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Sustainability and Future Generations: How can their interests be preserved?

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Sustainability and Future Generations: How can their interests be preserved?

Samuel Matthias Hartwig ¹

Abstract

People all over the world increasingly worry about the long-term consequences that our actions will have on future generations. Accordingly, calls to act “sustainably” have grown ever louder. Current discussions, however, often neglect to define the concept of sustainability and seldomly elaborate on the philosophical basis of sustainable development. This article shows how the concept of sustainability is connected to the interests of future generations and aims to elucidate what mechanisms, legal and otherwise exist to protect those interests.

Keywords: Sustainable Development, Future Generations, Intergenerational Equity, Climate Change

Table of Contents

1. Introduction	4
2. The Philosophical Framework	6
2.1. Rights or Interests?	7
2.2. The Non-Existence Problem.....	8
2.3 The Non-Identity Problem	9
2.4 What is Owed?	10
3. The Legal Framework.....	11

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3.1. Legal Instruments on the International Level	11
3.2. Intergenerational Equity and International Tribunals	13
3.3. Status of Intergenerational Equity in International Law	16
4. Ways to Safeguard the Interests of Future Generations.....	17
4.1. Precaution as a Tool to Protect the Interests of Future Generations.....	18
4.1.1. Evolution and General Content of the “Precautionary Principle”	18
4.1.2. Status of the Precautionary Principle in International Law .	19
4.2 Representation of Future Generations.....	22
4.3 Enhanced Youth Representation.....	23
4.4. Economic Measures to Protect the Interests of Future Generations.....	24
4.4.1. Discounting.....	24
4.4.2. Borrowing from Future Generations to Achieve Sustainability	25
5. Conclusion	26
6. Bibliography	26

1. Introduction

The past few months have seen students play truant each Friday in many countries due to the “Fridays for Future” demonstrations. Young people use those occasions to protest against what they perceive to be irresponsible leadership by politicians everywhere. In the students' opinion their future, as well as that of the planet, is being gambled away since not enough is being done to protect the climate by reducing harmful emissions, nor are current resource-intensive business models adapted quickly enough. They think that all of this threatens the long-term habitability of this planet and jeopardises the prospects of future generations. The students might have a point. One of the main weaknesses of our current system of rules and models of administration is that they are, for the most part, focused on rather short periods, often encompassing only a few years. Many actions taken today will, on the other hand, have very far-reaching consequences measured in decades,

centuries, or even millennia. An example is greenhouse gases released into the atmosphere today that can sometimes remain there for centuries. The same is true of radioactive waste or the depletion of non-renewable resources, which will pose even longer-lasting problems.

These issues are, of course, hardly new. At least since the beginning of the 70s, there has been a growing awareness on the international level of the necessity to tailor further economic development to the capacity of the earth to sustain these activities into the future. One of the first examples of this idea of sustainable development can be found in the 1972 Stockholm Declaration,² which explicitly links economic development with environmental protection.

Principle 2 of the Stockholm Declaration states: “The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations³ through careful planning or management, as appropriate.” The declaration further stresses that “economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life”⁴, it has thus to be ensured that “environmental policies...enhance and not adversely affect the present or future development potential of developing countries...”.⁵ But what exactly does this concept of “sustainable development” entail?

The World Commission on Environment and Development (Brundtland Commission) gave a pithy answer in 1987 when it defined sustainable development in its report “Our Common Future” as development “that meets the needs of the present without compromising the ability of future generations to meet their own needs.”⁶ This view was underlined by the 1992 Rio Declaration⁷ which states in Principle 3 that: “The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.” As those statements show, sustainable development contains two temporal dimensions;

² *Declaration of the UN Conference on the Human Environment (Stockholm Declaration)*, 1972, UN Doc. A/CONF.48/14/Rev.1.

³ The term “future generations” refers to generations that do not yet exist; Brown Weiss, Max Planck Encyclopedia of Public International Law, *Intergenerational Equity*, para. 4.

⁴ *Stockholm Declaration*, *supra* note 2, Principle 8.

⁵ *Stockholm Declaration*, *supra* note 2, Principle 11.

⁶ World Commission on Environment and Development, *Our Common Future*; para. 27, available at: <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>, [last accessed: 09 June 2019]; a similar definition is employed by Art. 2 of the 1992 *Convention on Biological Diversity*, UNTS 1760/79.

⁷ *Report of the UN Conference on Environment and Development, Annex I (Rio Declaration)*, UN Doc. A/CONF.151/26 (Vol. I).

calling, on the one hand, for the equitable sharing of environmental burdens and benefits between different generations (intergenerational equity) and, on the other hand, also within a given generation (intragenerational equity).⁸ Intergenerational equity, covering the relationship between present and future generations, is thus a core element of sustainable development.⁹

The main impediment to the achievement of intergenerational equity and, therefore, sustainable development was already apparent to the members of the Brundtland Commission:

“Many present efforts to guard and maintain human progress, to meet human needs, and to realise human ambitions are simply unsustainable...They draw too heavily, too quickly, on already overdrawn environmental resource accounts to be affordable far into the future without bankrupting those accounts...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.”¹⁰

In this context, fundamental questions arise regarding the issue of how the interests of future generations can be preserved and how intergenerational equity, and thus sustainable development, can be achieved.

This paper is divided into four parts. Firstly, it sheds some light on the philosophical framework concerning intergenerational equity. Secondly, it studies the legal framework of the principle of intergenerational equity and addresses the question of what status intergenerational equity has in international law. The third section demonstrates different options for protecting the interests of future generations, some of which are already deployed or readily available at the moment, while others would require the establishment of new institutions or novel approaches to be tried. The final section contains a brief conclusion.

2. The Philosophical Framework

The principle of intergenerational equity rests on a wide range of philosophical foundations. The philosophical sources of the principle run the gamut from diverse cultural and religious traditions (e.g., Judaeo-Christian, Islamic, Non-Theistic) to Islamic law, African customary law, Native American traditional law as well as

⁸ Beyerlin, *Sustainable Development*, Max Planck Encyclopedia of Public International Law, para. 10.

⁹ Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 5; Beyerlin, *supra* note 8, para. 10; Ramlogan, *Sustainable Development: Towards a Judicial Interpretation*, (2011), 213.

¹⁰ *Our Common Future*, *supra* note 6, para. 25.

common and civil law traditions.¹¹ Intergenerational equity also has a long pedigree in international law, as evinced by the first part of the preamble to the Universal Declaration of Human Rights¹²: “Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world...”¹³ The inclusion of “all members of the human family” implies a temporal dimension, bringing all generations within the purview of the Declaration, while the reference to “equal and inalienable rights” underlines the equality between the different generations of humankind.¹⁴ There is consequently no basis for preferring any one generation over another.¹⁵ Different generations must share the environmental resources provided by the earth equitably. Notwithstanding those broad foundations, some philosophical arguments are held against obligations based on the principle of intergenerational equity.

