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THE RELEVANCE OR OTHERWISE OF THE CONCEPT OF INTERGENERATIONAL EQUITY' AS PUT FORWARD BY WEISS BROWN IN 1989

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ABSTRACT

The inherent interpretational ambiguity and perceived lack of a sufficiently pragmatic approach in applying the principle of intergenerational equity in international environmental law in recent times has constituted a source of debate with respect to its extent of legitimacy. This has so far limited the general acceptance of the doctrine by all theorists as a realistic tool for global environmental governance. In recognition of the prevailing opposing views this report sought to explore via an almost 'stage wise' methodology the theoretical basis of the principle as presented by Brown Weiss through a thorough investigation of the major implications of the principle. Several attempts were made at establishing a correlation between certain conventions, international law as well as case law and the doctrine in order to facilitate the establishment of the principle as the fundamental theoretical basis of these legal instruments. An attempt was also made at identifying specific sources of perceived contradictory interpretations while exploring possible resolutions from literature.

This report was able to establish the legitimacy of the concept as a legal framework which serves as a core component of several binding environmental legal tools while emphasising the validity of the rights of future generation via a broader understanding of planetary rights as a corollary to planetary obligations. Indeed, interpretational clarity was achieved by establishing that the doctrine facilitated the integration of rights and responsibilities in an inter-temporal context. While this report was able to establish the relevance of the doctrine as evidenced by its hegemonic presence in environmental legal instruments, the full acceptance of the doctrine as an integral component of the sustainable development paradigm was established as significantly dependent on the attainment of intra-generation equity, thus, highlighting the mutually inclusive nature of both doctrines.

Keywords- Interpretational, Intergenerational, Weiss Brown.

I. INTRODUCTION: INTERGENERATIONAL EQUITY - A SYNOPSIS

Intergenerational equity as a concept in international environmental law is not entirely new, indeed the basic ideology constituted a significant consideration in the United States Pacific Fur Seal arbitration of 1893¹, in which the right to conserve and protect seals beyond the national jurisdiction was firmly upheld². Intergenerational equity expresses the responsibility of the present generation to ensure that the earth and its environment are maintained for future generations³. Kiss and Shelton stated that this equity concept places obligations on trustees in conserving and

¹ 1893 1 Moore's international Arbitration Awards 755

² Sands, P. and Peel, J., 'Principles of International Environmental Law', 3^d ed, Cambridge University Press, New York, 2012.

³ Tladi, D., 'Sustainable Development in International Law: An Analysis of Key Enviro-economic Instruments', Pretoria University Law Press, Pretoria, 2007.

maintaining the trust resources⁴ thus facilitating a trustee partnership between individuals who are living, dead or yet to be born⁵.

Weiss Brown expressed the concept with respect to the view that each generation was simply a custodian of the planet for the future generations as well as a beneficiary of its resources while also considering sustainable development as a function of a balance between intergenerational and intra-generational needs⁶. The concept was also considered as a reflection of inter-temporal distributive justice referring to fairness in resource, welfare and utility distribution between generations⁷ with the relationship between generations considered as based on the subject of ethics⁸. Shrader-Frechette subsequently emphasised that the consideration of the concept from an ethical perspective should mean that each individual must have equal rights irrespective of the living state, dead or alive, emphasising the 'rights claim' over maximising utility⁹.

According to Weiss Brown intergenerational equity is a trinity of three fundamental principles, the principles of conservation of options, conservation of quality and conservation of access. Each principle establishes the need to avoid undue restriction of options available to future generations in satisfying their needs, the need for quality of the planet to be maintained for future generations and the need to preserve access to the legacy of past generations respectively¹⁰. According to Weiss Brown intergenerational equity is a trinity of three fundamental principles, the principles of conservation of options, conservation of quality and conservation of access. Each principle establishes the need to avoid undue restriction of options available to future generations in satisfying their needs, the need for quality of the planet to be maintained for future generations and the need to preserve access to the legacy of past generations respectively¹¹.

