

# Belt and Suspenders? The World Heritage Convention's Role in Confronting Climate Change

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*In the face of increasing frustration with the tepid, and largely feckless, national and international institutional responses to the growing threat of climate change, many governments, as well as non-governmental actors, have either initiated or are exploring potential causes of action in judicial and quasi-judicial fora. This article explores one of these recent actions, the petitions before the World Heritage Committee requesting listing of several sites listed as World Heritage Sites under the World Heritage Convention on the List of World Heritage in Danger. The article explores the contours of the petitions filed to the Committee, the potential implications of listing of sites threatened by climate change on the List of World Heritage in Danger and the merits of the legal arguments advanced in opposition to such listings.*

## INTRODUCTION

The disheartening record over the past few decades, at both the international and national levels, to confront climate change in a meaningful fashion is likely to have dire implications for many of the world's most vulnerable States, in this century and beyond. The most recent assessment by the Intergovernmental Panel on Climate Change (IPCC)<sup>1</sup> concluded that global average surface temperatures have increased by 0.8°C over the last century, with the linear warming trend over the past 50 years twice that of the past century.<sup>2</sup> Despite this

alarming trend, the drafters of the United Nations Framework on Climate Change (UNFCCC),<sup>3</sup> in the face of pressure from the USA and other States, resorted to 'constructive ambiguities' and 'guidelines', rather than establishing strict legal commitments to reduce greenhouse gas emissions.<sup>4</sup> Thus, the UNFCCC merely calls on the parties in Annex I (developed countries and economies in transition) to 'aim' to return their emissions back to 1990 levels.<sup>5</sup>

The Kyoto Protocol<sup>6</sup> to the UNFCCC did establish targets and timetables for reducing the greenhouse gas emissions of industrialized States. However, the modest nature of these commitments, coupled with the fact that neither the USA nor rapidly growing developing States, such as China and India, are participating, ensures that the Protocol will have a *de minimis* impact on projected climatic trends during this century.<sup>7</sup> While negotiations are taking place to develop a successor agreement to Kyoto under the rubric of the 'Bali Action Plan',<sup>8</sup> it is difficult to be hopeful in face of continued resistance by the USA and major developing countries.<sup>9</sup>

<sup>3</sup> United Nations Framework Convention on Climate Change (New York, 9 May 1992).

<sup>4</sup> R.K.L. Panjabi, 'Can International Law Improve the Climate? An Analysis of the United Nations Framework Convention on Climate Change Signed at the Rio Summit in 1992', 18 *N.C. J. Int'l L & Comm. Reg.* (1993), 491, at 504.

<sup>5</sup> See UNFCCC, n. 3 above, Article 4(2)(b).

<sup>6</sup> Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto, 10 December 1997).

<sup>7</sup> Overall, climate researchers have estimated that full implementation of Kyoto would reduce projected warming in 2050 by only about *one twentieth of one degree* and projected sea-level rise by a mere 5 millimeters. See M. Parry *et al.*, 'Buenos Aires and Kyoto Targets Do Little to Reduce Climate Change Impacts', 8:4 *Global Env'tl. Change* (1998), 285. See also M.H. Babiker, 'The Evolution of a Climate Regime: Kyoto to Marrakech and Beyond', 5 *Env'tl. Sci. & Pol'y* (2002), 195, at 202.

<sup>8</sup> Decision 1/CP.13, Bali Action Plan, found in *Report of the Conference of the Parties, Thirteenth Session (FCCC/CP/2007/6/Add.1*, 14 March 2008), available at ([http://unfccc.int/files/meetings/cop\\_13/application/pdf/cp\\_bali\\_action.pdf](http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf)).

<sup>9</sup> D. Adam, 'U.S. Balks at Bali Carbon Targets', *Guardian Unlimited* (10 December 2007), available at (<http://www.guardian.co.uk/environment/2007/dec/10/climatechange.usnews>); J. Gupta, 'Developed Countries Declarations on Climate Change "Make No Sense,"

<sup>1</sup> See D.L. Feldman, 'Iterative Functionalism and Climate Management Organizations: From Intergovernmental Panel on Climate Change to Intergovernmental Negotiating Committee', in R.V. Bartlett *et al.* (eds), *International Organizations & Environmental Policy* (Policy Studies Organization, 1995), 1195–1196.

<sup>2</sup> S. Solomon *et al.*, 'Technical Summary', in Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis 5* (IPCC, 2007), available at ([http://www.ipcc.ch/ipccreports.ar4-wg1.htm](http://www.ipcc.ch/ipccreports/ar4-wg1.htm)). Atmospheric temperatures have been rising at a rate of approximately 0.2°C per decade over the past 30 years. See James E. Hansen, *Green Mountain Chrysler-Plymouth-Dodge-Jeep v. Thomas W. Torti*, Case Nos. 2:05-CV-302 & 2:05-CV-304 (Consolidated), *Declaration of James E. Hansen* (Vt., 2007), available at ([http://www.columbia.edu/~jeh1/case\\_for\\_vermont.pdf](http://www.columbia.edu/~jeh1/case_for_vermont.pdf)).