2.1. Rights or Interests?

What all of the philosophical sources mentioned above have in common is that they strive to protect the interests of generations yet to come. But can the interests of future generations also be accorded the status of a right? The difference between rights and interests might seem marginal, but conferring the status of a right upon something, like enshrining a norm in the constitution, implies its special importance.¹⁶ The status of a right is only bestowed on the most important interests since this status means that it has sufficient moral weight to create duties for others to respect it.¹⁷ But can rights be conferred on future generations, or do current generations merely have an obligation to respect their interests? *Kelsen*, for example, held that not every obligation entails a right: “If the obligated behaviour of the one individual does not refer to a specifically designated other individual...but refers only to the legal community as such, then...one is satisfied...to assume a legal obligation without a corresponding reflex right.”¹⁸

This view, however, is strongly biased in favour of individual rights and takes no account whatsoever of the emergence in international law of group rights. Group rights are rights that can only be enjoyed collectively, the right is vested not in the

¹¹ Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 2.

¹² *Universal Declaration of Human Rights*, 1948, UN Doc. A/810/71.

¹³ *Ibid.*, Preamble.

¹⁴ Brown Weiss, “In Fairness to Future Generations and Sustainable Development”, 8 *American University Journal of International Law and Policy* 1 (1992), 19, 21, [Brown Weiss, In Fairness to Future Generations].

¹⁵ *Ibid.* p. 20.

¹⁶ Gosseries, “On Future Generations’ Future Rights”, 16 *The Journal of Political Philosophy* 4 (2008), 446, 453.

¹⁷ Nelson, “Future Generations and Climate Change”, 64 *International Social Science Journal* 211-212 (2013), 89, 94.

¹⁸ Kelsen, *Pure Theory of Law*, (1967), 128.

individual, but in the group itself.¹⁹ The most salient example of the category of group rights is the right to self-determination, as expressed in Art. 1 I ICCPR,²⁰ as well as Art. 1 I ICESCR²¹ that is conferred on peoples collectively.²² Other examples include Art. 27 ICCPR that bestows the right on minorities to “not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language.”

The rights of future generations bear a striking resemblance to the group rights mentioned above since they bestow rights on a generation vis à vis other generations as a collective.²³ Generations hold them as groups with common interests in relation to other generations, they do therefore not depend on being linked with a specific individual.²⁴ It is thus possible to speak of rights of future generations as opposed to mere interests.

2.2. The Non-Existence Problem

Some authors take issue with ethical obligations towards future generations that are based on rights that do not yet exist.²⁵ They claim that the existence of the rights bearer is the essential precondition for having rights to something. Since future generations do, by definition, not exist, they cannot have rights to anything.²⁶ This, however, contradicts the notion that one of the philosophical foundations of intergenerational equity is the fact that all “members of the human family” - no matter when they are born - should enjoy equal rights.

Since the existence of future human beings is quite certain and human beings are vested with human rights no matter their particular identity, but simply because they are “members of the human family”, we already know today that there will be persons in the future to whom human rights accord.²⁷ This fact imposes duties on current generations not to imperil these rights of generations yet to come.

¹⁹ Wenzel, Max Planck Encyclopedia of Public International Law, *Group Rights*, para. 2.

²⁰ *International Covenant on Civil and Political Rights*, 19 December 1966, UNTS 999/171.

²¹ *International Covenant on Economic, Social and Cultural Rights*, 19 December 1966, UNTS 993/3.

²² Wenzel, *supra* note 19, para. 5.

²³ Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 12; id., “Our Rights and Obligations to Future Generations for the Environment”, 84 *The American Journal of International Law* 1 (1990), 198, 205, [Brown Weiss, *Our Rights and Obligations*].

²⁴ Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 12; id., *Our Rights and Obligations*, *supra* note 23, 203.

²⁵ Beckerman/Pasek, *Justice, Posterity, and the Environment* (2001), 15f.

²⁶ *Ibid.*, 16.

²⁷ Bell, “Does Anthropogenic Climate Change Violate Human Rights?”, 14 *Critical Review of International Social and Political Philosophy* 2 (2011), 99, 108; Göpel/Arhelger, “How to Protect Future Generations’ Rights in European Governance”, 10 *Intergenerational Justice Review* 1 (2010), 4 (4).

According to Bell (2011), the futurity of the rights in question is of no consequence because: “all human rights-based duties are current duties grounded in the future rights of persons living in the future (even if it is the very near or immediate future). We are duty-bound not to act so that a person living in the future will have one of their human rights violated as a consequence of our actions...Duties come temporally before human rights because actions come temporally before their effects.”²⁸

It should be added that *Beckerman* and *Pasek* themselves conclude that present generations have duties to future ones since “the fact that future generations *will* have interests is sufficient reason for us to take those interests into account in policies that we adopt now”.²⁹ This seems somewhat inconsistent. If duties toward future generations can be created by the mere fact that those generations will have *interests* in the future, it is unclear why duties cannot result from the fact that they will have *rights* in the future.³⁰ The duties of current generations towards future ones can thus be based on rights accorded to the latter.

2.3 The Non-Identity Problem

Another philosophical quandary that concerns intergenerational equity is the so-called “Non-Identity Problem”, also known as “Parfit’s Paradox”.³¹ Adapted to the context of intergenerational equity the basic premise is the following:³² We picture the people living several decades from now as specific, identifiable persons to whom we owe a duty of preserving the environment. In order to fulfil that duty we take a particular action (e.g., pass a law that stipulates the use of electric vehicles) and thus intervene in the environment. We, therefore, change our ecological surroundings, if ever so slightly.

Since even the slightest change to our environment will lead to different events taking place in the future, we will - by changing who mates with whom and when - alter the make-up of the future population. While the effect is small at the outset, it grows more extensive over the years as the alterations compound each other until every single person alive several decades from now on is a genetically different individual. With this small intervention we have thus created a totally different group of individuals than the one initially pictured.

²⁸ Bell, *supra* note 27, 108.

²⁹ Beckerman/Pasek, *supra* note 25, 25.

³⁰ Caney, “Applying the Principle of Intergenerational Equity to the 2015 Multilateral Processes - Commissioned Paper by the Mary-Robinson-Foundation”, 8.

³¹ Parfit, *Reasons and Persons*, (1987), 357ff.

³² D’Amato, “Do We Owe a Duty to Future Generations to Preserve the Global Environment?”, 84 *The American Journal of International Law* 1 (1990), 190, 190-91, the following example is a variation of the original version *Parfit* came up with, see *supra* note 31.

