

Devon L'Ecluse

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Research Project - Intergenerational Equity and the Sustainability Dilemma

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‘We borrow environmental capital from future generations with no intention or prospect of repaying ... We act as we do because we can get away with it: future generations do not vote; they have no political or financial power; they cannot challenge our decisions.’

Brundtland Report *Our Common Future* 1987

### **Introduction**

Indigenous peoples from around the world have long understood humanity’s connection with the Earth. For thousands of years, humans lived in harmony with the Earth, only using what they needed to survive and provide for their kin. Technological advancement brought about innovations that increased the wealth of few and the desire for wealth for many creating an ever-burgeoning desire to improve one’s economic, political and social situation. The industrial revolution sparked the beginning of mankind’s race to dominate nature through the exploitation of man’s ingenuity. This process seemed never ending without any perceived ill effects until the realization that many of the process by which man could better himself relied not only on finite resources, but more importantly, were deleterious to both the planet, and, in fact, ourselves.

Thus began the global discourse of sustainable growth practices throughout the various domains of modern life, namely, society, politics, economics, environmental governance, cultural considerations and legal structures. It is precisely these paradigms that are no longer efficacious in supporting the needs of humanity in the 21st century and beyond. This fact has generated intense intellectual debate as to just what it means to

have sustainable policies in all domains of life. The author's goal with this paper is to elucidate the sustainability dilemma and the role of Intergenerational Equity (hereafter IGE) therein. To accomplish this, I will explore the six main pillars of sustainable practices: social representations, which are inexorably linked to the other pillars of economics, politics and legal representations, culture, and the environment.

The intellectual debate that has been accelerating at an arguably equal pace with that of global climate change and is a debate of long-term decision making for an entire society. How should we, as a global society proceed into the future taking into account the needs of present and future generations? Why should the present generation concern itself with the effects its actions have in the future? Is there sufficient attention being paid to IGE within the sustainability context? To what extent should legal matters impact the sustainability dilemma? These are the questions, among many others, that the international, national and local communities should be asking and for which we are actively seeking the answers. Solutions to these challenges will not come easy but as the living generation, it is our duty to ask the questions and seek the solutions before we, as a society of over seven billion people, are no longer able to undo the damage done.

In the pages below I will provide some definitions to help set the stage and give context to the discussion to follow. Then I will review the major components of the sustainability dilemma within the context of IGE and conclude with some recommendations on the way we can move forward.

## Definitions

The term intergenerational equity has come by many definitions, as has the notion of sustainable development. IGE is comprised of two ideas: intergenerational and equity. To understand the implications, we must look deeper. A generation can be defined in many ways from biology to anthropology to technology. Here, a generation is simply defined as the collective population of people born and living at about the same time. *Intergenerational*, as opposed to *intragenerational*, implies a relationship between the living generation and either the past or future generation. In this case, we are concerned with the relationship between the present and future generations.

The Oxford English dictionary defines equity as “the quality of being fair and impartial” guiding us to a simple definition of IGE as fairly treating future generations. However, we must go a bit further to understand the relevance of IGE within the sustainability dilemma.

The Organization for Economic Co-operation and Development (OECD) defines IGE as the issue of sustainable development referring, within the environmental context, to fairness in the inter-temporal distribution of the endowment of natural assets or of the rights to their exploitation. [WCED, 1997, p. 43] More generally, it holds the natural and cultural environment of the Earth in common both with members of the present generation and with other generations, past and future. It means that we inherit the Earth from previous generations and have an moral obligation as a *participatory* community to pass it on in reasonable condition to future generations. IGE is an accepted principle stemming from the environmental quest that is the precautionary principle, which has five essential tenets: recognition of the larger moral community includes all those living,

and those yet unborn; civic participation of the community as a whole; a precautionary method to risk minimization for the larger community; a democratic process acceptable to all for the equitable distribution of the risks, and lastly; avenues for redress and compensation for those adversely affected by decisions. These notions have been and are integrally part of many indigenous people's cultures for hundreds, if not thousands of years. The Native American seven generations philosophy - the notion that every important decision has ramifications for the seven generations alive and walking through time as well as who have passed from this world and those waiting to come in - exemplifies many indigenous people's attitudes towards Earth and humanity as a whole. [Homer, 2008]

