Oslo District Court October 26, 2017

PO Box 8023

Dep NO–0030 OSLO, NORWAY

GREENPEACE NORDIC ASSOCIATION AND NATUR OG UNGDOM (NATURE & YOUTH),

Plaintiffs,

against

THE GOVERNMENT OF NORWAY, represented by the Ministry of Petroleum and Energy,

Defendant.

Case No: 16-166674TVI-OTIR/06

AMICUS BRIEF PREPARED BY THE ALLARD K. LOWENSTEIN INTERNATIONAL HUMAN RIGHTS CLINIC YALE LAW SCHOOL NEW HAVEN, CONNECTICUT, U.S.A.

October 26, 2017

Counsel: James J. Silk, Esq.
Alisha Bjerregaard, Esq.

On the brief: Kyle Elliot Fees
Peter Posada

Allard K. Lowenstein International Human Rights Clinic
Yale Law School
P.O. Box 208215
New Haven, CT 06520-8215
Tel: 203-432-7480

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I. LOWENSTEIN CLINIC'S MANDATE AND ROLE

The Allard K. Lowenstein International Human Rights Clinic at Yale Law School (the Clinic) respectfully submits for the Court's consideration this *amicus curiae* brief regarding the Norwegian State's obligations under international human rights law, in regard to the government's decision to award petroleum production licenses in its 23rd licensing round.

The Clinic is a Yale Law School program that gives first-hand experience in human rights advocacy to juris doctor candidates under the supervision of Yale Law School faculty who are experienced international law practitioners. This brief was prepared under the supervision of James J. Silk, Binger Clinical Professor of Human Rights[1] and Alisha Bjerregaard, Robert M. Cover-Allard K. Lowenstein Fellow in International Human Rights.[2] The Clinic undertakes litigation and research projects on behalf of human rights organizations and individual victims of human rights abuses.[3] Past Clinic projects have promoted the work of regional and international organizations that protect human rights, including in the context of climate change. The Clinic has prepared briefs and other submissions for the European Court of Human Rights, the Inter-American Court of Human Rights, the African Court on Human and Peoples' Rights, and various treaty bodies of the United Nations, as well as for national courts, including courts in the United States and in other countries in Europe, Africa, and the Americas. Previous work on climate change includes, for example, a memo for the Expert Group on Global Climate Obligations explaining the nature and international law sources of human rights obligations with regard to climate change.[4]

Under § 15-8 of the Norwegian Dispute Act, written submissions may be submitted by "organisations and associations within the purpose and normal scope of the organisation" in order to "throw light on matters of public interest."[5] The present case concerns the impact of recently awarded Norwegian petroleum production licenses on global climate change. Climate change is a matter of great public interest in Norway and throughout the world. As emphasized in the preamble of the U.N. Framework Convention on Climate Change, "change in the earth's climate and its adverse effects are a common concern of humankind."[6] The

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[1] *See James J. Silk*, YALE LAW SCHOOL, https://www.law.yale.edu/james-j-silk (last visited Feb. 4, 2017).

[2] *See Alisha Bjerregaard*, YALE LAW SCHOOL, https://www.law.yale.edu/alisha-bjerregaard (last visited Feb. 4, 2017).

[3] *See Allard K. Lowenstein International Human Rights Clinic*, YALE LAW SCHOOL, https://www.law.yale.edu/centers-workshops/orville-h-schell-jr-center-international-human-rights/lowenstein-clinic (last visited Feb. 4, 2017); *see also Lowenstein Clinic Past Project Highlights*, YALE LAW SCHOOL, https://www.law.yale.edu/centers-workshops/orville-h-schell-jr-center-international-human-rights/lowenstein-clinic/lowenstein-clinic-past-project-highlights (last visited Feb. 4, 2017).

[4] Ben Farkas et al., *Human Rights and Climate Change Obligations: Draft Memorandum for the Experts' Group on Global Climate Obligations*, ALLARD K. LOWENSTEIN INTERNATIONAL HUMAN RIGHTS CLINIC (Apr. 2013), https://www.law.yale.edu/system/files/documents/pdf/Climate_and_Human_Rights__Memo.Final.pdf. Clinical Professor Silk, as a member of the Expert Group, was a principal author of the Oslo Principles on Global Obligations to Reduce Climate Change. *See Oslo Principles on Global Climate Change Obligations*, EXPERT GROUP ON GLOBAL CLIMATE OBLIGATIONS (Mar. 1, 2015) [hereinafter *Oslo Principles*], http://globaljustice.macmillan.yale.edu/sites/default/files/files/OsloPrinciples.pdf.

[5] Act of 17 June 2005 No. 90 Relating to Mediation and Procedure in Civil Disputes (The Dispute Act), unofficial English translation available at http://app.uio.no/ub/ujur/oversatte-lover/data/lov-20050617-090-eng.pdf.

[6] United Nations Framework Convention on Climate Change (UNFCCC), preamble, May 9, 1992, 1771 U.N.T.S. 107, https://treaties.un.org/doc/Treaties/1994/03/19940321%2004-56%20AM/Ch_XXVII_07p.pdf.

Clinic, as a contributor to the international legal discussion about human rights and climate change, has a significant interest in having the Court consider both the harmful effects of climate change on the enjoyment of fundamental human rights and the Norwegian State's obligations under international human rights law.

In this submission, the Clinic seeks to contribute to the Court's analysis of the human rights impact of the petroleum production licenses in the 23rd licensing round by detailing: (1) the human rights obligations that the government of Norway has committed to uphold but that are undermined by the climate change consequences of its decision to award these licenses; (2) the Norwegian State's obligations to respond to climate change under international human rights law; and (3) the nature of the remedy that international human rights law requires.

II. THE STATE OF NORWAY HAS AN OBLIGATION TO RESPECT, PROTECT, AND FULFILL THE MANY HUMAN RIGHTS THREATENED BY CLIMATE CHANGE

Norway enshrines respect for the right to a healthy environment in its constitution. Article 112 of the Norwegian Constitution provides:

> Every person has the right to an environment that is conducive to health and to a natural environment whose productivity and diversity are maintained. Natural resources shall be managed on the basis of comprehensive long-term considerations which will safeguard this right for future generations as well. . . . The authorities of the state shall take measures for the implementation of these principles.[7]

Norway is a party to many human rights treaties that help illuminate the content of the constitutional "right to an environment that is conducive to health," including the European Convention on Human Rights (ECHR), the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the Convention on the Rights of the Child (CRC). Ratifying these conventions obliges the government of Norway to respect the rights enshrined in them. As this honorable Court knows, the State has gone a step further by incorporating the ECHR, the ICCPR, and the ICESCR into domestic law and giving them primacy over conflicting legislation. The Human Rights Act of 1999 provides that these treaties "shall have the force of Norwegian law" and "shall take precedence over any other legislative provisions that conflict with them."[8]

Actions that contribute to climate change threaten the human rights enshrined in the Constitution and in domestic and international law. The government's granting of licenses will lead to increased carbon emissions that contribute to climate change. Climate change and

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Norway ratified the UNFCCC on July 9, 1993. *Chapter XXVII: Environment, 7. United Nations Framework Convention on Climate Change*, U.N. TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en (last visited Feb. 4, 2017).

[7] GRUNNLOVEN, May 17, 1814 (amended May 2016), art. 112, official English translation available at https://www.stortinget.no/globalassets/pdf/english/constitutionenglish.pdf.

[8] Act Relating to the Strengthening of the Status of Human Rights in Norwegian Law (The Human Rights Act) (1999), §§ 2-3, unofficial English translation available at http://app.uio.no/ub/ujur/oversatte-lover/data/lov-19990521-030-eng.pdf.

its attendant environmental harms pose risks to the rights to life, health, and family life of Norwegian citizens and others. The Clinic respectfully requests that the Court assess whether issuing this round of licenses is consistent with the State's obligations under international law and consider the detrimental effects these licenses will have on the enjoyment of human rights. Having concluded that the licenses are inconsistent with the State's obligations, the Clinic urges the Court to provide an effective remedy by voiding the licenses.

A. Climate change will have devastating effects on the enjoyment of human rights that the government of Norway is obliged to protect.

1. The Right to Life

As a party to the ECHR, ICCPR, and CRC,[9] the State of Norway has agreed to protect the right to life. Article 2(1) of the ECHR states, "Everyone's right to life shall be protected by law. No one shall be deprived of his life intentionally save in the execution of a sentence of a court following his conviction of a crime for which this penalty is provided by law."[10] The European Court of Human Rights (European Court) has clarified States' duties under Article 2(1). In environmental contexts, when a State performs, commissions, or allows a third party to engage in activities "in which the right to life may be at stake,"[11] it has three positive obligations. First, States must "put in place a legislative and administrative framework designed to provide effective deterrence against threats to the right to life."[12] Second, States must effectively manage those activities such that the risk to life is reduced through appropriate "licensing, setting up, operation, security and supervision of the activity."[13] Finally, States must ensure public disclosure of the risks these activities pose to

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[9] Norway ratified the ECHR on January 15, 1952. Treaty Office, *Chart of Signatures and Ratifications of Treaty 005: Convention for the Protection of Human Rights and Fundamental Freedoms*, COUNCIL OF EUROPE, www.coe.int/en/web/conventions/full-list/-/conventions/treaty/005/signatures (last visited Feb. 4, 2017). Norway ratified the ICCPR on September 13, 1972. *Chapter IV: Human Rights, 4. International Covenant on Civil and Political Rights*, U.N. TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-4&chapter=4&clang=_en (last visited Feb. 4, 2017). Norway ratified the CRC on January 8, 1991. *Chapter IV: Human Rights, 11. Convention on the Rights of the Child*, U.N. TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-11&chapter=4&clang=_en (last visited Feb. 4, 2017).

[10] European Convention on Human Rights (ECHR) (Convention for the Protection of Human Rights and Fundamental Freedoms), art. 2(1), Nov. 4, 1950, 213 U.N.T.S. 221, http://www.echr.coe.int/Documents/Convention_ENG.pdf.

[11] *Kolyadenko and Others v. Russia*, App. Nos. 17423/05, 20534/05, 20678/05, 23263/05, 24283/05 and 35673/05, § 158 (Feb. 28, 2012), http://hudoc.echr.coe.int/eng?i=001-109283; *see also Brincat and Others v. Malta*, App. Nos. 60908/11, 62110/11, 62129/11, 62312/11 and 62338/11, § 80 (July 24, 2014), http://hudoc.echr.coe.int/eng?i=001-145790; *Vilnes and Others v. Norway*, App. Nos. 52806/09 and 22703/10, § 220 (Dec. 5, 2013), http://hudoc.echr.coe.int/eng?i=001-138597; *Budayeva and Others v. Russia*, App. Nos. 15339/02, 21166/02, 20058/02, 11673/02 and 15343/02, § 130, ECHR 2008-II (extracts) (Mar. 20, 2008), http://hudoc.echr.coe.int/eng?i=001-85436; *Öneryıldız v. Turkey* [GC], App. No. 48939/99, § 71, ECHR 2004-XII (Nov. 30, 2004), http://hudoc.echr.coe.int/eng?i=001-67614.

[12] *Kolyadenko and Others v. Russia*, *supra* note 11, § 157; *see also Brincat and Others v. Malta*, *supra* note 11, § 101; *Vilnes and Others v. Norway*, *supra* note 11, § 220; *Budayeva and Others v. Russia*, *supra* note 11, § 129; *Öneryıldız v. Turkey*, *supra* note 11, § 89.

[13] *Kolyadenko and Others v. Russia*, *supra* note 11, § 158; *see also Brincat and Others v. Malta*, *supra* note 11, § 101; *Vilnes and Others v. Norway*, *supra* note 11, § 220; *Budayeva and Others v. Russia*, *supra* note 11, § 132; *Öneryıldız v. Turkey*, *supra* note 11, § 90.

the right to life.[14]

In evaluating whether a State has complied with its positive obligations under ECHR Article 2(1), the European Court considers a broad set of factors, including whether a State followed its domestic law and decision-making processes, adequately mitigated against any risks to life, and appropriately evaluated the risk to life posed by the activity.[15] Scientific and technical knowledge plays an important role in a State's upholding of its Article 2 obligations. As the European Court emphasized in *Brincat and Others*, if a State's regulatory framework does not adequately respond to available scientific information regarding the risk to life, it might constitute a violation of Article 2.[16]

The ICCPR and the CRC also obligate States Parties to protect the right to life, which the Human Rights Committee, the body established by the ICCPR to monitor States' compliance with the treaty's provisions, has described as the "supreme right."[17] The ICCPR requires States to undertake all necessary steps and measures to give effect to the right to life.[18] In formulating environmental policy and legislation, States Parties commit not only to refrain from interfering with the right to life,[19] but also to exercise due diligence to prevent future harms to the right to life.[20] The Human Rights Committee's most recent Draft General Comment on the right to life crystallizes the applicability of the due diligence obligation to environmental harms, saying, "The duty to protect life also imposes on States parties a due diligence obligation to take long-term measures to address the general conditions in society that may eventually give rise to direct threats to life. . . . States parties should . . . take

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[14] *Kolyadenko and Others v. Russia*, *supra* note 11, § 159; *see also Brincat and Others v. Malta*, *supra* note 11, § 101; *Vilnes and Others v. Norway*, *supra* note 11, § 220; *Budayeva and Others v. Russia*, *supra* note 11, § 132; *Öneryıldız v. Turkey*, *supra* note 11, § 90.

[15] *Kolyadenko and Others v. Russia*, *supra* note 11, § 161; *see also Brincat and Others v. Malta*, *supra* note 11, § 101; *Vilnes and Others v. Norway*, *supra* note 11, § 220; *Budayeva and Others v. Russia*, *supra* note 11, § 136.

[16] *Brincat and Others v. Malta*, *supra* note 11, §§ 106, 109.

[17] Human Rights Committee, *General Comment No. 6 on Art. 6: Right to Life*, ¶ 1 (Apr. 30, 1982), http://tbinternet.ohchr.org/Treaties/CCPR/Shared%20Documents/1_Global/INT_CCPR_GEC_6630_E.doc.

[18] International Covenant on Civil and Political Rights (ICCPR), arts. 2 & 6, Dec. 19, 1966, 999 U.N.T.S. 171, https://treaties.un.org/doc/Treaties/1976/03/19760323%2006-17%20AM/Ch_IV_04.pdf. The most recent Draft General Comment to the ICCPR explicitly connects the duty to protect right to life with environmental pollution. Human Rights Committee, *Draft General Comment No. 36, Art. 6: Right to Life*, ¶ 28, U.N. Doc. CCPR/C/GC/R.36/Rev.2 (Sept. 2, 2015), www.ohchr.org/Documents/HRBodies/CCPR/Draft_GC_115thsession.doc.

[19] Human Rights Committee, *General Comment No. 31: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant*, ¶ 6, U.N. Doc. CCPR/C/21/Rev.1/Add.13 (May 26, 2004), http://legal.un.org/docs/?symbol=CCPR/C/21/Rev.1/Add.13 ("The legal obligation under article 2, paragraph 1, is both negative and positive in nature. States Parties must refrain from violation of the rights recognized by the Covenant, and any restrictions on any of those rights must be permissible under the relevant provisions of the Covenant.").

[20] *See id.* ¶ 8. ("[T]he positive obligations on States Parties to ensure Covenant rights will only be fully discharged if individuals are protected by the State, not just against violations of Covenant rights by its agents, but also against acts committed by private persons or entities that would impair the enjoyment of Covenant rights in so far as they are amenable to application between private persons or entities. There may be circumstances in which a failure to ensure Covenant rights as required by article 2 would give rise to violations by States Parties of those rights, as a result of States Parties' permitting or failing to take appropriate measures or to exercise due diligence to prevent, punish, investigate or redress the harm caused by such acts by private persons or entities.").

adequate measures to protect the environment against life-threatening pollution."[21] Similarly, under the CRC, States must "ensure to the maximum extent possible the survival and development of the child."[22] The Committee on the Rights of the Child, the body established by the CRC to monitor States' compliance with that treaty's provisions, emphasizes that children's "right to survival and development" requires "a healthy and safe environment."[23]

The Office of the U.N. High Commissioner for Human Rights (OHCHR) and the U.N. Human Rights Council have repeatedly connected the right to life to the effects of climate change.[24] For example, a 2009 OHCHR report linked the adverse effects of climate change to violations of the right to life under the ICCPR and the CRC.[25] As recently as July 1, 2016, the Human Rights Council reaffirmed this view, emphasizing that "the adverse effects of climate change have a range of implications, which can increase with greater warming, both direct and indirect, for the effective enjoyment of human rights, including, inter alia, the right to life."[26]

States, including Norway, that have ratified the ECHR, the ICCPR, and the CRC have bound themselves to protect the right to life. Discharging this commitment requires States Parties to take all necessary steps to mitigate threats to the right to life, including by using the best available scientific evidence to evaluate risks to life; publicly disclosing the results of those evaluations; and reducing potential harms through legislative, administrative, and regulatory frameworks. In light of these commitments under international human rights law, it is respectfully submitted that the government of Norway has undertaken both a duty to perform comprehensive due diligence before undertaking or authorizing drilling that may exacerbate climate change and a duty to publicly disclose risks to life posed by greenhouse-gas emissions that result from such further drilling.

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[21] *Draft General Comment No. 36, Art. 6: Right to Life*, *supra* note 18, ¶ 28. Although still under consideration by the Human Rights Committee, Draft General Comment No. 36 represents an authoritative, comprehensive, and contemporary expert understanding of the scope and content of the right to life under Article 6 of the ICCPR. The draft general comment reflects "all of the [Human Rights Committee's] output that referred to article 6, including its Views, concluding observations and other general comments." Human Rights Committee, 115th Sess., 3213th mtg. ¶ 2, U.N. Doc. CCPR/C/SR.3213 (Oct. 29, 2015). Furthermore, the rapporteurs responsible for drafting the general comment enriched it with "the output of other treaty bodies, special procedures and . . . the relevant practice of regional human rights bodies." *Id.*

[22] Convention on the Rights of the Child (CRC), art. 6(2), Nov. 20, 1989, 1577 U.N.T.S. 3, https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch_IV_11p.pdf.

[23] Committee on the Rights of the Child, *General Comment No. 7 (2005) on Implementing Child Rights in Early Childhood*, ¶ 10, U.N. Doc. CRC/C/GC/7/Rev.1 (Sept. 20, 2006), http://legal.un.org/docs?symbol=CRC/C/GC/7/Rev.1.

[24] *See* John H. Knox, *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, ¶¶ 7-22, U.N. Doc. A/HRC/31/52 (Feb. 1, 2016) [hereinafter 2016 Report by Special Rapporteur John Knox], http://legal.un.org/docs/?symbol=A/HRC/31/52 (detailing "[i]ncreasing attention to the relationship between climate change and human rights" by the Human Rights Council, the United Nations, and other international bodies). The Human Rights Council is a body created by the U.N. General Assembly to strengthen the promotion and protection of human rights. G.A. Res. 60/251, preamble & ¶¶ 2-5 (Apr. 3, 2006), www2.ohchr.org/english/bodies/hrcouncil/docs/A.RES.60.251_En.pdf.

[25] U.N. Office of the High Commissioner for Human Rights, *Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship Between Climate Change and Human Rights*, ¶¶ 18, 21-24, U.N. Doc. A/HRC/10/61 (Jan. 15, 2009), http://legal.un.org/docs?symbol=A/HRC/10/61.

[26] Human Rights Council Res. 32/33, preamble, U.N. Doc. A/HRC/RES/32/33 (July 18, 2016), http://legal.un.org/docs/?symbol=A/HRC/RES/32/33.

2. *The Right to Health*

As a party to the ICESCR, the State of Norway committed to use "all appropriate means,"[27] including legislative, judicial, administrative, financial, educational and social measures,[28] to protect the right "of everyone to the enjoyment of the highest attainable standard of physical and mental health."[29] Article 12 of the ICESCR emphasizes that State Parties have specific duties to take steps necessary "for the healthy development of the child" and for "the improvement of all aspects of environmental and industrial hygiene."[30] In addition, by ratifying the CRC, the State reaffirmed its duty to protect the rights of children "to the enjoyment of the highest attainable standard of health."[31]

The right to health under ICESCR Article 12 confers obligations beyond merely ensuring a system of health care. Rather, it obligates States Parties to "promote conditions in which people can lead a healthy life" and protect "the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions, and a healthy environment."[32] Furthermore, the Committee on Economic, Social and Cultural Rights, the body charged with interpreting the ICESCR's provisions, has clarified that States must use all available means to prevent and reduce "the population's exposure to harmful substances such as radiation and harmful chemicals or other detrimental environmental conditions that directly or indirectly impact upon human health."[33] Adopting "laws or policies that interfere with the enjoyment of any of the components of the right to health"[34] would, therefore, constitute a violation of a State's obligation to respect the right to health under the ICESCR. Respecting and protecting the right to health under the CRC imposes similar obligations; States Parties agree "to combat disease and malnutrition . . . through, *inter alia*, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution."[35] Under each of these international human rights treaties, States are obligated to adopt policies that protect the right to health.

Climate change threatens the right to health for both adults and children. The Human Rights Council has noted that climate change poses "a grave threat to human health, including the social and environmental determinants of health such as clean air, safe drinking

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[27] International Covenant on Economic, Social and Cultural Rights (ICESCR), art. 2(1), Dec. 16, 1966, 993 U.N.T.S. 3, https://treaties.un.org/doc/Treaties/1976/01/19760103%2009-57%20PM/Ch_IV_03.pdf.

[28] Committee on Economic, Social and Cultural Rights, *General Comment No. 3: The Nature of States Parties' Obligations (Art. 2, Para. 1, of the Covenant)*, ¶¶ 2-8, U.N. Doc. E/1991/23 (Jan. 1, 1991), http://tbinternet.ohchr.org/Treaties/CESCR/Shared%20Documents/1_Global/INT_CESCR_GEC_4758_E.doc.

[29] ICESCR, *supra* note 27, art. 12(1).

[30] *Id.* art. 12(2).

[31] CRC, *supra* note 22, art. 24(1).

[32] Committee on Economic, Social and Cultural Rights, *General Comment No. 14 (2000): The Right to the Highest Attainable Standard of Health (Article 12 of the International Covenant on Economic, Social and Cultural Rights)*, ¶ 4, U.N. Doc. E/C.12/2000/4 (Aug. 11, 2000), http://legal.un.org/docs?symbol=E/C.12/2000/4.

[33] *Id.* ¶ 15.

[34] *Id.* ¶ 50.

[35] CRC, *supra* note 22, art. 24(2)(c).

water, sufficient food and secure shelter."[36] Climate change causes premature death and disease as temperatures increase, air pollution worsens, extreme weather events occur more frequently, disease vectors expand, and well-being diminishes due to tolls on mental health and nutrition.[37] Children are "uniquely vulnerable" to respiratory and infectious diseases associated with climate change.[38] UNICEF has emphasized the particular susceptibility of children by highlighting that "more than 88 per cent of the existing global burden of disease due to climate change occurs in children under the age of five."[39] In 2013, the Committee on the Rights of the Child concluded that States' "[e]nvironmental interventions should, inter alia, address climate change, as this is one of the biggest threats to children's health and exacerbates health disparities. States should, therefore, put children's health concerns at the centre of their climate change adaptation and mitigation strategies."[40]

Because climate change and the right to health are inextricably connected, the duty under the ICESCR and the CRC to protect the right to health—especially children's right to health—obligates States to protect against harms caused by climate change. Accordingly, as a Party to these conventions, the State of Norway has taken on the obligation to use all available means including "through the provision of judicial or other effective remedies," to prevent climate change from negatively affecting the right to health.[41]

3. The Right to Non-Interference in Private and Family Life

Article 8 of the ECHR guarantees the right to private life and family life, including in the environmental context. In cases concerning environmental harms, the European Court of Human Rights has interpreted Article 8 broadly, protecting not only the enjoyment of the home against severe environmental pollution,[42] but also the rights to health and well-being

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[36] U.N. Office of the High Commissioner for Human Rights, *Report of the Office of the United Nations High Commissioner for Human Rights: Analytical Study on the Relationship Between Climate Change and the Human Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health*, ¶ 9, U.N. Doc A/HRC/32/23 (May 6, 2016) [hereinafter OHCHR 2016 Report], http://legal.un.org/docs?symbol=A/HRC/32/23.

[37] *Id.* ¶¶ 4-8.

[38] Council on Environmental Health, *Global Climate Change and Children's Health*, 136 PEDIATRICS 992, 993 (2015), http://pediatrics.aappublications.org/content/pediatrics/136/5/992.full.pdf; *Children's Health 'Uniquely' Affected by Climate Change, Pediatricians Say*, GUARDIAN (Oct. 26, 2015), https://www.theguardian.com/environment/2015/oct/26/children-climate-change-health-american-academy-pediatrics.

[39] UNICEF, *Climate Change: Children's Challenge*, 5 (2013), https://unfccc.int/files/cc_inet/application/x-httpd-php/ccinet_getfile.php?file=245.

[40] Committee on the Rights of the Child, *General Comment No. 15 (2013) on the Right of the Child to the Enjoyment of the Highest Attainable Standard of Health (Art. 24)*, ¶ 50, U.N. Doc. CRC/C/GC/15 (Apr. 17, 2013), http://legal.un.org/docs?symbol=CRC/C/GC/15.

[41] *General Comment No. 3: The Nature of States Parties' Obligations (Art. 2, Para. 1, of the Covenant)*, *supra* note 28, ¶ 5; *see also* Committee on the Rights of the Child, *General Comment No. 5 (2003): General Measures of Implementation of the Convention on the Rights of the Child (Arts. 4, 42 and 44, Para. 6)*, ¶¶ 24-25, U.N. Doc. CRC/GC/2003/5 (Nov. 27, 2003), http://legal.un.org/docs?symbol=CRC/GC/2003/5.