This leads to the stark result that: “if we engage in an act of environmental preservation for the reason that we feel an obligation to future persons, our very act will make those persons worse off than if we had not acted at all; indeed, our act will make them totally worse off - they will be deprived of their existence”.³³ While this thought experiment seems very compelling at first glance, it is heavily reliant on the questionable assumption that the specific identity of persons born in the future is highly relevant.³⁴

As has been shown above, this is not necessarily the case. Human rights, e.g., are conferred on humans simply due to the fact that they are humans, their particular identity is of no relevance whatsoever. Additionally, it can be argued, as mentioned above, that the obligations arising from the principle of intergenerational equity are properly understood as collective rights since they confer rights on a generation vis à vis other generations as a group.³⁵ These collective rights are vested in the group as such and do therefore not depend on the specific individuals making up the collective.³⁶ Of course, the identity of the group would still have to be the same, but group's identities themselves are not liable to be influenced as easily as those of single individuals, because minute interventions comparable to the one proposed above are unlikely to affect the future existence of larger entities such as, for example, nations or ethnic minorities.³⁷

The philosophical questions raised by the “Non-Identity Problem” can thus be overcome and are no impediment to the acceptance of intergenerational rights.

2.4 What is Owed?

What exactly is it that present generations owe to future ones? The starting point to answer this question is the principle of inter-generational equity. As has already been shown above, this principle rests on the presumption of equality between different generations. In order to figure out what any one generation can reasonably expect

³³ *Ibid.* p. 193.

³⁴ Gündling, “Our Responsibility to Future Generations”, 84 *The American Journal of International Law* 1 (1990), 207, 210; Nelson, *supra* note 17, 91.

³⁵ Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 12; id., *Our Rights and Obligations*, *supra* note 23, 205.

³⁶ Brown Weiss, *In Fairness to Future Generations*, *supra* note 14, 24; Page, “Intergenerational Justice and Climate Change”, XLVII *Political Studies* (1999), 53, 64.

³⁷ Page, *supra* note 36, 66.

from other generations it is useful to adapt Rawls “veil of ignorance”³⁸ and consider the perspective of a generation that is put somewhere along the spectrum of time, but does not know beforehand when exactly it will come into existence.³⁹

Such a generation would want to inherit comparable access to the earth and its resources, comparable options (referring to the diversity of the resource base), and comparable quality of the environment from its predecessors.⁴⁰

The requirement of comparable access refers to the non-discriminatory access to natural and cultural resources, it also entails an obligation to pass on at least a minimum of accessibility (e.g. with regard to fertile land or potable water) to future generations.⁴¹ The requirement of comparable options tries, by imposing duties of conservation with regard to natural and cultural resources, to ensure that future generations have diverse means at their disposal to meet future challenges and attain their goals.⁴² Comparable quality of the environment requires that the cultural and natural environment is on balance passed on in no worse a condition than it was received in.⁴³

Current generations have thus to ensure that future generations have comparable access to the earth's resources, inherit comparable options from their predecessors, and inherit the earth in a comparable condition to the one they inherited it in themselves. By complying with these three requirements, intergenerational equity can be achieved.

3. The Legal Framework

Intergenerational equity is not only a philosophical concept, but it has also strong roots in the legal sphere. Considerations of intergenerational equity and the protection of the interests of future generations crop up in areas ranging from environmental law to debates about the legal retirement age and state debt. This section elucidates where inter-generational concerns are codified on the international level and how they have shaped judicial reasoning. It concludes by analysing the status of intergenerational equity in international law.

3.1. Legal Instruments on the International Level

³⁸ Rawls, *A Theory of Justice*, Revised Edition (1999), 118ff.

³⁹ Brown Weiss, *In Fairness to Future Generations*, *supra* note 14, 21.

⁴⁰ Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 7; *id.*, *In Fairness to Future Generations*, *supra* note 14, 22-23.

⁴¹ Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 8.

⁴² *Ibid.*

⁴³ *Ibid.*

While no single general international law instrument defines the legal scope of intergenerational equity, it is mentioned in a plethora of treaties and agreements.⁴⁴ The International Convention for the Regulation of Whaling,⁴⁵ adopted in 1946, contains one of the earliest references to the interests of future generations speaking in its preamble of the need to “[safeguard] for future generations the great natural resources represented by the whale stocks”. Similar language is employed in the preambles of the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter⁴⁶ and the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora⁴⁷. The 1982 Convention on the Conservation of Migratory Species of Wild Animals⁴⁸ acknowledges in its preamble that “each generation of man holds the resources of the earth for future generations and has an obligation to ensure that this legacy is conserved...”. A variation on this theme is presented by the 1998 Aarhus Convention,⁴⁹ a regional UN convention that elaborates in its preamble on the duties present generations owe to future ones, stipulating: “every person has the right to live in an environment adequate to his or her health and well-being, and the duty, both individually and in association with others, to protect and improve the environment for the benefit of present and future generations.”

Besides these examples, intergenerational equity has often been referred to in international declarations. The 1972 Stockholm Declaration mentions in its preamble the need “to defend and improve the human environment for present and future generations”⁵⁰ before invoking “the solemn responsibility to protect and improve the environment for present and future generations in Principle 1. Principle 2, mentioned earlier, stipulates that “natural resources of the earth...must be safeguarded for the benefit of present and future generations...”. The 1982 UN World Charter for Nature⁵¹ also calls on present generations to “[maintain] the balance and quality of nature and [conserve] natural resources, in the interests of present and future generations”, while stressing the importance of “the preservation of species and ecosystems for the

⁴⁴ Redgwell, “Principles and Emerging Norms in International Law: Intra- and Inter-Generational Equity”, in Carlarne, Gray & Tarasofsky (eds.), *The Oxford Handbook of International Climate Change Law* (2016), 185, 195.

⁴⁵ *International Convention for the Regulation of Whaling*, 2 December 1946, UNTS 161/72.

⁴⁶ *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*, 29 December 1972, UNTS 1046/120.

⁴⁷ *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, 3 March 1973, UNTS 993/243.

⁴⁸ *Convention on the Conservation of Migratory Species of Wild Animals*, 23 June 1979, UNTS 1651/333; this thought is also expressed in the 7 Wonders of Crisis 3, at 01:18, available at: <https://www.youtube.com/watch?v=h26OIqxworg>, [last accessed: 09 June 2019] .

⁴⁹ *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)*, 25 June 1998, UNTS 2161/447.

⁵⁰ *Stockholm Declaration*, *supra* note 2, Preamble, para. 6.

⁵¹ UN GA, *World Charter for Nature*, UN Doc. A/RES/37/7.

benefit of present and future generations". The aforementioned Principle 3 of the Rio Declaration also underlines the significance of "equitably [meeting] developmental and environmental needs of present and future generations."⁵² The 1997 UNESCO Declaration on the Responsibilities of the Present Generations towards Future Generations⁵³ likewise affirms the principle of intergenerational equity, as does the 2013 report of the Secretary General on "Intergenerational solidarity and the needs of future generations"⁵⁴.

These declarations do, however, only belong to the realm of non-binding soft law. Only rarely has intergenerational equity been mentioned in the binding parts of the treaty text. Examples are Art. 4 of the 1972 World Heritage Convention⁵⁵ and, more importantly, Art. 3 I of the UN Framework Convention on Climate Change⁵⁶ which states that "Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity...".