Indeed, the rate of increase in greenhouse gas emissions has leapt in the first decade of the new century to more than two and half times the rate in the 1990s,<sup>10</sup> outstripping even the IPCC's most intensive emissions scenario.<sup>11</sup> As a consequence, even limiting projected temperature increases to below 4°C above pre-industrial levels may require a 'radical reframing of both the climate change agenda, and the economic characterization of contemporary society'.<sup>12</sup> This is an extremely foreboding development, as most scientists and policy makers now believe that even a 2°C increase from pre-industrial levels will result in serious impacts on human institutions and ecosystems.<sup>13</sup>

This combination of the urgency of the problem and complexity of politico-legal solutions has caused many

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India', *India eNews* (2 July 2008), available at <http://www.indiaenews.com/business/20080702/129150.htm>. The Obama Administration in the USA has pledged to 'engage vigorously' in climate change negotiations and, at the domestic level, has called for implementing a cap-and-trade programme to reduce greenhouse gas emissions in the USA back to 1990 levels by 2020, and by 80% by 2050. See K. Chipman and C. Dodge, 'Obama Plan Has \$79 Billion From Cap-and-Trade in 2012', *Bloomberg News* (26 February 2009), available at <http://www.bloomberg.com/apps/news?pid=20601087&sid=aDT1Ybl.PccE&refer=home>; Change.gov, *The Obama-Biden Plan*, available at [http://change.gov/agenda/energy\\_and\\_environment\\_agenda/](http://change.gov/agenda/energy_and_environment_agenda/); J. Mason, 'Obama Vows Climate Action Despite Financial Crisis', *Reuters* (18 November 2008), available at <http://www.reuters.com/article/vcCandidateFeed2/idUSN18276285>. Moreover, the Senate may begin debate on climate change legislation this summer. See I. Talley, 'Sen. Reid: Aiming to Debate Climate Bill by Summer', *Wall Street Journal* (20 February 2009), available at [http://online.wsj.com/article/SB123516532284336065.html?mod=dist\\_smartbrief](http://online.wsj.com/article/SB123516532284336065.html?mod=dist_smartbrief). However, given substantial opposition to such initiatives, especially in the midst of a deep recession, the fate of such efforts is highly uncertain. See *ibid.*

<sup>10</sup> K. Anderson and A. Bows, 'Reframing the Climate Change Challenge in Light of Post-2000', *Philosophical Transactions Royal Soc'y A* (29 August 2008), at 15.

<sup>11</sup> J. Eilperin, 'Carbon is Building Up in the Atmosphere Faster than Predicted', *Washingtonpost.com* (*Washington Post*, 26 September 2008), available at [http://www.washingtonpost.com/](http://www.washingtonpost.com/wp-dyn/content/article/2008/09/25/AR2008092503989.html?hpid=moreheadlines)

<sup>12</sup> See K. Anderson and A. Bows, n. 10 above, at 18. See also A.P. Sokolov *et al.*, *Probabilistic Forecast for Twenty-First Century Climate Based on Uncertainties in Emissions (Without Policy) and Climate Parameters*, MIT Joint Program on the Science and Policy of Global Changes, Rep. No. 169 (January 2009), at 24, available at [http://globalchange.mit.edu/files/document/MITJPSPGC\\_Rpt169.pdf](http://globalchange.mit.edu/files/document/MITJPSPGC_Rpt169.pdf) (latest MIT assessment projects median surface warming in 2091–2100 of 5.1°C).

<sup>13</sup> Many climatologists and policy makers have identified temperature increases of 1–2°C above pre-industrial levels as the threshold for dangerous anthropogenic interference with the atmosphere. See German Advisory Council for Global Change, *New Impetus for Climate Policy: Making the Most of Germany's Dual Presidency*, WBGU Policy Paper 5 (Germany Advisory Council on Global Change, 2007); Commission of European Communities, *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, Limiting Global Climate Change to 2°C the Way Ahead for 2020 and Beyond* COM (2007) 002 final; J. Hansen *et al.*, 'Dangerous Human-Made Interference with Climate: A GISS Model Study', *7 Atmospheric Chemistry & Physics* (2007), 2287, available at [http://pubs.giss.nasa.gov/docs/2007/2007\\_Hansen\\_etal\\_1.pdf](http://pubs.giss.nasa.gov/docs/2007/2007_Hansen_etal_1.pdf).

State and non-State actors to look beyond traditional international treaty mechanisms and national legislation for solutions to anthropogenic climate change.<sup>14</sup> In this context, litigation and other legal actions at sub-national, national and international levels have evolved from innovative ideas to an emerging practice area over the last several years.<sup>15</sup> Moreover, it is likely that international actions against major emitting States will increase in the future.<sup>16</sup>

Some of these actions have been filed in domestic courts, including in the USA. These include a challenge to the US Environmental Protection Agency's denial of a petition to regulate greenhouse gas emissions from new motor vehicles under Section 202(a)(1) of the Clean Air Act,<sup>17</sup> several actions alleging that climate change constitutes a 'public nuisance',<sup>18</sup> petitions to list species allegedly threatened by climate change under the Endangered Species Act,<sup>19</sup> and a challenge to the provision of financial support for international fossil-fuel projects by the Overseas Private Investment Corporation and the Export-Import Bank as violations of the National Environmental Policy Act.<sup>20</sup>

Two actions have also been initiated in international fora. In 2005, a petition was filed with the Inter-American Commission on Human Rights on behalf of Inuit peoples in Canada and the USA, requesting relief for human rights violations associated with climate change 'caused by actions and omissions of the United

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<sup>14</sup> See H.M. Osofsky, 'The Geography of Climate Change Litigation: Implications for Transnational Regulatory Governance', 83 *Wash. U. L.Q.* (2005), 1789, at 1795–1800; E.A. Posner, 'Climate Change and International Human Rights Litigation: A Critical Appraisal', 155 *U. Pa. L. Rev.* (2007), 1925.