[42] *López Ostra v. Spain*, App. No. 16798/90, § 51, Series A No. 303-C (Dec. 9, 1994), http://hudoc.echr.coe.int/eng?i=001-57905 ("[S]evere environmental pollution may affect individuals' well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely, *without*, however, seriously endangering their health.") (emphasis added).

and to the enjoyment of a healthy environment.[43] Article 8 "does not merely compel the State to abstain from arbitrary interference," but also sets out a positive obligation to effectuate respect for private and family life.[44] In *Di Sarno v. Italy*, the Court reiterated that States Parties to the European Convention are "under a positive obligation to take reasonable and adequate steps to protect the right of the people concerned to respect for their homes and their private life and, more generally, to live in a safe and healthy environment."[45] Similarly, in *Tătar v. Romania*, the Court found that "the existence of a serious and substantial risk to the health and welfare of the applicants" requires States "to take reasonable and appropriate measures able to protect the rights to respect for their private life and their home and . . . to the enjoyment of a healthy and protected environment."[46]

Article 8 provides for both substantive and procedural obligations.[47] The substantive obligation of Article 8 requires States to (1) protect against irreversible harms to the environment that can affect individuals' private life, including their health and welfare;[48] and (2) ensure that individuals are protected against various types and degrees of environmental health harms, including threats to life, serious health risks, and sustained physical or mental nuisances.[49] The procedural obligation requires (1) a minimum level of due diligence by the State, taking into account both the needs of the community and the potential harms;[50] and (2) disclosure of essential information such that individuals may "assess risks to their health and lives."[51] In addition, for States, including Norway, that are party to the Aarhus Convention,[52] the Court has emphasized further procedural duties under Article 8, such as

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[43] *See Fadeyeva v. Russia*, App. Nos. 55723/00, §§ 88-89, 92, ECHR 2005-IV (June 9, 2005), http://hudoc.echr.coe.int/eng?i=001-69315; *Tătar v. Romania*, App. No. 67021/01, §§ 88, 107, (Jan. 27, 2009), available in French at http://hudoc.echr.coe.int/eng?i=001-90909; *see also Dubetska and Others v. Ukraine*, App. No. 30499/03, §§ 111, 140, 144 (Feb. 10, 2011), http://hudoc.echr.coe.int/eng?i=001-103273. These cases clearly demonstrate that, although the ECHR does not protect a right to a clean environment for its own sake, *Kyrtatos v. Greece*, App. No. 41666/98, § 52, ECHR 2003-VI (extracts) (May 22, 2003), http://hudoc.echr.coe.int/eng?i=001-61099, environmental harms that impede the right to health violate the ECHR.

[44] *Di Sarno and Others v. Italy*, App. No. 30765/08, § 105 (Jan. 10, 2012), http://hudoc.echr.coe.int/eng?i=001-108480.

[45] *Id.* § 110. *See also Tătar v. Romania*, *supra* note 43, § 88 (citing *Budayeva and Others* for the proposition that "[t]he positive obligation to take all reasonable and appropriate steps to protect the rights which the applicants draw from the paragraph 1 of Article 8 implies, above all, for States, the primary duty to put in place a legislative and administrative framework for effective prevention of environmental damage and human health") (translated from French by authors).

[46] *Tătar v. Romania*, *supra* note 43, § 107 (translated from French by authors).

[47] The European Court has noted that the positive obligations imposed by Article 8 largely overlap with the obligations that protect the right to life under Article 2. *Kolyadenko and Others v. Russia*, *supra* note 11, § 216.

[48] *Tătar v. Romania*, *supra* note 43, §§ 85, 87-88, 107.

[49] *Id*. §§ 85-88, 107; *López Ostra v. Spain*, *supra* note 42, § 51; *Hatton and Others v. the United Kingdom* [GC], App. Nos. 36022/97, § 96, ECHR 2003-VIII (Jul. 8, 2003), http://hudoc.echr.coe.int/eng?i=001-61188.

[50] *Hatton and Others v. the United Kingdom*, *supra* note 49, §§ 98-99, 101.

[51] *Brincat and Others v. Malta*, *supra* note 11, § 102; *see also Vilnes and Others v. Norway*, *supra* note 11, § 235.

[52] Norway ratified the Aarhus Convention (formally known as the United Nations Economic Commission for Europe's Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters) on May 2, 2003. *Chapter XXVII: 13. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, U.N. TREATY

"[p]romoting public participation in decision-making concerning issues with an environmental impact."[53] These procedural duties under Article 8 apply to environmental harms caused by public and private actors alike.[54]

Although States have discretion in choosing the means by which they fulfill their Article 8 obligations, that discretion is limited.[55] In *Brincat and Others v. Malta*, "the seriousness of the threat at issue" outweighed "the State's margin of appreciation as to the choice of means"; consequently, the European Court found that Malta had failed to fulfill its positive obligations under Articles 2 and 8.[56] In cases involving serious environmental harm, the Court has applied the precautionary principle to require "effective and proportionate measures to prevent a risk of serious and irreversible damage to the environment."[57]

Climate change threatens the right to private and family life because, in part, it threatens the right to life itself. But aspects of climate change that do not threaten life can, nevertheless, threaten private and family life. For example, in addition to the harms to health and well-being discussed above,[58] the displacement of persons or communities—a near certainty in the climate change context—also constitutes a violation of the right to non-interference with home and private life.[59]

COLLECTION, https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-13&chapter=27&clang=_en (last visited Feb. 4, 2017).

[53] *Grimkovskaya v. Ukraine*, App. No. 38182/03, § 39 (July 21, 2011), http://hudoc.echr.coe.int/eng?i=001-105746. In *Grimkovskaya*, the Court considered Ukraine's ratification of the Aarhus Convention as a relevant factor in reaching its conclusion that Article 8 had been violated:

> 72. Overall, the Court attaches importance to the following factors. First, the Government's failure to show that the decision to designate K. Street as part of the M04 motorway was preceded by an adequate environmental feasibility study and followed by the enactment of a reasonable environmental management policy. Second, the Government did not show that the applicant had a meaningful opportunity to contribute to the related decision-making processes, including by challenging the municipal policies before an independent authority. Bearing those two factors and the Aarhus Convention (see paragraph 39) in mind, the Court cannot conclude that a fair balance was struck in the present case.
>
> 73. There has therefore been a breach of Article 8 of the Convention.

Id. §§ 72-73. The Court has further explained that it has used "principles enshrined in" the Aarhus Convention to build its understanding of Article 8's procedural duties in environmental cases. *See, e.g.*, *Demir and Baykara v. Turkey* [GC], App. No. 34503/97, § 83, ECHR 2008 (Nov. 12, 2008), http://hudoc.echr.coe.int/eng?i=001-89558. The Court has even applied these principles to States that have not ratified the Aarhus Convention. *Id.*

[54] *Hatton and Others v. the United Kingdom*, *supra* note 49, § 98 ("Article 8 may apply in environmental cases whether the pollution is directly caused by the State or whether State responsibility arises from the failure to regulate private industry properly."); *see also Fadayeva v. Russia*, *supra* note 43, § 89; *Tătar v. Romania*, *supra* note 43, § 87; *López Ostra v. Spain*, *supra* note 42, §§ 52, 58.

[55] *Hatton and Others v. the United Kingdom*, *supra* note 49, § 98; *Tătar v. Romania*, *supra* note 43, §§ 99-104.

[56] *Brincat and Others v. Malta*, *supra* note 11, § 116.

[57] *Tătar v. Romania*, *supra* note 43, §§ 109, 120. For further discussion of the precautionary principle, see *infra* note 94 and accompanying text.

[58] *See supra* notes 24-26, 36-40 and accompanying text.

[59] *López Ostra v. Spain*, *supra* note 42, §§ 42, 57-58.

B. To safeguard these rights, the government of Norway must act in accordance with principles of intergenerational equity, sustainable development, and international cooperation.

1. Intergenerational Equity and Sustainable Development

In making decisions that will have a significant environmental impact, the State has a duty to act in a manner that secures the rights to life, health, and private and family life, not only for the current generation, but for future generations. Article 112 of Norway's Constitution enshrines a requirement to consider the effects on future generations before acting in a way that might infringe on such generations' right to an environment conducive to health. According to the principle of intergenerational equity, "the present generation . . . must pass the Earth on to future generations in a condition no worse than that in which it was received so that future generations may meet their own needs."[60]

In both the domestic and international contexts, intergenerational equity has developed into a justiciable principle. For example, the International Court of Justice has considered the health of future generations on several occasions. Two decades ago, in an advisory opinion on nuclear weapons, the Court recognized that "the environment is under daily threat" and 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*."[61] In partial dissent, Judge Christopher Weeramantry urged the Court to recognize more explicitly the rights of future generations, noting:

> At any level of discourse, it would be safe to pronounce that no one generation is entitled, for whatever purpose, to inflict such damage on succeeding generations. . . . This Court, as the principal judicial organ of the United Nations, empowered to state and apply international law[,] . . . must, in its jurisprudence, pay due recognition to the rights of future generations. . . . [T]he 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 through major treaties, through juristic opinion and through general principles of law recognized by civilized nations.[62]

In a separate opinion in the *Pulp Mills* case, Judge Antônio Augusto Cançado Trindade of the International Court of Justice wrote, "Nowadays, in 2010, it can hardly be doubted that the acknowledgment of inter-generational equity forms part of conventional wisdom in International Environmental Law."[63] In a later case, he added that intergenerational equity is present "in a wide range of instruments of international environmental law, and indeed of

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[60] EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY AND INTERGENERATIONAL EQUITY 24 (1989) (available in Annex 1). This principle applies not only to the conservation of the diversity of natural and cultural resources, but also to the conservation of the quality of the environment. *Id.* at 42.

[61] *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion),* 1996 I.C.J. 226, 241, ¶ 29 (July 8, 1996), http://www.icj-cij.org/docket/files/95/7495.pdf (emphasis added).

[62] *Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion): Dissenting Opinion of Judge Weeramantry*, 1996 I.C.J. 226, 455 (July 8, 1996), http://www.icj-cij.org/docket/files/95/7521.pdf.

[63] *Pulp Mills on the River Uruguay (Argentina v. Uruguay): Separate Opinion of Judge Cançado Trindade*, I.C.J. Reports 2010, ¶ 122 (Apr. 10, 2010), http://www.icj-cij.org/docket/files/135/15885.pdf.

contemporary public international law."[64] Domestic courts in Pakistan and India have also relied on intergenerational equity in cases adjudicating climate change and the sustainable use of natural resources, respectively.[65]

As the U.N. Secretary-General's 2013 report on the needs of future generations confirms, States may not disregard the developmental and environmental needs of future generations when managing their natural resources.[66] In particular, the Committee on Economic, Social, and Cultural Rights has emphasized that the rights to food and water, which are critical underlying determinants of health that are fundamental to human survival, as well as other economic and social rights, belong to future generations. In its 1999 General Comment on the right to adequate food, the Committee explained:

> The notion of *sustainability* is intrinsically linked to the notion of adequate food or food *security*, implying food being accessible for both present and future generations. The precise meaning of "adequacy" is to a large extent determined by prevailing social, economic, cultural, climatic, ecological and other conditions, while "sustainability" incorporates the notion of long-term availability and accessibility.[67]

The Committee's 2003 General Comment on the right to water clarified that this right, too, must be understood in light of principles of intergenerational equity and sustainable development, declaring, "States parties should adopt comprehensive and integrated strategies and programmes to ensure that there is sufficient and safe water for present and future generations."[68] The Committee has since confirmed that "[m]any provisions of the [ICESCR] link with environment and sustainable development, and the Committee in its dialogue with States parties has regularly stressed the interlinkages of specific economic, social and cultural rights, as well as the right to development, with the sustainability of environmental protection and development efforts."[69] Intergenerational equity is also a core principle of the CRC.[70] The Committee on the Rights of the Child has affirmed that States Parties "shall protect children's rights when making decisions related to mobilizing resources through natural

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[64] *Whaling in the Antarctic (Australia v. Japan; New Zealand intervening)*: *Separate Opinion of Judge Cançado Trinidade* (unreported), ¶ 47 (Mar. 31, 2014), http://www.icj-cij.org/docket/files/148/18146.pdf.

[65] *See Asghar Leghari v. Federation of Pakistan*, W.P. No. 25501/2015, ¶ 4 [Lahore High Court] (Sept. 14, 2015), http://cer.org.za/wp-content/uploads/2015/10/Leghari-2.pdf; *Intellectuals Forum v. State of A.P.*, 3 S.C.C. 549, ¶ 63 [Supreme Court of India] (Feb. 23, 2006), https://indiankanoon.org/doc/1867873.

[66] U.N. Secretary-General, *Intergenerational Solidarity and the Needs of Future Generations*, ¶¶ 21, 25-28, U.N. Doc. A/68/322 (Aug. 15, 2013), http://legal.un.org/docs/?symbol=A/68/322.

[67] Committee on Economic, Social, and Cultural Rights, *General Comment No. 12: The Right to Food (Art. 11)*, ¶ 7, U.N. Doc. No. E/C.12/1999/5 (May 12, 1999), http://legal.un.org/docs?symbol=E/C.12/1999/5 (emphasis in original).

[68] Committee on Economic, Social, and Cultural Rights, *General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)*, ¶ 28, U.N. Doc. E/C.12/2002/11 (Jan. 20, 2003), http://legal.un.org/docs?symbol=E/C.12/2002/11.

[69] Committee on Economic, Social, and Cultural Rights, *Statement in the Context of the Rio+20 Conference on "The Green Economy in the Context of Sustainable Development and Poverty Eradication,"* ¶ 5, U.N. Doc. E/C.12/2012/1 (June 4, 2012), http://legal.un.org/docs?symbol=E/C.12/2012/1.

[70] Committee on the Rights of the Child, *General Comment No. 15*, *supra* note 40, ¶ 50 ("Environmental interventions should include addressing climate change as this is one of the biggest threats to children's health and to exacerbating health disparities. States should, therefore, put children's health concerns at the centre of their climate change adaptation and mitigation strategies.").

resource extraction," including by considering "impacts they might have on current and future generations of children."[71]

More than 25 international agreements refer to intergenerational equity or the rights of future generations.[72] Concern for future generations animates the first clause of the U.N. Charter, the founding document of modern international law.[73] Intergenerational equity is incorporated into the preamble of the U.N. Framework Convention on Climate Change (UNFCCC),[74] as well as its first listed principle.[75] Most recently, the Paris Agreement, ratified by Norway in June 2016,[76] called on all parties to "promote and consider their respective obligations on human rights . . . as well as gender equality, empowerment of women and intergenerational equity."[77] Article 4 of UNESCO's 1997 Declaration on the Responsibilities of the Present Generations Towards Future Generations, while not legally binding, exemplifies the recognition of a collective moral duty "to bequeath to future generations an Earth which will not one day be irreversibly damaged by human activity. Each generation inheriting the Earth temporarily should take care to use natural resources reasonably and ensure that life is not prejudiced by harmful modifications of the ecosystems . . . ."[78] Article 5(4) of the Declaration notes that "present generations should take into account possible consequences for future generations of major projects before these are carried out."[79]

Article 14 of the ECHR, which prohibits discrimination on the basis of age, further illuminates the significance of the rights of future generations.[80] Both today's children and children yet to be born face more serious risks to their lives and health because of climate change than do older people. States have a responsibility to prevent the present generation

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[71] Committee on the Rights of the Child, *General Comment No. 19 (2016) on Public Budgeting for the Realization of Children's Rights (Art. 4)*, ¶ 80, U.N. Doc. CRC/C/GC/19 (July 20, 2016), http://legal.un.org/docs?symbol=CRC/C/GC/19.

[72] For a complete list of instruments, see U.N. Secretary-General, *Intergenerational Solidarity and the Needs of Future Generations*, *supra* note 66, ¶¶ 33-35.

[73] *See* U.N. Charter preamble, https://treaties.un.org/doc/Publication/CTC/uncharter-all-lang.pdf ("We the Peoples of the United Nations determined to save future generations from the scourge of war . . . .").

[74] United Nations Framework Convention on Climate Change (UNFCCC), *supra* note 6, preamble ("The Parties to this Convention . . . [d]etermined to protect the climate system for present and future generations . . . .").

[75] *Id.* art. 3, ¶ 1 ("The Parties should protect the climate system for the benefit of present and future generations of humankind . . . .").

[76] *Chapter XXVII: 7.d Paris Agreement*, U.N. TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en (last visited Feb. 6, 2017).

[77] Paris Agreement, preamble, Dec. 12, 2015, C.N.62.2016.TREATIES-XXVII.7.d, https://treaties.un.org/doc/Treaties/2016/02/20160215%2006-03%20PM/Ch_XXVII-7-d.pdf.

[78] United Nations Educational, Scientific, and Cultural Organization (UNESCO), Declaration on the Responsibilities of the Present Generations Towards Future Generations, art. 4, Nov. 12, 1997, http://portal.unesco.org/en/ev.php-URL_ID=13178&URL_DO=DO_TOPIC&URL_SECTION=201.html.

[79] *Id.* art. 5(4).

[80] Article 14 does not include age in the list of specifically prohibited bases of discrimination, but age is included in "other status." *See Schwizgebel v. Switzerland*, App. No. 25762/07, §§ 76, 85, ECHR 2010 (extracts) (June 10, 2010), http://hudoc.echr.coe.int/eng?i=001-99288; *D.G. v. Ireland*, App. No. 39474/98, §§ 111-16, ECHR 2002-III (May 16, 2002), http://hudoc.echr.coe.int/eng?i=001-60457; *Bouamar v. Belgium*, App. No. 9106/80, § 67, Series A no. 129 (Feb. 29, 1988), http://hudoc.echr.coe.int/eng?i=001-57445.

from shifting the burdens of its actions to today's children or to future generations. As in more blatant forms of discrimination, such blindness to climatic consequences penalizes those without political power: children and the future citizens of Norway and the earth.

Furthermore, the principle of sustainable development entails a commitment to safeguard intergenerational equity. The principle requires that any development "[meet] the needs of the present without compromising the ability of future generations to meet their own needs."[81] According to two respected scholars, "[t]here can be little doubt that the concept of 'sustainable development' has entered the corpus of international customary law."[82]

Under the principles of both intergenerational equity and sustainable development, States may not permit environmental projects that will damage future generations' environment or sociocultural rights, including their rights to food and water. At a minimum, the government of Norway has an obligation to consider the effects that proposed actions will have on future generations' enjoyment of their human rights.

2. International Cooperation

All States have a duty to cooperate with the international community to protect the human rights threatened by climate change. The duty of international cooperation derives from three main binding sources.[83] First, under the ICESCR, each State Party to the treaty "undertakes to take steps, individually and *through international assistance and co-operation* . . . with a view to achieving progressively the full realization of the rights recognized in the present Covenant."[84] Acting alone to protect the rights to health, food, and water does not satisfy the obligation to work cooperatively to protect those rights. Second, and similarly, States Parties to the CRC "undertake to *promote and encourage international co-operation* with a view to achieving progressively the full realization of the right" of children to the "highest attainable standard of health."[85] Given that climate change endangers children's health, States must encourage international cooperation to mitigate and protect against harms caused by climate change. Third, the U.N. Charter states that members "pledge themselves to take *joint* and separate action in co-operation with the Organization" to promote, among other goals, "higher standards of living," "solutions of international economic, social, health, and related problems," and "universal respect for, and observance of, human rights and fundamental freedoms."[86] By ratifying the Charter, the State of Norway has

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[81] United Nations World Commission on Environment and Development, *Our Common Future* (Brundtland Report), *appended as annex to Report of the World Commission on Environment and Development*, p. 54, U.N. Doc. A/42/427 (Aug. 4, 1987), http://legal.un.org/docs/?symbol=A/42/427.

[82] PHILIPPE SANDS & JACQUELINE PEEL, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 208 (3rd ed. 2012) (available in Annex 2).

[83] The preambles of other treaties, as well as declarations and other sources of soft law, acknowledge the duty of international cooperation. *See, e.g.*, *Oslo Principles*, *supra* note 4, preamble ("International law entails obligations to act cooperatively to protect and advance fundamental human rights, including in the context of climate change . . . ."); *Maastricht Principles on Extraterritorial Obligations of States in the Area of Economic, Social and Cultural Rights*, preamble, 29 NETH. Q. HUM. RTS. 578 (2011) [hereinafter *Maastricht Principles*], https://www.maastrichtuniversity.nl/file/2180/download?token=ABzkHYaY (affirming States' "obligation to realize progressively economic, social and cultural rights . . . when acting individually and through international assistance and cooperation"); sources cited *infra* notes 88-90.

[84] ICESCR, *supra* note 27, art. 2(1) (emphasis added).

[85] CRC, *supra* note 22, art. 24 (emphasis added).

[86] U.N. Charter arts. 55 & 56, https://treaties.un.org/doc/Publication/CTC/uncharter-all-lang.pdf (emphasis added).

committed to work with other States to promote rights-respecting solutions to problems like climate change.

Climate change presents an especially compelling case for international cooperation.[87] Major multilateral climate change agreements, such as the UNFCCC and the Paris Agreement, express, in their text and preambles, the need for cooperation.[88] As the Human Rights Council has acknowledged on three separate occasions, "the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions."[89] Unlike purely local rights violations, the harms of which are felt almost exclusively within one country and the solutions to which may be effected in that same country, climate change disperses its effects without regard to national borders and, thus, violates human rights on a global scale.[90] No country acting alone will be able to solve climate change; many must act in concert.

C. The harms that climate change will inflict on the enjoyment of human rights are serious, empirically verified, and already underway.

Climate change has already caused, and will continue to cause, devastating damage to the fulfillment and enjoyment of the rights to life, health, and family life. According to the OHCHR:

> Climate change is real, human-made greenhouse gas emissions are its primary cause, and it contributes, among other things, to the increasing frequency of extreme weather events and natural disasters, rising sea levels, floods, heatwaves, drought and the spread of tropical and vector-borne diseases. These extremes alter ecosystems, disrupt food production and water supply, damage infrastructure and settlements and increase morbidity and mortality. They are also responsible for the displacement of affected communities, among whom

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[87] 2016 Report by Special Rapporteur John Knox, *supra* note 24, ¶¶ 42-48.

[88] The Preamble to the UNFCCC states, "Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective ad appropriate international response . . . ." United Nations Framework Convention on Climate Change (UNFCCC), *supra* note 6, preamble. Article 2 of the Paris Agreement explains that its core aim is "to strengthen the global response to the threat of climate change"; its preamble underscores the cooperative nature of that project by explaining that climate change "requires the widest possible cooperation by all countries, and their participation in an effective and appropriate international response." Paris Agreement, *supra* note 77, art. 2.

[89] Human Rights Council Res. 18/22, U.N. Doc. A/HRC/RES/18/22, at 2 (Oct. 17, 2011), http://legal.un.org/docs/?symbol=A/HRC/RES/18/22; Human Rights Council Res. 26/27, U.N. Doc. A/HRC/RES/26/27, at 2 (July 15, 2014), http://legal.un.org/docs/?symbol=A/HRC/RES/26/27; Human Rights Council Res. 29/15, U.N. Doc. A/HRC/RES/29/15, at 1 (July 2, 2015), http://legal.un.org/docs/?symbol=A/HRC/RES/29/15. The Human Rights Council employed identical language in all three resolutions.

[90] 2016 Report by Special Rapporteur John Knox, *supra* note 24, ¶¶ 40, 42. Furthermore, Norway has bound itself to preventing extraterritorial harms to human rights enshrined in treaties it has ratified. *See, e.g.*, Human Rights Committee, *General Comment No. 31: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant*, *supra* note 19, ¶ 6. With regard to the State's duties to prevent extraterritorial harms to social, economic, and cultural rights protected by the ICESCR, the CRC, and other human rights treaties, see generally *Maastricht Principles*, *supra* note 83. In the climate change context, the Oslo Principles specifically affirm State obligations to prevent extraterritorial harms. *See Oslo Principles*, *supra* note 4, preamble & ¶ 21.

> an important consequence is an increased incidence of poor mental and physical health. *Thus, climate change directly and indirectly threatens the full and effective enjoyment of a range of human rights*, including the rights to life, water and sanitation, food, health, housing, self-determination, culture and development.[91]

The death toll from climate change is high and rising. The OHCHR cited one study that found that 400,000 deaths worldwide each year could already be linked to climate change.[92] The World Health Organization estimates that within the next thirty years, climate change will cause 250,000 additional deaths per year from malnutrition, malaria, diarrhea, and heat stress alone.[93]

States may not disregard this overwhelming evidence of present and future human suffering. The precautionary principle, as embodied, for example, in the Oslo Principles on Global Climate Change Obligations (Oslo Principles), requires that States base their decisions about appropriate action to mitigate climate change "on any credible and realistic worst-case scenario accepted by a substantial number of eminent climate change experts."[94] The worst-case scenario is one of complete devastation. Left unchecked, climate change will create "a world where hundreds of thousands die prematurely, where millions go hungry or are driven from their homes, where conflict proliferates and desperation breeds. It is a graveyard for entire ecosystems, entire peoples, and entire ways of living."[95] In light of these severe consequences, the Clinic respectfully submits that the government of Norway must consider the evidence carefully and act decisively in response.

III. BY CONTRIBUTING TO CLIMATE CHANGE, THE DECISION BY THE GOVERNMENT OF NORWAY TO ISSUE LICENSES BREACHES THESE DUTIES

Considered in light of international human rights obligations by which Norway has agreed to be bound, the government's 23rd licensing round is inconsistent with the State's duty to safeguard the rights to life, health, and family life. Awarding the licenses will lead to increased oil production, which will, in turn, increase greenhouse gas emissions and contribute to climate change. Because climate change will cause grave and widespread harms to the human rights of present and future generations, the government has a duty to mitigate those harms, not to contribute to them. According to the OHCHR,

> it is not enough to simply focus on ensuring that action against climate change respects human rights. A rights-based approach requires States to take affirmative action to respect, protect, promote and fulfill all human rights for all persons. *Failure to prevent foreseeable human rights harm caused by*

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[91] OHCHR 2016 Report, *supra* note 36, ¶ 4 (emphasis added).