⁴ Kiss, A.C and Shelton, D., 'A guide to international environmental Law', Brill, Leiden, 2007.

⁵ Payne, E.J. ed., 'Burke, Select Works, Volume 1', The Lawbook Exchange, New Jersey, 2005.

⁶ Weiss, E.B., 'In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity', Transnational Publishers, New York, 1989.

⁷ Throsby, D., 'Economics and Culture', Cambridge University Press, Cambridge, 2001

⁸ Weiss, E. B., 'Implementing Intergenerational equity', In Fitzmaurice, M., Ong, D.M. and Merkouris, P. (eds), *Research Handbook on International Environmental Law*, Edward Elgar Publishing Limited, Cheltenham, 2010.

⁹ Shrader-Frechette, K.S., 'Environmental Justice: Creating Equality, Reclaiming Democracy', Oxford University Press, Incorporated, 2005.

¹⁰ Weiss, E.B., 'Intergenerational equity: a legal framework for global environmental change', in Weiss, E.B., (ed), *Environmental Change and International Law: New challenges and dimensions*, United Nations University Press, Tokyo, 1992.

¹¹ Weiss, E.B., 'Intergenerational equity: a legal framework for global environmental change', in Weiss, E.B., (ed), *Environmental Change and International Law: New challenges and dimensions*, United Nations University Press, Tokyo, 1992.

II. INTERGENERATION EQUITY AND ITS APPLICATION IN ENVIRONMENTAL LAW

It is clear that the concept of intergenerational equity is an integral consideration in numerous domestic, regional and international environmental agreements via facilitating the recognition of the utilisation of natural resources in an inter-temporal context¹². Indeed the shared responsibility of future generations via the conservation and utilisation of biological diversity in a sustainable manner for the benefit of present and future generations was clearly stated in article two of the UN Convention on Biological Diversity, 1992¹³. The World Heritage Convention¹⁴ also referred to the principle by clearly highlighting the duty to ensure that both cultural and natural heritage is conserved for future generations. Further reference to the protection of the interest of future generation was highlighted in the preamble of the UNECE Aarhus Convention where there was a clear recognition of the need to protect and improve the environment for the benefit of present and future generations¹⁵. The principle has also been considered as the basis for the resolution of specific environmental issues such as the climate change concern as illustrated in the United Nations Framework Convention on Climate Change, Article 3 (1)¹⁶. The article expects the Parties to protect the climate system for the benefit of present and future generations while underlying the principle of equity as the integral consideration. Indeed the cumulative effect of carbon dioxide concentrations, which leads to changes in the climate of future generations, makes the concept of intergenerational equity a particularly significant consideration. Furthermore, Schwabac argues that the concept together with 'polluter-pays' and 'precautionary' principles fundamentally shape the context of the sustainable development ideology¹⁷.

In addition, the concept was found to be the integral basis of the judgement in the case of *Scrivens v Secretary of State for Communities and Local Government*¹⁸ where it was established that the benefits of the proposed project by the state was insufficient to offset the adverse effect the countryside damage will have on future generations. The concept of intergenerational equity was also found to be sufficient in the *Gray v Minister for Planning*,¹⁹ Anvill Hill mine development case in which failure to provide a complete Environmental impact assessment of the Green House Gases (GHG) emitted during downstream operation was considered equivalent to the legal failure of considering the concept of intergenerational equity.