<sup>15</sup> See E. Torbenson, 'Lawyers Preparing for Explosion of Climate-Related Work', *The Dallas Morning News*, Business Section (24 June 2007); J. Peel, 'The Role of Climate Change Litigation in Australia's Response to Global Warming', 24 *EPLJ* (2007), 90, at 103–104; M. Mukerjee, 'Greenhouse Suits', *ScientificAmerican.com* (3 February 2003), available at <http://www.sciam.com/article.cfm?id=greenhouse-suits-2003-02-03>.

<sup>16</sup> R. Verheyen and P. Roderick, *Beyond Adaptation: The Legal Duty to Pay Compensation for Climate Change Damage*, WWF-UK Climate Change Programme Discussion Paper (November 2008), at 37, available at [http://assets.wwf.org.uk/downloads/beyond\\_adaptation\\_lowres.pdf](http://assets.wwf.org.uk/downloads/beyond_adaptation_lowres.pdf).

<sup>17</sup> *Massachusetts v. EPA*, 127 S. Ct. at 1438 (2007).

<sup>18</sup> *Native Village of Kivalina v. ExxonMobil Corp.*, 08-CV-1138 (ND Cal., February 2008); *California v. General Motors Corp.*, No. 3:06-CV-05755 (ND Cal., 2006) (dismissed August 2007, appeal pending); *Comer v. Murphy Oil USA, Inc.*, No. 1:05-CV-436 (SD Miss., 2006); *State of Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265, 273 (SDNY, 2005).

<sup>19</sup> Centre for Biological Diversity, Petition to List *Acropora Palmata* (Elkhorn Coral), *Acropora Cervicornis* (Staghorn Coral), and *Acropora Prolifera* (Fused-Staghorn Coral) as Endangered Species Under the Endangered Species Act (Centre for Biological Diversity, 2004), available at <http://www.biologicaldiversity.org/swcbd/SPECIES/coral/petition.pdf>.

<sup>20</sup> *Friends of the Earth, Inc. v. Mosbacher*, 488 F. Supp.2d 889 (ND Cal., 2007) (case settled in February 2009).

States'.<sup>21</sup> The Commission rejected the petition a year later in a two-paragraph response.<sup>22</sup> However, the Commission subsequently granted the petitioner's request for a hearing on the nexus of climate change and human rights,<sup>23</sup> which took place in March 2007.<sup>24</sup> The Commission is currently deliberating on the matter.<sup>25</sup>

This article will focus on the other climate change action initiated, to date, at the international level: the efforts of several petitioners to secure designation of several sites listed under the Convention Concerning the Protection of World Cultural and Natural Heritage<sup>26</sup> (the World Heritage Convention) as 'In Danger' as a consequence of climate threats. In this pursuit I will: (1) outline the key provisions of the World Heritage Convention; (2) describe the climate change petitions to the World Heritage Committee; and (3) proffer a critique of the Committee's disposition of these petitions.

## OVERVIEW OF THE WORLD HERITAGE CONVENTION

The World Heritage Convention grew out of increasing recognition in the 1950s and 1960s of serious anthropogenic threats to both cultural sites and natural areas.<sup>27</sup> The signal event during this time was the decision by the government of Egypt to build the Aswan Dam, which would have flooded the valley containing the Abu Simbel Temples, two massive temples in southern Egypt constructed during the reign of Rameses II in thirteenth century B.C. that are considered to be Egyptian cultural treasures.<sup>28</sup> Pursuant to a request for

assistance from Egypt and Sudan, the United Nations Educational, Scientific and Cultural Organization (UNESCO) accelerated archaeological research on the site, and the temples were ultimately dismantled, moved to dry ground, and re-assembled.<sup>29</sup> UNESCO also assisted in the protection of several other sites and ultimately worked with the International Council on Monuments and Sites (ICOMOS) to develop a draft convention on the protection of cultural heritage.<sup>30</sup>

The primary impetus for a convention to address threats to both cultural and natural heritage came from the USA, which convened a White House conference in 1965 that called for a 'World Heritage Trust' for the world's superb natural and scenic areas and historic sites for the present and the future of the entire world citizenry'.<sup>31</sup> Additional support for such a treaty came from the International Union for the Conservation of Nature in 1968.<sup>32</sup>

The General Assembly of UNESCO adopted the World Heritage Convention at its seventeenth session on 16 November 1972, and it entered into force in December of 1975.<sup>33</sup> It is one of the most widely adopted multi-lateral agreements, with 186 parties.<sup>34</sup>

Noting 'that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world',<sup>35</sup> the World Heritage Convention calls on its parties to identify and delineate cultural and natural heritage of 'outstanding universal value' within their respective borders.<sup>36</sup> 'Cultural heritage' is defined in the Convention as including monuments or groups of buildings of outstanding universal value 'from the point of view of history, art or science' and 'works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view'.<sup>37</sup> 'Natural heritage' is defined as:

- natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;
- geological and physiographical formations and precisely delineated areas which constitute the habitat

<sup>21</sup> Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States (7 December 2005), at 1, available at (<http://www.inuitcircumpolar.com/files/uploads/icc-files/FINALPetitionICC.pdf>).

<sup>22</sup> Inter-American Commission on Human Rights, Letter to Paul Crowley (16 November 2006), available at (<http://graphics8.nytimes.com/packages/pdf/science/16commissionletter.pdf>). The response from the Commission stated that 'the information provided does not enable us to determine whether the alleged facts would tend to characterize a violation of the rights protected by the American Declaration'. See *ibid.*

<sup>23</sup> S. Watt-Cloutier *et al.*, Letter to Inter-American Commission on Human Rights (15 January 2007), available at ([http://www.ciel.org/Publications/IACHR\\_Letter\\_15Jan07.pdf](http://www.ciel.org/Publications/IACHR_Letter_15Jan07.pdf)).