[92] *Id.* ¶ 8.

[93] World Health Organization, *Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s*, at 13 (2014), http://apps.who.int/iris/bitstream/10665/134014/1/9789241507691_eng.pdf?ua.

[94] *Oslo Principles*, *supra* note 4, Principle 1. The Oslo Principles were drafted to set out States' legal obligations to constrain climate change and outline a means of meeting those obligations. *Id.* preamble.

[95] U.N. Office of the High Commissioner for Human Rights, *Statement by Kate Gilmore United Nations Deputy High Commissioner for Human Rights at the Panel Discussion on Climate Change and Right to Health*, (Mar. 3, 2016), http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=17133&LangID=E.

climate change, or at the very least to mobilize maximum available resources in an effort to do so, *constitutes a breach of this obligation*.[96]

To fulfill its commitments under international human rights law, the State has an obligation to demonstrate that it has given all appropriate consideration to the effects that granting new oil and gas licenses will have on the rights of present and future generations to life, health, and family life. These due-diligence obligations require the government to perform and make publicly available a detailed impact assessment that recognizes the global impacts of the new licenses' contributions to climate change.[97] A proper assessment requires meaningful evaluation of the demands of intergenerational equity and sustainable development, considering not only the current generation's enjoyment of human rights, but that of future generations as well. Such an assessment would adhere to the precautionary principle,[98] rather than minimizing its evaluation of the licenses' impact. In light of the State's international commitments, including the Paris Agreement, it is respectfully submitted that before the government of Norway may issue any such licenses, it must first provide sufficient evidence that it has considered both the anticipated effects on the State's ability to meet its international climate obligations and the potential of such licenses to exacerbate the human rights harms caused by climate change.

The Clinic further respectfully submits that issuing this round of licenses is inconsistent with Norway's international commitments to cooperate under the UNFCCC and the Paris Agreement. Under these binding agreements, each State Party commits to take measures, both individually and in cooperation with other States, to respond to the threat of climate change.[99] In its most recent nationally determined contribution under the UNFCCC and the Paris Agreement,[100] the State of Norway articulated a national commitment to achieving "an at least 40% reduction of greenhouse gas emissions by 2030 compared to 1990 levels."[101] In addition, by ratifying the Paris Agreement, the State bound itself to "strengthen the global response to the threat of climate change" by "[h]olding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to

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[96] OHCHR 2016 Report, *supra* note 36, ¶ 48 (emphasis added).

[97] *See supra* notes 43-54 and accompanying text.

[98] Oslo Principles, *supra* note 4, Principle 1.

[99] 2016 Report by Special Rapporteur John Knox, *supra* note 24, ¶¶ 44-48.

[100] Leading up to the Paris Agreement, the Conference of Parties resolved to invite each State Party to the UNFCCC to communicate a clear and transparent "intended nationally determined contribution" (INDC) toward achieving the objective of the UNFCCC. Conference of the Parties, *Further Advancing the Durban Platform*, ¶ 2(b) (Nov. 23, 2013), *in* Report of the Conference of the Parties on its Nineteenth Session, Addendum, at 3, U.N. Doc. FCCC/CP/2013/10/Add.1 (Jan. 31, 2014), http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf. The Paris Agreement reinforced the role of these contributions by requiring that States communicate their commitments to the secretariat and implement domestic policy calculated to achieve their respective nationally determined contributions. Paris Agreement*, supra* note 77, art. 4(2), 4(12). Because Norway did not communicate a new nationally determined contribution when it submitted its instrument of ratification of the Paris Agreement, its 2014 INDC became its nationally determined contribution under the Paris Agreement as well. *See* Conference of the Parties, *Adoption of the Paris Agreement*, ¶ 22 (Dec. 12, 2015), *in* Report of the Conference of the Parties on its Twenty-First Session, Addendum, at 2, U.N. Doc. FCCC/CP/2015/10/Add.1 (Jan. 29, 2016), https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf.

[101] Norway, *Submission by the Norwegian Government to the ADP: Norway's Intended Nationally Determined Contribution*, § 2 (Mar. 6, 2014), http://www4.unfccc.int/ndcregistry/PublishedDocuments/Norway%20First/NorwayINDC.pdf.

limit the temperature increase to 1.5°C above pre-industrial levels."[102] Special Rapporteur Knox has emphasized that, in order to uphold the duty of international cooperation, "States should fully implement all of the commitments they have made in relation to the Paris Agreement and strengthen their commitments in the future, in order to ensure that global temperatures do not rise to levels that would impair a vast range of human rights."[103]

By initiating the 23rd licensing round, the government of Norway will preclude the possibility of fully implementing the State's commitments under the UNFCCC and the Paris Agreement. These licenses for drilling in previously untouched areas, allowing further petroleum production in the Arctic, will aggravate—not mitigate—climate change.[104] These new licenses also set a dangerous precedent for the international responsibility to cooperate in effectively responding to climate change. Under the Paris Agreement, developed countries "should continue taking the lead by undertaking economy-wide absolute emission reduction targets."[105] If other countries follow the lead of Norway, the first developed country to ratify the Paris Agreement, the consequences for human rights around the world, both in our lifetimes and for future generations, will be catastrophic.

Even if, hypothetically and improbably, the government were able both to issue these licenses and to meet its nationally determined contributions, issuing the licenses would, nevertheless, lead to further human rights harms. First, reliable scientific evidence indicates that the government of Norway's existing climate change policies are "not consistent with limiting warming below 2°C, let alone with the Paris Agreement's stronger 1.5°C limit."[106] This shortcoming also holds true for all States' nationally determined contributions taken together: According to a U.N. Environment Programme analysis released on November 3, 2016, full implementation of all States' nationally determined contributions will cause an increase in the earth's average surface temperature above pre-industrial levels of between 2.9 and 3.4°C by 2100.[107] According to Special Rapporteur John Knox, an increase in global temperature of more than two degrees would have disastrous consequences for human rights; thus, "even if they meet their current commitments, States will not satisfy their human rights obligations."[108] Second, opening a new round of licenses locks Norway into a multi-decade pattern of dependence on harmful emissions, thereby guaranteeing harm will continue in the

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[102] Paris Agreement, *supra* note 77, art. 2(1)(a).

[103] 2016 Report by Special Rapporteur John Knox, *supra* note 24, ¶ 88.

[104] As a party to the ICESCR, the Norwegian State cannot take deliberately retrogressive actions. *General Comment No. 3: The Nature of States Parties' Obligations (Art. 2, Para. 1, of the Covenant), supra* note 28, ¶ 9. See also *General Comment No. 14 (2000): The Right to the Highest Attainable Standard of Health (Article 12 of the International Covenant on Economic, Social and Cultural Rights)*, *supra* note 32, ¶ 32 ("As with all other rights in the Covenant, there is a strong presumption that retrogressive measures taken in relation to the right to health are not permissible.").

[105] Paris Agreement, *supra* note 77, art. 4(4).

[106] *Norway (2016)*, CLIMATE ACTION TRACKER (Nov. 2, 2016), http://climateactiontracker.org/countries/developed/norway/2016.html. The Climate Action Tracker "is an independent scientific analysis produced by three research organisations" that tracks 32 countries' policies, nationally determined contributions, and progress toward successfully limiting global warming to less than 2°C. *What is CAT?*, CLIMATE ACTION TRACKER, http://climateactiontracker.org/about.html (last visited Feb. 27, 2017).

[107] U.N. Environment Programme, *The Emissions Gap Report 2016*, xviii (Nov. 2016), https://uneplive.unep.org/media/docs/theme/13/Emissions_Gap_Report_2016.pdf.

[108] 2016 Report by Special Rapporteur John Knox, *supra* note 24, ¶ 76.

future. Guaranteeing future harm is antithetical to the Oslo Principles, which require States and businesses to "refrain from starting new activities that cause excessive [greenhouse gas] emissions."[109] The Clinic respectfully submits that, by guaranteeing harm to the exercise of the rights to life, health, and private life, now and in the future, the decision to award these licenses was inconsistent with the State's obligations under binding international human rights law.

IV. TO FULFILL THE STATE'S HUMAN RIGHTS OBLIGATIONS, AN EFFECTIVE REMEDY IS NECESSARY

Where a State breaches its human rights obligations, Article 13 of the ECHR requires that everyone "shall have an effective remedy before a national authority."[110] The ICCPR,[111] the ICESCR,[112] and the CRC[113] similarly require access to an effective remedy.

We respectfully submit that the appropriate and effective remedy in this context would be to declare the licenses invalid. In the climate change context, providing damages in the future is not an effective remedy. Climate change, if left unchecked, will cause massive and irreparable harm on a scale to which courts will not be able to respond. No court system, however robust, will be able to hear the millions of cases or assign to individual wrongdoers the responsibility to pay damages—much less effect the reversal of catastrophic environmental harm.[114] The fundamental protection of life, family life, health, and a healthy environment is at stake. Therefore, the Clinic respectfully urges the Court to ensure a remedy that will spare current and future generations the harms to these fundamental rights that the new licenses will inescapably inflict.

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[109] Oslo Principles, *supra* note 4, Principle 8. *See also id.* Principles 21 & 23 ("States must refrain from providing new subsidies, aid, credits, grants, guarantees, or insurance for installation of major new facilities or major expansion of existing facilities that will result in the emission of unnecessarily high . . . quantities of [greenhouse gas], either within or outside their territories.").

[110] ECHR, *supra* note 10, art. 13.

[111] ICCPR, *supra* note 18, art. 2(3).

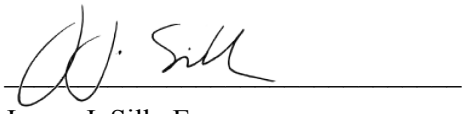
[112] Committee on Economic, Social and Cultural Rights, *General Comment No 9: The Domestic Application of the Covenant*, U.N. Doc. E/C.12/1998/24, ¶ 3 (Dec. 3, 1998), http://legal.un.org/docs/?symbol=E/C.12/1998/24 ("Questions relating to the domestic application of the Covenant must be considered in the light of . . . article 8 of the Universal Declaration of Human Rights, according to which 'Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.'"); *see also id.* ¶ 9 (noting that although effective remedies may take various domestic forms, an ultimate appeal to a judicial remedy is necessary to give life to the Covenant's rights).

[113] *General Comment No. 5, General Measures of Implementation of the Convention on the Rights of the Child (Arts. 4, 42 and 44)*, *supra* note 41, ¶ 24 ("For rights to have meaning, effective remedies must be available to redress violations. This requirement is implicit in the Convention and consistently referred to in the other six major international human rights treaties.").

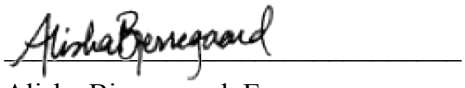
[114] Jaap Spier, a leading thinker on law and climate change and a principal author of the Oslo Principles, *see supra* note 4, concluded that a damages remedy for harms caused by climate change faces such immense practical obstacles that it "is an option only for dreamers." JAAP SPIER & ELBERT DE JONG, SHAPING THE LAW FOR GLOBAL CRISES: THOUGHTS ABOUT THE ROLE THE LAW COULD PLAY TO COME TO GRIPS WITH THE MAJOR CHALLENGES OF OUR TIME 190 (2012) (available in Annex 3). According to Spier, courts should instead focus on avoiding "nightmare scenarios" by providing preventative, injunctive relief. *Id.* at 194-98.

Dated: October 26, 2017

Respectfully submitted,



James J. Silk, Esq.



Alisha Bjerregaard, Esq.

Allard K. Lowenstein International Human Rights Clinic
Yale Law School
P.O. Box 208215
New Haven, CT 06520-8215
Tel: 203-432-7480

SIGNATORIES SUPPORTING
THE SUBMISSION AND CONTENT OF THIS AMICUS BRIEF

All signatories below sign in their personal capacity. Titles and positions provided are for identification purposes only.

Dr. Gentian Zyberi
Professor
University of Oslo, Norwegian Center for Human Rights
gentian.zyberi@gmail.com
gentian.zyberi@nchr.uio.no
(+)47 (0) 22842086
Postboks 6706 St Olavs plass, 0130 Oslo, Norwary

Dr. Sam Adelman
Professor on Climate Change, Environmental Governance and Human Rights
University of Warwick
European Director, Global Network on Human Rights and the Environment
S.Adelman@warwick.ac.uk
(+)44 (0) 2476523101
School of Law, University of Warwick, Coventry CV4 7AL, United Kingdom

Dr. Anna Grear
Professor of Law and Theory
Cardiff University, School of Law and Politics
Founder of the GNHRE (www.gnhre.org)
Founder and Editor-in-Chief of Journal of Human Rights and the Environment
GrearA1@cardiff.ac.uk
(+)44 (0)29 208 75467 ext. 75467
2.12, Law Building, Museum Avenue, Cardiff CF10 3AX, United Kingdom

Dr. Beate Sjåfjell
Professor
Oslo University, Faculty of Law
b.k.sjafjell@jus.uio.no
(+) 47 (0) 22859381
(+) 47 (0) 95931283
Department of Private Law, Postboks 6706 St. Olavs plass, 0130 Oslo, Norway

Dr. Cecilia Bailliet
Professor of Law
University of Oslo, Department of International & Public Law
c.m.bailliet@jus.uio.no
(+)47 (0) 90740305
Postboks 6706 St. Olavs plass 0130 Oslo, Norway

TABLE OF ANNEXES

With the exception of the documents listed in the annexes below, all sources cited in this Amicus Brief are available through hyperlinks in their respective footnotes.

ANNEX 1

The United Nations University project on the "Global Commons" and International Law was undertaken to contribute to the development of international law, particularly in respect of the management of common resource realms and to examine the potential contributions of the main legal traditions in the world to the development of international law. The project was designed to explore and apply, for the first time, an overall perspective that takes into consideration three major challenges to the required functional development of international law: (a) the increasing importance of the concept of "global commons" and its expression in international law; (b) the need to go beyond the current bases of international law to include concepts and legal approaches from other legal systems in the world; and (c) to recognize that international law itself represents a global commons.

IN FAIRNESS TO FUTURE GENERATIONS:

International Law, Common Patrimony, and Intergenerational Equity

Edith Brown Weiss

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Manufactured in the United States of America

This book is dedicated to
Jed and Tamara
and to their descendants

CHAPTER II

THE THEORY OF INTERGENERATIONAL EQUITY

> In his arrogance over his own increasing knowledge and ability, man has ignored his dependence on the earth and has lost his communion with it. He no longer puts his ear to the ground so that the earth can whisper its secrets to him. He has cut his links with the elements and has squandered the resources which are the heritage of millions of years of evolution—all those living or inanimate things which sustained his inner energy—earth, water, air, the flora and fauna. This loosening of his intuitive response to nature has created a feeling of alienation in him and is destructive of his patrimony.[1]

We, as a species, hold the natural and cultural environment of our planet in common, both with other members of the present generation and with other generations, past and future.[2] At any given time, each generation is both a custodian or trustee of the planet for future generations and a beneficiary of its fruits. This imposes obligations upon us to care for the planet and gives us certain rights to use it.

Many useful analogies in domestic legal systems set forth rights of access to and use of property, which are coupled with obligations to conserve that property. For example, tenants have the right to a reasonable use of property but must return it in good condition for

1. Statement by Prime Minister Indira Gandhi, India, quoted in a personal communication from Justice R.S. Pathak, Oct. 1986.

2. We also hold it in common with other living species. Human beings are part of the biosphere. As the only intelligent spokesman for all living things, we have a special responsibility toward them. The intergenerational implications of this, however, are reserved for subsequent analysis. The theory developed here focuses on intergenerational relationships of the human species in keeping with the focus of international law on states and people.

future tenants to use.[3] Similarly, beneficiaries of a charitable trust in common law have the right to enjoy the benefits of the trust, but there is an obligation not to dissipate the corpus of the trust for future beneficiaries.[4] Citizens have a right to use national parks, and an obligation not to desecrate them for future users, which is usually embodied in enforceable regulations.[5]

Philosophers from diverse cultural traditions have recognized that we are trustees or stewards of the natural environment. The fundamental thesis that we have obligations to conserve the planet for future generations and rights to have access to its benefits is deeply rooted in the diverse legal traditions of the international community. There are roots in the common and the civil law traditions, in Islamic law, in African customary law, and in Asian nontheistic traditions.

The proposed theory of intergenerational equity finds deep roots in the Islamic attitude toward the relation between man and nature.[6] Islamic law regards man as having inherited "all the resources of life and nature" and having certain religious duties to God in using them. Each generation is entitled to use the resources but must care for them and pass them to future generations. ". . . The utilization and sustainable use of these resources is, in Islam, the right and privilege of all people. Hence, man should take every precaution to ensure the interests and rights of all others since they are equal partners on earth. Similarly, he should not regard such ownership and such use as restricted to one generation above all other generations. It is rather a joint ownership in which each generation uses and makes the best use of nature, according to its need, without disrupting or upsetting the interests of future generations. Therefore, man should not abuse, misuse or distort the natural resources as each generation is entitled to benefit from them but is not entitled to own them permanently."[7] Islamic law supports collective restrictions, which are to be observed under a principle of good faith, and collective rights, which are rights of the community of believers as a whole.[8]

3. *Restatement (Second) of the law of Property* § 12.1(1) (1977).

4. *Restatement (Second) of the Law of Trusts* §§ 176, 379 (1959). For development of the planetary trust concept, see E. Brown Weiss, "The Planetary Trust: Conservation and Intergenerational Equity," 11 *Ecol. L. Q. 495* (1984).

5. See The Conservation Foundation, *National Parks for a New Generation* 118, 121 (1985).

6. *See Islamic Principles For the Conservation of the Natural Environment* 13-14 (IUCN and Saudi Arabia 1983).

7. *Id.* at 13.

8. See M. Khadduri, *The Islamic Conception of Justice* 137-39, 219-20, 233-39 (1984).

In the Judeo-Christian tradition, God gave the earth to his people and their offspring as an everlasting possession, to be cared for and passed on to each generation.[9] This has been carried forward in both the common law and the civil law tradition. The English philosopher John Locke, for example, asserts that, whether by the dictates of natural reason or by God's gift "to Adam and his posterity," mankind holds the world in common. Man may only appropriate as much as leaves "enough, and as good" for others. He has an obligation not to take more fruits of nature than he can use, so that they do not spoil and become unavailable to someone else—i.e., an obligation not to waste the fruit of nature.[10] To be sure, there are many instances where law has been used to authorize the destruction of our environment, but the basic thesis that we are trustees or stewards of our planet is deeply imbedded.

In the civil law tradition, this recognition of the community interest in natural property appears in Germany in the form of social obligations that are inherent in the ownership of private property.[11] Rights of ownership can be limited for the public good, without the necessity to provide compensation to the owners. Thus legislatures can ban the disposal of toxic wastes in ecologically sensitive areas and invoke the social obligation inherent in property to avoid monetary compensation to the owner of the land. In common law countries such as the United States, local governments can do this through the exercise of the police power—the power to protect the health and welfare of its citizens—or the public trust doctrine.[12]

The socialist legal tradition also has roots which recognize that we are only stewards of the earth. Karl Marx, for example, states that all communities, even if taken together, are only possessors or users of

9. *Genesis* 1:1-31, 17:7-8. "I will maintain my Covenant between Me and you, and your offspring to come, as an everlasting covenant throughout the ages, to be God to you and to your offspring to come. I give the land you sojourn in to you and to your offspring to come, all the land of Canaan, as an everlasting possession. I will be their God." *Genesis* 17:7-8.

10. J. Locke, "An Essay Concerning the true Original, Extent and End of Civil Government," *Second Treatise on Civil Government*, para. 25, 31, 33, 37, in *Social Contract* (1968).

11. R. Dolzer, *Property and Environment: The Social Obligation Inherent in Ownership* (IUCN, 1976).

12. The U.S. Constitution reserves such powers for the states. "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." U.S. Const. Amend. X. *See* W. Garton, "Ecology and the Police Power," 16 *S.D.L. Rev.* 261 (1971).

the earth, not owners, with obligations to protect the earth for future generations.[13]

According to African customary law we are only tenants on Earth, with obligations to past and future generations. Under the principles of customary land law in Ghana, land is owned by a community that goes on from one generation to the next. A distinguished Ghanian chief said, "I conceive that land belongs to a vast family of whom many are dead, a few are living, and countless host are still unborn."[14] Land thus belongs to the community, not to the individual. The Chief of the community or head of the family is like a trustee who holds it for the use of the community. Members of the community can use the property, but cannot alienate it. Customary laws and practices of other African communities, and indeed of peoples in other areas of the world, also view natural resources as held in common with the community promoting responsible stewardship and imposing restrictions on rights of use.[15]

The nontheistic traditions of Asia and South Asia, such as Shinto, also stress a respect for nature and our responsibilities to future generations as stewards of this planet. In most instances they call for living in harmony with nature.[16] Moreover, Hinduism, Buddhism and Jainism indirectly support the conservation of our diverse cultural resources in their acceptance of the legitimacy of other religious groups.[17]

13. "Even the whole society, a Nation, and all the existing societies put together are not owners of the land. They are merely the occupants and users of the land, and like a good patriarch, they must improve the land before handing it down to posterity." 8 *Selected Works of Marx and Engels* (Chinese) 518, quoted in Ma Xianqcong, "Preliminary Discussion on the Law of Environmental Protection," 1 *Faxue Yanjiu* 42, in L. Ross and M. Silk, *Environmental Law & Policy in the People's Republic of China* 67 (1987).

14. Attributed to Nan Sir Ofori Atta. N.A. Ollennu, *Principles of Customary Land Law in Ghana* 4 (1962). For discussion of relationship between generations, *see also* A. Allott, *Essays in African Law* 70 (1975).

15. *See, e.g.*, I. Schapera, *A Handbook of Tswana Law and Custom* (1970); X. Vlanc-Jouvan, "Problems of Harmonization of Traditional and Modern Concepts in the Land Law of French-Speaking Africa and Madagascar," *Integration of Customary and Modern Legal Systems in Africa* (1971). L. Obeng, "Benevolent Yokes in Different Worlds," in *Global Resources: Perspectives and Alternatives* 21-32 (C.N. McRostie ed. 1980). Obeng notes that such observances are found among peoples in Africa, Asia, the Pacific, Papua New Guinea, and the American Indians.

16. J. Stewart-Smith, *The Shadow of Fujisan* (1987). The reverence for nature in Japan, for example, is transformed into important symbolic representations, such as flying cranes on wedding kimonos. *See also* F.S.C. Northrop, *The Meeting of East and West* (1949).

17. *See* F.S.C. Northrop, *supra* note 16 at 415-70.

It is important that principles of intergenerational fairness in the conservation and development of our planet and our cultural resources respect these roots in the varied traditions of the international community. Indeed, there is much to learn from them in developing specific norms for achieving justice among generations.

A. ELEMENTS OF THE THEORY

Intergenerational equity arises in the context of fairness among all generations. The theory of intergenerational equity proposed here focuses on the inherent relationship that each generation has to other generations, past and future, in using the common patrimony of natural and cultural resources of our planet. The starting proposition is that each generation is both a custodian and a user of our common natural and cultural patrimony. As custodians of this planet, we have certain moral obligations to future generations which we can transform into legally enforceable norms. Our ancestors had such obligations to us. As beneficiaries of the legacy of past generations, we inherit certain rights to enjoy the fruits of this legacy, as do future generations. We may view these as intergenerational planetary obligations and planetary rights.

But it is not sufficient to confine a theory of *inter*generational equity to these two sets of relationships. Of necessity intergenerational equity encompasses a parallel set of planetary obligations and planetary rights that are *intra*generational.[18] By itself, intergenerational equity does not indicate how the burdens and fruits are to be borne by members of the present generation. For this, intergenerational equity must extend to the intragenerational context. Otherwise, the international community could allocate all intergenerational burdens to one portion of the international community and all intergenerational rights to a different segment of the community. The theory of intergenerational equity outlined here asserts that all peoples also have a set of intragenerational planetary obligations and planetary rights designed to implement justice between generations.

The central issue is what intergenerational fairness means in the context of using the common patrimony of natural and cultural re-

18. Intergenerational refers to relationships between generations; intragenerational refers to relationships among members of a generation, as of the present generation.

sources of our planet. There are two extreme cases defining the boundaries of intergenerational equity. In the first, the present generation does not consume anything; rather it saves all resources for future generations and preserves the same level of quality in all aspects of the environment. This is the preservationist model. It has deep roots in the original natural flow theory of English water law, in which riparians could use stream water so long as their use did not impair in any way the quantity or quality of water for those downstream. Ultimately this benefits the last riparians before the stream enters the ocean or disappears, because they have no one to whom they owe an obligation.

The preservationist model, if carried to its full extreme in the context of unspoiled ecosystems, would promote the status quo over any change.[19] It is consistent with a subsistence economy, but not with an industrialized world. In a somewhat adapted form, the model also supports the socialist model of economic development applied by Stalin, in which citizens were urged to sacrifice today for a better tomorrow.[20] This attitude was common to the Calvinists as well.[21]

19. The term "preservation" is traditionally associated with saving nature for its own sake, rather than for its usefulness in fulfilling later human needs, which is associated with "conservation." *See* J. Passmore, *Man's Responsibility to Nature* 111 (1974). In this view, preservation as such would say nothing about how we should treat areas that have already been despoiled. Comments by B. Norton to author, Jan. 25, 1988. For an excellent critique of "preservation" and "conservation," *see* B. Norton, "Conservation and Preservation: A Conceptual Rehabilitation," 8 *Env. Ethics* 195 (1986). *See also,* B. Norton, "Agricultural Development and Environmental Policy: Conceptual Issues," *Agriculture and Human Values* 63 (1985).