Next, we can turn to the notion of sustainable development and the sustainability dilemma. Its position as a unifying and stable force in the world puts the United Nations (UN) and its various bodies in a unique position to create synergy amongst the many nations and organizations working towards interrelated goals. The UN defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." [WCED, 1987] Therein lies two key concepts: the concept of 'needs', in particular the essential needs of voiceless, namely, the world's poor and those yet unborn, to which overriding priority should be given, and; the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. As previously mentioned, there are six pillars to IGE within the sustainability dilemma, all of which are crucial components of IGE and of sustainable development.

## **Social & Economic Representations**

The social and economic representations of IGE are intrinsically related due to the nature of humans as social creatures desiring to live a long and healthy life with all the benefits modernity can muster. Social representations offer a sophisticated understanding of economic phenomena's impact on society and, as PuaSchunder mentioned, "contemporary events, experiences and objective knowledge of groups are reflected in social representations, which describe the genesis of collective ideas and social norms," while sustainable consumption patterns, "global solutions for complex common goods dilemmas and international remedies" are the hallmark of IGE. [2012, p. 3 & 1]

It is through the encapsulation of "discourse and knowledge exchange in the social compound" that these social representations allow the delineation of dynamic processes of socio-economic adaptation. [ibid, p. 2] Yet, the global economic crisis of 2008/09, created by arguably intentional neglect of social responsibility, brought to light the fact that man's social and economic structures must be redesigned in order to sustain the style of life most people desire. In fact, "since the outbreak of the crisis, the societal call for social responsibility in corporate and financial markets has reached unprecedented momentum." [ibid] More specifically, the crisis directly impacted IGE by stressing the role overinebtedness and uncertainty played in exacerbating and prolonging the effects of the crisis. Furthermore, the immense capital wealth destruction caused by the 2008/09 global crisis has not only intensified awareness of the threat of climate change but has also created a divide between generations that is fueling the social discourse on the potential decline of a favorable standard of living, which is resulting in renewed attention for the well-being of future generations in the context of "irreversible destruction of

future potential.” [ibid, p. 4]

The future potential, as measured by the conventional economic model, gives less importance to the flows that take place in the future, therefore discounting is used in the valuation of those economic flows. This practice “devalues and practically removes from the analysis the impacts that occur in the distant future.” [Padilla, 2001, p.69] Because conventional economics assumes that the Earth’s resources belong exclusively to the present generation, projects with distant costs and prompt benefits are strongly favored, while distant benefits are strongly devalued resulting in the only preferences expressed being those of present generations. [ibid, p. 72] In short, the search for sustainable development is closely linked to the solution of problems of inequity that could endanger sustainability. [ibid, p. 73]

The economist John Rawls proposed a theory of distributive justice based on his Equality Principle, or fair equality of opportunity that, in short, would ensure liberties, or ‘fair worth’ of our liberties, which is understood as preserving the range of choices available to future generations. This economic notion “provides a possible principle for defining our obligations to future generations from which specific rules and institutions of environmental protection could be derived.” [Henderson, 2011, p.31] Possibly the most critical and valuable aspect of this principle is its ability to serve as the foundation on which “a wide variety of religious and political beliefs may be able to agree.” [ibid] The beauty of this approach is its inclusion of normative values and the integration of the needs of future generations.

To sum up, findings that international leaders are foremost concerned about IGE regarding unsustainable pension systems in light of an aging and shrinking population,

overindebtedness in the wake of governmental deficit spending as well as ecologic decline stemming from unsustainable consumption patterns and climate change, represent the crux of the discourse surrounding IGE within the context of social and economic representations. [Puaschunder, 2012, p. 11] Puaschunder succinctly described that “a successful implementation of intergenerational equity will feature efficiency, conscientious consumption and long-term solutions comprising of institutional regulations and foresighted taxation but also future investments in education and pension reforms.” [ibid, p. 17] Finally, intercultural comparisons of IGE perceptions will help explain which features of IGE are universal to mankind and these comparisons will guide us towards international stability with the recognition and validation of IGE as a global public policy tool. [ibid]

### **Cultural representations**

To understand the implications culture has within the context of IGE, we must ask ourselves, why do we have an obligation to protect cultural heritage? For an answer to this, we can look to the myriad manifestations of cultural heritage and their variability over time and space. By doing so, we can see the link between universal values connected to cultural heritage and the need, to not only protect, but also promote cultural diversity for posterity.