<sup>24</sup> Earthjustice, *Nobel Prize Nominee Testifies About Global Warming* (Earthjustice, 1 March 2007), available at (<http://www.earthjustice.org/news/press/007/nobel-prize-nominee-testifies-about-global-warming.html>).

<sup>25</sup> H.M. Osofsky, 'The Inuit Petition as a Bridge? Beyond Dialectics of Climate Change and Indigenous Peoples' Rights', 31:2 *Am. Indian L. Rev.* (2007), 675, at 676.

<sup>26</sup> Convention Concerning the Protection of World Cultural and Natural Heritage, printed in (1972), 11 ILM 1358.

<sup>27</sup> UNESCO, World Heritage Centre, *World Heritage Information Kit 7* (UNESCO, 2008), available at ([http://whc.unesco.org/documents/publi\\_infokit\\_en.pdf](http://whc.unesco.org/documents/publi_infokit_en.pdf)).

<sup>28</sup> *Ibid.*, at 7.

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*

<sup>31</sup> *Ibid.*

<sup>32</sup> *Ibid.*

<sup>33</sup> See UNESCO, *World Heritage, History of the Convention* (UNESCO, undated), available at (<http://whc.unesco.org/en/169/>) (detailing history of the World Heritage Convention).

<sup>34</sup> See UNESCO, *World Heritage, States Parties: Ratification Status* (UNESCO, undated), available at (<http://whc.unesco.org/en/statesparties/>).

<sup>35</sup> See World Heritage Convention, n. 26 above, Preamble.

<sup>36</sup> *Ibid.*, Articles 1–3.

<sup>37</sup> *Ibid.*, Article 1.

of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;

- natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.<sup>38</sup>

The term 'outstanding universal value' is defined as:

cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole.<sup>39</sup>

Under Article 11, each party to the Convention submits cultural and natural heritage properties suitable for inclusion in the World Heritage List to the World Heritage Committee.<sup>40</sup> The Committee inscribes properties on the list that it deems to have outstanding universal value and which meet at least one of ten criteria.<sup>41</sup> The parties to the Convention have inscribed 689 cultural sites, 176 natural sites and 25 mixed properties.<sup>42</sup>

Each party to the Convention acknowledges its duty to ensure the protection and conservation of heritage sites within its national borders so that they may be transmitted to future generations.<sup>43</sup> To facilitate this, each party pledges to take measures to protect sites that it has designated under the Convention, including integration of site protection in comprehensive planning processes, the provision of adequate staffing and infrastructure, appropriate scientific research, development of effective laws and adequate financing of protection and conservation programmes.<sup>44</sup> Under Article 13 of the Convention, the parties are authorized to request assistance with respect to World Heritage properties within their respective territories,<sup>45</sup> including the World Heri-

tage Fund, which consists of compulsory and voluntary contributions made by the parties, and other sources, including contributions from inter-governmental organizations, non-governmental organizations and individuals.<sup>46</sup>

While each State party is the primary protector of its respective World Heritage sites, the Convention also ascribes responsibilities to other parties. The Convention states that 'such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate'.<sup>47</sup> Under Article 6, State parties agree 'to give their help in the identification, protection, conservation and presentation of the cultural and natural heritage . . . if the States on whose territory it is situated so request'.<sup>48</sup> Moreover, the Convention requires that all parties avoid any deliberate measures that might directly or indirectly damage cultural or natural heritage situated in the territory of another party.<sup>49</sup> Article 7 bolsters the collaborative nature of the Convention, providing that 'international protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international cooperation and assistance designed to support States parties to the Convention in their efforts to conserve and identify that heritage'.<sup>50</sup>

The Convention also established the World Heritage Committee, composed of 21 parties, and elected by the parties.<sup>51</sup> The Committee's responsibilities include establishing the List of World Heritage; monitoring the state of conservation of World Heritage properties; establishing the terms for use of the World Heritage Trust, a fund to help protect World Heritage sites; and allocation of financial assistance upon requests from parties.<sup>52</sup>

The World Heritage Committee is also tasked with establishing a 'List of World Heritage in Danger' when

<sup>38</sup> Ibid., Article 2.

<sup>39</sup> UNESCO, Intergovernmental Commission for the Protection of the World Cultural and Natural Heritage, *Operational Guidelines for the Implementation of the World Heritage Convention* (UN Doc. WHC Doc. 08/01, January 2008), at para. 49, available at <http://whc.unesco.org/archive/opguide08-en.pdf> (*Operational Guidelines*).

<sup>40</sup> See World Heritage Convention, n. 26 above, Article 11(1). For a description of the World Heritage Committee's responsibilities see n. 50 below and accompanying text.

<sup>41</sup> See World Heritage Convention, *ibid.*, Article 11(2); UNESCO, *The Criteria for Selection* (UNESCO, undated), available at <http://whc.unesco.org/en/criteria/>.

<sup>42</sup> UNESCO, World Heritage Convention, *World Heritage List* (UNESCO, undated), available at <http://whc.unesco.org/en/list/>.

<sup>43</sup> See World Heritage Convention, n. 26 above, Article 4. See also Budapest Declaration on World Heritage, Twenty Sixth Session of the World Heritage Committee, WC-02/CONF.202/25, 9 (28 June 2002), at para. 2, which states that 'The properties on the World Heritage List are assets held in trust to pass on to generations of the future as their rightful inheritance', available at <http://whc.unesco.org/en/budapestdeclaration/>.

<sup>44</sup> See World Heritage Convention, *ibid.*, Articles 4–5.

<sup>45</sup> Ibid., Article 13(1).

<sup>46</sup> Ibid., Article 15.