20. The Stalinist model of economic development, as epitomized by the Five Year Plans in the 1930's, required the people to sacrifice the benefits of consumer goods and services in order to further the rapid industrialization of a poor country. The agricultural sector was collectivized and elemental needs of citizens were neglected to achieve the high rate of forced savings and investment necessary to finance heavy industry. *See, e.g.,* D. MacKenzie and M.W. Curran, *A History of Russia and the Soviet Union,* ch. 34 (2d ed., rev. 1982); for a more detailed account of the period, *see* A. Nove, *An Economic History of the U.S.S.R.* (1969).

21. The Calvinist society put a premium on thrift and sobriety, valued effort and diligence, and encouraged the accumulation of the fruits of one's labor instead of the immediate enjoyment of them. *See* J. T. McNeill, *The History and Character of Calvinism* (1954). This attitude of sacrifice and hard work was seen by some Calvinists as evidence of an individual's election, or eternal salvation. The theology of Calvin is said to have contributed to the development of Western capitalism. The classic exposition of this idea is Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (originally appeared in German in 1904, rev. in 1920, English trans. 1930); *see also* R.H. Tawhney, *Religion and the Rise of Capitalism* (1926). W.F. Graham, *The Constructive Revolutionary: John Calvin and His Socio-Economic Impact* ch. XI (1971) and G. Poggi, *Calvinism and the Capitalist Spirit* (1983) are two good examples of current views on the Weber-Tawney thesis.

In both, future generations benefit at the expense of earlier generations.

The other extreme is the opulent model, in which the present generation consumes all that it wants today and generates as much wealth as it can, either because there is no certainty that future generations will exist or because maximizing consumption today is the best way to maximize wealth for future generations.[22] This model overlooks the long-term degradations of the planet which may be generated: irreversible losses of species diversity and of renewable resources such as soils and fish or costly environmental contamination by insufficiently controlled nuclear or hazardous wastes that make areas unfit for habitation and use. Further, under this model, the present generation may trigger irreversible changes in the global climate system that will affect habitability in parts of the world.

Even if we knew that we were the last generation of the human community to live on earth, it is still not clear that we would have the right to desecrate it, or to destroy it, since the human community is, in the end, only part of a much larger natural system, which we can use for our own benefit but must also pass on to others.

In order to define what intergenerational fairness means in using and conserving our common patrimony, it is useful to view the human community as a partnership among all generations. In describing a state as a partnership, Edmund Burke observed that "as the ends of such a partnership cannot be obtained in many generations, it becomes a partnership not only between those who are living but between those who are living, those who are dead, and those who are to be born."[23] The purpose of human society must be to realize and protect the welfare and well-being of every generation. This requires sustaining the life-support systems of the planet, the ecological processes, environmental conditions, and cultural resources important for the survival and well-being of the human species, and a healthy and decent human environment.

Although all generations are members of this partnership, no generation knows before it is a living generation at what point in time it will be the living generation, nor how many members it will have, nor even how many generations there will ultimately be. Given these

22. *See* H. Barnett & C. Morse, *Scarcity and Growth* 11-12 (1963).

23. E. Burke, *Reflections on the Revolution in France* 139-40 (1790) in 2 *Works of Edmund Burke* 368 (London, 1905).

circumstances, what does intergenerational fairness mean in relation to the common patrimony which each generation has?

To address this, it is appropriate to assume the perspective of a generation that is placed somewhere along the spectrum of time, but does not know in advance where it will be located.[24] Such a generation would want to inherit the common patrimony of the planet in as good condition as it has been for any previous generation and to have as good access to it as previous generations. This requires that each generation pass the planet on in no worse condition than it received it and provide equitable access to its resources and benefits.[25] Improvements made by prior generations in the natural and cultural resource base of the planet must be conserved for all future generations. This means, for example, that if communities advance our understanding of the biosphere or salvage waters or land that has become contaminated, successor generations must conserve these improvements and pass them on to future generations. This notion of conserving improvements is consistent with a view of human society as a partnership extending to all generations. Fulfilling the purposes of the partnership, which include sustaining the life-support systems of the planet and attaining a healthy and decent environment for the human community, requires each generation to conserve the improvements of its predecessors.

If one generation fails to conserve the planet at the level of quality received, succeeding generations have an obligation to repair this damage, even if it is costly to do so. However, they can distribute the costs across several generations, by means of revenue bonds and other financial measures, so that the benefits and costs of remediation are distributed together. While the generation that allows environmental quality to deteriorate still benefits at the expense of immediate future generations, more distant future generations are protected. Moreover, the generation inflicting the harm may have passed on a sufficiently higher level of income that immediate succeeding generations have sufficient wealth to manage the deterioration effectively.

The theory of intergenerational equity calls for a minimum level

24. *See* J. Rawls, *A Theory of Justice* (1971).

25. *See* D. Callahan, "What Obligations Do We Have to Future Generations?" in *Responsibilities to Future Generations* (E. Partridge, ed. 1981); B. Ackerman, *Social Justice in the Liberal State* 112 (1980).

of equality among generations. Since each generation is entitled to inherit a planet and cultural resource base at least as good as that of previous generations, all generations are entitled to at least the minimum level that the first generation in time had. In practice, later generations may inherit a much richer natural and cultural resource base, which means they are treated better than previous generations, and in this sense, unequally. The converse is also possible, in which case they are also treated unequally, only worse than previous generations. Minimum equality among generations provides a floor for all generations and ensures that each generation has at least the same level of planetary resource base as its ancestors. This notion of equality is consistent with the underlying premises of tenancy, stewardship and trusteeship: the assets must be conserved, not dissipated, by those responsible for them so that those coming after receive equal assets.

The theory that there is a minimum level of equality demanded among generations and among peoples within a generation finds deep roots in international law. The Preamble to the Universal Declaration of Human Rights begins, "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. . . ." The reference to all members of the human family has a temporal dimension, which brings all generations within its scope. The reference to equal and inalienable rights affirms the basic equality of such generations in the human family.

The United Nations Charter, the International Covenant on Civil and Political Rights, the Convention on the Prevention and Punishment of the Crime of Genocide, the American Declaration on the Rights and Duties of Man, the Declaration on the Elimination of Discrimination Against Women, the Declaration on the Rights of the Child, and many other human rights documents affirm that human beings are fundamentally equal and protect the dignity of all people and the equality of their rights. The Declaration of the Principles of International Cultural Co-operation provides in Art. 1 that "each culture has a dignity and value which must be respected and preserved," and that "all cultures form part of the common heritage belonging to mankind."[26] These instruments are important for they

26. Declaration of the Principles of International Cultural Cooperation, Resolutions, Gen. Conf. of UNESCO, Nov. 4, 1966 (Sess. 14).

reveal a fundamental belief in the dignity of all members of the human society and in equality of rights, which extends in time as well as space. Indeed, to give the present generation a license to exploit our natural and cultural resources at the expense of the well-being of future generations would contradict the purposes of the United Nations Charter and international human rights documents.

The difficult issue is to define justice between countries in the context of generations. Does one country have an obligation to the future nationals of another country? It is clear that a country has obligations to its own existing nationals and to its own future nationals.[27] Much of the contemporary debate about the international economic order and the allocation of various resources concerns whether a country has obligations to existing nationals of another country, not within its jurisdiction. This debate already has an intergenerational dimension: the extent to which a country is entitled to receive compensation for actions by a prior generation in another country, when the actions benefited the country's own future nationals and harmed those of other countries.[28]

The proposed theory of intergenerational equity postulates that all countries have an intergenerational obligation to future generations as a class, regardless of nationality. This is necessary because the

27. The State exercises sovereignty on behalf of and for the benefit of the community. Its basic function is the protection of the community, of the "public or common weal." F.H. Hinsley, *Sovereignty* 70, 117 (2d ed. 1986). This community is not limited to the present generation, but is an ongoing entity, and thus comprises future citizens as well. *See* E. Burke, *Reflections on the Revolution in France*, *supra* note 23 at 368. As a continuing entity, a State should be able to represent its future nationals as well as its present nationals. *See* E. Brown Weiss, "The Planetary Trust: Conservation and Intergenerational Equity," *supra* note 4, at 570.

28. Many proponents of the New International Economic Order have insisted that the "industrialized countries, former colonial powers and some others have a moral duty of reparation to make up for past exploitation." The report of the Secretary General to the U.N. Commission on Human Rights, *The International Dimensions of the Right to Development*, U.N. Doc. E/CN.4/1334 at 20 (1979). *See also* Commission on Human Rights, *Report on the 33rd Session*, 66 U.N. ESCOR Supp. (No. 6), para. 39, U.N. Doc. E/5927, E/CN.4/1257 (1977); M. Bedjaoui, *Towards a New International Economic Order* (UNESCO 1979); J. Castaneda, "La Charte des droits et devoirs économiques des Etats: Note sur son processus d'élaboration," 20 *Annuaire Français de Droit International* 31, at 33-34 (1974).

Other proponents have founded the claims for a new order on grounds such as solidarity or mutual interdependance rather than reparation for past exploitation. Many observers contest the notion that the developed countries' current prosperity necessarily rests on the economic exploitation of the developing countries. *See, e.g.*, K. Boulding, "Cartels, Prices, and the Grants Economy," in *The Challenge of the New International Economic Order* 65 (E. P. Reubens, ed. 1981) or R.L. Rothstein, *The Weak in the World of the Strong* 7 (1977). As the current UNCTAD discussions show, the developing countries claims for reparation for past exploitation have abated.

condition of the planet will have a profound impact on the welfare of our descendants. There is increasing recognition that while we may be able to maximize the welfare of a few immediate successors, we will be able to do so only at the expense of our more remote descendants, who will inherit a despoiled natural and cultural environment.[29] Our planet is finite, and we are becoming increasingly interdependent in using it. Our rapid technological growth ensures that this interdependence will increase. Thus our concern for our own country must, as we extend our concerns into longer time horizons and broader geographic scales, focus on protecting the planetary quality of our natural and cultural environment. This means that, even to protect our own future nationals, we must cooperate in the conservation of natural and cultural resources for all future generations.

The most urgent problem today, however, arises from the present economic inequality among countries and among communities within countries. How can we expect an impoverished community to care about future generations, if it cannot even care for its own people today?

Poverty is a primary cause of ecological degradation. Poverty stricken communities, which by definition have unequal access to resources, are forced to overexploit the resources they do have in order to satisfy their own basic needs. As the 1980 World Conservation Strategy observed, "the dependence of rural communities on living resources is direct and immediate . . . people on the margins of survival are compelled by their poverty—and their consequent vulnerability to inflation—to destroy the few resources available to them."[30] Moreover, as an ecosystem begins to deteriorate, the poor communities may suffer most because they cannot afford to take the measures necessary to control or adapt to the degradation, or to move to more pristine areas.[31]

In the intragenerational context, intergenerational equity requires wealthier countries and communities, which will benefit from pro-

29. *See* World Commission on Environment and Development, *Our Common Future* (1987); UNEP, *An Environmental Perspective Until the Year 2000 and Beyond* (1987).

30. International Union for Conservation of Nature and Natural Resources (IUCN), United Nations Environment Programme (UNEP), World Wildlife Fund (WWF), *World Conservation Strategy, Living Resource Conservation for Sustainable Development* sec. 1, para. 10 (1980).

31. *See Our Common Future*, *supra*, note 29 at 48-9.

tecting the general planetary environment for future generations, to contribute to the costs incurred by poor countries and communities in protecting these resources, to help them gain access to the economic benefits from them, and to help protect them from suffering degraded environmental quality. As beneficiaries of the planetary legacy, all members of the present generation are entitled to equitable access to the legacy. Intragenerational justice requires wealthier communities to assist impoverished ones in realizing such access.

B. THE TEMPORAL DIMENSION IN INTERNATIONAL LAW

International law has always been concerned with justice, but usually between states in their present or past relationships with each other, as will be detailed later. States have made general claims for intergenerational justice in relatively few areas, but these are significant: the debates over a new international economic order[32] and the negotiations for the law of the sea convention regarding exploitation of seabed minerals.[33]

Since World War II, states have begun to express concern in international legal documents for the welfare of future generations. A growing number of international agreements, declarations, charters, and United Nations General Assembly resolutions express such concern and set forth principles or obligations that are intended to protect and enhance the welfare of both present and future generations. Even the United Nations Charter, drafted in the aftermath of World War II, affirmed the universal concern for the welfare of future generations in its opening paragraph, "We the peoples of the United Nations, determined to save succeeding generations from the scourge of war. . . ."[34]

Concern for justice to future generations regarding the natural environment first emerged in the preparatory meetings for the 1972 Stockholm Conference on the Human Environment. The preamble to the Stockholm Declaration on the Human Environment expressly

32. Charter of Economic Rights and Duties of States, December 12, 1974, 14 *I.L.M.* 251 (1975); Declaration on the Establishment of a New International Economic Order, May 1, 1974 13 *I.L.M.* 715 (1974).

33. *See* E.G. Bellow, "International Equity and the Law of the Sea," 13 *Verfassung und Recht in Uebersee* 201-12 (1980); R.-J. Dupuy, *L'Océan Partagé* (1979).

34. United Nations Charter, June 26, 1945, 59 Stat. 1031, T.S. 993.

refers to the objective of protecting the well-being of future generations: ". . . To defend and improve the environment for present and future generations has become an imperative goal for mankind—a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of world-wide economic and social development."[35] The Declaration's first principle provides that "man . . . bears a solemn responsibility to protect and improve the environment for present and future generations," while the second declares that the "natural resources of the earth, including the air, water, land, flora and fauna . . . must be safeguarded for the benefit of present and future generations through careful planning and management."[36] The Stockholm Conference led directly to the creation of the United Nations Environment Programme (UNEP). As Peter Thacher, who was intimately involved in the Stockholm Conference preparations and the formation of UNEP has noted, the explicit concern for future generations and for enhancing the environment were new contributions to the process of developing international law in this area.[37]

The concept of protecting the natural and/or cultural environment for future generations was explicitly incorporated in the language of three treaties negotiated more or less contemporaneously with the Stockholm Declaration: the 1972 London Ocean Dumping Convention, the 1973 Convention on International Trade in Endangered Species, and the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage.[38] The regional seas conventions which were subsequently negotiated under UNEP carried forward this concern for future generations.[39]

35. This is the sixth proclamation in the preamble setting up the Stockholm principles. Stockholm Declaration of the United Nations Conference on the Human Environment, U.N. Doc. A/Conf. 48/14 (1972).

36. *Id.*

37. Private communication to author, May 31, 1984.

38. Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Feb. 15, 1972, 26 U.S.T. 2403, T.I.A.S. No. 8165; Convention on International Trade in Endangered Species of Wild Fauna & Flora, Mar. 3, 1973, 27 U.S.T. 1087, T.I.A.S. No. 8249; Convention Concerning the Protection of the World Cultural and Natural Heritage, Nov. 23, 1972, 27 U.S.T. 37, T.I.A.S. No. 8226.

39. *See, e.g.*, the Barcelona Convention, the preamble of which notes that the States are acting because they are "fully aware of their responsibility to preserve this common heritage for the benefit and enjoyment of present and future generations." Convention for the Protection of the Mediterranean Sea Against Pollution, and Protocols, Feb. 16, 1976, 15 *I.L.M.* 290 (1976).

Other international agreements in the last two decades have contained language indicating either a concern for sustainable use of the environment or a concern for future generations, ofttimes by reference to the common heritage of mankind.[40] The 1982 World Charter for Nature, while not a formal agreement, refers explicitly to a global concern for the heritage we leave to future generations.[41] At the tenth anniversary of the Stockholm Declaration, countries reaffirmed the continuing validity of the Declaration and urged "all Governments and peoples of the world to discharge their historical responsibility, collectively and individually, to ensure that our small planet is passed over to future generations in a condition which guarantees a life in human dignity for all."[42] This growing concern in international legal documents with the natural and cultural environment we pass to future generations can serve as an important starting point in implementing international legal principles for achieving justice among generations: past, present and future. But the translation of the expressed concern for future generations into normative obligations that relate the present to the future to protect future generations still needs to be done.

Except for the above references to future generations, international law to date has addressed intertemporal issues primarily in the context of relating *the present to the past.* In public international law, an intertemporal doctrine applies to territorial claims, to certain other rules of customary international law and to several aspects of treaties. In private international law, it is reflected in questions of choice of time, as in conflict of law rules.

In public international law, Judge Huber enunciated the intertemporal doctrine in the classic *Island of Palmas Arbitration,*[43] which involved a dispute between the United States and the Netherlands over sovereignty of the small Pacific island. As described by Judge

40. For a review of the extent to which international agreements concerned with conservation of natural and cultural resources contribute to the protection of future generations, *see* E. Brown Weiss, "The Planetary Trust: Conservation and Intergenerational Equity," *supra* note 4 at 540-63.

41. The World Charter for Nature, *adopted* by the United Nations General Assembly, Nov. 9, 1982, G.A. Res. 37/7, 37 U.N. GAOR Supp. (no. 51) at 17, U.N. Doc. A/37/51 (1982).

42. The Nairobi Declaration, May 18, 1982, U.N.E.P. Report of the Governing Council, 37 U.N. GAOR Annex 2, Supp. (No. 25) at 49, U.N. Doc. A/37/25 (1982).

43. Island of Palmas Arbitration (Neth. v. U.S.) *2 R. Int. Arb. Awards* 831 (1928).

Huber, the doctrine has two elements: that acts should be judged in light of the law at the time of their creation; and that rights acquired in a valid manner may be lost if not maintained in a manner consistent with the changes in international law.[44] The principle has been subsequently applied in a number of cases before the International Court of Justice, including the *Minquier and Ecrehos Case, The Western Sahara Case, The North Sea Continental Shelf Case,* and the *Aegean Sea Continental Shelf Case.*[45] While the first element of the intertemporal doctrine has been widely accepted as a basic principle, the second has been controversial.[46]

In 1975 the Institut de Droit International adopted an authoritative resolution on intertemporal law, which encompasses both elements of the doctrine.[47] The Institut's restatement extended beyond Judge Huber's formulation only in that it encouraged States to develop agreement among themselves on how to handle intertemporal problems that might arise in negotiating treaties and other agreements. It did not, however, extend beyond the classical formulation to include other related intertemporal issues, such as the development of international law by international declarations and resolutions of the United Nations General Assembly.

Although most disputes raising the intertemporal doctrine have involved territorial claims, the doctrine is applicable more broadly to other issues in customary international law and to treaties. For example, in the *Namibia Advisory Opinion,* when the World Court considered whether South Africa's presence in Namibia by virtue of its 1919 League of Nations Mandate continued to be valid, it concluded that the meaning of "sacred trust" had evolved to "self-determination and independence of the people," which did not sustain

44. 2 *R. Int'l Arb. Awards* 831 (1928).

45. Minquier and Ecrehos Case (U.K. v. France) 1953 *I.C.J.* 47; The Western Sahara Case, 1975 *I.C.J.* 12, 39; The North Sea Continental Shelf Cases (F.R.G. v. Denmark, F.R.G. v. Neth.) 1969 *I.C.J.* 3; the Aegean Sea Continental Shelf Case, 1978 *I.C.J.* 1.

46. *See* T.O. Elias, "The Doctrine of Intertemporal Law," 74 *A.J.I.L.* 285 (1980). The late Judge Jessup criticized the second aspect of the doctrine in the *Palmas* decision as requiring constant vigilance by a State to avoid losing its territory by default. P. Jessup, "The Palmas Island Arbitration," 22 *A.J.I.L.* 735 (1928). But as Brownlie has noted, intertemporal law is subject to "the effect of recognition, acquiescence, estoppel, prescription, the rule that abandonment is not to be presumed," which counters this possibility. I. Brownlie, *Principles of Public International Law,* 131-32 (1980).

47. 56 *Annuaire de l'Institut de Droit International* 536-41 (1975).

South Africa's claim.[48] While the Court did not refer to intertemporal law, MacWhinney has correctly characterized it as embracing it.[49] Similarly, Judge Elias notes that the doctrine of intertemporal law has also applied to the customary law of sovereign immunity.[50]

The doctrine of temporal law applies to treaties, as well as to customary international law, as indicated in *The Grisbadarna Case* and the *North Atlantic Coast Fisheries Case*.[51] The deliberations of the International Law Commission in drafting the convention on the law of treaties revealed, however, divergent opinions and approaches to the precise formulation of the doctrine.[52] There are several intertemporal issues raised by treaties: the proper interpretation of a treaty over time, the continuing validity of a treaty in the face of changed circumstances, and retroactive application. The Vienna Convention on the Law of Treaties contains specific provisions addressing these issues, although the doctrine of intertemporal law is not explicitly mentioned.[53] Customary international law doctrines, such as *pacta sunt servanda* and *rebus sic stantibus* respond to the intertemporal question of the continuing validity of treaties.[54]

Intertemporal issues also arise in the context of procedural rules

48. Namibia Advisory Opinion, 1971 *I.C.J.* 16

49. E. MacWhinney, "The Time Dimension in International Law: Historical Relativism and Intertemporal Law," in *Essays in International Law in Honour of Judge Manfred Lachs*. 1979 (J. Makarczyk, ed. 1984).

50. *See* Trendtex Trading Corporation v. Central Bank of Nigeria, 2 W.L. R. 356 (1977), *reprinted in* 16 *I.L.M.* 471 (1977). Elias, *supra* note 46 at 293-96.

51. The Grisbadarna Case (Norway v. Sweden) 11 *R. Int'l Arb. Awards* 155 (1909); North Atlantic Coast Fisheries Case (U.K. v. U.S.) 11 *R. Int'l Arb. Awards* 167 (1910).

52. 2 *Y.B. Int'l L. Comm'n* 199-203 (1964); 2 *Y.B. Int'l L. Comm'n* 211-22 (1966); Elias, *supra* at 302-05.

53. For example, Art. 28 (non-retroactivity of treaties), Art. 31 (general rule of interpretation), Art 32 (supplementary means of interpretation), and Art. 62 (fundamental change of circumstance), Vienna Convention on the Law of Treaties, May 23, 1969, 8 *I.L.M.* 679 (1969).

54. The maxim *pacta sunt servanda* ("treaties must be observed") was tempered by the principle of *rebus sic stantibus* ("while things remain as they now stand"), which holds that treaty obligations are terminated in the case of a fundamental change in the circumstances existing at the time the treaty was concluded, as long as the consent of the parties was based on the existence of those circumstances. An excellent study of the doctrine, and summary of state practice, is A. Vamvoukos, *Termination of Treaties in International Law: the Doctrines of Rebus Sic Stantibus and Desuetude* (1985). For the legislative history of Art. 62 of the Vienna Convention on the Law of Treaties, which most writers believe codifies the current practice on the change of circumstances, *see* I. Sinclair, *The Vienna Convention on the Law of Treaties* 192-196 (2d ed. 1984) and the list of references in S. Rosenne, *The Law of Treaties: a Guide to the Legislative History of the Vienna Convention* 324-327 (1970). For Soviet views and practice, *see* J.E. Triska and R.M. Slusser, *The Theory, Law and Policy of Soviet Treaties* 133-141 (1962).

set by international tribunals. For example, the rule that local remedies must be exhausted raises issues such as the appropriate time to pursue local remedies, the point at which the pursuit is considered to be exhausted, and the appropriate time for raising objections based on this rule.[55] These issues have been particularly important in human rights cases, particularly those in Europe where the European Convention on Human Rights provides that the European Commission of Human Rights may address the issue of exhaustion of local remedies only within six months from the date of the final domestic decision.[56] While the time frame for these procedural intertemporal issues is relatively brief, the issues nevertheless demonstrate that we are already addressing intertemporal issues routinely in international law in relating the present to the past.

Intertemporal problems also occur in private international law. They arise primarily as conflicts in time of rules of private international law adopted in a particular country, conflicts in time of rules of intertemporal law of the *lex fori* and *lex causae,* and conflicts of time and space caused by changes in the connecting factor.[57] In the late 1970's, the Institut de Droit International undertook a comprehensive study of intertemporal problems in private international law, which included both questions of applicable law and of relevant jurisdiction.[58] In 1981 the Institut adopted a resolution setting forth applicable rules to govern intertemporal problems in private international law.[59]

55. A.A. Cançado Trindade, *The Application of the Rule of Exhaustion of Local Remedies in International Law* 213 (1983).

56. *Id.* at 213-49. Trindade analyzes in detail the temporal aspects of the six-month rule of the European Convention on Human Rights.

57. Most expositions on the temporal dimension of private international law have focused on issues raised by changes in a forum's conflicts rule, changes in substantive law, and changes in the connecting factor. *See* Morris, *The Conflict of Laws,* 493-503 (3rd ed. 1984); A. Dicey, *Dicey and Morris on The Conflict of Laws,* 51-63 (10th ed. 1980); J. Grodecki, 3 *Int'l Encyclopedia of Comparative Law,* Ch. 8 (1975). The Institut de Droit International has considered the issue of changes in rules of private international law over time. 59 *Annuaire de l'Institut de Droit International* 246 (1982 Part II). 58 *Annuaire de l'Institut de Droit International* 77 (1979 Part I).

58. *See* "The Problem of Choice of Time in Private International Law," 58 *Annuaire de l'Institut de Droit International* 1-96 (1979 Part I).

59. "The problem of choice of law in private international law," Resolution adopted August 29, 1981, 59 *Annuaire de l'Institut de Droit International,* 246-251 (1982 Part II). The Commission previously held extensive discussions on the problem. 58 *Annuaire de l'Institut de Droit International* 1-96 (1979 Part I). *See also* the report prepared for the Commission by M. Max Sorensen, "Le problème du droit intertemporel dans l'ordre international," 55 *Annuaire de l'Institut de Droit International* 4 (1973 Part I).

Intertemporal problems are common in national legal systems. For example, they appear frequently as conflict of law questions. The civil law tradition has a well-developed theory in conflicts of law cases of intertemporal law, which invokes such distinctions as "intertemporel," "droit transitoire," and "conflit mobile," terms which have no ready equivalence in English or the common law traditions.[60] The common law system addresses the temporal dimension in conflicts of law empirically as it arises in specific cases. Courts have often reached contradictory conclusions on temporal issues in these cases.[61]

Temporal issues also arise in tort liability cases, most notably in compensatory claims by people who were exposed to radiation, harmful drugs, or toxic substances years previously.[62] For purposes of this study on justice between generations in relation to natural and cultural patrimony, it is sufficient to note that an intertemporal dimension, which primarily relates the present to the past, already exists in many aspects of law in the traditions of public international law, private international law, and national legal traditions. The proposed principles of equity between generations and the related set of planetary obligations and rights, which focus primarily on the relationship between present and future generations, extend the basic concern we already have with intertemporal problems, albeit for a longer time horizon.