All of these examples show that, for now, mentions of intergenerational equity are usually confined to preambles of international treaties or non-binding declarations, only very rarely is intergenerational equity mentioned in the binding part of the treaty itself, even then, though, no justiciable rights are conferred on future generations as such.⁵⁷

3.2. Intergenerational Equity and International Tribunals

Nevertheless, the principle of intergenerational equity enjoys some recognition before international tribunals.⁵⁸ One of the earliest mentions of intergenerational equity can be found in the case *Maritime Delimitation in the Area between Greenland and Jan Mayen*.⁵⁹ In his concurring opinion, Judge Weeramantry speaks of a notion of equity that is based, among other things, on the "respect for the rights of future generations, and the custody of earth resources..."⁶⁰. He then proceeds to discuss two sources of this notion, on the one hand "traditional legal systems such as the African, the Pacific, the

⁵² *Supra* note 7.

⁵³ UNESCO, *Declaration on the Responsibilities of the Present Generations towards Future Generations*, available at: <https://unesdoc.unesco.org/ark:/48223/pf0000110827>, [last accessed: 09 June 2019].

⁵⁴ UN GA, *Report of the Secretary General*, 15 August 2013, UN Doc. A/68/322.

⁵⁵ *Convention for the Protection of the World Cultural and Natural Heritage*, 16 November 1972, UNTS 1037/151.

⁵⁶ *UN Framework Convention on Climate Change*, 4 June 1992, UNTS 1771/107.

⁵⁷ Redgwell, *supra* note 44, 195f.; Birnie, Boyle & Redgwell, *International Law and the Environment* (2009), 120f.

⁵⁸ Redgwell, *supra* note 44, 197.

⁵⁹ ICJ, *Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark v. Norway)*, 14 June 1993, ICJ Reports 1993, p. 38.

⁶⁰ *Ibid.*, Separate Opinion of Judge Weeramantry, ICJ Reports 1993, p. 211, para. 240.

Amerindian”, on the other hand Islamic law.⁶¹ From these sources emerges a concept of equity “both horizontal in regard to the present generation and vertical for the benefit of generations yet to come”.⁶²

In 1995 the ICJ declined a request by New Zealand to examine proposed nuclear tests by France on the basis of an earlier judgement⁶³ since the tests in question would involve underground detonations and not, as in the original case, that was the procedural basis, atmospheric detonations.⁶⁴ Judge *Weeramantry* wrote a dissenting opinion regarding this case in which he elaborates on intergenerational equity, claiming that “New Zealand's complaint that its rights are affected does not relate only to the rights of people presently in existence. The rights of the people of New Zealand include the rights of unborn posterity. Those are rights which a nation is entitled, and indeed obliged, to protect.”⁶⁵

Shortly afterwards the ICJ handed down its *Advisory Opinion on the Threat or Use of Nuclear Weapons*⁶⁶, but did not explicitly mention the interests of future generations. The *Advisory Opinion* only acknowledged that “the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn”⁶⁷ and then briefly states that “it is imperative for the Court to take account of the unique characteristics of nuclear weapons, and in particular...their ability to cause damage to generations to come.”⁶⁸

Once again Judge *Weeramantry* wrote a dissenting opinion, referring in stark terms to the principle of intergenerational equity and the role it should play in the jurisprudence of the ICJ: “This Court, as the principal judicial organ of the United Nations, empowered to state and apply international law with an authority matched by no other tribunal must, in its jurisprudence, pay due recognition to the rights of future generations. If there is any tribunal that can recognise and protect their interests...it is this Court. It is to be noted in this context that the rights of future generations have passed the stage when they were merely an embryonic right struggling for recognition. They have woven themselves into international law

⁶¹ *Ibid.*, para. 242-243.

⁶² *Ibid.* para. 242.

⁶³ ICJ, *Nuclear Tests (New Zealand v. France)*, Judgement, 20 December 1974, ICJ Reports, p. 457.

⁶⁴ ICJ, *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgement of 20 December 1974 in the Nuclear Tests Case (New Zealand v. France)*, Order, 22 September 1995, ICJ Reports 1995, p. 288 [Request for an Examination].

⁶⁵ *Ibid.*, Dissenting Opinion of Judge Weeramantry, p. 341.

⁶⁶ ICJ, *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, 8 July 1996, ICJ Reports 1996, p. 226.

⁶⁷ *Ibid.* para. 29.

⁶⁸ *Ibid.* para. 36.

through major treaties, through juristic opinion and through general principles of law recognised by civilised nations.”⁶⁹

The next time the ICJ dealt with issues of intergenerational equity was in its 1997 case *Gabcikovo-Nagymaros*, concerning the construction of a hydro-electric dam.⁷⁰ The Court speaks only vaguely of “a growing awareness of the risks for mankind for present and future generations” due to interventions in the environment and proceeds to mention “new norms and standards [that] have been developed...in a great number of instruments”.⁷¹ It is once more Judge *Weeramantry* who speaks about the broader concept of sustainable development, of which intergenerational equity is a core element, as a rule of customary law⁷², while mentioning historic examples from cultures which “accorded due importance to environmental considerations and reconciled the rights of present and future generations”.⁷³

In the 2010 *Pulp Mills* case⁷⁴ Judge *Cançado Trindade* wrote a separate opinion claiming that “it can hardly be doubted that...inter-generational equity forms part of conventional wisdom in International Environmental Law”.⁷⁵ It was therefore unsurprising, in his opinion, that both parties argued on the basis of intergenerational equity: Argentina referring to “the grave harm for present and future generations”⁷⁶ and Uruguay speaking of “inter-generational equity, requiring that economic development proceed in a manner that integrates protection of the environment...on which both present and future generations depend”⁷⁷. In another separate opinion, concerning a case about whaling⁷⁸ Judge *Cançado Trindade* wrote at length about intergenerational equity.⁷⁹ Finding that “inter-generational equity marks presence nowadays in a wide range of instruments of international environmental law, and indeed of contemporary public international law.”⁸⁰

All of these examples show that intergenerational equity does at times turn up in the considerations of the ICJ, although the Court refers to intergenerational equity only in

⁶⁹ ICJ, *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, 8 July 1996, Dissenting Opinion of Judge Weeramantry, ICJ Reports 1996, p. 455.

⁷⁰ ICJ, *Gabcikovo-Nagymaros Project (Hungary v. Slovakia)*, Judgement, 25 September 1997, ICJ Reports 1997, p. 7 [Gabcikovo-Nagymaros Case].

⁷¹ *Ibid.* para. 140.

⁷² *Ibid.*, Separate Opinion of Judge Weeramantry, p. 104.

⁷³ *Ibid.* p. 106.