The United Nation Educational, Scientific and Cultural Organization (UNESCO) Universal Declaration on Cultural Diversity provides a clear expression of this link. [UNESCO, 2001] Article Three mentions how “cultural diversity widens the range of options open to everyone; it is one of the roots of development, understood not simply in



terms of economic growth, but also as a means to achieve a more satisfactory intellectual, emotional, moral and spiritual existence.” Furthermore, in Article Four of the same, “the defense of cultural diversity is an ethical imperative, inseparable from respect for human dignity,” and Article Seven refers to the fact that “creation draws on the roots of cultural tradition, but only flourishes in contact with other cultures.” This gives us the reason as to why cultural heritage, in all its forms, must be protected as a record of the human experience and passed on to future generations. This will foster creativity and inspire a genuine dialogue among the cultures of the world.

Article Five contains the most crucial aspect where it mentions “cultural rights are *an integral part of human rights, which are universal, indivisible and interdependent* (emphasis added).” [id.] This has direct implications not only for international law, but, more specifically, for what is currently understood as IGE, a notion that will be explored in the recommendations below.

Nevertheless, it is not sufficient to simply understand that cultural heritage is an integral component of what Professor Edith Brown Weiss in her 1989 book, *In Fairness to Future Generations*, calls the Planetary Trust - “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.” [Brown Weiss, p. 322] The concept of an intergenerational trust is ancient with jurists and scholars tracing it back to the laws of the Abrahamic faiths. Interestingly, 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.” [Raffesnsperger, 2009, citing *Genesis* 1:1-31, 17:7-8] This is, quite interestingly, not too different from the

Native American and other indigenous peoples' philosophies. Professor Brown 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." [Brown Weiss, p. 20]

### **Environmental representations**

Why, then, should we be concerned with the protection of the environment and how can we create institutions to accomplish this goal? Clearly the most prominent issue area where principles of IGE can have a significant impact is climate change. The deterioration and destruction of huge tracks of land, sea and air directly reduces the chances for future generations to have a happy and healthy life since, if there is no habitable planet on which to live, there will be no ability to enjoy the shared cultural experiences and heritage. Described by Pezzey and Toman, "deforestation, desertification, the loss of biodiversity, the enhanced greenhouse effect, and the effects of poverty on the environment" are, *inter alia*, proof positive of the need to protect the environment [2002, p.1]

As previously discussed, IGE has been primarily used to describe the environmental obligations the present generation has in relation to future generations. Derived from each generation's location within the intertemporal web of human society and providing a normative basis for the concept of sustainable development, the notion of IGE provides three distinct classifications of the obligations to protect the Planetary

Trust: the *conservation of options* (defined as conserving the diversity of the natural and cultural resources base); the *conservation of quality* (defined as leaving the planet no worse off than received), and; the *conservation of access*, (defined as equitable access to the use and benefits of the legacy). [Brown Weiss, 1992, p. 23 & Collins 2007, p. 322]

Propitiously, these classifications also fulfill the basic criteria of balance, flexibility as well as cultural acceptability. 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 unreasonably to meet indeterminate future needs.” [Brown Weiss, 1992, p. 617] Professor Weiss Brown elaborates that the principles of *options*, *quality*, and *access* are the foundation for the intergenerational obligations and rights, otherwise known as the 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.] These rights, arguably human rights, will be elaborated upon in the next section.

### **Legal and Political representations**

Why is consensus so difficult to come by in the international community? For over forty years now academics, politicians and people of good intentions have earnestly sought a way to find common ground within the myriad perspectives. Intergenerational equity can serve as that common ground, the foundation on which all future international and domestic legal regimes pertaining to human rights, the environment, cultural heritage, economics or politics can be founded. By taking a step back and away from what has

been the source of so much debate and argumentation for so long, and focusing global attention on what we can, in principle, all agree upon, the way forward for the Earth and humanity can be discovered.