<sup>47</sup> Ibid., Article 6(1). In the words of the former Chairperson of the World Heritage Committee, Ralph Slatyer: 'There are some parts of the world's natural and cultural heritage which are so unique and scientifically important to the world as a whole that their conservation and protection for present and future generations is not only a matter of concern for individual nations but for the international community as well'. See R. Slatyer, 'The Origin and Evolution of the World Heritage Convention', 12 *Ambio* (1983), 138, at 138.

<sup>48</sup> See World Heritage Convention, *ibid.*, Article 6(2).

<sup>49</sup> Ibid., Article 6(3).

<sup>50</sup> Ibid., Article 7. See the Preamble, emphasizing the need for 'an effective system of collective protection of the cultural and natural heritage of outstanding universal value, organized on a permanent basis . . . '.

<sup>51</sup> Ibid., Article 8(1). While the Convention provides for 6-year terms for Committee members, most parties have chosen to only serve 4-year terms to facilitate participation by other parties. See UNESCO, *World Heritage Committee, 2007–2009* (UNESCO, undated), available at <http://whc.unesco.org/en/committeemembers/>.

<sup>52</sup> See World Heritage Convention, *ibid.*, Articles 8–14.

circumstances require it.<sup>53</sup> The List of World Heritage in Danger is reserved for World Heritage sites 'threatened by serious and specific dangers . . . for the conservation of which major operations are necessary and for which assistance has been requested under this Convention'.<sup>54</sup> Under the *Operational Guidelines* of the Convention, developed by the World Heritage Committee, to prescribe precise criteria for inscription of properties of the World Heritage List and the provision of international assistance under the World Heritage Fund, the factor or factors threatening the property in question must be 'amenable to correction by human action', which may include legal or administrative actions.<sup>55</sup>

The Convention provides that only sites 'threatened by serious and specific dangers' may be included on the list.<sup>56</sup> However, the *Operational Guidelines* provide that a site may warrant listing in the List of World Heritage in Danger for both ascertained and potential dangers.<sup>57</sup> Examples of such dangers include:

. . . the threat of disappearance caused by accelerated deterioration, large-scale public or private projects or rapid urban or tourist development projects; destruction caused by changes in the use or ownership of the land; major alterations due to unknown causes; abandonment for any reason whatsoever; the outbreak or the threat of an armed conflict; calamities and cataclysms; serious fires, earthquakes, landslides; volcanic eruptions; changes in water level, floods and tidal waves.<sup>58</sup>

Article 13 of the Convention authorizes the Committee to entertain requests for assistance for sites on the List of World Heritage in Danger and to decide on the actions to be taken. If the Committee determines that a site should be listed as 'In Danger', it will define a programme of corrective actions and propose that the party in which the site is found immediately implement the programme.<sup>59</sup> A 'significant' portion of the World Heritage Fund is also allocated for financing assistance for sites on the list.<sup>60</sup> The Committee is tasked also with conducting an annual review of the state of properties on the List of World Heritage in Danger,<sup>61</sup> and may decide that: (1) additional measures are required to protect the property;<sup>62</sup> or (2) may delete the property from the In Danger list if it is no longer under threat;<sup>63</sup> or (3) may delete the property from both the List of

World Heritage in Danger and the World Heritage List if the property has deteriorated to the extent that it has lost those characteristics which determined its inscription on the World Heritage List.<sup>64</sup>

## THE WORLD HERITAGE CLIMATE CHANGE PETITIONS

### OVERVIEW OF THE PETITIONS

Between 2004 and 2006, 37 non-governmental organizations and individuals from several countries<sup>65</sup> filed five petitions<sup>66</sup> with the World Heritage Committee, requesting that it add several World Heritage sites to the Convention's List of World Heritage in Danger.<sup>67</sup>

<sup>64</sup> *Ibid.*, Article 191(c). Only one property has ever been deleted from the World Heritage List, the Oryx Sanctuary in Oman, in 2007. See World Heritage Committee, Decision 31 COM 7B (2007).

<sup>65</sup> For a full list of the petitioners, see Climate Justice Programme, Briefing for the UNESCO, World Heritage Committee, Thirty-First Session, in *World Heritage and Climate Change: Complying with International Law* (2007), at 5, available at <http://www.climatelaw.org/cases/country/intl/case-documents/unesco/unozblmnts/report.june.2007.pdf>.

<sup>66</sup> Technically, one of the filings with the World Heritage Committee was a report (Sydney Centre for International & Global Law, *Global Climate Change and the Great Barrier Reef: Australia's Obligations under the World Heritage Convention* (SCIGL, 21 September, 2004), available at [http://www.law.usyd.edu.au/scigl/SCIGLFinalReport21\\_09\\_04.pdf](http://www.law.usyd.edu.au/scigl/SCIGLFinalReport21_09_04.pdf)), which analysed the potential impacts of climate change on a natural heritage site in Australia, the Great Barrier Reef, and the legal obligations of parties to the Convention to prevent harm to the site. However, the report was classified by the Committee as an In Danger listing petition. See Climate Justice, *UNESCO: World Heritage Committee Debate and Decision* (ClimateJustice, July 2005), available at <http://www.climatelaw.org/cases/country/intl/unescoglacier/2005Jul13/>.