C. PRINCIPLES OF INTERGENERATIONAL EQUITY

To achieve justice between generations as outlined in the theory of intergenerational equity, it is important to recognize certain principles of intergenerational equity, which serve as the basis for intergenerational rights and obligations. In doing so, we build upon the recent efforts to use equity as a normative principle for allocating resources.

60. For cases in the civil law tradition, *see* J. Grodecki, 3 *Int'l Encyclopedia of Comparative Law*, Ch. 8 (1975).

61. For the common law tradition, *see* A. Dicey, *Dicey and Morris on the Conflict of Laws* (10th ed. 1980).

62. *See, e.g.*, Allen v. U.S., 527 Fed. Supp. 476 (D. Utah 1981), which involved claims for compensation for 460 cancer and leukemia victims who were infants when the United States conducted nuclear tests in Utah and Nevada during the 1950's. *See* "Atom Bomb Tests Leave Infamous Legacy," 218 *Science* 266 (Oct. 15, 1982), for analysis of the stakes involved.

International law has a long tradition of using principles of equity to interpret documents and reach decisions in order to achieve a just result.[63] The initial formulation of equity, which dates to Aristotle, treated equity as addressing the cases not covered by the universal law.[64] Grotius, usually identified as the father of international law, adopted this view of equity.[65] Today we are accustomed to considering equity in international law as serving several functions: as filling the gaps in the law (*praeter legem*), as providing the basis for the most just interpretation (*infra legem*), as providing a basis in moral principle for making an exception to the normal application of a rule of international law (*contra legem*), as providing a basis for deciding an individual case in a way that may disregard existing law (*ex aequo et bono*).[66]

The International Court of Justice has long invoked equitable principles in its jurisprudence.[67] In doing so, as Sohn has noted, the Court has clearly distinguished between principles of equity and equity *ex aequo et bono* under Art 38(2) of the Court's statute and between equitable principles in international law and equity in domestic law.[68] In the *North Sea Continental Shelf Cases,* the Court sets forth the classic description of equity: "Whatever the legal reasoning of a court of justice, its decisions must by definition be just, and therefore in

63. For good reviews of the role of equity in international law, *see* R. Lapidoth, "Equity in International Law," *Proceedings,* Annual Meeting of the American Society of International Law (1987); S.K. Chattopadhyay, "Equity in International Law: Its Growth and Development," 5 *Ga. J. Int'l & Comp. L.* 381 (1975).

64. *See Nicomanchean Ethics,* Book 5, Ch. 10, at 132 (D. Ross trans., rev. by J. Ackrill & J. Urmson, 1980). "When the law speaks universally, then, and a case arises on it which is not covered by the universal statement, then it is right, where the legislator fails us and has erred by oversimplicity, to correct the omission—to say what the legislator himself would have said had he been present, and would have put into his law if he had known. . . . And this is the nature of the equitable, a correction of law where it is defective owing to its universality." *Id.* at 133.

65. Grotius incorporated this concept in his *History of the Law of Nations. Rights of War and Peace,* Book 3, Ch. 16 (A.C. Campbell, ed., 901). *See* M.W. Janis, "Equity in International Law," 7 *Encyclopedia* 74 (1984).

66. For analysis of the different kinds of equity and their role in decisions of the International Court of Justice, *see* L. Sohn, "The Role of Equity in the Jurisprudence of the International Court of Justice," *Mélanges Georges Perrin* 303 (B. Dutoit and E. Grisel eds. 1984).

67. *See* in particular the maritime boundary decisions. North Sea Continental Shelf Cases, (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands) 1969 I.C.J. 3; Continental Shelf Case (Tunisia v. Libya), 1982 I.C.J. 18; Case Concerning the Delimitation of Maritime Boundary of Gulf of Maine (Canada v. U.S.), 1984 I.C.J. 246; Continental Shelf Case (Libya v. Malta), 1985 I.C.J. 13.

68. Sohn, *supra* note 66 at 308.

that sense equitable. Nevertheless, when mention is made of a court dispensing justice or declaring the law, what is meant is that the decision finds its objective justification in considerations lying not outside but within the rules, and in this field it is precisely a rule of law that calls for the application of equitable principles. There is consequently no question in that case of any decision *ex aequo et bono,* such as would only be possible under conditions prescribed by Article 38, paragraph 2, of the Court's Statute."[69] In its decision on the maritime boundary between Tunisia and Libya the Court invoked equity and noted that "Equity as a legal concept is a direct emanation of the idea of justice. The Court whose task is by definition to administer justice is bound to apply it. . . . [In the present case the Court] is bound to apply equitable principles as part of international law, and to balance up the various considerations which it regards as relevant in order to produce an equitable result. While it is clear that no rigid rules exist as to the exact weight to be attached to each element in the case, this is very far from being an exercise of discretion or conciliation."[70] In the Court's recent decision on the maritime boundary between Canada and the United States in the Gulf of Maine, the Court similarly invoked equity as the basis of its decision.[71]

Increasingly equity is being invoked to mean "equitable standards for the allocation and sharing of resources and benefits."[72] The Law of the Sea Convention, for example, includes several provisions invoking equity. Article 59 provides that conflicts over the exclusive

69. North Sea Continental Shelf Cases, (F.R.G. v. Denmark, F.R.G. v. Neth.) 1969 I.C.J. 48. The International Court of Justice has "the power to decide a case *ex aequo et bono,* if the parties agree thereto." *See* Art. 38, paragraph 2 of the Statute of the International Court of Justice in *Documents on the International Court of Justice* 79 (S. Rosenne, ed., 2nd ed. 1979). So far, the Court has never rendered a decision *ex aequo et bono. See* Edward McWhinney, "Equity in International Law," in *Equity in the World's Legal Systems, A Comparative Study* dedicated to René Cassin 582 (Ralph A. Newman ed. 1973).

70. Case Concerning the Continental Shelf (Tunisia v. Libya), 1982 I.C. J. 18, 60. *See* Sohn, *supra* note 66 at 307-8.

71. Case Concerning the Delimitation of the Maritime Boundary of Gulf of Maine (Canada v. U.S.), 1984 I.C.J. 246.

72. This is one of five uses of equity distinguished by Schachter. L. Henkin, R. Pugh, O. Schachter, H. Smit, *International Law* 102 (2nd ed. 1986). For a review of the use of equity in international law on environmental issues, *see* P. Thacher, "Equity Under Change," *Proceedings,* Annual Meeting of the American Society of International Law (1987). *See also,* M. Janis, "The Ambiguity of Equity in International Law," 9 *Brooklyn J. Int'l L.* 7 (1983) (distinguishes distributive equity from discretionary equity).

economic zone are to be "resolved in the light of equity."[73] Agreements delimiting the exclusive economic zone between States and opposite or adjacent coasts must "achieve an equitable solution" based on international law.[74] The Seabed Authority is required to "provide for the equitable sharing of financial and other economic benefits derived from activities in the Area."[75] In addition, the International Law Commission's draft articles on the succession of States in respect to State Property, Archives, and Debt, repeatedly invoke "equitable proportions" and "equitable compensation" as the basis for allocating property between a predecessor and successor state(s).[76]

The use of equity to provide equitable standards for allocating and sharing resources and benefits lays the foundation for developing principles of intergenerational equity.[77] These principles can build upon the increasing use by the International Court of Justice of equitable principles to achieve a result that the Court views as fair and just.

To derive the principles of intergenerational equity, it is necessary to return to the underlying purpose of our stewardship of the planet: to sustain the welfare and well-being of all generations. As indicated, this purpose has three aspects: to sustain the life-support systems of the planet; to sustain the ecological processes, environmental conditions and cultural resources necessary for the survival of the human species; and to sustain a healthy and decent human environment.[78] This means passing on a robust planet to future generations. The theory of intergenerational justice says that each generation has an obligation to future generations to pass on the natural and cultural

73. Article 59, Third United Nations Conference on the Law of the Sea: Final Act *signed* December 10, 1982, U.N. Doc. A/CONF.62/121 of October 21, 1982, 21 *I.L.M.* 1245, 1284 (1982).

74. *Id.*, Article 74.

75. *Id.*, Article 140(2).

76. *See* Articles 16 and 17, Draft Articles on Succession of States in Respect of State Property, Archives, and Debt, adopted by the International Law Commission on July 22, 1981. 1 *Y.B. Int'l L. Comm'n* 19, U.N. Doc. A/CN.4/SER.A/1981. The International Law Commission emphasized that equity, in addition to being a supplementary element throughout the draft, is also used as part of the material content of specific provisions, and not as the equivalent of the notion of equity as used in an *ex aequo et bono* proceeding, to which a tribunal can have recourse only upon express agreement between the parties concerned. *Id.* at 20.

77. For a practitioner's perspective on implementing this, *see* P. Thacher, "Serving Future Generations," *The Future of the International Law of the Environment* (1985).

78. *See* I.U.C.N., *The World Conservation Strategy, Living Resource Conservation for Sustainable Development* sec. 1, para 7 (1980) which identifies three objectives for resource conservation: to maintain essential ecological processes and life-support systems; to preserve genetic diversity; and to ensure the sustainable utilization of species and ecosystems.

resources of the planet in no worse condition than received and to provide reasonable access to the legacy for the present generation. What then are the principles of intergenerational equity that will fulfill these purposes?

Four criteria should guide the development of principles of intergenerational equity. First, the principles should encourage equality among generations, neither authorizing the present generation to exploit resources to the exclusion of future generations, nor imposing unreasonable burdens on the present generation to meet indeterminate future needs. Second, they should not require one generation to predict the values of future generations. They must give future generations flexibility to achieve their goals according to their own values. Third, they should be reasonably clear in application to foreseeable situations. Fourth, they must be generally shared by different cultural traditions and be generally acceptable to different economic and political systems.

We propose three basic principles of intergenerational equity. First, each generation should be required to conserve the diversity of the natural and cultural resource base, so that it does not unduly restrict the options available to future generations in solving their problems and satisfying their own values, and should be entitled to diversity comparable to that of previous generations. This principle may be called "conservation of options." Second, each generation should be required to maintain the quality of the planet so that it is passed on in no worse condition than the present generation received it, and should be entitled to a quality of the planet comparable to the one enjoyed by previous generations. This is the principle of "conservation of quality." Third, each generation should provide its members with equitable rights of access to the legacy from past generations and should conserve this access for future generations. This is the principle of "conservation of access."

These proposed principles constrain the actions of the present generation in developing and using the natural and cultural resources of our planet. They do not, however, dictate the details of how members of the present generation should manage their resources. The principles are reasonably clear in application and should, if respected, ensure the sustainability of the living environment and the cultural heritage. They appear to be shared generally by the world's

major cultural traditions, and are consistent with different political and economic systems.

The principles can appropriately be viewed as implementing the poignant call of the World Commission on Environment and Development for "sustainable development," which the Commission defines as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[79] They are intended to ensure equitable access to our planetary natural and cultural environment and at the same time to recognize limits on how we use our environment so we can pass it to future generations in as good condition as we received it.

The proposed principles do not require that we predict the preferences of future generations. It would be difficult, if not impossible, to predict these preferences, either because their values, and hence their preferences, will change over time, or because technological developments may change the options available to them upon which they will base their preferences. The proposed principles try at a minimum to ensure a reasonably secure and flexible natural and cultural resource base for future generations and a reasonably decent and healthy human environment for the present generation.

The principle of conserving quality may be viewed as encompassing the principle of diversity. While the principles are complementary, they are not the same. To illustrate the difference, we can invoke the analogy of a common law trust, whose corpus consists of investments in two different oil companies and two utilities. If the trustee shifts the investments into other oil and utility companies that turn out to be lower in quality as investments, the value of the trust corpus declines, but the diversity of the holdings does not change. By contrast, if the trustee combines all the investments into a single oil company, the value of the holdings may remain the same, but the diversity of the holdings is sharply compromised.[80]

In our planet, the quality of the natural environment may decline, as by pollution of air and water, but this does not necessarily reduce the diversity of the resource base. Similarly, it may be possible for one generation to sustain the quality of air and water but substantially destroy the diversity of the resource base, as by a significant loss of

79. *Our Common Future, supra* note 29 at 43.
80. *See* A. Scott, 3 *The Law of Trusts*, § 228 (3rd ed. 1967 & Supp. 1982).

genetic diversity. Certainly the two principles interact and feed upon each other. It is easier to maintain quality if there are many options available for doing so. It is easier to conserve options, when there is concern for maintaining quality. Both principles are essential for a robust planet for future generations and must be implemented in tandem.

1. Conservation of Options

Future generations are more likely to survive and attain their goals if they have a variety of options for addressing their problems. Conserving the diversity of the natural and cultural resource base is designed to give our descendants a robust and flexible heritage with which to try to achieve a decent and healthy life. We cannot guarantee that they will be happy, but we can offer them a robust planet with which to try.[81]

The principle of conserving options rests on the premise that diversity, like quality, contributes to robustness. This can be seen in the contribution of biological diversity to the robustness of ecosystems and investment diversity to economic well-being. If diverse strains and species are present in an ecosystem and the system is perturbed, some strains and species will survive and multiply. While the distribution of the biological population may change, the ecosystem remains viable.[82] By contrast, farmers producing monocultures have to work hard to preserve them, for they are easily eliminated through the invasion of weeds, insects and other pests. Some theoretical scientific research suggests, however, that as systems become more complex (more species and a richer structure of interdependence), they may become more dynamically fragile. This suggests that we

81. *See* T. Page, "Intergenerational Justice as Opportunity," *Energy and the Future* (D. MacLean & P. Brown eds. 1982). Page has independently proposed that intergenerational justice have as its object the preservation of opportunities for future generations, which means preserving the "valuable parts" of our natural and cultural resource base. *See also* T. Page, *Conservation and Economic Efficiency* (1977).

82. *See, e.g., Diversity and Stability in Ecological Systems* (G. Woodwell & H. Smith eds. 1969).

need to understand the special kinds of complexity which promote the stability we observe.[83]

In formulating options as a component of intergenerational equity, it is important to note that biological diversity as it relates to robustness encompasses change in the species and strains which make up the ecosystem.[84] Thus, as ecosystems mature, species invade, colonize and develop more specialized relationships within the system. As Norton notes, it is not the diversity within a given ecosystem at a particular point in time that is crucial, but the total areawide diversity that provides the potential stock of species to invade and colonize.[85] This point is essential to intergenerational justice, for it means that change, which is essential for economic development, is an integral part of implementing the principle.

The wisdom of conserving options is reflected more broadly in conventional economic practices, such as maintaining diversity in the corpus of a common law trust, portfolios of investments, and national economies. In these latter examples, diversity is primarily viewed as a means of spreading risks to avoid reliance on only one investment or industry. At the same time it offers an effective strategy for improving economic wealth.

The question arises, however, whether conservation of options does not lead to a disregard of present generation needs. According to this argument, the best way to conserve options is to preserve the *status quo,* which means that poor people in particular are forced to endure their present condition without improvement.[86]

This interpretation misapplies the principle. Conservation of options is defined as conserving the diversity of the resource base. This can be accomplished in part by new technological developments

83. R. May, a biologist at Princeton University, questions the generally accepted assertion that complexity always implies stability, a concept which is sometimes used interchangeably with robustness. The theoretical models which he has developed to assess the stability of ecosystems suggest that as a system becomes more complex, it becomes more dynamically fragile. Natural ecosystems are not, however, arbitrary complex systems but rather evolve through a long intricate process of natural selection. Thus, we need to understand theoretically the kinds of complexity which promote the observed stability. R. May, *Stability and Complexity in Model Ecosystems* (1975); R. May, *Theoretical Ecology: Principles and Applications* (1981). For a succinct review of the scientific controversy and suggested research, *see* S. McNaughton, "Diversity and Stability," 333 *Nature* 204 (May 19, 1988).

84. *See* B. Norton, *Why Preserve Natural Variety?* 73-97 (1987).

85. *Id.* at 84-85.

86. Conversation with Pablo Guttman, an economist, Buenos Aires, Argentina, June 11, 1986.

that create substitutes for existing resources or processes for exploiting them more efficiently, as well as by conservation of existing resources. Certainly, any investment in the development of particular resources forecloses other options for that resource. The decision to extract coal may foreclose use of the land as a park, at least without overwhelming restoration costs. But the use of coal, if in abundance, may help to conserve more scarce energy supplies, such as helium-rich natural gas reserves. To the extent that a hydroelectric dam or a mine will destroy a unique natural resource, however, we must proceed extremely cautiously, if at all, because future generations might be willing to pay us handsomely to conserve it for them.

The principle of conservation of options requires that on *balance* the diversity of the resource base be maintained. It acts as an important brake on those who would destroy biological diversity by clear-cutting tropical areas, developing crop monocultures to the exclusion of conserving wild cultivars, exhausting all known quantities of essentially nonrenewable resources such as oil and helium bearing natural gas, or discarding the cultural resources of all but a few dominant cultures.

2. Conservation of Quality

The principle of conservation of quality requires that we leave the quality of the natural and cultural environment in no worse condition than we received it. Recent generations have used resources of air, water and soils as free resources for dumping their wastes, thereby passing on the costs of their activities to future generations in the form of degraded quality of air and water, with accompanying harms to plant and animal life and to human health.[87]

The principle of conserving quality does not mean that the environment must remain unchanged. This would be inconsistent with the principle of conserving access of the present generation to the benefits of the planetary legacy. Conservation of environmental quality and economic development must go together to ensure sustained

87. The long term costs of hazardous waste pollution are especially apparent. *See* W. Ginsberg & L. Weiss, "Common Law Liability for Toxic Torts: A Phantom Remedy," 9 *Hofstra L. Rev.* 859, 868-874 (1981); G. Milhollin, "Long-Term Liability for Environmental Harm" 41 *U. Pitt. L. Rev.* 1 (1979).

benefits of the planet for both present and future generations. This means trade-offs are inevitable in determining whether one generation is conserving quality. For example, we may exhaust more reserves of a natural resource and cause modest levels of pollution, but pass on a higher level of income, capital and knowledge sufficient to enable future generations to develop substitutes for the depleted resource and methods for abating or removing pollutants. A framework must be developed in which such balancing can take place. A necessary component of this will be the development of predictive indices of resource diversity and resource quality, establishment of baseline measurements, and an improved capacity to predict technological change.

It is natural to assume that present trends in natural and social systems will continue into the future. However, it is possible that breaking points exist in key variables beyond which these systems will reorganize and substantially change their properties. Predicting these breaking points is thus of critical importance, probably more important than predicting specific technological changes, since such breaking points would flag the need for deliberate human intervention.[88]

According to the Gaia hypothesis, the Earth's biosphere is a complex entity which has a homeostatic feedback system capable of maintaining an optimal physical and chemical environment for life on earth.[89] Even if this is the case, the question still remains of whether there are limits in critical variables beyond which this homeostatic quality no longer prevails.

3. Conservation of Access

Conservation of access gives the members of the present generation a reasonable, nondiscriminatory right of access to the natural and

88. Discussion with G. Gallopin, President Fundacion Bariloche June 1986. *See also,* "Development and Environment: An Illustrative Model," 2 *J. Policy Modeling* 239 (1980). The concept of breaking points is consistent with the new scientific paradigms expressed in the theories of catastrophe and of the dynamics of complex systems far from equilibrium. For castastrophe theory, *see* R. Thom, *Mathematical Models of Morphogenesis* (1983); for the theory of complex systems, *see* I. Prigogine & I. Stengers, *Order Out of Chaos: Man's New Dialogue With Nature* (1984).

89. J. Lovelock, *Gaia, A New Look at Earth* (1979).

cultural resources of our planet. This means they can use these resources to improve their own economic and social well-being provided that they respect their equitable duties to future generations and do not unreasonably interfere with the access of other members of their generation to these same resources.

This offers a principle of justice between generations and between members of the same generation. It implies equality, to the extent that a minimum level of access is accepted as a standard of equality. The level of access of the first generation is an absolute minimum which each generation must pass on. The principles of conserving access, options and quality, when taken together provide a standard of justice that calls for at least the same minimum level of benefit for each generation (avoidance of the worsening situation) and encourage the situation in which conditions improve.

In the intragenerational context, conservation of access implies that all peoples should have a minimum level of access to the common patrimony. But by itself it does not necessarily maximize the equality of members of the present generation. Nor is is clear what maximizing equality means. Do we have a more equal world if more people have the same level of income, which is very modest, and only a few are wealthy? Or is there greater equality when there are significant numbers of people at several different levels of income with the range between them less than in the former? The refinement of what conservation of access means as applied to members of the present generation is extremely complex. It implies both that the patrimony itself to which they have access should be comparable in quality and diversity (or robustness) to previous generations and that they should have a minimum level of resources so that they can in fact have access to such a patrimony. Thus, members of the present generation must not degrade the patrimony available, and to the extent that some members are too impoverished to have effective access, the others must assist them to gain such access.

If we want to ensure the well-being of the poorest members of the international community today, it is essential that the wealthier communities assist them. This is consistent with the principle of conserving access and, as discussed previously, with conservation of options and quality for future generations. As our concerns extend further in time we can only conserve natural and cultural resources successfully for our own descendants by conserving the milieu in

which they will live. This in turn demands that we assist the poor parts of our community so that they can meet their own conservation obligations. Their willingness and ability to do so is conditioned upon their access now to economic benefits from their legacy. Thus the principle of conservation of access gives to all members of the present generation a claim to the benefits of the planetary legacy and imposes upon them the obligation to ensure that all members realize this claim.

D. PLANETARY RIGHTS AND OBLIGATIONS

These principles of intergenerational equity form the basis of a set of planetary obligations and a set of planetary rights. The dual role of each generation as trustee of the planet for present and future generations and as beneficiary of the planetary legacy imposes certain obligations upon each generation and gives it certain rights. These may be called planetary, or intergenerational, rights and obligations. Through these rights and obligations, we give concrete expression to the principles of intergenerational equity.

Planetary rights and obligations are in the first order collective obligations and collective rights, for they are defined by the position of each generation as part of human society extending through time. Both the obligation and the right derive from our membership in this intertemporal entity.

Planetary rights and obligations are integrally linked. The rights are always associated with obligations. They co-exist in each generation. In the *inter*generational dimension, the generation to whom the obligations are owed are future generations, while the generations with whom the rights are linked are past generations. In the *intra*generational context, planetary obligations and rights exist between members of the present generation. They derive, however, from the *inter*generational relationship which each generation shares with those who have come before and those yet to come. Thus intergenerational obligations to conserve the planet flow both to future generations *qua* generations and to members of the present generation, who have the right to use and enjoy the planetary legacy.

These planetary, or intergenerational, rights and obligations give expression to the principles of intergenerational equity outlined pre-

viously. They balance the extreme positions of the preservationist and the opulent models. Rights of access and equitable use serve as a brake on the preservationist model; obligations to conserve quality and diversity act as constraints on the opulent model. They are designed to ensure that each generation will inherit an environment in no worse condition than previous generations and will have an opportunity to use this environment to improve its economic and social well-being. They find roots in the cultural and religious traditions of the world.[90]

The following two chapters develop the planetary obligations and planetary rights in detail. The linkage between the two is explored more fully in the chapter on planetary rights.

90. For example, Islamic law supports collective restrictions and collective rights, which are rights of the community of believers as a whole. *See* M. Khadduri, *The Islamic Conception of Justice* 137-39, 219-20, 233-39 (1984).

CHAPTER III

PLANETARY OBLIGATIONS

When we are born, we inherit a legacy from past generations to enjoy on the condition that we pass it on to future generations to enjoy. This imposes a set of planetary obligations upon members of each generation and gives them certain planetary rights. These obligations are intergenerational obligations because they derive from the temporal relationship between generations in the use of our planet and our cultural resources. But the obligations are owed both to future generations and to members of the present generation, who have planetary or intergenerational rights to use and benefit from the legacy.

A. NATURE OF OBLIGATIONS

Planetary obligations derive from the principles of equity between generations outlined previously. They require each generation to conserve the diversity and quality of natural and cultural resources for present and future generations and to ensure equitable access to and use of these resources. These obligations become enforceable as they are made specific and codified into international agreements and national and local laws, transformed into customary international law, or adopted as general principles of law. They must ultimately be defined and applied in the context of specific problems, such as conserving biological diversity or protecting resources from contamination by hazardous or nuclear wastes.[1]

1. The World Charter for Nature, adopted by the United Nations General Assembly on Oct. 28, 1982, sets forth useful general guidelines for conserving nature. The World Charter for Nature, G.A. Res. 37/7, 37 U.N. GAOR Supp. (No. 51) at 17, U.N. Doc. A/37/51 (1982). For background, *see* W. Burhenne and W. Irwin, *The World Charter for Nature* (2nd rev. ed. 1986).