¹² Center of International Environmental Law, '*Human Rights, Environment, and Economic Development: Existing and Emerging Standards in International Law and Global Society*' (<http://www.ciel.org/Publications/olp3iv.html>) (accessed 20 February 2014)

¹³ UN Convention on Biological Diversity, adopted 5 June 1992, 31 ILM (1992), entered into force 29 December 1993, herein after referred to as CBD

¹⁴ 1972 World Heritage Convention, Article 4(1)

¹⁵ UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus 25 June 1998) 38 ILM 517 (1999) (entered into force 30 October 2001) (Aarhus Convention)

¹⁶ 1992 United Nations Framework Convention on Climate Change, Article 3 (1)

¹⁷ Schwabac, A., *International Environmental Disputes: A Reference Handbook*, ABC-CLIO, California, 2006

¹⁸ 2013 EWHC 3549(Admin)

¹⁹ 2006 NSWLEC 720

III. INTERGENERATIONAL EQUITY - A SCRUTINY

While, it is accepted that the concept is a pivotal consideration in international and national environmental law, all references to the principle remains vague since its interpretation may be viewed from different perspectives²⁰. This perceived vagueness is reinforced because of the inter-temporal basis of the concept, which is founded on jurisprudential ethics²¹. Jurisprudential ethics guarantees that no legislature can bind its successors, thus making it difficult to take forward present day decisions for future generations, a situation that conflicts with the inherent spirit of intergenerational equity concept. This conflict is further reinforced due to suggestions that the principle of intergenerational equity may be considered to be in the realm of soft law²². This suggestion arises due to the perceived lack of clarity in the mode of enforcement of the concept²³, indeed the principle as presented by Weiss does not highlight the possibility of any form of legal sanctions.

It is also argued that since the future cannot be accurately forecasted it is in the realm of possibility that the management models proposed with regards conserving the environment for the future generations may not be entirely accurate²⁴. Fitzmaurice also argues that distinguishing between near and future generations is another interpretational flaw of the concept while questioning the validity of the future generations having rights when they do not yet exist!²⁵. This apparent conflict is aptly summarised by John Rawls when he emphasised that the question of intergenerational justice continues to subject any ethical theory to extreme if not impractical tests²⁶, indeed if future generations cannot be said to have rights any interest they will have cannot be protected within the framework of any theory of justice²⁷.

It has also been suggested that there is a potential conflict between intergenerational equity and intra-generational equity with regards to the resource use and allocation due to realistic need to satisfy urgent needs of today, with respect to poverty eradication rather than long term conservation for future generations²⁸. Apparently this disagreement between traditional economic principles and intergenerational equity concept is a major rationale behind the resistance of judicial institutions involved in the interpretation of international economic law to base

²⁰ Woods, C., 'The Environment, Intergenerational Equity And Long-Term Investment', DPhil thesis, Worcester College, 2011.

²¹ Weston, B.H., 'The Theoretical Foundations of Intergenerational Ecological Justice: An Overview', 2012, 34 Human Rights Quarterly 251–266 .

²² Redgwell, C. *Intergenerational Trusts and environmental protection*, Manchester University Press, Manchester, 1999.

²³ Warren, L.M. 'Legislating for Tomorrow's Problems Today :Dealing with Intergenerational Equity', 2005, 7 ELR 165-172.

²⁴ *Ibid*

²⁵ Fitzmaurice , M., 'Contemporary Issues in International Environmental Law', Cheltenham ,Edward Elgar Publishing Limited, 2009.

²⁶ Rawls, J., 'A Theory of justice', Revised Edition, Harvard University press, Cambridge, 1999.

²⁷ Beckerman, W. 'Technical Progress, Finite Resources and Intergenerational Justice' In Boersema, J.J. and Reijnders, L. (eds), *Principles of Environmental Sciences*, Springer, Aldershot, 2009

²⁸ Adams, W. M. and Aveling, R., et al., 'Biodiversity conservation and the eradication of poverty' 2004, 306 Science 1146-1148

their decisions solely on concerns for intergenerational equity²⁹. The case concerning the Gabčíkovo-Nagymaros Project³⁰ presents a scenario in which the concept of intergenerational equity although expressly referred to was not considered as the major determinant in its judicial deliberations. Indeed, according to Erika Preiss, the International Court of Justice held that Hungary did not have the right to abandon the dam project while barely acknowledging the extensive environmental considerations presented³¹

Emily Lydgate subsequently concluded that these controversies underlying the interpretation of intergenerational equity makes it difficult to apply it coherently as a legal principle³², thus, the realistic challenge of determining the extent or relevance of the principle remains. It therefore becomes necessary to consider arguments that provide a logical resolution to the identified conflicts in an attempt to determine the relevance or otherwise of the concept in today's legal 'space'.