<sup>67</sup> The USA in its position paper on the climate change petitions contended that non-States were not authorized under the Convention to file In Danger petitions. See USA, Position of the United State [sic] of America on Climate Change with Respect to the World Heritage Convention and World Heritage Sites (undated), at 4, available at <http://www.elaw.org/assets/word/u.s.climate.US%20paper.doc>. While the World Heritage Convention does not expressly authorize petitions of this nature by non-governmental organizations and individuals, one of the climate change petitions cited a UNESCO, World Heritage Centre publication, *The World Heritage Information Kit* (UNESCO, undated), available at [http://whc.unesco.org/documents/publi\\_infokit\\_en.pdf](http://whc.unesco.org/documents/publi_infokit_en.pdf). The publication indicates that private individuals, non-governmental organizations and other groups may draw the Committee's attention to existing threats. See *ibid.*, at 18. Petition to the World Heritage Committee Requesting Inclusion of the Huascan National Park in the List of World Heritage in Danger (17 November 2004), at 17–37, available at <http://www.climatelaw.org/cases/country/intl/unescoperu/>. The other petitions simply cited the authority of the World Heritage Committee to add sites to the List of World Heritage in Danger. Stephen Leonard of the Australian Climate Justice Programme has also suggested that Article 13(7) of the Convention, which provides that the World Heritage Committee will cooperate with international and national governmental and non-governmental organizations that have objectives concordant with the Convention, is additional authority for the right of non-States to submit In Danger petitions. See personal correspondence with Stephen

<sup>53</sup> *Ibid.*, Article 11(4).

<sup>54</sup> *Ibid.*, Article 11(4).

<sup>55</sup> See *Operational Guidelines*, n. 39 above, para. 181.

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*, paras 178–180.

<sup>58</sup> See World Heritage Convention, n. 26 above, Article 11(4).

<sup>59</sup> See *Operational Guidelines*, n. 39 above, para. 186.

<sup>60</sup> See World Heritage Convention, n. 26 above, Article 13(1); *Operational Guidelines*, n. 39 above, para. 189.

<sup>61</sup> See *Operational Guidelines*, *ibid.*, para. 190.

<sup>62</sup> *Ibid.*, Article 191(a).

<sup>63</sup> *Ibid.*, Article 191(b).

Four of the petitions were filed in 2004, for Sagarmatha National Park in Nepal, Huascarán National Park in Peru, the Great Barrier Reef in Australia and Belize's Barrier Reef Reserve System, and the fifth in 2006 by non-governmental organizations in the USA and Canada, seeking to add the Waterton-Glacier International Peace Park to the list.<sup>68</sup>

All five petitions alleged that climate change posed the primary threat to the integrity of the sites in question. Two of the petitions focused on the threat of coral bleaching associated with rising temperatures. The Belize Barrier Reef Reserve System petition<sup>69</sup> averred that bleaching associated with warming oceanic temperatures has already resulted in a 50% reduction in live coral cover in some areas of the reef, and that projected warming could ultimately destroy the reef system.<sup>70</sup> The petition for Australia's Great Barrier Reef World Heritage Area,<sup>71</sup> the largest coral reef ecosystem in the world,<sup>72</sup> contended that oceanic warming had already resulted in massive bleaching events.<sup>73</sup> Moreover, it cited research indicating that projected warming might result in reefs being totally devoid of coral by 2100.<sup>74</sup>

The other three petitions focused on the threat of glacial melting to World Heritage sites as a consequence of warming trends. The Huascarán National Park petition<sup>75</sup> contended that temperature increases in the region had resulted in a 25 metre retreat of the glaciers

of the Cordillera Blanca range in the oark in the last 50 years, and that continued rises in temperature threatened the park's unique character and diversity.<sup>76</sup>

In the Waterton-Glacier International Peace Park petition,<sup>77</sup> petitioners argued that climate change was precipitating rapid retreat of glaciers in the park, as well as adversely impacting it in other ways, including changes in hydrological systems and migration of species.<sup>78</sup>

Finally, the Sagarmatha National Park petition<sup>79</sup> contended that the site, denominated by UNESCO as 'arguably the most outstanding natural property representative of mountain ecosystems on the planet',<sup>80</sup> was threatened by rapid glacial retreat.<sup>81</sup> Potential manifestations included the potential formation of dangerous ice- and moraine-dammed lakes, ice avalanching of dislodged glaciers, lake flooding and water shortages after an initial period of increased discharge of glaciers.<sup>82</sup>

Petitioners seeking 'In Danger' listings in the past have almost always contended that the requisite 'major operations' to protect the sites must be conducted by the State in which the endangered site is found. However, notably in three of the five climate change in danger petitions (with the exception of the petition for Waterton-Glacier International Peace Park in the USA and Canada and the Great Barrier Reef in Australia), the petitioners argued that third party States are also obligated to engage in major operations to control the greenhouse emissions that are precipitating climate change.

For example, in the Belize Barrier Reserve System petition, petitioners contended that Belize, with assistance from other parties, needed to enhance the resilience of coral reef ecosystems through corrective measures, such as better protection of marine-protected areas, enhanced monitoring and responses to coral reef bleaching events, and increased research and educational outreach efforts.<sup>83</sup> However, the petition also contended that any effective management plan for the reefs must include measures to reduce greenhouse gas

Leonard (26 September 2008). The Committee appears to have sided with the petitioners on this issue. At its thirtieth session in 2006, the Committee indicated that it 'takes note of the four petitions' and launched an initiative to assess the impacts of climate change on World Heritage sites and potential party responses. See UNESCO, World Heritage Committee, Thirtieth Session, Vilnius, Lithuania, 8–16 July 2006 (WHC-06/30.COM/7.1, 26 June 2006). Additionally, the Committee recently considered the petition of a private citizen, seeking an In Danger listing for La Amistad International Peace Park in Panama and Costa Rica. See E. Thorson *et al.*, International Environmental Law Project, Petition to the World Heritage Committee requesting inclusion of Talamanca Range La Amistad Reserves La Amistad National Park on the list of World Heritage in danger (2007), available at [http://www.law.lclark.edu/org/ielp/objects/LaAmistadPetition\\_4-23-07\\_english.pdf](http://www.law.lclark.edu/org/ielp/objects/LaAmistadPetition_4-23-07_english.pdf).