ANNEX 2

Principles of International Environmental Law

THIRD EDITION

Philippe Sands
Jacqueline Peel
with
Adriana Fabra
Ruth MacKenzie

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SUSTAINABLE DEVELOPMENT[132]

Introduction

The general principle that states should ensure the development and use of their natural resources in a manner that is sustainable emerged in the run-up to UNCED. Although the ideas underlying the concept of sustainable development have a long history in international legal instruments, and the term itself began to appear in treaties in the 1980s, the general 'principle of sustainable development' appears to have been first referred to in a treaty in the Preamble to the 1992 EEA Agreement.[133] The term now appears with great regularity in international instruments of an environmental, economic and social character. It has been invoked by various international courts and tribunals, and is established as an international legal concept.[134]

The term 'sustainable development' is generally considered to have been coined by the 1987 Brundtland Report, which defined it as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. It contains within it two concepts:

(1) the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
(2) the idea of limitations imposed, by the state of technology and social organisation, on the environment's ability to meet present and future needs.[135]

State practice, however, suggests that the idea of 'sustainability' has been a feature in international legal relations since at least 1893, when the United States asserted a right to ensure the legitimate and proper use of seals and to protect them, for the benefit of mankind, from wanton destruction.[136] Since then, many treaties and other international instruments, as well as decisions of international courts, have supported, directly or indirectly, the concept of sustainable development and the principle that states have the

[132] W. Clark and R. Munn (eds.), *Sustainable Development of the Biosphere* (1986); R. D. Munro and M. Holdgate (eds.), *Caring for the Earth: A Strategy for Sustainable Development* (1991); P. Sands, 'International Law in the Field of Sustainable Development', 65 *British Year Book of International Law* 303 (1994); W. Lang (ed.), *Sustainable Development and International Law* (1995); United Nations, Department for Policy Co-ordination and Sustainable Development, *Report of the Expert Group Meeting on Identification of Principles of International Law for Sustainable Development* (UN, 26–28 September 1995); A. Boyle and D. Freestone (eds.), *International Law and Sustainable Development* (1999); EC Commission, *The Law of Sustainable Development: General Principles* (2000); D. French, *International Law and Policy of Sustainable Development* (2005); K. Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (2008); C. Voigt, *Sustainable Development as a Principle of International Law: Resolving Conflicts Between Climate Measures and WTO Law* (2009).

[133] Agreement on the European Economic Area (Oporto), 2 May 1992, in force 1 January 1994; 1801 UNTS 3 (1992 EEA Agreement).

[134] See generally the International Law Association's New Delhi Declaration of Principles of International Law Relating to Sustainable Development (2002).

[135] Report of the World Commission on Environment and Development, *Our Common Future* (1987), 43 (the Brundtland Report).

[136] *Pacific Fur Seal* arbitration, Chapter 9, pp. 399–400, below. Although the arbitral tribunal rejected the argument, it did adopt regulations for the conduct of sealing which incorporated some of the elements of what is now recognised as a 'sustainable' approach to the use of natural resources.

responsibility to ensure the sustainable use of natural resources. Its application has been recognised in relation to all parts of the world.[137]

Four recurring elements appear to comprise the legal elements of the concept of 'sustainable development', as reflected in international agreements:

(1) the need to preserve natural resources for the benefit of future generations (the principle of intergenerational equity);
(2) the aim of exploiting natural resources in a manner which is 'sustainable', 'prudent', 'rational', 'wise' or 'appropriate' (the principle of sustainable use);
(3) the 'equitable' use of natural resources, which implies that use by one state must take account of the needs of other states (the principle of equitable use, or intragenerational equity); and
(4) the need to ensure that environmental considerations are integrated into economic and other development plans, programmes and projects, and that development needs are taken into account in applying environmental objectives (the principle of integration).

These four elements are closely related and often used in combination (and are frequently interchangeably), which suggests that they do not yet have a well-established, or agreed, legal definition or status. The 1989 Lomé Convention indicated how some of the elements of the concept of sustainable development can be brought together in a single legal text. Article 33 of the Convention provided that:

> In the framework of this Convention, the protection and the enhancement of the environment and natural resources, the halting of the deterioration of land and forests, the restoration of ecological balances, the preservation of natural resources and their rational exploitation are basic objectives that the [states parties] concerned shall strive to achieve with Community support with a view to bringing an immediate improvement in the living conditions of their populations and to safeguarding those of future generations.

Without referring directly to 'sustainable development', the text introduced into a legal framework the elements identified by the Brundtland Report.[138]

[137] See e.g. Declaration on Establishment of the Arctic Council, 35 ILM 1382 (1996); Yaoundé Declaration on the Conservation and Sustainable Management of Forests, 38 ILM 783 (1999); Agreements on Co-operation for the Sustainable Development of the Mekong River Basin, 34 ILM 864 (1995); Revised Protocol on Shared Watercourses in the Southern African Development Community, 40 ILM 321 (2001); Partnership for Prosperity and Security in the Caribbean, 36 ILM 792 (1997); OECD Guidelines for Multinational Enterprises, Part V, 40 ILM 237 (2001); South East Europe Compact for Reform, Investment, Integrity and Growth, 39 ILM 962 (2000); 2001 Southeast Atlantic Fisheries Convention; 2002 North-East Pacific Convention; 2003 Lake Tanganyika Convention; 2005 Conservation and Sustainable Management of Forest Ecosystems in Central Africa Treaty; 2006 Southern Indian Ocean Fisheries Agreement; 2006 International Tropical Timber Agreement; 2009 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing; 2009 Agreement on the Central Asian and Caucasus Regional Fisheries and Aquaculture Commission.

[138] See also 2000 Cotonou Agreement, Art. 32 ('1. Co-operation on environmental protection and sustainable utilisation and management of natural resources shall aim at: (a) mainstreaming environmental sustainability into all aspects of development co-operation and support programmes and projects implemented by the various actors'). In the 2010 Cotonou Agreement, Art. 32 has been replaced by an entirely new version which does not use the term 'sustainability', but instead focuses on climate change: see New 2010 Cotonou Agreement, available at http://ec.europa.eu/development/icenter/repository/second_revision_cotonou_agreement_20100311.pdf.

There can be little doubt that the concept of 'sustainable development' has entered the corpus of international customary law, requiring different streams of international law to be treated in an integrated manner.[139] In the *Gabčíkovo-Nagymaros* case, the ICJ invoked the concept in relation to the future regime to be established by the parties. The ICJ said:

> Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind – for present and future generations – of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed [and] set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities, but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development. For the purposes of the present case, this means that the Parties together should look afresh at the effects on the environment of the operation of the Gabčíkovo power plant. In particular they must find a satisfactory solution for the volume of water to be released into the old bed of the Danube and into the side-arms on both sides of the river.[140]

By invoking the concept of sustainable development, the ICJ indicated that the term has a legal function and both a procedural/temporal aspect (obliging the parties to 'look afresh' at the environmental consequences of the operation of the plant) and a substantive aspect (the obligation of result to ensure that a 'satisfactory volume of water' be released from the by-pass canal into the main river and its original side arms). The ICJ did not provide further detail as to the practical consequences, although some assistance may be obtained from the Separate Opinion of Judge Weeramantry, who joined in the majority judgment and whose hand guided the drafting of paragraph 140 quoted above.[141]

In the *Shrimp/Turtle* case, the WTO Appellate Body noted that the Preamble to the WTO Agreement explicitly acknowledges 'the objective of sustainable development', and characterised it as a concept that 'has been generally accepted as integrating economic and social development and environmental protection'.[142] The concept informed the Appellate Body's

[139] See more generally P. Sands, 'International Courts and the Application of the Concept of "Sustainable Development"', 3 *Yearbook of UN Law* **389** (1999).

[140] (1997) ICJ Reports 78, para. 140; cited with approval in *Iron Rhine* case, para. 59; see also the *Pulp Mills* case, paras. 75, 76, 177 and 185. The concept was invoked by both parties. Slovakia stated that: 'It is clear from both the letter and the spirit of these principles that the overarching policy of the international community is that environmental concerns are not directed to frustrate efforts to achieve social and economic development, but that development should proceed in a way that is environmentally sustainable. Slovakia submits that these have been, and are today, the very policies on which the Gabčíkovo-Nagymaros Project is based' (Counter-Memorial, para. 9.56). In reply, Hungary took an opposite view to support its argument that the Project is unlawful: 'Well-established ... operational concepts like "sustainable development" ... help define, in particular cases, the basis upon which to assess the legality of actions such as the unilateral diversion of the Danube by Czechoslovakia and its continuation by Slovakia' (Hungarian Reply, para. 3.51).

[141] (1997) ICJ Reports 92 ('It is thus the correct formulation of the right to development that that right does not exist in the absolute sense, but is relative always to its tolerance by the environment. The right to development as thus refined is clearly part of modern international law. It is compendiously referred to as sustainable development.').

[142] 38 ILM 121 (1999), para. 129. The view is supported by reference to numerous international conventions: para. 130, citing Art. 56(1)(a) of the 1982 UNCLOS. See also the Opinion of Advocate General Léger in Case C-371/98, *R.* v. *Secretary of State for the Environment, Transport and the Regions, ex parte First Corporate Shipping Ltd* [2000]

conclusion that sea turtles are an 'exhaustible natural resource' (within the meaning of Article XX(g) of the GATT) and that they had a sufficient nexus with the United States to justify the latter state's conservation measures, at least in principle. The Appellate Body also invoked 'sustainable development' in assessing whether the US measures had been applied in a discriminatory fashion. In this regard it referred to 'sustainable development' in the Preamble to the WTO Agreement as adding:

> color, texture and shading to our interpretation of the agreements annexed to the WTO Agreement, in this case the GATT 1994. We have already observed that Article XX(g) of the GATT 1994 is appropriately read with the perspective embodied in the above preamble.[143]

Future generations[144]

The idea that, as 'members of the present generation, we hold the earth in trust for future generations'[145] is well known to international law, having been relied upon as early as 1893 by the United States in the *Pacific Fur Seal* arbitration. It is also expressly or implicitly referred to in many of the early environmental treaties, including the 1946 International Whaling Convention,[146] the 1968 African Nature Convention[147] and the 1972 World Heritage Convention.[148] Other, more recent, treaties have sought to preserve particular natural resources and other environmental assets for the benefit of present and future generations. These include wild flora and fauna;[149] the marine environment;[150] essential renewable natural resources;[151] the

ECR I-9235, who notes that sustainable development 'emphasises the necessary balance between various interests which sometimes clash, but which must be reconciled' (relying upon the Preamble to the 1992 Habitats Directive, which refers to sustainable development (discussed in D. McGillivray and J. Holder, 'Locating EC Environmental Law', 20 *Yearbook of European Law* 139 at 151 (2001))).

143 38 ILM 121 (1999), para. 153.

144 E. Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity* (1989); A. D'Amato, 'Do We Owe a Duty to Future Generations to Preserve the Global Environment?', 84 *American Journal of International Law* 190 (1990); L. Gundling, 'Our Responsibility to Future Generations', 84 *American Journal of International Law* 207 (1990); E. Agius and S. Busuttil, *Future Generations and International Law* (1998); E. Louka, *International Environmental Law: Fairness, Effectiveness and World Order* (2006); E. Brown Weiss, 'Climate Change, Intergenerational Equity, and International Law', 9 *Vermont Journal of Environmental Law* 615 (2008); E. Brown Weiss, 'Implementing Intergenerational Equity', in M. Fitzmaurice, D. Ong and P. Merkouris (eds.), *Research Handbook on International Environmental Law* (2010), 100.

145 E. Brown Weiss, 'Our Rights and Obligations to Future Generations for the Environment', 84 *American Journal of International Law* 198 at 199 (1990).

146 The Preamble recognises the 'interest of the nations of the world in safeguarding for future generations the great nature resources represented by the whale stocks'.

147 The Preamble provides that natural resources should be conserved, utilised and developed 'by establishing and maintaining their rational utilisation for the present and future welfare of mankind'.

148 Under Art. 4, the parties agree to protect, conserve, present and transmit cultural and natural heritage to 'future generations'.

149 1973 CITES, Preamble.

150 1978 Kuwait Convention, Preamble; 1983 Cartagena de Indias Protocol, Preamble; 1982 Jeddah Convention, Art. 1(1).

151 1976 South Pacific Nature Convention, Preamble.

environment generally;[152] the resources of the Earth;[153] natural heritage;[154] natural resources;[155] water resources;[156] biological diversity;[157] and the climate system.[158]

International declarations often make reference to intergenerational equity as an important aspect of the concept of sustainable development. According to Principle 1 of the 1972 Stockholm Declaration, man bears 'a solemn responsibility to protect and improve the environment for present and future generations', and UN General Assembly Resolution 35/8, adopted in 1980, affirmed that the responsibility to present and future generations is a historic one for the 'preservation of nature'. The Rio Declaration associates intergenerational equity with the right to development, providing in Principle 4 that the 'right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations'.

In its Advisory Opinion on *The Legality of the Threat or Use of Nuclear Weapons*, the ICJ recognised 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'.[159] The purpose of the ICJ's reliance on the intergenerational equity concept is not immediately apparent, and it is sometimes said that the undertakings in favour of future generations have limited practical legal consequences. They are considered by some to be closely associated with the civil and political aspects of the relationship between environmental protection and human rights protection.[160] According to this view, the rights of future generations might be used to enhance the legal standing of members of the present generation to bring claims, in cases relying upon substantive rules of environmental treaties where doubt exists as to whether a particular treaty creates rights and obligations enforceable by individuals.[161]

Sustainable use of natural resources

A second approach, reflected in treaties adopting a 'sustainable' approach, is to focus on the adoption of standards governing the rate of use or exploitation of specific natural resources rather than on their preservation for future generations. Particularly for marine living resources, a standard approach has emerged requiring exploitation to be conducted at levels that are 'sustainable' or 'optimal'.[162] The failure of the 1946 International Whaling Convention to prevent the depletion of many whale species can be measured by reference to its stated objective of achieving 'the optimum level of whale stocks' and confining whaling operations 'to those species best able to sustain exploitation in order to give an interval for recovery to certain species of whales now depleted in numbers'.[163] Similar commitments to limit catches or productivity to 'maximum sustained' levels have been agreed for other marine species, such as tuna,[164] North Pacific fish,[165] Pacific fur seals,[166] and living resources in the

[152] 1977 ENMOD Convention, Preamble. [153] 1979 Bonn Convention, Preamble.
[154] 1985 Nairobi Convention, Preamble. [155] 1985 ASEAN Convention, Preamble.
[156] 1992 Transboundary Waters Convention, Art. 2(5)(c). [157] 1992 Biodiversity Convention, Preamble.
[158] 1992 Climate Change Convention, Art. 3(1).
[159] (1996) ICJ Reports 226. See also *Gabčíkovo-Nagymaros* case (1997) ICJ Reports 7, para. 53; see also *Iron Rhine* case, para. 58.
[160] See generally Chapter 18, pp. 777–80, below. [161] See Chapter 5, pp. 155–8, above, on the standing issue.
[162] See e.g. 1995 Fish Stocks Agreement, Art. 2. [163] Preamble; see also Art. V(2).
[164] 1949 Tuna Convention, Preamble; 1966 Atlantic Tuna Convention, Art. IV(2)(b).
[165] 1952 North Pacific Fisheries Convention, Preamble and Art. IV(1)(b)(ii).
[166] 1976 Pacific Fur Seals Convention, Preamble and Arts. II(1)(a), V(2)(d) and XI.

EEZ.[167] Other treaties limit catches to 'optimum sustainable yields', or subject them to a required standard of 'optimum utilisation'; this applies, for example, in relation to Antarctic seals,[168] high seas fisheries[169] and some highly migratory species.[170]

Sustainable use is a concept also applicable to non-marine resources. The 1968 African Nature Convention provides that the utilisation of all natural resources 'must aim at satisfying the needs of man according to the carrying capacity of the environment',[171] and the 1983 International Tropical Timber Agreement encouraged 'sustainable utilisation and conservation of tropical forests and their genetic resources',[172] a notion that remains at the heart of the 2006 version of the Agreement.[173] The 1985 ASEAN Agreement was one of the first treaties to require parties to adopt a standard of 'sustainable utilisation of harvested natural resources ... with a view to attaining the goal of sustainable development'.[174] Further support for sustainable use or management as a legal term may be found in the 1987 Zambezi Action Plan Agreement,[175] the 1992 Climate Change Convention,[176] the 1992 Biodiversity Convention[177] and its 2000 Biosafety[178] and 2010 Nagoya Protocols,[179] and the 1992 OSPAR Convention.[180] The fact that so many species and natural resources are in fact not sustainably managed illustrates the difficulty in translating the concept of sustainable development into a practical conservation tool.

The term sustainable development also appears frequently in instruments relating to international economic law and policy. Under its Articles of Agreement, the European Bank for Reconstruction and Development must 'promote in the full range of its activities environmentally sound and sustainable development'.[181] The Preamble to the 1994 WTO Agreement commits parties to 'the optimal use of the world's resources in accordance with the objective of sustainable development'.[182]

Other acts of the international community have also relied upon the concept of 'sustainable development', or the spirit that underlies it, without specifying what, precisely, it means. Although the 1972 Stockholm Declaration did not endorse 'sustainable development', it did call for the non-exhaustion of renewable natural resources and the maintenance and improvement of 'the capacity of the earth to produce vital renewable resources'.[183] The 1982 World Charter for Nature stated that resources which are utilised are to be managed so as to 'achieve

[167] 1982 UNCLOS, Art. 61(3). See also 1995 Fish Stocks Agreement.
[168] 1972 Antarctic Seals Convention, Preamble.
[169] 1958 High Seas Fishing and Conservation Convention, which defines conservation as 'the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products' (Art. 2).
[170] 1982 UNCLOS, Art. 64(1). [171] Preamble. [172] Art. 1(h).
[173] 2006 International Tropical Timber Agreement, Art. 1(m).
[174] Art. 1(1); see also Art. 9 on the protection of air quality, and Art. 12(1) in respect of land use, which is to be based 'as far as possible on the ecological capacity of the land'.
[175] Preamble. [176] Art. 3(4).
[177] Preamble and Arts. 1, 8, 11, 12, 16, 17 and 18. The Convention defines 'sustainable use' as 'the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations': Art. 2.
[178] Art. 1.
[179] 2010 Nagoya Protocol, Preamble, Arts. 8(a), 9, 10 and 22(5)(h), and Annex, paras. 1(f), 2(f) and (k).
[180] Preamble. The Convention defines 'sustainable management' as the 'management of human activities in such a manner that the marine ecosystem will continue to sustain the legitimate uses of the sea and will continue to meet the needs of present and future generations': Art. 1.
[181] Art. 2(1)(vii). [182] On the *Shrimp/Turtle* case, see pp. 208–9, above. [183] Principles 3 and 5.

and maintain optimum sustainable productivity', and provided that living resources must not be utilised 'in excess of their natural capacity for regeneration'.[184] The 1992 Rio Declaration goes further than most instruments by expressly defining the content of the concept of sustainable development, and actively calls for the 'further development of international law in the field of sustainable development', which suggests that international law in this field already existed.[185] Apart from the environmental component of 'sustainable development', the Rio Declaration links environmental issues to matters which were previously considered as belonging to the realm of economic and development law. These issues, increasingly considered for their environmental implications, include the eradication of poverty, the special responsibility of developed countries, the reduction and elimination of unsustainable patterns of production and consumption, the promotion of appropriate population policies, and a supportive and open international economic system.[186] This linkage of environmental and development issues was made explicit in the UN Millennium Declaration, which declared as one of the Millennium Development Goals to be achieved by 2015, integration of the principles of sustainable development into country policies and programmes and reversal of the loss of environmental resources.[187] Treaties and other international acts have also supported the development of the concept of 'sustainable use' through the use of terms which are closely related; international legal instruments have aimed for conservation measures and programmes which are 'rational', or 'wise', or 'sound', or 'appropriate', or a combination of the above. In some instruments, the preferred objective is the 'conservation' of natural resources, which has been subsequently defined by reference to one or more of the terms identified above. Moreover, the term 'conservation' itself includes elements similar to 'sustainable development'. The Legal Experts Group of the World Commission on Environment and Development defined 'conservation' in terms that recall the principle of sustainable development as:

> [the] management of human use of a natural resource or the environment in such a manner that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. It embraces preservation, maintenance, sustainable utilisation, restoration and enhancement of a natural resource or the environment.[188]

'Rational', 'wise', 'sound' and 'appropriate' use are usually used without definition and often interchangeably, and accordingly the meaning of each term will depend upon its application in each instrument. Although attempts at definition have been made, no generally accepted definitions exist, and it is unlikely that distinguishable legal definitions could be agreed. The use of various terms in a single instrument is illustrated by the 1982 UNCLOS: it requires conservation at 'maximum sustainable yield' for the living resources of the territorial and high seas, the 'optimum utilisation' of the living resources found in the EEZ, and the 'rational management' of the resources in the 'Area' in accordance with 'sound principles of conservation'.[189]

[184] Paras. 4 and 10(a). [185] Principle 27. [186] Principles 5, 7, 8 and 12.
[187] United Nations Millennium Declaration, 18 September 2000, UNGA Res. 55/2, UN GAOR, 55th Sess., UN Doc. A/Res/55/2.
[188] 1986 WCED Legal Principles, para. (i). [189] Preamble and Arts. 61(3), 62(1), 119(1)(a) and 150(b).

'Rational' utilisation and management are the governing standard for migratory birds,[190] fisheries,[191] salmon,[192] all natural resources,[193] seals[194] and hydro resources.[195] They are the required standard called for by Principles 13 and 14 of the Stockholm Declaration, and the 1980 CCAMLR defines 'conservation' objectives as including 'rational use',[196] as does the 1982 Jeddah Regional Seas Convention.[197] 'Proper' utilisation and management has been adopted as a governing standard for fisheries[198] and forests.[199] 'Wise use' has been endorsed for flora and fauna,[200] wetlands[201] and natural resources generally.[202] Other standards introduced by international agreements include 'judicious exploitation',[203] 'sound environmental management',[204] 'appropriate environmental management'[205] and 'ecologically sound and rational' use of natural resources.[206]

The significance of these terms is that each recognises limits placed by international law on the rate of use or manner of exploitation of natural resources, including those that are shared or are in areas beyond national jurisdiction. These standards cannot have an absolute meaning. Rather, their interpretation is, or should be, implemented by states acting co-operatively, or by decisions of international organisations, or, ultimately, by international judicial bodies in the event that a dispute arises.

Equitable use of natural resources[207]

Equity and equitable principles are terms frequently relied upon in international environmental texts. In the absence of detailed rules, equity can provide a conveniently flexible means of

[190] 1940 Western Hemisphere Convention, Art. VII.

[191] 1958 Danube Fishing Convention, Preamble and Art. VIII; 1959 North-East Atlantic Fisheries Convention, Preamble and Art. V(1)(b); 1959 Black Sea Fishing Convention, Preamble and Arts. 1 and 7; 1969 Southeast Atlantic Fisheries Convention, Preamble; 1973 Baltic Fishing Convention, Arts. I and X(h); 1978 Northwest Atlantic Fisheries Convention, Art. II(1).

[192] 1982 North Atlantic Salmon Convention, Preamble.

[193] 1968 African Nature Convention, Art. II; 1978 Amazonian Treaty, Arts. I and VII.

[194] 1972 Antarctic Seals Convention, Art. 3(1); 1976 North Pacific Fur Seals Convention, Art. II(2)(g).

[195] 1978 Amazonian Treaty, Art. V.

[196] Art. II(1) and (2). 'Principles of conservation' are defined as (a) the 'prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment', and (b) the 'maintenance of ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to levels' above (a), and the 'prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades . . . with the aim of making possible the sustained conservation of Antarctic marine living resources': Art. II(3).

[197] Art. 1(1), including reference to present and future generations, optimum benefit, and conservation, protection, maintenance, sustainable and renewable utilisation, and enhancement of the environment.

[198] 1949 Agreement for the General Fisheries Council for Mediterranean, Preamble and Art. IV(a).

[199] 1959 Agreement for the Latin American Forest Institute, Art. III(1)(a).

[200] 1968 African Nature Convention, Art. VII(1); 1972 Stockholm Declaration, Principle 4; 1976 South Pacific Nature Convention, Art. V(1).

[201] 1971 Ramsar Wetlands Convention, Arts. 2(6) and 6(2)(d).

[202] 1979 Bonn Convention, Preamble.

[203] 1963 Niger Basin Act, Preamble.

[204] 1981 Abidjan Convention, Arts. 4(1) and 14(3); 1983 Cartagena de Indias Convention, Art. 4(1); 1985 Nairobi Convention, Art. 4(1); 1989 Basel Convention, Preamble and Arts. 2(8), 4(2)(b) and (8), 6(3)(b), 10 and 11; 1989 Waigani Convention, Arts. 1, 4(4)(c), 6(3)(d), 8(2), 10 and 11(1).

[205] 1981 Lima Convention, Art. 3(1).

[206] 1992 UNECE Transboundary Waters Convention, Art. 2(2)(b).

[207] G. Handl, 'The Principle of Equitable Use as Applied to Internationally Shared Natural Resources: Its Role in Resolving Potential International Disputes Over Transfrontier Pollution', 14 RBDI 40 (1977–8); L. F. E. Goldie, 'Equity and the International Management of Transboundary Resources', 25 *Natural Resources Journal* 665 (1985); J. Lammers, '"Balancing the Equities" in International Environmental Law', in R. J. Dupuy (ed.), *L'Avenir du Droit*

leaving the extent of rights and obligations to be decided at a subsequent date, which may explain its frequent usage at UNCED. In many respects, UNCED was about equity: how to allocate future responsibilities for environmental protection between states which are at different levels of economic development, which have contributed in different degrees to particular problems, and which have different environmental and developmental needs and priorities. This is reflected in each UNCED instrument, which seeks to apply equity to particular issues. Principle 3 of the Rio Declaration invokes the 'right of development' as a means of 'equitably' meeting the developmental and environmental needs of future generations. Under the Climate Change Convention, all the parties undertake to be guided on 'the basis of equity' in their actions to achieve the objective of the Convention, and Annex I parties agree to take into account the need for 'equitable and appropriate contributions' by each of them to the global effort regarding the achievement of the objective of the Convention.[208] The objectives of the 1992 Biodiversity Convention include the 'fair and equitable' sharing of the benefits arising out of the use of genetic resources.[209]

The application of equity in international environmental affairs pre-dates UNCED, having been associated with the protection of the environment for the benefit of future generations (intergenerational equity);[210] the principle of common but differentiated responsibility which takes into account the needs and capabilities of different countries and their historic contribution to particular problems;[211] and the allocation of shared natural resources,[212] shared fisheries stocks[213] or shared freshwater resources.[214] Equity has also been relied upon in relation to the participation of states in environmental organisations,[215] financial and other contributions to activities,[216] and the equitable distribution of the benefits of development.[217]

It is, however, in relation to the allocation of shared natural resources that equity is likely to play an important role in coming years, as underscored by the ICJ's ruling in the *Gabčíkovo-Nagymaros* case that Czechoslovakia had violated international law by unilaterally assuming control of a shared resource and depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube.[218] In the *Pulp Mills* case, the ICJ confirmed that utilisation of a river would not be equitable and reasonable 'if the interests of the other riparian State in the shared resource and the environmental protection of the latter were not taken into account'.[219]

In respect of state practice reflected in treaty provisions, the Preamble to the 1987 Montreal Protocol reflects the aim of controlling 'equitably total global emissions of substances that deplete the ozone layer', an aim translated into specific obligations through the process of intergovernmental negotiations (as reflected in the various Adjustments and Amendments to

International de l'Environnement (1985), 153; P. B. Cheng-Kang, 'Equity, Special Considerations and the Third World', 1 *Colorado Journal of International Environmental Law and Policy* **57** (1990); L. Rajamani, *Differential Treatment in International Environmental Law* (2006).