(A) Resolution of the intergenerational equity interpretational ambiguities

In determining the relevance of the concept in today's world, it is logical to attempt to address the major interpretational flaws previously identified. It is suggested that the ideology of preserving the rights of the future generations with respect to the preservation of the earth and environment could be understood with respect to the principle of Intergenerational Reciprocity. Wade-benzoni considered Intergenerational Reciprocity as the transfer of benefits or burdens received from past generations to future generations based solely on retrospective obligation³³. This is further understood by considering the principle of indirect reciprocity which identifies the responsibility (present generations) for providing benefits others (future generations) by virtue of the sacrifices made by others (past generations)³⁴, thus it can be suggested that the concept was not conceived to guarantee individual rights but as an obligation to ensure group access to resources. Indeed Joerg Tremmel clearly supports this notion by asserting that the principle of indirect reciprocity is valid even for inter-temporal generations³⁵. Thus, it is safe to conclude that the logic supporting the application of intergenerational equity in inter-temporal justice is justified more so when there is an acknowledgement of the importance of the relationship between environmental conservation and equal liberties across time (or generations). Consequently, while it may not be fully established that such rights are valid, it may seem inappropriate to question if they should³⁶.

²⁹ Hepburn, J., 'Intergenerational Equity and Rights and International Criminal Law', In Jodoin, S., and Segger, M.C., (eds), *Sustainable Development, International Criminal Justice, and Treaty Implementation*, Cambridge University Press, New York, 2013

³⁰ *Gabcikovo-Nagymaros Project (Hungary v Slovakia)* [1997] ICJ Reports 7.

³¹ Preiss, E., 'The International Obligation to Conduct an Environmental Impact Assessment: the ICJ Case Concerning the Gabcikovo-Nagymaros Project', 1999, 7 *New York University Environmental Law Journal* 307-308

³² Lydgate, E.B., 'Sustainable development in the WTO: from mutual supportiveness to balancing', 2012, 11 *World Trade Review* 621-639

³³ Wade-benzoni, K. A., 'A Golden Rule over Time: Reciprocity In Intergenerational Allocation Decisions', 2002, 45 *Academy of Management Journal* 1011-1028.

³⁴ Page, E.A., 'Climate Change, Justice and Future Generations', Elgar Publishing, Cheltenham, 2006.

³⁵ Tremmel, J.C., 'A Theory of Intergenerational Justice', Routledge, London, 2009

³⁶ Hayward, T., 'Constitutional Environmental Rights', Oxford University Press, Oxfordshire, 2005

The argument that the inability to accurately forecast the future leading to a possible compromise in the methods utilised in conserving the environment for the future generations may be considered fundamentally flawed. This is because the intergenerational equity principle does not expressly state the need to identify any parameter of the future to be able to suggest models for conserving the present state of the earth. Indeed, it is safe to assume that any management model that preserves the environments is a sufficient management model in every respect.

However, the challenge of reconciling the traditional economic principles and the intergenerational equity concept can only be resolved by paradigm shift from the ethical perceptions of classical economics based on human activity to a more eco-centric ethic³⁷

The suggestion that the concept of intergenerational equity belongs to the realm of soft law may be due to the observed lack of precise sanctions for non-conformity. However, it was suggested that this perception might be viewed as a strength since it facilitates compromise between actors with different values and degrees of power³⁸ while emphasising that this is likely one of the reasons why the legitimacy of the principle of intergenerational equity has previously not been a bigger issue³⁹

Beyond these however, Alan Boyle argues that the concept is more catalytic, providing the framework or guide for legally binding agreements in an attempt to conform state practice⁴⁰ as highlighted by the ubiquity of the concept in international treaties as well as preamble of conventions.