One of the main issues is securing protections or considerations for the needs of the future is political short-termism, or shortsightedness. This was evident in 2005 in New Orleans where “the disparity between long-term social needs and short-term political will contributed to Hurricane Katrina’s eventual devastation.” [Anonymous, 2012, 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.” [ibid, p. 1910] Moreover, “inattention and ignorance cause voters to notice (and oppose) only those policies that would impose large, direct short-terms 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.] I will explore this latter concept in the recommendations below.

What legal policies, then, will support a nation’s implementation of IGE principles? The good news is there are myriad international declarations, resolutions, conventions and other doctrines that include considerations for the needs and rights of future generations. Beginning with the *Declaration on the Responsibilities of the Present Generations Towards Future Generations* that describes “the responsibilities of the present generation towards future generations,” to other international instruments such as:

The Convention for the Protection of the World Cultural and Natural Heritage; The United Nations Framework Convention on Climate Change; The Convention on Biological Diversity; The Rio Declaration on Environment and Development; The Vienna Declaration and Program of Action, and; The United Nations General Assembly resolutions relating to the protection of the global climate for present and future generations adopted since 1990.

### Instruments for the protection of cultural heritage

Specific to the need of cultural heritage and cultural diversity protection, there are many legal instruments in place that provide such protections, such as the *Declaration on the Responsibilities of the Present Generations Towards Future Generations* mentioned above, which states: “with due respect for human rights and fundamental freedoms, the present generations should take care to preserve the cultural diversity of humankind. The present generations have the responsibility to identify, protect and safeguard the tangible and intangible cultural heritage and to transmit this common heritage to future generations.” [United Nations, 1997]

The 1954 Intergovernmental Conference decision to follow Common Article 3 of the 1949 Geneva Conventions was of particular importance as it widened the scope for the protection of cultural property beyond the traditional definition of ‘war’ into the challenging arena of internal armed conflicts. [Boylan, 2002] Moreover, the Second Protocol to the Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict offers additional protections in Chapter Four (Articles 15 & 16),

which provides for real and effective protection of cultural heritage. [UNESCO, Second Protocol, 1999]

How then does International Law provide mechanisms by which cultural heritage can be protected? From a judicial perspective we can look to examples where IGE has been successfully adjudicated in a court of law. In the Philippines, the Supreme Court ruled on a landmark case based specifically on the protection of cultural heritage - defined to include natural heritage - through the principle of IGE in *Minors Oposa v. Factoran, 1993*, where the Court found that “every generation has a responsibility to the next to preserve that rhythm and harmony.” [Davide, 1993] In the decision, JR Davide declared:

“Petitioners minors assert that they represent their generation as well as generations yet unborn. We find no difficulty in ruling that they can, for themselves, for others of their generation and for succeeding generations, file a class suit. *Their personality to sue on behalf of succeeding generations can only be based on the concept of intergenerational responsibility insofar as the right to a balanced and healthful ecology is concerned* (emphasis added).”

[ibid]

In short, the Conventions on Cultural Heritage discussed above provide clear definitions of legal personality as well as protection and enforcement mechanisms.

## Legal instruments for the protection of the environment

The normative principles heretofore discussed provide a framework from which legal structures can be built and, similar to the myriad instruments incorporating protections of cultural heritage, there are even more legal structures that provide for the protection of the environment. For example, the Antarctic Treaty System, developed in 1959, describes how a Comprehensive Environmental Evaluation shall include, *inter alia*, 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. [Compilation, 2011, p. 56] This provides empirical grounds for a measurable and legally binding method of enforcing the planetary rights. In jurisprudential terms, 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. [Anonymous, 2012, p. 5] Another example is the Aarhus Convention, which 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.” [UNECE, 1998] In a similar vein, the US EPA states “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.” [US EPA, 2012, emphasis added] Furthermore, *Climate Change, Intergenerational Equity, and International Law* by Professor Edith Brown Weiss, was

prepared as a background paper for the 1985 Villach Conference. [Brown Weiss 1989, p. 615] The discourse generated by Conference 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. [ibid, 1989, p. 617]