[208] Arts. 3(1) and 4(2)(a). [209] Arts. 1 and 15(7). See Chapter 16, pp. 683–4, below.

[210] See pp. 209–10, above. [211] See pp. 233–6, below.

[212] See the 1978 UNEP Draft Principles, Principle 1. [213] *Fisheries Jurisdiction* case, Chapter 9, p. 402, below.

[214] Chapter 8, pp. 303–41, below.

[215] Examples include: 1992 Oil Pollution Fund Convention, Art. 22(2)(a) (equitable geographic distribution of membership on Executive Committee); 1972 World Heritage Convention, Art. 8(2) ('equitable representation of the different regions and cultures of the world' on the World Heritage Committee); 1982 UNCLOS, Art. 161(1)(e) (equitable geographic distribution of membership of the Council of the International Seabed Authority).

[216] See e.g. 1973 Baltic Sea Fishing Convention, Art. I. [217] 1978 Amazonian Treaty, Preamble.

[218] (1997) ICJ Reports 7 at 56; Chapter 8, pp. 313–19, below. [219] *Pulp Mills* case, para. 177.

the 1987 Montreal Protocol).[220] The 1992 Climate Change Convention requires the equitable allocation of emission rights, although many would question whether this was in fact achieved by the targets for emission reduction eventually agreed in the 1997 Kyoto Protocol.[221] The 1992 Biodiversity Convention requires the determination of what constitutes an equitable sharing of the benefits arising out of the use of genetic resources. The 2010 Nagoya Protocol to the Biodiversity Convention establishes a regime for this purpose, but without clarifying what 'fair and equitable sharing' entails, other than that such sharing shall be 'upon mutually agreed terms'.[222] Consequently, in each of these cases, the factors to be taken into account in establishing specific rights and obligations must be determined in the circumstances of each instrument, including its provisions, the context of its negotiation and adoption, and subsequent practice by the organs it establishes and by parties.

Integration of environment and development

A fourth element of 'sustainable development' is the commitment to integrate environmental considerations into economic and other development, and to take into account the needs of economic and other social development in crafting, applying and interpreting environmental obligations. The arbitral tribunal in the *Iron Rhine* case confirmed that the integration of appropriate environmental measures in the design and implementation of economic development activities is a requirement of international law.[223] In many ways, this element of sustainable development is the most important and the most legalistic: its formal application requires the collection and dissemination of environmental information, and the conduct of environmental impact assessments.[224] The integration approach may also serve as the basis for allowing, or requiring, 'green conditionality' in bilateral and multilateral development assistance,[225] and the adoption of differentiated legal commitments on the basis of the historic responsibility of states (including the resulting economic benefits) and their capacity to respond to environmental requirements.[226]

The integration of environment and development began prior to the 1972 Stockholm Conference. Linkage between conservation and development was made at the United Nations Conference on the Conservation and Utilisation of Resources (UNCCUR) in 1949.[227] In 1971, the General Assembly expressed its conviction that 'development plans should be compatible with a sound ecology and that adequate environmental conditions can best be ensured by the promotion of development, both at the national and international levels'.[228] Principle 13 of the Stockholm Declaration called on states to adopt 'an integrated and co-ordinated approach to their development planning so as to ensure that their development is compatible with the need to protect and improve the human environment'. The 1982 World Charter for Nature provided that the conservation of nature was to be taken into account in the planning and

[220] See Chapter 7, pp. 265–74, below.
[221] Annex B. Questions over each country's 'equitable share' of the global burden of reducing greenhouse emissions remain a point of great contention in the current international climate change negotiations.
[222] Art. 5(1). [223] *Iron Rhine* case, para. 59 and 243.
[224] See e.g. its application by the ICJ in the *Gabčíkovo-Nagymaros* case, p. 214, above. See generally Chapters 14 and 15 below.
[225] Chapter 16, pp. 667–8, below. [226] See pp. 233–6, below.
[227] Chapter 2, pp. 27–40, above. [228] UNGA Res. 2849 (XXVI) (1971).

implementation of economic and social development activities and that due account was to be taken of the long-term capacity of natural systems in formulating plans for economic development.[229] Numerous regional treaties were also adopted that support an approach that integrates environment and development. Examples include: the 1974 Paris Convention, which called for an 'integrated planning policy consistent with the requirement of environmental protection';[230] the 1978 Kuwait Convention, which supports an 'integrated management approach ... which will allow the achievement of environmental and development goals in a harmonious manner';[231] the 1978 Amazonian Treaty, which affirms the need to 'maintain a balance between economic growth and conservation of the environment';[232] and the 1985 ASEAN Convention, which seeks to ensure that 'conservation and management of natural resources are treated as an integral part of development planning at all stages and at all levels'.[233]

For many years, however, the international regulation of environmental issues took place exclusively in international fora, such as UNEP and the Conferences of the Parties to environmental treaties, which were not directly connected to international economic organisations, particularly the World Bank and the GATT/WTO. One consequence was a divergence in approaches. This is a constitutional problem, which appears also in the organisation of national governments. The constituent instruments which originally created the UN and its specialised agencies, and in particular the GATT/WTO, the World Bank, the multilateral development banks and regional economic integration organisations, did not address environmental protection requirements or the need to ensure that development was environmentally sustainable. Environmental concerns were historically addressed on the margins of international economic concerns, and it is only since UNCED that the relationship between environmental protection and economic development has been more fully recognised by the international community. The UNCED process and the instruments reflect the need to integrate environment and development, and it is unlikely that the two objectives could now be easily separated.

Principle 4 of the Rio Declaration provides that: 'In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.'[234] An integrated approach to environment and development has significant practical consequences, most notably, that environmental considerations will increasingly be a feature of international economic policy and law (and that lawyers working in the area of environmental protection will need to familiarise themselves with economic law and concepts). This is borne out by the changes that have taken place since the late 1980s. Examples include: the establishment of an Environment Department at the World Bank and the adoption of environmental assessment and related requirements; the convergence of trade with environment at the GATT and then the WTO; the elaboration of language on sustainable development in the Articles of Agreement of the EBRD and the WTO; and the development of environmental jurisprudence in competition, subsidy, foreign investment and intellectual property law.[235]

The integration of environment and development, advocated by the global instruments adopted at UNCED, and treaties adopted subsequently,[236] re-opened debate over the 'right to

[229] Paras. 7 and 8. [230] Art. 6(2)(d). [231] Preamble.
[232] Preamble. [233] Art. 2(1). [234] Invoked in the *Iron Rhine* case, para. 59.
[235] See further Chapter 16, pp. 666–78, below; Chapter 19, pp. 806–46, below; and Chapter 20.
[236] 1992 Biodiversity Convention, Art. 6(b); 1992 Climate Change Convention, Preamble; 2000 Cotonou Agreement, Art. 32 (requiring the 'mainstreaming' of environmental sustainability throughout development co-operation).

development', after efforts to establish a New International Economic Order in the mid-1970s met with opposition from some of the larger industrialised countries. Principle 3 of the Rio Declaration implicitly accepts the 'right to development', although the United States declared that it did not, by joining consensus on the Rio Declaration, change its long-standing opposition to the 'so-called "right to development"'. For the United States, development 'is not a right . . . [it] is a goal we all hold', and the US disassociated itself from any interpretation of Principle 3 that accepted a 'right to development'.[237] Developing countries have, in this context, been careful to introduce language into treaties to safeguard their future development and limit the extent to which international environmental regulation might limit such development. Both UNCED treaties include language to the effect that the overriding priority needs of developing countries are the achievement of economic growth and the eradication of poverty,[238] an objective given more concrete expression by making the effective implementation by developing countries of their commitments dependent upon the effective implementation by developed countries of their financial obligations.[239] Despite the US language, Principle 3 of the Rio Declaration, with which Principle 4 must be read to be fully understood, is part of the bargain struck between developed and developing countries, which is also evident in the convoluted language of Article 3(4) of the Climate Change Convention. This provides that the parties 'have a right to and should, promote sustainable development', which reflects a compromise text between those states which sought an express recognition of a 'right to development' and those states which sought to dilute such a right by recognising only a 'right to promote sustainable development'.

Conclusion

International law recognises a principle (or concept) of 'sustainable development'. The term needs to be taken, in the context of its historic evolution, as reflecting a range of procedural and substantive commitments and obligations. These are primarily, but not exclusively, recognition of:

- the need to take into consideration the needs of present and future generations;
- the acceptance, on environmental protection grounds, of limits placed upon the use and exploitation of natural resources;
- the role of equitable principles in the allocation of rights and obligations;
- the need to integrate all aspects of environment and development; and
- the need to interpret and apply rules of international law in an integrated and systemic manner.

PRECAUTIONARY PRINCIPLE[240]

Whereas the preventive principle and elements of the sustainable development concept can be traced back to international environmental treaties and other international acts since at least the 1930s, the precautionary principle only began to appear in international legal

[237] UNCED Report, vol. II, 17; UN Doc. A/CONF.151/26/Rev.1 (vol. II) (1993).

[238] 1992 Climate Change Convention, Preamble; 1992 Biodiversity Convention, Preamble.

[239] 1992 Climate Change Convention, Art. 4(7); 1992 Biodiversity Convention, Art. 20(4); see further Chapter 16, below.

[240] D. Bodansky, 'Scientific Uncertainty and the Precautionary Principle', 33 *Environment* 4 (1991); J. Cameron and J. Abouchar, 'The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment', 14 *Boston College International and Comparative Law Review* 1 (1991); C. Boyden Gray and D. Rivkin, 'A "No Regrets" Environmental Policy', 83 *Foreign Policy* 47 (1991); R. Rehbinder, *Das Vorsorgeprinzip in*

ANNEX 3

Shaping the Law for Global Crises

Thoughts about the Role the Law Could Play to Come to Grips with the Major Challenges of Our Time

Jaap Spier

Elbert de Jong

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international publishing

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16 REMEDIES

16.1 INTRODUCTION

Hereinafter, I will assume that a legal basis for liability can be constructed, and that the defenses put forward by defendants will be passed by. After all, if there would not be a legal basis for liability, remedies do not come into play.

In this chapter the following issues will be discussed:
1. damages;
2. adaptation costs;
3. contribution of mitigation costs by 'developed' countries;
4. injunctive relief;
5. declaratory relief.

16.2 DAMAGES

16.2.1 Introduction

As a general rule a party that causes damage to someone else is under an obligation to pay compensation if the following requirements are met:
a. there is a basis for liability; see chapter 10, with elaboration in chapter 12;
b. there is a causal link between the act or omission of the defendant and the loss, whilst the loss can be attributed to the tortfeasor; see chapter 15;
c. defenses cannot be successfully invoked; see chapter 14.

Not surprisingly, many leading academics adhere to the view that liability for excessive emissions creates a legal obligation to compensate the consequential losses; see in more detail chapter 12.[1] After all, it seems obvious that victims should not be left empty-handed.

1 *See*, among many others, M. G. Faure & A. Nollkaemper, International Liability as an Instrument to Prevent and Compensate for Climate Change, *Stanford Environmental Law Journal*, Vol. 26A 2007, pp. 124 at p. 173 *et seq.*; D.A. Farber, The Case for Climate Compensation: Justice for Climate Change Victims in a Complex World, *Utah Law Review*, No. 2 2008, pp. 377 at 405 *et seq.*; M. Faure & M. Peeters in the same (Eds.), *Climate change liability* (2011), p. 260; G. Kaminskaite-Salters, Climate Change Litigation under English Law (2010), pp. 85 *et seq.*; R. Verheyen, *Climate Change Damage and International Law* (2005), pp. 227 *et seq.*; M. Haritz, *An Inconvenient Deliberation:The Precautionary Principle's Contribution to the Uncertainties Surrounding Climate Change Liability* (2010), pp. 248 *et seq.*; D.A. Grossman, Warming up to a not-so-radical idea: Tort-

There probably is a second reason why this stance is becoming ever more popular: it is a potential goldmine for lawyers, who seem to care progressively less about the interests of society at large. Ever more lawyers – a minority, but it plays an important role in mass-litigation – focus primarily, if not entirely, on their personal interests (they cannot decently live from less than, say, €1 million per annum, of course).[2]

As such, the submission that climate change losses should be compensated is a far from spectacular finding, departing from earlier mentioned assumptions. Seen from a traditional legal angle, it is not so easy to explain why compensation could not be recovered, if we assume that causation is not an insurmountable hurdle.

Still, I dare to submit the view that compensation very much is a slippery slope. Before addressing the reasons why we should be extremely cautious to embark on the compensation-vessel, a concise elaboration on arguments why compensation would be the best way ahead.

16.2.2 Arguments for Compensation

The idea that damage, caused by wrongful acts, has to be compensated probably belongs to the hard core of tort law in many countries around the globe.[3] In a European context, this follows from the Common Frame of Reference and the European Principles of Tort Law alike.[4]

Article 31 of the ILC Articles on Responsibility of States for Internationally Wrongful Acts reads that a 'responsible State'[5] 'is under an obligation to make full reparation for the injury caused by the internationally wrongful act'. Injury includes 'any damage, whether material

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based climate change litigation, 28 *Colum.J.Envtl.L.* 1 2003 1, at pp. 22 *et seq.* and 58; P. Cullet, Liability and redress for human-induced global warming: towards an international regime, 26 *Stanford Environmental Law Journal*, 2007 Vol. 26A, pp. 99 *et seq.* (his views are quite far-reaching). This is not to say that they advocate that the sky is the limit. In a UC Berkeley Public Law Research Paper (No. 980361) D.A. Farber discusses the various options. He arrives at the conclusion that the best option is that emitters pay the losses. *See also* the national reports in R. Lord *et al.* (Eds.), *Climate change liability*.

2 This regrettable state of affairs has done a great deal of harm, if perceived from a broader angle. To avoid misunderstanding: the real evil is not *caused* by lawyers. *See* for more details my contribution The Devil and the Deep Blue Sea, Liability for mismanagement and fraud and a call for a serious debate on *truly* fundamental issues to *Essays on Tort, Insurance, Law and Society in Honour of Bill W. Dufwa*, pp. 1063 *et seq.*

3 D.B. Dobbs, *Law of Remedies*, p. 310; F. Trindade and P. Cane, *The Law of Torts in Australia* (1999), p. 511; Chinese law is a bit different; *see* H. Koziol & Yan Zhu, Background and Key Contents of the New Chinese Tort Liability Law, (2010) 1 *JETL* 328, at pp. 342 *et seq.*

4 Art. 10:101 PETL and Art. 6:101 PEL Liab. Dam.

5 It follows from the Commentary that State is 'intended in the most general sense', not limited to the central government or to officers of a high level (p. 40).

or moral' caused by such an act. The commentary elaborates on the meaning of 'caused'. The elaboration clearly suggests that the sky is not the limit, since not every even remote loss has to be compensated.[6]

Without going into any detail – it is a huge topic in its own right – the often quoted 'polluter pays' principle also serves as an underpinning for an obligation to pay compensation. Among other courts, the Indian Supreme Court has applied this principle in various cases.[7] In its view, it means that

> polluting industries are absolutely liable to compensate for the harm caused by them (...) The 'Polluter Pays' principle as interpreted by this Court means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the degradation. Remediation of the damaged environment is part of the process of 'Sustainable Development' (...).[8]

In chapter 5, we have briefly discussed Ruggie's stance in relation to non compliance with his Principles, since adopted by the UN Human Rights Council. The conclusion was that his Principles, understandably,[9] are a bit ambiguous on this point; see paragraph 5.3.

The same goes for the OECD Guidelines for Multinational Enterprises. As already mentioned in paragraph 10.3.5, they do not aim to provide binding (enforceable) rules, although it seems quite likely that they will be called to aid by progressive courts. That said, the Guidelines explicitly address redress. Enterprises should 'address adverse human rights impacts with which they are involved'. A few sentences further down, they speak of 'mitigate human rights impacts' and a little bit further-on 'remediation' 'through legitimate processes'.[10] The Commentary speaks of 'use its leverage to mitigate any remaining impact to the greatest extent possible'.[11]

The mere fact that compensation is often advocated as self-explanatory if someone acts unlawfully, does not necessarily mean that this view would have to be adopted in relation

6 Pp. 91-92. One can hardly blame the ILC for leaving manoeuvring room. I know only too well from my experience in the European Group on Tort Law that it is virtually impossible to draft a hard and fast rule for all cases; *see* Art. 3:201 PETL.

7 *See, e.g., Indian Council for Enviro-Legal Action v. Union of India*; *Vellore Citizens Welfare Forum v. Union of India*.

8 *Vellore Citizens Welfare Forum v. Union of India*, 1996 per Kuldip Singh, J. at 12.

9 He probably had to seek for support from countries with diverging interests.

10 P. 29.

11 P. 31. *See also*, even vaguer, p. 32.

to very uncommon cases where full-fletched compensation would have far-reaching consequences for the tortfeasor and for society at large. As a matter of fact, climate change is very different compared with other cases, given the magnitude of the problem and the colossal amount of cumulative losses, future and present.

16.2.3 *The Dilemma of Crushing Liability?*

Climate change is different from the 'usual' damage-causing events. In the overwhelming majority of cases, one act or omission causes damage to one victim or to only a few victims. A small minority of cases is about more complicated issues, such as plurality of defendants and tortfeasors. The DES-cases may serve an example of the latter set of cases. These may give rise to a series of claims in unrelated litigation,[12] potentially before different courts in various countries. Particularly in those situations, it is complicated to keep the scope of *aggregate* liability within bearable limits: this can often only be achieved by being 'mean' to victims in *all individual* cases.

Climate change – and a few other topics, such as potential litigation related to the financial crisis – poses this problem on a very different scale. If the IPCC forecasts are approximately correct, the damage caused by climate change will be extremely large, if we continue present practices unchanged. If States and/or major enterprises would be liable for damage caused by their excessive GHG-emissions, this will end up in (potentially) crushing liability.

It is virtually impossible to make any realistic, let alone a well-founded, estimate of the aggregate loss climate change will cause. Too much is still in the laps of the gods. For the time being, GHG-emissions still are increasing, despite the financial crisis, largely due to growing emissions in countries such as China and India.[13] It is almost certain that the fatal tipping point will be passed, but we do not know to what extent. That extent will be decisive for the scope and magnitude of the cumulative losses.

In brief, there is little doubt that the future looks grim. Despite many laudable initiatives to bring about the bitterly needed change of mindset and of attitude, there is at best a

12 *See* about the question whether claims can be combined before a single court K. Oliphant (Ed.), *Aggregation and Divisibility of Damage*, comparative report p. 503 and the national reports about para. D30 of the questionnaire (p. 7).

13 US Today 22 November 2010, quoting a report by Global Carbon Project. The global increase is estimated at 3%; that of China 8% and India 6.2%. An even more recent report (N. Höhne *et al.*, *China emission paradox*, *o.c.*) paints a very worrying picture. The emissions per GDP have been reduced quite considerably but due to the impressive economic growth the emissions reach ever higher levels. Brazil is a challenge too.

remote glimmering of hope for significant GHG-reductions in the mid-long term – which will be far too late.[14]

Whether we like it or not, there are limits to the financial capacity of potential defendants to compensate victims for their part of the losses. They are probably able to compensate the less significant damage in the early stages of climate change. But it is unrealistic to assume that they will be solvent enough to make good the aggregate losses that will occur in the decades and centuries to come.

If the defendants would nevertheless be required to compensate (their share of) the losses, they will go bankrupt at a (relatively) early stage of climate change.[15] This 'first gets all'-approach (*i.e.* only the 'early' victims would be compensated) means that future victims are deprived of a solvent debtor. That is far from attractive, if not for other reasons, then because the future damage will often be much more serious than the damage likely to be suffered in the *near* future.

There are many more reasons why a legal obligation to compensate the damage would be unbalanced. I will mention just a few.

Liability law is often about victims and tortfeasors. The debate in doctrine, litigation and legislation tends to focus on the question who of them should bear the loss. In average cases, and even in most 'uncommon' cases, this is a fair and useful approach. However, it ceases to be that in situations, which significantly affect society at large, such as climate change. An obligation to compensate damage, related to a defendant's share, will ultimately end up in a series of bankruptcies. It will greatly affect other also 'innocent' people, such as employees who lose their jobs, retired people living from (mostly not very substantial) pensions, ill or unemployed people whose social security benefits are cut and inhabitants of a country that 'collapses' under too heavy debts. Hereinafter I will refer to 'secondary victims' when I have this class of people in mind.

'Primary victims' might argue that they are more 'innocent' than the 'secondary victims', or at least that they deserve better protection as they do not have or have ever had, any benefit, whereas most 'secondary victims' derived at least some of the benefits from

14 This not to say that nothing is happening. Some major enterprises are taking note of the changing tide and are taking far-reaching steps to act responsibly. But they still are a minority. Besides, people (citizens) also have to change course. This probably requires strong (fiscal or other) incentives. At least in most 'western' countries, incentives of this kind are not contemplated by many politicians. To the contrary, financial incentives tend to disappear in the aftermath of the financial crisis.

15 This is my interpretation of the IPCC projections and the Stern-report.

excessive GHG-emissions. The argument may well be valid in relation to some parts of the class of 'secondary victims', for instance the wealthy part of the population of countries and well paid employees of enterprises in the 'western world'. But it is far less compelling in relation to 'blue collar workers' who will lose their jobs, let alone to their children.

From the moment that climate change disasters become a worldwide reality, the odds will be against people in poor and in rich countries alike. Citizens of both groups of countries will suffer enormously. Our (grand)children and the generations after them will have to pay the price of our recklessness. That holds true for people the world over.[16] In such a setting, it is far from obvious that the countries of the latter group of people will still be held to compensate the former.[17]

In summary: it is extremely complicated, if possible at all, to strike a fair balance. If compensation for climate change damage is to be accepted, it requires in-depth discussions on the moral and legal pros and cons and on the consequences of the choices made. On a macro-scale there cannot be any doubt that legal obligations for defendants to compensate their proportional part of the damage, will have draconian consequences. Most lawyers and courts, however, are not used, nor trained, to look at *global* consequences, when applying the law in *individual* cases.

There are a few legal techniques to arrive at the conclusions that claims for damages should be rejected,[18] but at the end of the day, this largely is a matter of judicial policy.

As to the legal aspects: we should not overlook the human rights-dimensions, which are valid for primary and for secondary victims. To point out a few, I refer to Articles 17, 22, 23, 25 and 28 of the Universal Declaration on Human Rights.

We should also realize that litigation is very expensive. We may be witnesses to the commencement of a lawyer's paradise, more 'heavenly' than we have seen before. But that is

16 That is not entirely true, of course and that makes this debate sensitive and terribly complicated at the same time. Even unemployed or ill people in 'developed' countries often (no longer: always) get at least minimal social security benefits; they have access to clean water and electricity and have a home. That does not go for many people in the poor countries. But there obviously is a trend in the so called developed countries to sacrifice the so called 'losers' (such as people who lost their job due to irresponsibility of others). In that respect there is an approximation between countries all over the globe. If serious natural catastrophes would ravage a small 'developed' country, a major part of its population may well come close to that of 'developing' countries, as the means to come to aid may not be available to the extent needed.

17 For good order's sake: the victims may also live in the 'responsible' country.

18 *See* chapter 15 and para. 6.2.5 below.

largely a waste of money. There is no reason why only lawyers should gain from disasters for the rest of the world. That money can be used more appropriately.

16.2.4 *A Choice between the Devil and the Deep Blue Sea*

Seen from a moral angle, it is not easy to explain why victims – and even less so, still unborn victims – should not be able to recover their losses, or that the loss should – in a sense – be borne by society at large. The picture becomes more vivid when one imagines losses in the form of deprivation of even a minimum standard of living, of one's home and of drinking water.

Marc Limon, a senior representative of the Maldives, is right, of course, to stress the importance of 'redress'.[19] He undoubtedly has a point in stressing that liability that cannot be translated into claims for damages

> is unlikely to be acceptable to the Inuit of North America who every year see their lands eroding, their houses subsiding, their food sources disappearing, their friends and family failing through the thinning ice (…). And what about the people of the Maldives, the Marshall Islands, Tuvalu, or Vanatu who risk, because of their economically motivated actions or relatively prosperous people in far-off lands, losing their entire homeland – the country of their birth and the country that their ancestors have inhabited for millennia.[20]

I have quoted this view extensively because it makes sense. But I am very much afraid that it is not the best solution, a view that understandably will be despised by many, not only in the just mentioned countries. After all, the other side of the coin is that full liability will foreseeably cause severe harm – including the possibility of practical bankruptcy – to States and major enterprises. That will, in turn, have a major negative impact, not only on the citizens of the relevant countries, the employees and shareholders (more often than not: pension funds) of the relevant enterprises, and by the same token on the world-economy at large. In the end, it will, again, affect those directly suffering the negative consequences of climate change (such as victims of floods, hurricanes, diseases, shortage of water). Hereinafter the latter group will be referred to as: the 'immediate' victims.[21]

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19 He even advocates 'joint and several liability' in human rights law; *o.c.*, pp. 619 *et seq.*; the submission on joint and several liability on p. 625.