In general the concept of intergenerational equity as presented by Weiss is much easier understood if there is an appreciation of the relationship with ethics and moral norms which historically precedes all norms of justice⁴¹. Furthermore, the recognition of the established divergence from traditional individual rights to planetary rights which may quite easily be considered as a corollary to planetary obligations ultimately promotes a wider understanding of the principle.

IV. INTERGENERATIONAL EQUITY AND RELEVANCE IN TODAY'S WORLD

The relevance of the concept of intergenerational equity becomes clearer more so when there is an appreciation of the role played in governing conduct in human societies in an attempt to guarantee the preservation of the environment. According to Rajendra Ramloga the prevalence of references to the preservation of the interest of future generations in myriads of legal instruments such as treaties, domestic law, European Union law and international law constitutes prove of the relevance of principle⁴². Consequently, Pedersen Williams emphasises the

³⁷ Turgut, N.Y., 'The influence of ecology on environmental law: challenges to the concept of traditional law', 2008, 10 *Environmental Law Review* 112-130

³⁸ Abbott, K.W. and Snidal, D., 'Hard and Soft Law in International Governance', 2000, 54 *International Organisation* 421-456

³⁹ Mario Prost, M. and Camprubi, A.J., 'Against fairness? International environmental law, disciplinary bias, and Pareto justice', 2012, 25 *Leiden Journal of International Law* 379-396

⁴⁰ Boyle, A., 'Publication Review: Basic documents of international environmental law' 1993, 42 *International and Comparative Law Quarterly* 450-452

⁴¹ Frederickson, H.G., 'Sustainability as Intergenerational Social Equity: What We Learn from the Humanities', *Wisconsin Union*, 2013, (<http://www.union.wisc.edu/pmra2013/Paper%20Submissions/Renamed/Sustainability%20as%20Intergenerational%20Social%20Equity%20What%20We%20Learn%20from%20the%20Humanities.pdf>) (assessed 14 March 2014)

⁴² Ramloga, R., 'Sustainable Development: Towards a Judicial Interpretation', *Martinus Nijhoff Publishers, Leiden*, 2011

dependence of the articulation of the theory of distributive justice on the principle of intergenerational equity thus illustrating the importance of intergenerational equity in environmental law since the theory is fundamentally a distributive focus, considered as the historical origin and substructure of environmental justice⁴³. The Mary Robinson Foundation further acknowledges that the concept of intergenerational equity is entirely relevant in today's climate justice approach which attempts to share the burdens and benefits of climate change and its resolution equitably and fairly⁴⁴.

While the relevance of intergenerational equity as a tool for distributive justice cannot be disputed there may be a need for a reconfiguration of world views to aid the facilitation of intra-generational equity. It was suggested by Garcia, Zerbi et al. that the lack of intra-generational equity is a major source of conflict and non-compliance⁴⁵, indeed humanity cannot wish to preserve the environment for the future via proclaiming a commitment to sustainable development if the doctrine of distributive justice is not upheld in the present generation. It is therefore logical to conclude that although the principle is very much relevant in today's world, intra-generational equity remains a fundamental prerequisite for a wholistic and firm acceptance of intergenerational equity.

V. CONCLUSION

In an attempt to critically analyse the principle of intergenerational equity this report has explored the theoretical basis as presented by Weiss who while considering the principle in an inter-temporal context introduced the concept of planetary rights. Indeed this investigation was able to show that Weiss sought to fully integrate the language of rights, obligations and responsibility in supporting her argument that the present generation were beneficiaries of past and trustees of the future. This report was therefore able to validate the applicability of the doctrine in modern law while simultaneously establishing the principle as the theoretical basis of a myriad of legal instruments. It was also established that the soft law perception of the principle could not necessarily be considered as a limiting factor since the utilisation of the principle as a guide for perceived hard law instruments remains largely undisputed.