⁷⁴ ICJ, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgement, 20 April 2010, ICJ Reports 2010, p. 14 [Pulp Mills Case].

⁷⁵ *Ibid.*, Separate Opinion of Judge Cançado Trindade, p. 135, para. 122.

⁷⁶ *Ibid.* para. 123, quoting CR 2009/20, p. 35, para. 22.

⁷⁷ *Ibid.* para. 123, quoting CR 2009/17, p. 57, para. 30.

⁷⁸ ICJ, *Whaling in the Antarctic (Australia v. Japan: New Zealand intervening)*, Judgement, 31 March 2014, ICJ Reports, 2014, p. 226.

⁷⁹ *Ibid.*, Separate Opinion of Judge Cançado Trindade, p. 348, para. 41-47.

⁸⁰ *Ibid.* para. 47.

very vague terms. Explicit mentions have, for now, been restricted to separate or dissenting opinions.

3.3. Status of Intergenerational Equity in International Law

The examples mentioned and quoted above show that the concept of intergenerational equity appears in several legal instruments at the international level and enjoys at least limited recognition in international jurisprudence. As has been pointed out, though, essentially the only formulation of intergenerational equity that is of binding character is contained in Art. 3 I of the UNFCCC. Intergenerational equity could accordingly only be considered a binding obligation in international law beyond the scope of the UNFCCC, if it belonged to the sphere of customary law.

Customary law, as defined by Art. 38 I b ICJ-Statute is created through “a general practice accepted as law”. It thus consists of two elements, on the one hand, “general practice” by states, on the other hand, the belief that the practice serves the fulfilment of a legal obligation (*opinio iuris*).⁸¹ Although “general practice” in this sense does not require that every single state has to participate in the relevant practice, the practice has to be fairly widespread.⁸²

Some authors do indeed claim that intergenerational equity should be considered a binding principle of international law due to its appearance in the treaties and declarations discussed above, as well as in international judgments.⁸³ As previously mentioned, it should be noted, however, that the principle of intergenerational equity mostly appears in non-binding declarations or is relegated to the preambles of international treaties. It was also ultimately not used as the basis of the aforementioned decisions by the ICJ.⁸⁴

States have only alluded to the principle of intergenerational equity in vague terms during proceedings before the ICJ. Until now, only the two Judges *Weeramantry* and *Cançado Trindade* have shown their support for a binding principle of intergenerational

⁸¹ ICJ, *North Sea Continental Shelf Cases (Germany v. Denmark; Germany v. Netherlands)*, Judgement, 20 February 1969, ICJ Reports 1969, p. 3, para. 77 [Continental Shelf Cases]; Herdegen, *Völkerrecht*, 18th. ed. (2019), 151, para. 1.

⁸² *Continental Shelf Cases*, *supra* note 81, para. 73, Sands et al., *Principles of International Environmental Law*, 4th ed. (2018), 120; Herdegen, *supra* note 81, 153, para. 3.

⁸³ Burns, “Climate Geoengineering: Solar Radiation Management and Its Implications for Intergenerational Equity”, in Burns/Strauss (eds.), *Climate Change Geoengineering* (2013), 200, 207f.; Maggio, “Inter/Intra-Generational Equity: Current Applications under International Law for Promoting Sustainable Development of Natural Resources”, 4 *Buffalo Environmental Law Journal* (1997), Buff. Envtl. L. J., 1997, 161, 220.

⁸⁴ Redgwell, *supra* note 44, 198; Lawrence, *Justice for Future Generations - Climate Change and International Law* (2014), 116ff.; Ramlogan, *supra* note 9, 215; Brown Weiss, *Intergenerational Equity*, *supra* note 3, para. 26.

equity, albeit only in concurring or dissenting opinions. There seems, therefore, not to be sufficient evidence of state practice and *opinio iuris* to support the elevation of the principle of intergenerational equity to customary law.

It has also been pointed out that intergenerational equity itself is too vague and imprecise a concept to give rise to a norm of customary international law.⁸⁵ Neither do all the international instruments mentioned above use the principle of intergenerational equity in a sufficiently consistent manner, usually simply relying on the diffuse term “interests of present and future generations”, nor do they enunciate clearly which weight should be accorded to the competing interests.⁸⁶

All of this suggests that while intergenerational equity might be an evolving norm of customary law, it has not yet achieved this status. This does, however, not mean that the principle of intergenerational equity is of no consequence. The principle of intergenerational equity can, as a core element of sustainable development, shape judicial reasoning in important ways.⁸⁷ Serving as “a meta-principle, acting upon other legal rules and principles - a legal concept exercising a kind of interstitial normativity, pushing and pulling the boundaries of true primary norms...”,⁸⁸ it can guide the interpretation of substantive norms of international law.⁸⁹ Intergenerational equity does, thus, at least for the time being, exert its influence mainly by affecting the interpretation of the content of other legal norms. While the principle itself has yet no binding force, states and international tribunals have nevertheless to take it into account in their practice or jurisprudence.⁹⁰

4. Ways to Safeguard the Interests of Future Generations

The fact that the principle of intergenerational equity does not yet create binding obligations on its own to safeguard the interests of future generations begs the question what other mechanisms are available to preserve the interests of future generations.

⁸⁵ Lawrence, *supra* note 84, 115.; Birnie, Boyle & Redgwell, *supra* note 57, 122.

⁸⁶ Lawrence, *supra* note 84, 114f.; Lowe, “Sustainable Development and Unsustainable Arguments” in Boyle/Freestone (eds.), *International Law and Sustainable Development* (1999), 19, 27ff..

⁸⁷ Lawrence, *supra* note 84, 118.

⁸⁸ Lowe, *supra* note 86, 31.

⁸⁹ Redgwell, *supra* note 44, 199; Birnie, Boyle & Redgwell, *supra* note 57, 127.

⁹⁰ See also Birnie, Boyle & Redgwell, *supra* note 57, 127.

The interests of future generations can be threatened in manifold ways, ranging from the depletion of resources to the dangers posed by climate change. This section therefore elucidates an array of options to deal with this issue.

4.1. Precaution as a Tool to Protect the Interests of Future Generations

4.1.1. Evolution and General Content of the “Precautionary Principle”

One legal tool that is already deployed at the moment is the precautionary principle. The roots of the precautionary principle can be traced back to the German “Vorsorgeprinzip” which developed into a fundamental principle of German environmental law in the 70s, before becoming an internationally accepted principle of environmental law in the 80s.⁹¹

Mentions of the precautionary principle often imply that it enjoys the status of a “formal doctrine”, ignoring the fact that there exists no uniform definition of the precautionary principle.⁹²

Versions of the precautionary principle turn up in many international instruments.⁹³ One of the earliest explicit mentions of the precautionary principle is contained in the non-binding 1990 Bergen Ministerial Declaration on Sustainable Development: “In order to achieve sustainable development, policies must be based on the precautionary principle.”⁹⁴

It can also be found in Principle 15 of the Rio Declaration that states “...the precautionary approach shall be widely applied...”⁹⁵ and Art. 3 III UNFCCC stipulating that Parties “...should take precautionary measures...”⁹⁶

While there are different versions of the precautionary principle, depending on the circumstances,⁹⁷ the basic gist is that “environmentally sensitive activities should be avoided and precautionary measures taken, even in situations where there is potential hazard but scientific uncertainty as to the impact of the environmentally sensitive activity.”⁹⁸ This interpretation was also employed by the IPCC in its 2014 report: “the

⁹¹ Schröder, *Precautionary Principle/Approach*, Max Planck Encyclopedia of Public International Law, para. 6-7; Wiener, “Precaution and Climate Change” in Carlarne, Gray & Tarasofsky (eds.), *The Oxford Handbook of International Climate Change Law* (2016), 163, 165f.

