteed to the people of Japan are fruits of the age-old struggle of man to be free; they have survived the many exacting tests for durability and are conferred upon this and future generations in trust, to be held for all time inviolate.” (*Rights of future generations*)

Constitution of the Kingdom of Norway

Article 110(b) (1814, as amended 2007), available at <http://www.stortinget.no/english/constitution.html#fulltext>

“Every person has a right to an environment that is conducive to health and to a natural

environment whose productivity and diversity are maintained. Natural resources should be managed on the basis of comprehensive long-term considerations whereby this right will be safeguarded for future generations as well. In order to safeguard their right in accordance with the foregoing paragraph, citizens are entitled to information on the state of the natural environment and on the effects of any encroachment on nature that is planned or carried out. The authorities of the State shall issue specific provisions for the implementation of these principles.” (*Rights of future generations, trusteeship*)

U.S. State Constitutions:

Alabama Constitution

Amendment 543

Establishing the policy of the state to protect “certain lands and waters of Alabama with full recognition that this generation is a trustee of the environment for succeeding generations” and creating the “Forever Wild Land Trust.” (*Explicit trust*)

Colorado Constitution

Article IX, § 10

“State school lands” are to be held in a “perpetual, inter-generational public trust for the support of public schools” and are to be managed with “sound stewardship” for “long-term productivity.” (*Explicit trust*)

Hawaii Constitution

Article XI, § 1

“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.” *(State and personal duties to present and future generations)*

Illinois Constitution

Article XI, § 1

“The public policy of the State and the duty of each person is to provide and maintain a healthful environment for the benefit of this and future generations.” *(State and personal duties to present and future generations)*

Montana Constitution

Article IX, § 1(1)

“The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.” *(State and personal duties to present and future generations)*

U.S. Federal Statutes:

Alaska National Interest Lands Conservation Act

16 U.S.C. § 3101 (2006)

The Act’s purpose is “to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values.” *(Implicit trust)*

Clean Air Act Amendments of 1990

42 U.S.C. § 7651 (2006)

Finds that acid rain is a major concern because “current and future generations of Americans will be adversely affected by delaying measures to remedy the problem.” *(Recognition of potential to affect present and future generations)*

Forest and Rangeland Renewable Resources Planning Act of 1974

16 U.S.C. § 1609(a) (2006)

It describes the National Forest System as “a nationally significant system dedicated to the long-term benefit for present and future generations.” *(Implicit trust)*

National Environmental Policy Act of 1969

42 U.S.C. § 4331(a) (2006)

Establishes federal policy “to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.” *(Recognition of needs of both present and future generations)*

National Park Service Organic Act

16 U.S.C. § 1 (2006)

The Act creates the National Park Service, “which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” *(Implicit trust)*

National Wildlife Refuge System Improvement Act of 1997

16 U.S.C. § 668dd(a)(2) (2006)

The mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” *(Implicit trust)*

Nuclear Waste Policy Act of 1982

42 U.S.C. § 10131(a)(7) (2006)

Finds that “high-level radioactive waste and spent nuclear fuel have become major subjects of public concern, and appropriate precautions must be taken to ensure that such waste and spent fuel do not adversely affect the public health and safety and the environment for this or future generations.” *(Recognition of potential to affect present and future generations)*

Wild and Scenic Rivers Act

16 U.S.C. § 1271 (2006)

The Act’s policy is to preserve in “free-flowing condition” “for the benefit and enjoyment of present and future generations” certain rivers that “possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.” *(Implicit trust)*

Wilderness Act of 1964

16 U.S.C. § 1131(a) (2006)

It establishes “the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness.” *(Implicit trust)*

U.S. State Statutes:

California Environmental Quality Act

Cal. Pub. Res. Code § 21001(e) (2006)

Declares the intent of the state to “[c]reate and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.” *(Recognition of needs of both present and future generations)*

Connecticut General Statute

§ 22a-1 (2006)

It notes that the state’s growing population and economy have placed considerable burdens on the “life-sustaining natural environment”; defines the state as “trustee of the environment for present and future generations”; and establishes a state policy to conserve, improve, and protect natural resources and the environment through pollution control and improved environmental planning and interagency/intergovernmental coordination. *(Explicit trust for present and future generations)*

Indiana State Code

Title 13, article 12, chapter 3(1) (2008)

Adopts an environmental policy intended “to preserve, protect, and enhance the quality of the environment so that, to the extent possible, future generations will be ensured clean air, clean water, and a healthful environment.” *(Recognition of interests of future generations)*

Montana Environmental Policy Act

Montana Code Annotated § 75-1-103(2) (2005)

It declares “the continuing responsibility of the state of Montana to use all practicable means consistent with other essential considerations of state policy to improve and coordinate state plans, functions, programs, and resources so that the state may: (a) fulfill the responsibilities CLI Background Paper No. 14 29 of each generation as trustee of the environment for succeeding generations.” (*Explicit trust balanced against other considerations of state policy*)

New Mexico Environmental Improvement Act

N.M. Statute Annotated Chapter 74, article 1(2) (2006)

Goal of the Act is “to ensure an environment that in the greatest possible measure will confer optimum health, safety, comfort and economic and social well-being on its inhabitants; will protect this generation as well as those yet unborn from health threats posed by the environment; and will maximize the economic and cultural benefits of a healthy people.” (Recognition of interests of both present and future generations)

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