20 *O.c.*, at p. 620.

21 According to a report of the UN Office for the Coordination of Humanitarian Affairs, already in 2008 over 20 million people were displaced by sudden-onset climate-related disasters. A recent report of Global Humanitarian Forum speaks of a yearly toll of 300,000 deaths every year, and a global cost of USD 125 billion

At first glance it may seem fair to place the burden entirely upon the citizens of 'polluting' countries and on those dependent on 'polluting' enterprises. But on second thoughts that solution would not necessarily be so fair. After all, the greater part of the loss would then be borne by people who barely benefited from the excessive emissions.

We must think about the best way to balance the diverging interests at stake. Diverging between, *inter alia*, present and future generations, between rich and poor countries and between the not so wealthy citizens of rich countries who will probably suffer most in case of liability of their country or of key enterprises, and 'immediate' victims elsewhere. That is a moral, a political, but also a legal challenge.

All in all, I am afraid that a self-evident starting point should be that crushing liability for damages in respect of climate change should be avoided, as this will do far more harm than good, viewed from the overall perspective. For practical purposes that means that liability for damages is not the right approach.[22] In the final analysis, accepting this will provide the best (albeit less than completely satisfactory) approach to handling the major damage that climate change will cause – unless it is checked very soon.

There is an additional reason for this view. It will already be a huge challenge to mitigate GHG-emissions in due time. This may well urge 'developed' countries to contribute financially to 'developing' countries to do their part of the job; see paragraph 16.4. As things stand now, we must face that the adverse effects of climate change can no longer be avoided altogether. This urges for adaptation measures. Most 'developing' countries will be unable to finance the measures needed. To some extent, 'developed' countries should step in; see paragraph 16.3 below. That already is a quite heavy financial burden. Additional burdens would, as said before, entail more disadvantages than advantages.

The obvious way to avoid liability would be to reduce emissions to the bare minimum right now. As matters stand, there is little, if any, chance of this happening in the years to come, unless the strongest and irresistible pressure is put on those holding the levers of

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(<www.field.org.uk/field/FIELD_climate_change_litigation.pdf>) p. 7. One should bear in mind that for the time being, we are in the very early stages of climate change. It is likely that the amounts will increase at a staggering rate.

22 This idea is less novel than it may seem. Liability of supervisors in the financial arena is capped or excluded altogether in quite a few countries; *see* C. van Dam, Liability of Regulators New Dutch Style, in C. van Schoubroeck *et al.*(Ed.), *Liber Amicorum Herman Cousy*, pp. 717 *et seq.* The losses in the realm of climate change will be significantly higher.

power (politicians and captains of industry), either by legal or other peaceful means or both; see paragraphs 16.5, 17 and 18 below.[23]

16.2.5 *How to Keep Liability within Bearable Limits*

If one would be willing to go along with the submission that damages is the wrong way to go, the question arises how the way to non compensation can be paved. To a large extent, that issue has already been dealt with in chapter 15. Below I will address a few other means. Once again, I will use the Principle of European Tort Law as an example, realizing, of course, that they do not rule the waves (not even the European waves). I will confine myself to the *requirements* for liability.[24]

According to Article 2:101 PETL damage requires that a *legally protected interest* is affected. Article 2:202 PETL mentions a series of protected interests. Among those are life, bodily integrity, human dignity and property rights. A significant part of the damage caused by climate change will arise under these headings. Only more remote types of damages (such as deterioration of biodiversity) may be problematic, seen from the 'protected interests'-angle.[25] This issue will therefore be of limited use for keeping liability within bearable limits. After all, it would not be an appealing position to argue that these 'interests' should be set aside because they are not protected by law.

Article 4:102 PETL points out that the required standard of conduct depends, *inter alia*, on the 'the relationship of *proximity* (...) between those involved'. The Commentary does not deal with the meaning of 'proximity', a common law-feature.[26] It could be argued that there is no (or insufficient) 'proximity' between, say, a European defendant and an Australian plaintiff. *Prima facie* that would have awkward consequences. Not only because the plaintiff could not recover his loss, but also because he probably could not seek injunctive relief. The latter would not *necessarily* be very problematic. After all: (potential)

23 *See also* J. Spier, Damages and Climate Change: A Legal and Moral Nightmare, in C. van Schoubroeck *et al.*, *Over grenzen, Liber amicorum Herman Cousy*, p. 687 *et seq.*

24 *See* for additional legal instruments to keep liability within limits: M. Haritz, *An Inconvenient Deliberation: The Precautionary Principle's Contribution to the Uncertainties Surrounding Climate Change Liability* (2010), pp. 184 *et seq.*

25 I leave the protection by international (environmental) law of one or more of these heads of damages aside.

26 *See* Clerk & Lindsell on Torts (2010) Nos. 8-12 *et seq.* On page 424 (Nos. 8-17) the authors quote Toulson LJ: 'the expression means little more than that the court should only impose a duty of care if it considers it right to do so'. Mention is made that 'at a still wider but more controversial level, it may take account of the public and social policy implications of imputing a duty' (p. 425). Floodgate-arguments may be considered (8-19 p. 426). Some courts also invoke 'public policy'-considerations, such as supporting social service, but this view is far from a universally adopted view. According to Lord Scarman 'considerations ... of social and financial policy, are not as such capable of being handled within the limits of the forensic process' (8-20).

victims closer by could seek injunctive relief. Defendants therefore cannot take comfort from this argument and cannot stick to business as usual.

The PETL[27] do not (openly) embrace the German/Austrian/Swiss/Dutch concept of '*relativity*' ('Schutznorm') as a requirement for liability. 'Relativity' concerns the question whether the norm that was infringed, serves to protect (the interests of) the party affected.[28] In a sense, English law approximates this concept.[29] But to argue that the norm that one should not expose mankind to *fatal* risks is not aimed at protecting those affected against, at least, loss of life, of property or – very briefly put – of a minimally decent standard of living, is not overly appealing.[30] My guess is that few, if any, courts will be prepared to accept reasoning along this line. However, the argument/defense might be effective in relation to more remote kinds of damages. Besides, it could perhaps be argued that the violated norm does not aim at the protection of losses around the globe, present and future.

16.2.6 Conclusion

It follows that focusing on the compensation for damage is a slippery, if not extremely dangerous, slope.[31] *Theoretically* it may be the 'best' option, but more likely than not, it is a chimera. In the longer term no country or enterprise will be able to meet the obligations in issue here. This therefore is an option only for dreamers – and for lawyers (attorneys) who have due regard to their own fortune(s).[32]

This leaves untouched that liability for damages might be an option if it could be proven that an enterprise *deliberately* takes a wait-and-sit position departing from the assumption that it will not be held liable for damages. The difficulties with such a sub-rule are manifold:

a. it will be very difficult to prove;
b. it will be even more complicated to figure out which damage is caused by this wrongful omission. If one rejects joint and several liability – which would drive enterprises

27 The same goes for PEL Liab. Dam.
28 See H. Koziol (Ed.), *Unification of Tort Law: Wrongfulness*, pp. 19, 121-123.
29 Rogers, in Koziol (Ed.), *o.c.*, p. 47.
30 *See also* W. van Gerven *et al.* (Ed.), *Tort Law*, pp. 65-67 and W. Wurmnest, *Grundzüge eines europäischen Haftungsrecht*, pp. 130 *et seq.* Thus, also Art. 2:201 (1) PEL Liab. Dam.
31 That goes even more for discussions – popular in parts of the doctrine – about joint and several liability. That should be a non-starter and we should stop even thinking about it. For courtesy's sake, I refrain from mentioning advocates of this theory in the realm of climate change.
32 Strikingly, one of the Draft decisions at COP 17 (Work programme on loss and damage) seemingly does not strike out damages. But the document is very ambiguous in many respects. Besides, it is not entirely clear whether or not it distinguishes between the risk of loss and the loss itself; see para. 20.

around the globe into bankruptcy – the proportional share would have to be determined. Proportional on the basis the part of the damage caused by the negligent omission;

c. the question would arise which act or omission is unlawful. So far, enterprises do not know, let alone with sufficient precision, what they have to do (how much should they reduce their GHG-emissions). Exceptions may apply in case of obviously excessive emissions; see paragraph 14.4.4.

Even in the just mentioned scenario, I am not convinced that liability for damages is the right answer, with the exception of liability of directors and officers; see paragraph 13.1. Other and more effective remedies, that would serve as strong incentives for responsible conduct, should be explored; see chapters 13, 17 and 18.

16.3 ADAPTATION COST

If we do not change course, and more likely than not even if we do, quite significant losses cannot be avoided anymore. Countries and, if they do not act, the 'affected people' may wish to take steps to ward off the threat. This may require rather expensive measures. This begs the question who has (or have) to bear these costs.

The World Bank has submitted a series of proposals in the field of adaptation.[33] UNEP puts its cards on adaptation and mitigation, given 'the importance of immediate action and the need to support the developing countries in their mitigation and adaptation effort'.[34]

As a general rule preventive expenses can be recovered from the person who creates a risk of damage by his wrongful act; see in a European context Article 2:104 PETL. Yet, expenses are only recoverable in case of an 'imminent and real' risk of damage. Besides, the expenses should be 'reasonably incurred'.[35] In relation to climate change, the threat will often be sufficiently imminent. Moreover, it will be overly reasonable to embark on preventive measures.

Not surprisingly, various academics adhere to the view that (part of the) adaptation costs should be borne by 'developed' countries. By way of example: Adger, Paavola and Huq

33 Convenient Solutions to an Inconvenient Truth, Eco-System Based Approaches to Climate Change, report No. 51838 and for a Strategic Framework: Towards a strategic framework on climate change and development for the World Bank Group, 27 March 2008, No. DC2008-0002.

34 UNEP, Climate Change, p. 1.

35 Text and Commentary (Magnus), p. 37; *see also* Art. 6:302 PEL Liab. Dam. and C. von Bar, *o.c.*, pp. 998 *et seq.* *See* in the context of (EU) human rights, Armelle Goritin, in Faure and Peeters, *o.c.*, pp. 134 *et seq.*

suggest that 'developed' countries are responsible to assist developing countries in relation to adaptation costs. The most vulnerable countries should get priority.[36]

The Decisions adopted at the FCCC-conference in Cancun provide the usual series of good intentions and probably largely empty promises,[37] cast in eloquent phraseology. Adaptation and mitigation should get the same priority, whilst 'enhanced action' is said to be needed.[38]

'Developed' countries 'must take the lead in combating climate change and the adverse effect thereof'. 'Combating' arguably means that some kind of compensation is needed. That reading is reinforced by the 'commitment' of 'developed' countries to provide USD 30 billion over 2010–2012 'with balanced allocation between adaptation and mitigation'.[39] Even if these good intentions (and many similar at other occasions) are not meant as enforceable promises, they could be called to aid by courts as 'supportive arguments' in case need would be.

The Durban-conference seemingly goes a step beyond Cancun. An Annex to the Draft decision on a Green Climate Fund[40] speaks of a fund that will

> contribute to the achievement of the ultimate objective of the United Nations Framework Convention on Climate Change (..). In the context of sustainable development, the fund will promote the shift towards low emission and climate change-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions and to adept to the impacts of climate change, taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change.
> (...) The Fund will play a key role in channeling new, additional, adequate and predictable financial resources to developing countries and will catalyse climate finance, both public and private, and at the international and national levels.[41]

Does the above mean that victims or countries could claim their adaptation expenses from 'excessive' emitters and, if so, to what extent? I cannot suggest anything better than that 'developed' countries should contribute to the reasonable and necessary adaptation costs

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36 W. Neil Adger *et al.*, Toward Justice in Adaptation to Climate Change, in W. Neil Adger *et al.*, *Fairness in Adaptation to Climate Change*, pp. 264 and 269.
37 At least: one cannot escape from the impression that they are not meant as binding promises.
38 UN, FCCC/CP/2010/7/Add.1 pp. 3, 4 and 5.
39 *Ibid.*, p. 16.
40 So far, the official decisions are not yet available.
41 Annex *supra* I, 2 and 3.

incurred by 'developing' countries to the extent they cannot reasonably bear them themselves. In the latter respect, regard must be had to the GDP per capita and the part of the population that lacks the means for a minimally decent life as explained in paragraph 12.2.5.

The more difficult question is *how much* the *respective* 'developed' countries should contribute. It follows from chapter 12 that there hardly are truly convincing formula that are endorsed by many or are clearly supported by either international law, human rights law or tort law. This issue needs further consideration. For now, I stick to the following observation. 'Developed' countries that have largely contributed to climate change should not too easily get a 'free ride'. Potential victims could reasonably require financial efforts, even if they would have some adverse impact on the economy (and by the same token the standard of living) of these countries.

The question remains whether 'developing' countries could also seek a contribution for adaptation cost from enterprises. I am inclined to answer the question in the negative, with one important exception. If both enterprises and 'their' countries would be obliged to contribute, there would be a duplication. After all, to some extent the need to incur the expenses is caused by the same emissions, if the emissions of an enterprise also count as emissions of 'its' country.

The exception that urges itself, is the scenario that the respective country is not willing to contribute and cannot be forced to do so by legal or other means. In that scenario the local enterprises, if belonging to a group of companies based in a 'developed' country,[42] should step in, I think.

16.4 Mitigation Cost

As to mitigation cost, the same goes as in relation to adaptation cost. The striking difference is that mitigation is not only in the interest of the country in point, but in the best interest of countries worldwide. So countries will be easier inclined to contribute.

42 *See* para. 12.2.10.3.5.

16.5 INJUNCTIVE RELIEF

16.5.1 Introduction

It follows from the above that compensation, all in all, is the wrong track in my view, despite the fact that *ex post* remedies belong to the lawyer's paradigm and still is common ground in legal education in many places. All the more so because it would mean that we first let things happen, and act only when the evil has already materialized. I cannot think of any good reason why a great many people would have to be exposed to major risks, whereas they could, at best, only seek compensation when the damage is done.

Happily, there are promising developments. For instance, prevention played an important role in all EU-documents in relation to environmental policy.[43] It is explicitly mentioned as an option in the Ruggie-Principles.[44] As may follow from the references in the footnotes below, there is an emerging line of thought in doctrine that emphasis must be put on the prevention of losses. The ICJ points at the utmost importance of prevention.[45] The new Chinese tort law puts quite some emphasis on prevention and injunctive relief to remove the source of danger.[46] A recent comparative study reveals a wealth of information.[47]

As a matter of fact, prevention will already come too late. After all, more likely than not, emissions in the past do already cause damage; see paragraph 2.5. Irrespective of our efforts to reduce GHG-emissions in the (near) future, the situation will worsen. So, more damage will occur anyway. This leaves untouched that we still can avoid nightmare scenarios. To that extent injunctions come into play.[48]

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43 L. Krämer, The Genesis of EC Environmental Principles, in Richard Macrory (ed.), Principles of European Environmental Law (2004) p. 38. *See also* ECJ *Regina v. Ministry of Agriculture* [1998] ECR 1-2211 paras. 63 and 64.

44 *O.c.* , p. 22.

45 ICJ, *Argentine v. Uruguay* (Pulp Mills) §205.

46 Helmut Koziol and Yan Zhu, (2010) 1 JETL 328 at 342. The authors label this approach as 'astonishing from a systematical point of view', thus ignoring that the Chinese are – at least on paper – ahead of Europe.

47 R. Lord, S. Goldberg, L. Rajamani and J. Brunnée (eds.), Climate change liability.

48 *See inter alios*, M. Faure and M. Peeters, in the same (ed.), Climate change liability pp. 261 *et seq.*; C. van Dijk, in the same book p. 221; G. Kaminskaite-Salters, Climate Change Litigation under English Law pp. 87 *et seq.* and more generally, seen from a comparative angle, W.H. van Boom, Comparative Notes on Injunction and Wrongful Risk-Taking, 17 *Maastricht Journal of European and Comparative Law* 1(2010) 10 *et seq.* and in the same volume (at pp. 32 *et seq.*) A. Ogus and L. Visscher, A Law and Economics Perspective on Injunctive Relief.

16.5.2 *Requirements for Injunctive Relief*

16.5.2.1 Introduction

Hereinafter, I assume that the level of emissions of a specific country or enterprise are higher than legally allowed in the sense set out in chapters 10 and 12. Otherwise, there is no room for injunctions, of course.

According to the predominant view, discussed in chapter 2, the present rate of GHG-emissions will cause extremely serious harm for many people. As a general rule, potential victims can ask courts to issue injunctions toward those whose wrongful acts or omissions will bring about these losses. That is a far from spectacular finding.[49]

16.5.2.2 The Requirements for Injunctions

Issuing emissions often requires a kind of balancing of the respective interests and – as the leading US author on liability law Dobbs puts it – various ethical considerations.[50] Courts tend to have quite some discretion; that is long established and makes possible decisions 'flexible, intuitive, and tailored to the particular case'.[51] Relevant factors have to be weight, particularly the magnitude of the harm, the prospect of grave or even irreversible losses and the chances of manifestation of such losses.[52] Compliance with his duty should not be too burdensome for the defendant.[53] It follows from paragraph 2.7 that those costs will likely be bearable.

If we balance just mentioned factors, one can barely arrive at a different conclusion than that injunctions stand a fair chance, given that the stakes are tremendously high. Seen from a legal angle, it is not easy to explain why they should *not* be granted, assuming that the emissions can be labeled as wrongful.

Exceptions *may* apply in the short term, particularly in relation to 'vital' industries that cannot move as quickly as legally required; see paragraph 12.2.10.3.3. Faure and Peeters may well be right that this type of claims may be doomed to founder if, for instance, the defendant would be a (coal-power) plant and if the country would not have sufficient alternative sources of energy.[54]

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49 *See*, among many others, M.G. Faure and A. Nollkaemper, *SELJ* 26A 2007 142, at p. 176; G. Kaminskaite-Salters, *o.c.*, pp. 95-96; D.A. Grossman, *id.*, at pp. 58 and 59.

50 *See e.g.* D.B. Dobbs, *Law of Remedies* (2nd ed.), pp. 66, 67 and 166.

51 Dobbs, *o.c.*, p. 66; W. van Boom, *Maastricht Journal of European and Comparative Law* (2010) I, at pp. 14 and 15.

52 Van Boom, *o.c.*, at p. 15; pp. 20 and 29 *et seq.*

53 Van Boom, *o.c.*, at p. 30.

54 *Ibid.*, p. 261.

Injunctions should make crystal clear to the defendant what he has to do. That is quite a challenge for courts. It may follow from chapter 12 that there are quite a few possibilities to be sufficiently precise on this point.

As to possible defenses, I may refer to chapter 14.

16.5.2.3 Clean Hands

One of the elements courts may take into account, is whether the plaintiff comes with clean hands. Claims for injunctions may be rejected if the plaintiff's misconduct is sufficiently related to his claim. According to Dobbs the unclean hands-doctrine is sometimes 'tossed on the conference table like a wild card in a poker game, used to mean whatever one needs it to mean'.[55]

If applied in climate change cases, the unclean hands-doctrine might give rise to very delicate and difficult discussions. Would a plaintiff, who lives in a spacious house, often goes on holiday by airplane, or drives hugely energy eating cars, be in a position to sue the manufacturer of his car, or even a country or enterprise which emissions are excessive? Leaving aside that an answer in the negative would not do much harm, given that there are enough potential plaintiffs with (sufficiently) clean hands, I tend to agree with Dobbs that the answer should be in the affirmative, arguably with the exception of a claim against the manufacturer of the car in the example just mentioned:

> If there are any cases at all in which there is room for 'unclean hands' as a purely equitable defense based on discretion to deny equitable remedies, the plaintiff's remedy against the defendant should not be denied unless his misconduct has actually harmed the defendant, or has at least put the defendant in substantial risk or harm from that misconduct.[56]

16.5.2.4 Mission Impossible?

I realize quite well, that granting emissions requires courageous courts. That goes for injunctions toward enterprises and even more so for injunctive relief toward national States. In my submission, explained in more detail in chapters 10 and 12, there is a sufficient legal basis for courts to fill the gap.

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55 *Ibid.*, p. 68.

56 P. 70; *see also* p. 71. Departing from this position, say, the US could arguably not seek for injunctions against, say, China. There probably are other obstacles too.

Given the political deadlock (whatever the reasons may be) politicians might *welcome* if courts would step in. That has also been the case in many instances in the past. If courts would tell them that they *must* do something, voters cannot blame the politicians.

Courts could borrow arguments from the very firm and repeated pledges made by senior politicians too. It would be slightly embarrassing for them to argue that the courts overstretch their powers if they do nothing else than translating their promises into concrete action. All the less in view of the UN Millennium Declaration: 'We *spare no effort* to free all of humanity, and above all our children and grandchildren, from the threat of living on a planet irredeemable spoilt by human activities' and 'to embark on the required reduction in emissions of greenhouse gases' (emphasis added).[57]

The official position of many 'developed' countries is, time and again, that they realize that the situation is urgent and that scaled-up overall efforts that allow for 'the achievement of desired stabilization levels' are necessary to keep global climate change below an increase of 2° C over pre-industrial levels.[58]

My submission seems in line with the ICJ's view on remedies. In the context of gross violation of human rights, it observes

> no matter what approach a specific legal system takes, in all jurisdictions the law of civil remedies can be invoked to remedy harm to life, liberty, dignity, physical and mental integrity and property. While the law of civil remedies does not generally use human rights language, the Panel considers the harm to one or several of these interests *will always be an inherent part of a gross human rights abuse*, and as a result in cases of gross human rights abuses, civil claims will be possible.[59]

There is no reason to assume that ICJ contemplated climate change. Besides, its emphasis probably is on compensation.[60] Be that as it may, injunctions are part of civil remedies,

57 UN A/RES/55/2 of 18 September 2000.

58 *See e.g.* Decisions made at the FCCC-conference in Cancun, UN FCCC/CP/2010/7/Add.1 p. 3; *see also* p. 8.

59 *O.c.*, p. 11; emphasis added.

60 *See, e.g.*, p. 10. Compensation still is the not overly useful, if in my view outdated, starting point of the Draft Common Frame of Reference (Model Rules of European Private Law). According to Art. 6:301 para. 1 the right to prevention 'exists only in so far as: a) reparation would not be an adequate remedy; and b) it is reasonable for the person who would be accountable for the causation of the damage to prevent it from occurring'. Even when one would apply this standard, injunctions are the best way ahead, I think.

leaving aside the (for our purpose) not overly fruitful debate whether or not they belong to civil law.[61]

16.6 DECLARATORY RELIEF

Declaratory relief raises more or less the same questions as those discussed in paragraph 16.5. I will not repeat myself. [62] Mary Wood, a leading academic in this field, is one of the ardent advocates of this kind of relief. She aims at

> a judge [that] can order an accounting against any level of government. An accounting is a very easy standard tool ... and it basically means the government would have to measure its carbon footprint, which is very feasible these days, and it would have to show the court that it's reducing carbon in accordance with the scientifically defined fiduciary obligation.[63]

Claims could go quite far in this respect, as the following example may show. Declaratory judgment was sought against the UK for its alleged lack of adequate environmental and human rights considerations in investing with the Royal Bank of Scotland as RBS allegedly has used monies to finance several controversial companies and projects that undermine the UK's commitment to halt climate change.[64]

The most obvious parties to seek declaratory relief are potential victims (such as small Pacific States, Bangladesh, future generations) and NGOs.[65] Ideally speaking, they should join forces with enterprises. As already observed in chapter 12 and paragraph 14.4.4, the state of the law is rather unclear as to the question how far GHG-emissions should be reduced and by whom. Enterprises of good will – probably a majority – might well be willing to curb their GHG-emissions *if* they would know with sufficient precision what they have to do. That said, plaintiffs of the former category and enterprises do not (necessarily) have the same interests,[66] as many enterprises also have other preoccupations than caring for the common good. Put differently: potential victims and NGOs will likely aim at more ambitious reductions than most enterprises.

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61 *See* W. van Boom, *Maastricht Law Journal of European and Comparative Law* (2010) I, at pp.12 and 13.

62 *See* for an example, *Peter Gray & Naomi Hodgson v. Macquarie Generation*, (2010) [2010] NSWLEC 34. The (Australian) Court found that the authority is limited to an amount which has reasonable regard and care for people and the environment.

63 Website Citizen Action Monitor; interview published in High Country News on 12 May 2008.

64 *R v. HM Treasury* (2009) [2009] EWHC 3020; claim denied.

65 *See* about legal obligations towards future generations chapter 8.

66 At least not in the short term; in the longer term, their interests are largely the same.

To some extent, seeking declaratory relief is a risky game for *all* plaintiffs. After all, it may end up in undesirable judgments. *I.e.* judgments which either endorse the issue to the legislator or judgments which put very limited, or – unlikely – too far reaching obligations on the shoulders of enterprises. In both cases society at large would be worse off. First, such judgments would be bad precedents. Secondly, and more importantly, they might well be an excuse or even justification for enterprises to confine themselves to very limited reductions, which would be a major set-back for coming to grips with global climate change in due time.

Seen from the perspective of enterprises, one of the advantages of declaratory judgments would be that compliance with the same will probably 'immunize' them from liability, unless the courts rendering declaratory judgments undisputedly were too lenient for industry in view of the obligations based on *international* law.

I realize, of course, that my submission cannot solve all problems. Not only because courts might take the position to abstain (leaving it to legislators or the international community to decide these issues) but also because their respective judgments may well point into (very) different directions. In the latter case, it largely is a business decision how to solve this difficulty. Enterprises with subsidiaries abroad and/or engaged in business with other countries may prefer to stay on the safe side, because they could be confronted with claims from various countries, governed by different laws. The best they could probably do is to comply with the requirements of the most demanding courts. Departing from that assumption, NGOs and potential victims do not have to fear forum shopping from industry, which could consider to seek declaratory relief from allegedly lenient courts (only).