⁹² Wiener, *supra* note 91, 165; Schröder, *supra* note 91, para. 3.

⁹³ Schröder, *supra* note 91, para. 14.

⁹⁴ *Bergen Ministerial Declaration on Sustainable Development*, para. 7, UN Doc. A/CONF.151/PC/10 (1990), quoted in Erben, *Das Vorsorgegebot im Völkerrecht* (2004), 35, fn. 13.

⁹⁵ *Supra* note 7.

⁹⁶ *Supra* note 56.

⁹⁷ See e.g. Schröder, *supra* note 91, para. 8-12; Wiener, *supra* note 91, 165ff..

⁹⁸ Schröder, *supra* note 91, para. 2.

principle of precaution emphasizes anticipation and prevention of future risks, even in the absence of full scientific certainty...”⁹⁹

This focus on potential future ramifications of actions taken today is common to the different versions of the precautionary principle and makes it a useful tool in protecting posterity from undue risks created through environmental interventions. While the remit of the precautionary principle is not as broad as that of intergenerational equity, because it is not based on the idea of fairness between generations, and the level of protection accorded to the interests of future generations is therefore weaker, the precautionary principle does, nonetheless, offer protection from particularly grave interventions in the environment that threaten the interests of future generations. The precautionary principle is thus a useful precept for the preservation of the interests of future generations.

4.1.2. Status of the Precautionary Principle in International Law

The question is, though, if the precautionary principle has already attained the status of customary international law and is thus binding beyond the scope of individual codifications, because it could otherwise at most enjoy a status comparable to the one that intergenerational equity has in international law.

As already pointed out above, in order for a norm to become part of customary law, there needs to be sufficient state practice and a belief that this practice is necessary to comply with legal obligations.¹⁰⁰ It has been argued that the precautionary principle can be considered a regional rule of customary law in the EU because it was incorporated into EU primary (Art. 191 II TFEU) and secondary law; it has also appeared in the jurisprudence of the ECJ¹⁰¹ and been declared a “key tenet of [EU] policy”¹⁰² by the Commission.¹⁰³ All of this does, indeed, strongly indicate that there is sufficient state practice and *opinio iuris* available in the EU to assign the precautionary principle the status of regional customary law. But is there already enough evidence of state practice and *opinio iuris* at the international level at large to warrant the acceptance of the precautionary principle as a rule of customary law?

States have, on several occasions, claimed during proceedings before international tribunals that the precautionary principle is a rule of customary law. In the *Nuclear*

⁹⁹ Stavins/Zou, “International Cooperation: Agreements and Instruments”, in *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the 5th Assessment Report of the Intergovernmental Panel on Climate Change* (2014), Chapter 13.2.1.2, p. 1009.

¹⁰⁰ *Continental Shelf Cases*, *supra* note 81, para. 77; Herdegen, *supra* note 81, 151, para. 1.

¹⁰¹ See e.g. ECJ, *Monsanto v. Italy*, Judgement, 9 September 2003, C-236/01.

¹⁰² *Communication from the Commission on the Precautionary Principle*, 2 February 2000, para. 3.

¹⁰³ Schröder, *supra* note 91, para. 17; Sands et al., *supra* note 82, 239.

Tests case of 1995 New Zealand stated that the “precautionary principle [was] widely accepted in contemporary international law.”¹⁰⁴ In his dissenting opinion Judge *Palmer* found that the “...precautionary principle has developed rapidly and may now be a principle of customary international law.”¹⁰⁵ Judge *Weeramantry* also wrote at length about the precautionary principle, which he considered to be of increasing relevance to international law, though not explicitly referring to it as a rule of customary law.¹⁰⁶

In the 1997 *Gabcikovo-Nagymaros* case Hungary argued that the precautionary principle had evolved into a binding norm of international law.¹⁰⁷ The ICJ, however, did not refer to the precautionary principle in its judgement. In the 2010 *Pulp Mills* case judgement the ICJ stated that “a precautionary approach may be relevant in the interpretation and application of [the norms relevant to the case]”.¹⁰⁸ While acknowledging that the precautionary principle has some legal consequences the ICJ stopped short of declaring it a norm of customary law.¹⁰⁹

States have also expressed their belief that the precautionary principle is a rule of customary law in proceedings before the International Tribunal for the Law of the Sea. Australia and New Zealand invoked the principle in their requests to the ITLOS in the *Southern Bluefin Tuna* case.¹¹⁰ Ireland likewise proclaimed the precautionary principle to be a rule of customary law in its request in the *MOX Plant* case.¹¹¹ In 2011 the ITLOS Seabed Disputes Chamber stated in its *Advisory Opinion on Responsibilities and Obligations in the Area* to the precautionary approach as “an integral part of the general obligation of due diligence...which is applicable even outside the scope of the regulations.”, explicitly referring to the *Pulp Mills* case as having “initiated a trend towards making this approach part of customary law”.¹¹²

The precautionary principle was also invoked as a rule of customary law by the European Communities on several occasions during proceedings within the framework of the WTO. In the 1998 *Hormones* case the EC claimed that the “precautionary principle is already...a general customary rule of international

¹⁰⁴ *Request for an Examination*, *supra* note 64, para. 5.

¹⁰⁵ *Ibid.*; Dissenting Opinion of Judge Palmer, ICJ Reports 1995, p. 381, 412.

¹⁰⁶ *Ibid.*; Dissenting Opinion of Judge Weeramantry, ICJ Reports 1995, p. 317, 342ff.

¹⁰⁷ *Gabcikovo-Nagymaros Case*, *supra* note 70, para. 97.

¹⁰⁸ *Pulp Mills Case*, *supra* note 74, para. 164.

¹⁰⁹ *Sands et al.*, *supra* note 82, 236.

¹¹⁰ *Southern Bluefin Tuna Case (Requests for Provisional Measures Australia v. Japan; New Zealand v. Japan)*, 1999, available at: <https://www.itlos.org/cases/list-of-cases/case-no-3-4/>, [last accessed: 09 June 2019].