As of 2000, there were over 1000 international legal agreements either partially or fully concerned with the environment and environmental rights. [ibid] Finally, at least five international treaties and three declarations refer to future generations. [Brown Weiss, 1992, p. 22-29] Concisely summing the importance of these principles, Point Two of the UN Millennium declaration states, “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.” [UN Millenium Declaration, 2000]

## **Recommendations**

### IGE in International Law

In light of the analysis above, what I propose next is an advancement not just in international law, but specifically what is understood as IGE. The majority of law surrounding the principle has as its focus the environment and ensuring the Earth is passed to future generations in at least the same condition in which the current generation received it.

As ruled above, the legal “personality of succeeding generations,” can and is upheld in



the highest court of the land in the Philippines. It is from this vantage point that I submit an innovative approach to the legal foundation of IGE, which originates from the contemporary definition of the Precautionary Principle. One version of the Precautionary Principle cited most often in the U.S. is contained in a statement from the Wingspread Conference of 1998, namely:

“When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause-and-effect relationships are not fully established scientifically.” [Ashford, 1998]

It is this concept of the threat of harm to human health that is important to note. As defined by the Oxford English dictionary, the term ‘health’ is: the state of being free from illness or injury, or; a person’s mental or physical condition. Accordingly, the health of an organism is determined to be free from illness or injury, or even more narrowly defined, as being free from irreparable injury. Furthermore, as described in the Convention Concerning the Protection of the World Cultural and Natural Heritage, “parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the World Heritage of mankind as a whole.” [UNESCO, 2001] Moreover, as stated in Article Twenty-Eight of the Universal Declaration of Human Rights entitling everyone "to a social and international order in which the rights and freedoms set forth in this declaration can be fully realized." [UN, 1948]

The aforementioned statements include the rights of equitable and sustainable development, self-determination, a healthy environment, security, and peace. The argument proceeds that cultural heritage is determined to be the sum of the parts, the

equity owed to future generations and consequently, the premise on which legal personality, as ruled *Minors Oposa v. Factoran*, can be established for adjudication in a court of law. Furthermore, legal precedent is found in the myriad cases worldwide where a judge ruled *ex aequo et bono*. It is therefore evident that one may conclude equity to be an increasingly relevant source of international law. What I propose then is that the notion of cultural heritage be welcomed into the open arms of the larger global issue of environmental concerns and IGE more specifically. If the Earth is harmed through mankind's actions, it is not just the natural environment that is being affected.

What then can be done? Other legal doctrines have enjoyed a great amount of success at achieving the goal of a broadly written doctrine applying to all states acceding to said doctrine. For example, on the subject of the seas, which are arguably the most important source of intergenerational equity on the planet, the legal process by which the myriad states achieved a working result, namely, a doctrine they could all voluntarily agree to, proceeded in such a way that a consensus could be achieved. Regarding the United Nations Convention on the Law of the Sea (UNCLOS) and the conferences leading up to its adoption, there was a mandate “to achieve one ‘package deal,’ not a series of separate treaties, and this linkage increased the leverage of developing countries...” [Ruggie, 1993] Moreover, “the conference was governed by consensus; the search for consensus could be determined to have failed only by a two-thirds vote of those present and voting (with a quorum of a majority of participating states). [Dunoff et. al., 2010, p. 653]

Various “states have agreed on the advantages of adhering to the regime” yet the question remains, if George Scelle's *dédoublment fonctionnel* - “the idea that states have

accepted that the consequences for undercutting the regime would inure to their detriment, as other states would respond to violations in ways that would hurt the original violators” - is an explanation as to why adherence is so high, why then is there so much difficulty in achieving consensus in other issue areas? [id.] Let us then follow the successful model found in the UNCLOS and ensure that IGE becomes more formally codified in international law, insofar as it may be considered to be a universal human right ensuring a rich and long lasting cultural heritage and healthy natural environment for all current and future generations to experience and enjoy.