This report, while elucidating the significant references made to the doctrine in modern legal instruments was able to establish that the lack of intra-generational equity was the major factor responsible for the perceived limited acceptance of the doctrine rather than the inherent interpretational bias. This conclusion was reached since it satisfies logic to state that it is indeed unrealistic to aspire to justice across generations when justice and equity within generations, with respect to resource use and allocation, is not upheld.

REFERENCES

Text Books

[1] Beckerman, W. 'Technical Progress, Finite Resources and Intergenerational Justice' In Boersema, J.J. and Reijnders, L. (eds), *Principles of Environmental Sciences*, Springer, Aldershot, 2009

⁴³ Pedersen, O.W., 'Environmental principles and environmental justice', 2010, 12 *Environmental Law Review* 26-49.

⁴⁴ Mary Robinson Foundation, 'Climate Justice: An Intergenerational Approach', 2013,

(<http://www.mrfcj.org/media/pdf/Intergenerational-Equity-Position-Paper-2013-11-16.pdf>) (assessed 14 March 2014)

⁴⁵ Garcia, S.M., Zerbi, A. et al., *The Ecosystem Approach to Fisheries: Issues, Terminology, Principles, Institutional Foundations, Implementation and Outlook*, Issue 443, Food and Agriculture Organisation, Rome, 2003

- [2] Fitzmaurice , M., 'Contemporary Issues in International Environmental Law', Cheltenham ,Edward Elgar Publishing Limited, 2009.
- [3] Garcia, S.M., Zerbi, A. et al. ,*The Ecosystem Approach to Fisheries: Issues, Terminology, Principles, Institutional Foundations, Implementation and Outlook, Issue 443, Food and Agriculture Organisation, Rome, 2003*
- [4] Hayward, T. , 'Constitutional Environmental Rights' ,Oxford University Press, Oxfordshire, 2005
- [5] Hepburn, J., 'Intergenerational Equity and Rights and International Criminal Law', In Jodoin,S., and Segger, M.C., (eds), *Sustainable Development, International Criminal Justice, and Treaty Implementation, Cambridge University Press , New York, 2013*
- [6] Kiss, A.C and Shelton, D., 'A guide to international environmental Law', Brill, Leiden , 2007
- [7] Page, E.A., 'Climate Change, Justice and Future Generations', Elgar Publishing, Cheltenham, 2006
- [8] Payne, E.J. ed., 'Burke, Select Works, Volume 1', The Lawbook Exchange, New Jersey, 2005
- [9] Ramloga, R. ,'Sustainable Development: Towards a Judicial Interpretation', Martinus Nijhoff Publishers ,Leiden, 2011
- [10] Rawls, J., 'A Theory of justice', Revised Edition, Harvard University press, Cambridge, 1999
- [11] Redgwell, C. *Intergenerational Trusts and environmental protection, Manchester University Press, Manchester,1999*
- [12] Sands, P. and Peel, J., 'Principles of International Environmental Law', 3rd ed, Cambridge University Press, New York, 2012.
- [13] Schwabac, A., *International Environmental Disputes: A Reference Handbook, ABC-CLIO, California, 2006*
- [14] Shrader-Frechette, K.S., 'Environmental Justice: Creating Equality, Reclaiming Democracy', Oxford University Press, Incorporated, 2005
- [15] Throsby, D., 'Economics and Culture', Cambridge University Press, Cambridge, 2001
- [16] Tladi, D., 'Sustainable Development in International Law: An Analysis of Key Enviro-economic Instruments', Pretoria University Law Press, Pretoria, 2007.
- [17] Tremmel, J.C., 'A Theory of Intergenerational Justice' ,Routledge, London, 2009
- [18] Weiss, E. B.,'Implementing Intergenerational equity', In Fitzmaurice, M., Ong, D.M. and Merkouris, P. (eds), *Research Handbook on International Environmental Law, Edward Elgar Publishing Limited, Cheltenham , 2010.*
- [19] Weiss, E.B., 'Intergenerational equity: a legal framework for global environmental change', in Weiss, E.B.,(ed), *Environmental Change and International Law: New challenges and dimensions, United Nations University Press, Tokyo, 1992.*
- [20] Weiss,E.B., 'In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity', Transnational Publishers, New York, 1989.