¹¹¹ *MOX Plant Case Request for Provisional Measures (Ireland v. UK)*, 2001, para. 97, available at: <https://www.itlos.org/cases/list-of-cases/case-no-10/>, [last accessed: 09 June 2019].

¹¹² ITLOS, Seabed Disputes Chamber, *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion, 1 February 2011, ITLOS Reports 2011, p. 10, para. 131, 136.

law...".¹¹³ It took the same stance in the *Biotech* case, referring to the precautionary principle as a "fully-fledged and general principle of international law".¹¹⁴ In both instances the US explicitly negated the customary law status of the precautionary principle.¹¹⁵ The deciding WTO bodies themselves only stated that the status of the precautionary principle "as a principle of general or customary international law appears less than clear"¹¹⁶ and "remains unsettled."¹¹⁷

The ECtHR, on the other hand, had no such qualms when it "recalled the importance of the precautionary principle" in its 2009 decisions *Tatar v. Romania*.¹¹⁸ What emerges is a picture of widespread support by states for the precautionary principle. In marked contrast to their dealings with the principle of intergenerational equity, states show no hesitation to invoke the precautionary principle before international tribunals explicitly. Though those tribunals initially balked at accepting the precautionary principle as a rule of customary law the most recent decisions by the ILTOS Seabed Disputes Chamber and the ECtHR endorsed this interpretation.¹¹⁹

The outlier is the US, which has so far vehemently denied that the precautionary principle can be assigned the status of customary law. As mentioned earlier, though, it is not necessary for the emergence of customary law to agree with the practice of every single state.

The US could thus, at most, by consistently denying the customary law status of the precautionary principle have achieved the status of a "persistent objector" and thus be exempt from complying with this specific rule.¹²⁰

Due to the abundant state practice and *opinio iuris* concerning the precautionary principle that is reflected in the statements before international tribunals analysed above, the principle can accordingly be considered to have become a binding rule of customary international law.¹²¹ States have therefore to observe the precautionary principle in their practice. They have to take potential future ramifications of their actions today into consideration and ensure that no undue risks for future generations

¹¹³ *EC Measures Concerning Meat and Meat Products (Hormones)*, 16 January 1998, WT/DS48/AB/R, para. 16 [Hormones Case].

¹¹⁴ *EC Measures Affecting the Approval and Marketing of Biotech Products*, 29 September 2006, WT/DS291/R, p. 336, para. 7.78 [Biotech Case].

¹¹⁵ *Hormones Case*, *supra* note 113, para. 43; *Biotech Case*, *supra* note 114, 337, para. 7.81.

¹¹⁶ *Hormones Case*, *supra* note 113, para. 123.

¹¹⁷ *Biotech Case*, *supra* note 114, 340, para. 7.89.

¹¹⁸ ECtHR, *Tatar v. Romania*, App. no. 67021/01, Judgement, 27 January 2009, para. 120.

¹¹⁹ Sands et al., *supra* note 82, 239f.

¹²⁰ Erben, *supra* note 94, 249f.; see also Sands et al., *supra* note 82, 124; Herdegen, *supra* note 81, 162, para. 13.

¹²¹ Sands et al., *supra* note 82, 239f.

Erben, *supra* note 94, 249; Sirineskiene, "The Status of Precautionary Principle: Moving Towards a Rule of Customary Law", 4 *Jurisprudencija/Jurisprudence* (2009), 349, 360.

are created. In this way at least some protection is granted to the interests of future generations.

4.2 Representation of Future Generations

As has been mentioned in the introductory chapter, the interests of future generations are often not taken properly into account because no one is representing them in the political process. This problem could be remedied through the creation of representative mechanisms on the international level that strive to give due weight to the interests of future generations in present decision-making processes.

Several models to combat the short-termism that is a hallmark of present politics already exist. Finland, Germany, Canada, Wales, New Zealand, Norway, and Hungary all give some representation to future generations.¹²² The models include representation through a Parliamentary Advisory Council or Committee (Germany and Finland), Ombudsmen (Norway and Hungary) as well as Commissioners for Future Generations (Canada, Wales, New Zealand).¹²³ It would go beyond the scope of this paper to analyse all of the specific mandates these representative mechanisms operate under,¹²⁴ but the general idea is to control and shape legislative processes for the sake of future generations.

This approach has at times been problematic because it is often politically expedient to ignore the interests of future generations and focus on maximising welfare for current ones. It is purportedly due to political considerations that one of the earliest representative mechanisms - the Commissioner for Future Generations created by Israel in 2001 - has been abolished.¹²⁵

Nonetheless, these examples could serve as a lodestar for the creation of a representative mechanism able to represent future generations at the international level. One such proposal concerns the creation of Guardians/Ombudspersons for Future Generations.¹²⁶ This proposal would serve the interests of future generations by “encouraging a focus on issues that are of critical importance to the well-being of future generations but that are often sidelined within the structure and procedures of current political and legal systems. [It] would help to address, in a focused manner,

¹²² UN GA, *Report of the Secretary General, 15 August 2013*, para. 37-47, UN Doc. A/68/322; <http://futureroundtable.org/en/web/network-of-institutions-for-future-generations/roundtable>, [last accessed: 09 June 2019].

¹²³ *Ibid.*

¹²⁴ See Göpel/Arhelger, *supra* note 27, 6f.

¹²⁵ Brown Weiss et al., *International Law for the Environment* (2016), 72.

¹²⁶ Mary Robinson Foundation, Position Paper, April 2017, available at: <https://www.mrfcj.org/wp-content/uploads/2017/08/Global-Guardians-A-Voice-for-Future-Generations-April-2017.pdf>, [last accessed: 09 June 2019]; Göpel, SDG 2012, available at: <https://sf.stakeholderforum.org/fileadmin/files/SDG%204%20Ombudspersons%20for%20Future%20Generations%20Thinkpiece.pdf>, [last accessed: 09 June 2019].

the long-term consequences of present-day actions by drawing attention to future impacts in tangible, non-abstract terms and by rallying the support for the integration of sustainability into the planning decisions by Governments...[it] would also play an advocacy role by highlighting the moral imperative of leaving behind a healthy world...”¹²⁷

The idea has a long pedigree, reaching back to the run-up of the 1992 Rio Conference when Malta proposed such a mechanism.¹²⁸ It also appeared in the zero-draft of the Rio Declaration of 2012¹²⁹, but was ultimately not adopted on this occasion, mainly because several developing countries suspected that it would distract from current development efforts.¹³⁰

Nevertheless, the national examples mentioned above, as well as the inclusion into the zero-draft of the Rio Declaration in 2012 indicate that there is considerable political support for the establishment of a representative mechanism for future generations at the international level.¹³¹ The idea to create a representative mechanism at the international level is thus worth pursuing since it would also - for the reasons pointed out by the report of the Secretary General quoted at length above - be an efficient means to protect the interests of future generations.