<sup>68</sup> Petition to the World Heritage Committee Requesting Inclusion of Waterton-Glacier International Peace Park (16 February 2006), at 8–15, available at <http://www.climatelaw.org/cases/country/intl/unescoglacier/>.

<sup>69</sup> Petition to the World Heritage Committee Requesting Inclusion of Belize Barrier Reef Reserve System (15 November 2004), at 16–17 (<http://www.climatelaw.org/cases/case-documents/unesco/belize-petition.doc>).

<sup>70</sup> *Ibid.*, at 3–4.

<sup>71</sup> See Sydney Centre for International & Global Law, n. 66 above.

<sup>72</sup> S. Shearing, *Here Today, Gone Tomorrow? Climate Change and World Heritage*, Macquarie Law Working Paper Series (WP 2007-11, 2007), at 8.

<sup>73</sup> See Sydney Centre for International & Global Law, n. 66 above, at 10.

<sup>74</sup> *Ibid.*, at 11.

<sup>75</sup> Petition to the World Heritage Committee Requesting Inclusion of the Huascarán National Park in the List of World Heritage in Danger

(17 November 2004), available at <http://www.climatelaw.org/cases/case-documents/unesco/peru-petition.doc>.

<sup>76</sup> *Ibid.*, at 3–4.

<sup>77</sup> See Petition to the World Heritage Committee Requesting Inclusion of Waterton-Glacier International Peace Park, n. 68 above, at 8–15.

<sup>78</sup> *Ibid.*, at 9. The petition stated that the number of glaciers in the park had been reduced to less than one-fifth of those that existed within the park's boundaries in 1850. See *ibid.*

<sup>79</sup> Petition to the World Heritage Committee Requesting Inclusion of Sagarmatha National Park in the List of World Heritage in Danger as a Result of Climate Change and for Protective Measures and Actions (15 November 2004), at 21–24, available at <http://www.climatelaw.org/cases/country/intl/unesconepal/>.

<sup>80</sup> *Ibid.*, at 7.

<sup>81</sup> *Ibid.*, at 13–14.

<sup>82</sup> *Ibid.*, at 20.

<sup>83</sup> *Ibid.*, at 26–29.

emissions, especially by major emitting parties.<sup>84</sup> The petition contended that Article 6(3) of the Convention arguably imposed the greatest obligation in this context on those parties whose 'deliberate emission(s) of high levels of greenhouse gases' threatened the Belize Barrier Reef.<sup>85</sup> The other four petitions similarly called for the Committee to consider the imposition of such measures.<sup>86</sup>

Two of the petitions, for the Waterton-Glacier International Peace Park in the USA and Canada and the Great Barrier Reef in Australia, focused on the duty of the State in which a heritage site is found under Article 4 of the Convention to 'do all it can . . . to the utmost of its resources' to ensure protection and conservation of such sites.<sup>87</sup> In the case of the Waterton-Glacier International Peace Park, the petitioners contended that a programme of protective measures should focus primarily on reducing the greenhouse gas emissions of the USA,<sup>88</sup> the leading emitter of greenhouse gases in the world at the time, and the country in which the park's glaciers were rapidly melting.<sup>89</sup> The petitioners suggested that the emissions-reduction target set for the USA under the Kyoto Protocol, should it have ratified the agreement, should establish the initial guidelines for corrective measures.<sup>90</sup> Further, the petition outlined a series of suggested measures for reducing greenhouse gas emissions in the electrical generation and transportation sectors.<sup>91</sup>

In the Great Barrier Reef petition, petitioners called for even more aggressive corrective measures than those in the Waterton petition. Petitioners argued that Australia needed to take measures beyond implementing Kyoto to meet its Article 4 commitments under the Convention, and that the burden should be on it to justify why it cannot make 'deep cuts' in its emissions.<sup>92</sup> The

petition also called for Australia to include information on its climate change policy in its periodic reports to the World Heritage Committee on the Great Barrier Reef World Heritage Area, as well as the impacts of climate change on the integrity of the site.<sup>93</sup>

## **THE WORLD HERITAGE COMMITTEE/PARTIES' RESPONSES TO THE PETITIONS**

The World Heritage Committee responded to the first four climate-change-related petitions in a decision at its twenty-ninth session in 2005. While acknowledging the 'genuine concerns' of the petitioners and the impacts of climate change on World Heritage natural and cultural sites, the Committee opted not to inscribe the sites in question on the In Danger list.<sup>94</sup> Rather, the Committee commissioned the establishment of a working group of experts to work in conjunction with the petitioners, other parties and advisory bodies to assess the potential impacts of climate change on World Heritage sites and to assist the parties in developing appropriate management responses.<sup>95</sup> Moreover it requested that the group of experts and other relevant bodies prepare a report on predicting and managing the effects of climate change on World Heritage sites for the Committee's consideration at its thirtieth Session.<sup>96</sup>

The USA, which had been elected a member of the Committee in 2005,<sup>97</sup> filed a position paper with the Committee opposing the petitions in advance of the Meeting of Experts in 2006.<sup>98</sup> The USA advanced five arguments in favour of its position: (1) while not

<sup>84</sup> *Ibid.*, at 29.

<sup>85</sup> *Ibid.*, at 30.