### IGE Enforcement Mechanisms

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. [Wolfe 2008, 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 their portfolios would ultimately receive larger 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 that 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. [IEM, 2012]

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.” [Wolfe, 2008, 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]

Another possible mechanism recommended by the World Commission on Environment and Development that states and international organizations can employ when implementing IGE is an ombudsman, or a guardian for the future. [Brown Weiss, 1992, p. 17] Currently, most governments are distracted by green initiatives while missing the fundamental social aspects of sustainable growth policies. As has been implemented by several nations, such as Hungary, Wales, Canada and New Zealand, ombudsmen will facilitate long-term solutions and bring interconnected perspectives to the local, national and international discourse surrounding sustainability and IGE. [Hopkins, 2013, p.1]

This unique perspective - already reflected in "many communities and traditional cultures" who "have experience" with "a moral authority" or the incorporation of "a conscience keeper" in their decision-making to ensure the consideration of past, present and future - will serve to connect the policy makers with their constituents thereby improving the decision-making process through the incorporation of all voices. [ibid] As

our societies transition into a new paradigm of understanding the human impacts on the world and the need for not only green policies, but considerations for the policy choices we make, an Ombudsman for the future, “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.” [Collins, 2007, p. 2 & 8] In addition, ombudsmen can represent future generations as they represent other voiceless populations in specific situations, such as negotiations and litigation. [ibid] However, the most crucial facet to this new role is that “it would offer a political space in which the needs of future generations both social and environmental, and the overriding imperative to prioritize the needs of people, present *and* future, are considered.” [Hopkins, 2013, p.2] The support an ombudsman would provide to policy makers by identifying “significant policy gaps or omissions, and (critically) providing early warning of system faults” would be invaluable to the decision-making process as this would help “address and remove conditions that encourage inequity and social exclusion.” [ibid]

### **Conclusion**

Climate change has finally achieved the level of acceptability needed for politicians and laypeople alike to honestly and sincerely consider taking actions, making life changes, so as to reduce a nation’s and an individual’s impact on the environment. Accordingly, this is the time to put intergenerational equity where it belongs for all humanity, present and future to see, as the unifying principle that will change how we all behave on our tiny rock floating through the cosmos. The religions and spiritual teachings

have been saying for eons that we are all one, we are all family, indeed, as we all inhabit the same terra firma, breath the same air, so are we all members of the same species equally deserving to share in this world as any other.

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 the here-and-now to the distant future.” [Barry, 2005, 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.” [Collins, 2007, p. 331]

International treaties and conventions will spearhead the codification of IGE as a human right. Innovation and economic growth through investments are market mechanisms to prevent future crises. Essential to eternal equity will be behavioral changes of citizens based – not only on ethicality and religious values – but also on the social glue featuring fairness from social responsibility and integrative solidarity. The codification of intergenerational equity must be pursued in international treaties and conventions. Leadership for institutional implementation but also social responsibility, religion and ethicality play an important role in the implementation of intergenerational fairness. [Puaschunder, 2012, p. 14] To bring fairness to a population yet unborn will help to balance the inequities with the living poor. Just as the poor today have no manner



of expressing their preferences in a market measuring them in monetary units, so to are future generations unable to express their preferences. Therefore, prerequisites to the implementation of IGE include the promotion of “solidarity, ethicality and social responsibility” as well as innovations in future investments with a mind towards fair quality of opportunity. [Pusachunder, 2012, p. 1]

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,” 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. [Brown Weiss, 1992, p. 16] 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.” [Wolfe, 2008, 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.” [Collins, 2007, p. 331]

In closing, international Law has recognized IGE and there are increasing numbers of verdicts upholding the notion of IGE as being more important than individual gains. IGE is even gaining territory in the domain of human rights, and it is here that the unity and foundation will be built. Internationally agreed upon definitions of IGE are already in place, the hard work will be to show the world why IGE is one of the most fundamental human rights about which all people should be gravely concerned. Whether the

destruction of ancient and irreplaceable religious locations in Mali in 2012, or the defacing of the Sphinx during ancient Egyptian times, cultural heritage belongs not just to the people from whence the culture originated, but belongs to all of humanity to be shared into the future. Understanding where we come from and who we are gives us insights as to where we will go.

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