4.3 Enhanced Youth Representation

While the idea of outright representation for future generations seems to be unpalatable to some countries at the moment, it might still be possible to improve at least the representation of younger generations, whose interests often overlap with those of future ones, by enhancing youth representation at the international level. This suggestion also found the backing of the General Assembly which declared in *The Future We Want*: “We stress the importance of the active participation of young people in decision-making processes, as the issues we are addressing have a deep impact on present and future generation and as the contribution of children and youth is vital to the achievement of sustainable development.”¹³² The Secretary-General likewise underlined in his report the importance of “the participation of children and young

¹²⁷ UN GA, *Report of the Secretary General*, 15 August 2013, para. 56, UN Doc. A/68/322.

¹²⁸ Lawrence, *supra* note 84, 190.

¹²⁹ *The Future We Want*, Zero-Draft, 10 January 2012, para. 57, available at: http://www.rio20.gov.br/documents/esboco-zero-do-documento-final-da-conferencia/at_download/zero-draft.pdf, [last accessed: 09 June 2019].

¹³⁰ Caney, *supra* note 30, 21.

¹³¹ Nelson, *supra* note 17, 93.

¹³² *The Future We Want*, 27 July 2012, para. 50., UN Doc. A/RES/66/288.

people”, because “the voices, choices and participation of children and young people are critical to a sustainable future.”¹³³

Up to this point, though, youth representation has been limited to young people joining national delegations or being represented through youth NGOs that enjoy observer status.¹³⁴ Being relegated to observer status means, however, that these NGOs cannot participate directly in the negotiations, besides, given the fact that thousands of observers usually attend the relevant negotiations, it is questionable how effective this form of representation is.¹³⁵ Until new and different forms of youth representation can be devised, this proposal is therefore unlikely to contribute much to the protection of the interests of future generations, although it does at least raise public awareness for the issue.

4.4. Economic Measures to Protect the Interests of Future Generations

The debate about which weight we should accord the interests of future generations and how to protect them takes place at the junction between philosophy, law, politics, and economics. It is thus not surprising that the field of economics has also tried to come up with solutions that strive to preserve the interests of future generations.

4.4.1. Discounting

The economic tool of discounting is used to assign a present value to future benefits.¹³⁶ Reflecting the old saw that a bird in the hand is worth two in the bush, economists usually allot more value to present benefits than future ones through the use of positive discount rates, meaning that the farther a benefit is temporally removed from the present the less it is worth today.¹³⁷

The use of positive discount rates, even if the rates are set very low to ensure maximum weight is given to future interests, faces the problem that it does not agree with the principle of intergenerational equity that allocates the same value to the

¹³³ UN GA, *Report of the Secretary General*, 15 August 2013, para. 51, UN Doc. A/68/322.

¹³⁴ Lawrence, *supra* note 84, 124.

¹³⁵ *Ibid.* 124f.

¹³⁶ Nelson, *supra* note 17, 95.

¹³⁷ Wood, “Intergenerational Equity and Climate Change”, 8 *Georgetown International Environmental Law Review* (1996), 293, 316; Nelson, *supra* note 17, 95.

interests of future generations as to present ones.¹³⁸ One essential tenet of the principle of intergenerational equity is that the appearance of future generations further along the spectrum of time is in and of itself no justification to assign their interests less value. This could be reflected through zero-discounting because a discount rate of zero assigns the same value to the interests of each generation no matter how far removed it is temporally.¹³⁹ That leads to another problem, however, as *Wood* points out: “Because present resources are finite, and future needs infinite, the present would have to defer all projects”.¹⁴⁰ All of this shows that discounting based on either positive rates, or a discount rate of zero can thus on its own not satisfactorily strengthen the principle of intergenerational equity.

4.4.2. Borrowing from Future Generations to Achieve Sustainability

It is true that the interests of future generations will be harmed if present generations fail to base their economic activities on a sustainable approach, but it is also reversely future generations who will benefit, if present generations cut back their claims on the earth's resources and act sustainably. This mismatch between future generations reaping the benefits and present generations bearing the costs makes many proposals that aim to move society in a sustainable direction politically unfeasible. One way around this problem would be to impose the costs of measures adopted by the current generation on future ones.¹⁴¹ Measures to move in a sustainable direction could thus be financed by long-term borrowing, ensuring on the one hand that action is taken today to ensure the interests of future generations are preserved as efficiently as possible, while on the other hand shifting the costs to those who will benefit, namely future generations.¹⁴²

Although it would be even better from the perspective of intergenerational equity, if current generations bore the costs of sustainable policies, because they are mostly responsible for the negative consequences of unsustainable behaviour that threaten the interests of future generations, the option of shifting the costs onto future generations in order to promote sustainable policies is better than doing nothing at all with regard to preserving the interests of future generations.¹⁴³

This approach is thus not entirely fair with respect to the burden-sharing between generations, but it does, at least, resolve a major political obstacle standing in the way

¹³⁸ Wood, *supra* note 137, 320; Nelson, *supra* note 17, 95.

¹³⁹ Wood, *supra* note 137, 321.

¹⁴⁰ *Ibid.*

¹⁴¹ Broome, *Climate Matters - Ethics in a Warming World* (2012), 44ff.

¹⁴² *Ibid.*; Foley, “The Economic Fundamentals of Global Warming”, Santa Fe Institute Working Paper (October 2007), 3f.

¹⁴³ Broome, *supra* note 141, 45ff.

of achieving sustainability. Borrowing to finance sustainable policies is thus a viable option to preserve the interests of future generations.

5. Conclusion

The “Fridays for Future” demonstrations show that the interests of future generations are increasingly taken seriously by members of the current generation. Nevertheless, the task of developing sustainable economic models facing the current generations is enormous. Not only do we have to find alternative sources for our energy and resource needs, but business models as well as lifestyle choices will have to be modified substantially, especially in the rich world.

International law could make an important contribution to this struggle by providing a normative framework for dealing with issues of intergenerational equity. The most important step in that direction would be the acceptance of the principle of intergenerational equity as a rule of customary international law or its explicit codification. For the time being, some protection is offered by the precautionary principle.

It would also help if future generations were represented at the negotiating table, something which could be achieved through the creation of guardians or ombudspersons for future generations at the international level. Enhanced youth representation might likewise contribute to the move in a sustainable direction by creating higher public awareness for the issue of intergenerational equity.

Many of the negative consequences of the unsustainable use of the earth's resources will be harder or even impossible to reverse, if remedial measures are not deployed quickly. If current generations cannot muster the political support for paying for these measures - which would be regrettable - it might nonetheless be in the best interest of future generations to deploy those measures now, while deferring the costs onto them.

These varied approaches show that while the task of developing sustainable economic models and taking proper care of the interests of future generations is indeed monumental, several options exist to achieve those goals. It is our responsibility to make sure that appropriate policies are adopted so that coming generations can also benefit from the immense natural richness offered by the earth.

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