Journal Articles

- [1] Abbott, K.W. and Snidal, D., 'Hard and Soft Law in International Governance', 2000, 54 *International Organisation* 421-456
- [2] Adams, W. M. and Aveling, R., et al., 'Biodiversity conservation and the eradication of poverty' 2004, 306 *Science* 1146-1148\
- [3] Boyle, A., 'Publication Review: Basic documents of international environmental law' 1993, 42 *International and Comparative Law Quarterly* 450-452
- [4] Lydgate, E.B., 'Sustainable development in the WTO: from mutual supportiveness to balancing', 2012, 11 *World Trade Review* 621-639
- [5] Mario Prost, M. and Camprubi, A.J. , *Against fairness? International environmental law, disciplinary bias, and Pareto justice*, 2012, 25 *Leiden Journal of International Law* 379-396
- [6] Pedersen, O.W., 'Environmental principles and environmental justice' ,2010, 12 *Environmental Law Review* 26-49.
- [7] Preiss, E., 'The International Obligation to Conduct an Environmental Impact Assessment: the ICJ Case Concerning the Gabčíkovo -Nagymaros Project' ,1999, 7 *New York University Environmental Law Journal* 307-308
- [8] Turgut, N.Y., 'The influence of ecology on environmental law: challenges to the concept of traditional law', 2008, 10 *Environmental Law Review* 112-130
- [9] Wade-benzoni, K. A. , 'A Golden Rule over Time: Reciprocity In Intergenerational Allocation Decisions', 2002, 45 *Academy of Management Journal* 1011-1028
- [10] Warren, L.M. 'Legislating for Tomorrow's Problems Today :Dealing with Intergenerational Equity', 2005, 7 *ELR* 165-172
- [11] Weston, B.H., 'The Theoretical Foundations of Intergenerational Ecological Justice: An Overview', 2012, 34 *Human Rights Quarterly* 251–266

Conventions

- [1] UN Convention on Biological Diversity, adopted 5 June 1992, 31 *ILM* (1992), entered into force 29 December 1993, herein after referred to as CBD
- [2] 1972 World Heritage Convention, Article 4(1)
- [3] UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus 25 June 1998) 38 *ILM* 517 (1999) (entered into force 30 October 2001) (Aarhus Convention)
- [4] 1992 United Nations Framework Convention on Climate Change, Article 3 (1)

International Court of Justice Reports

Gabčíkovo-Nagymaros Project (Hungary v Slovakia) [1997] *ICJ Reports* 7

Websites

[1] Center of International Environmental Law, 'Human Rights, Environment, and Economic Development: Existing and Emerging Standards in International Law and Global Society' (<http://www.ciel.org/Publications/olp3iv.html>) accessed 20 February 2014

[2] Frederickson, H.G., 'Sustainability as Intergenerational Social Equity: What We Learn from the Humanities', Wisconsin Union, 2013, (<http://www.union.wisc.edu/pmra2013/Paper%20Submissions/Renamed/Sustainability%20as%20Intergenerational%20Social%20Equity%20What%20We%20Learn%20from%20the%20Humanities.pdf>) (assessed 14 March 2014)

[3] Mary Robinson Foundation, 'Climate Justice: An Intergenerational Approach', 2013,

[4] (<http://www.mrfcj.org/media/pdf/Intergenerational-Equity-Position-Paper-2013-11-16.pdf>) (assessed 14 March 2014)

Cases

[1] 2013 EWHC 3549(Admin)

[2] 2006 NSWLEC 720

Arbitration

1893 1 Moore's international Arbitration Awards 755

Thesis

Woods, C., 'The Environment, Intergenerational Equity and Long-Term Investment', DPhil thesis, Worcester College, 2011