<sup>86</sup> See Petition to the World Heritage Committee Requesting Inclusion of Sagarmatha National Park in the List of World Heritage in Danger as a Result of Climate Change and for Protective Measures and Actions (15 November 2004), at 40, available at <http://www.climatelaw.org/cases/country/intl/unesconepal/>; Petition to the World Heritage Committee Requesting Inclusion of the Huascarán National Park in the List of World Heritage in Danger, n. 67 above, at 40; Petition to the World Heritage Committee Requesting Inclusion of Waterton-Glacier International Peace Park, n. 77 above, at 17–26; and Sydney Centre for International & Global Law, n. 66 above, at 20–30.

<sup>87</sup> See World Heritage Convention, n. 26 above, Article 4.

<sup>88</sup> China's aggregate emissions exceeded those of the USA in 2006. See Netherlands Environmental Assessment Agency, 'Chinese CO2 Emissions in Perspective', Press Release (22 June 2007), available at <http://www.mnp.nl/en/service/pressreleases/2007/20070622ChineseCO2emissionsinperspective.html>.

<sup>89</sup> *Ibid.*, at 20.

<sup>90</sup> See Petition to the World Heritage Committee Requesting Inclusion of Waterton-Glacier International Peace Park, n. 77 above, at 20–21.

<sup>91</sup> *Ibid.*, at 21–26.

<sup>92</sup> See Sydney Centre for International & Global Law, n. 66 above, at 4.

<sup>93</sup> *Ibid.*, at 5.

<sup>94</sup> At the Committee's thirty-third meeting, held in June of 2009, the Committee did place the Belize Barrier Reef Reserve System on the In Danger list. However, the Committee stated that the primary threats to the site were mangrove cutting and excessive development. See UNESCO, World Heritage Convention, '13 New Sites have been Added to UNESCO's World Heritage List which Lost One Site While Three were Placed on the Danger List' (28 June 2009), available at <http://whc.unesco.org/en/news/536>. This finding strains credulity in the face of the solid evidence presented by the petitioners in the 2005 Belize petition that climate change was a serious, if not most serious, threat to the site's integrity.

<sup>95</sup> UNESCO, World Heritage Committee, *Examination of the State of Conservation of World Heritage Properties: State of Conservation Reports of Properties Inscribed on the World Heritage List*, Decision 29 COM 7B.a (15 July 2005), available at [http://whc.unesco.org/download.cfm?id\\_document=5941](http://whc.unesco.org/download.cfm?id_document=5941).

<sup>96</sup> *Ibid.*

<sup>97</sup> UNESCO, World Heritage Convention, *World Heritage Committee, 2007–2009* (UNESCO, undated), available at <http://whc.unesco.org/en/committeemembers/>.

<sup>98</sup> Position of the United State [sic] of America on Climate Change with Respect to the World Heritage Convention and World Heritage Sites (2006), available at <http://www.elaw.org/node/1603>.

specifically articulated in Article 11(4) of the Convention, a World Heritage Site could not be included on List of World Heritage In Danger absent the consent of the State in which the site is found; (2) failure to take an action, such as not reducing greenhouse gases, did not constitute a ‘deliberative [sic] measure which might damage a site’ under Article 6(3); (3) the *Operational Guidelines* for the inscription of properties on the List of World Heritage in Danger required that the factors affecting the sites must be amenable to human actions; yet it could not be established that climate change is caused only by anthropogenic emissions – this fact also contravened guideline requirements that most threats posed to natural heritage sites must have human origins; (4) the confrontational nature of the petitions threatened to undermine ‘the camaraderie created by the unified spirit of conservation’; and (5) the most appropriate role for the Committee is to collect and share scientific information on potential impacts of climate change and provide examples of management actions that could be taken to mitigate these impacts.<sup>99</sup>

The Meeting of Experts that has been formed by the World Heritage Committee drafted a ‘Strategy to assist States Parties to implement appropriate management responses in 2006’.<sup>100</sup> The strategy focused on three sets of actions to safeguard heritage: preventive actions, including monitoring, reporting and mitigation of climate change impacts; corrective actions, with a focus on global, regional and local adaptation strategies; and the sharing of knowledge, including best practices, education and capacity building.<sup>101</sup>

Most notably, the strategy’s section on mitigation severely circumscribed the role of the Convention in controlling greenhouse gas emissions. The strategy emphasized that global and national mitigation strategies were being formulated by the UNFCCC. While concluding that the World Heritage community had ‘a role’ to play in mitigation, the strategy restricted this to providing information to the UNFCCC and the IPCC, as well as encouraging *site-based* reductions of greenhouse gas emissions.<sup>102</sup>

Based on the request of the World Heritage Committee, the expert working group also drafted a joint report entitled *Predicting and Managing the Effects of Climate Change on World Heritage*.<sup>103</sup> The report included a

detailed assessment of the potential impacts of climate change on World Heritage natural and cultural properties.<sup>104</sup> Moreover, it presented a detailed strategy for site-based mitigation and adaptation responses, as well as cooperation with other regimes.<sup>105</sup>

The World Heritage Committee at its thirtieth session in 2006 endorsed the working group’s strategy and called for party implementation to the fullest extent possible. It also took note of the joint report.<sup>106</sup> Finally, the Committee requested that the World Heritage Centre<sup>107</sup> prepare a policy document on the impacts of climate change on World Heritage properties for discussion at the General Assembly of State parties<sup>108</sup> in 2007.<sup>109</sup>

The policy document was endorsed by the World Heritage Committee and adopted by the sixteenth General Assembly of State parties in 2007.<sup>110</sup> The document echoed the World Heritage Committee’s characterization of the UNFCCC and the IPCC as the primary international institutions to address climate change, and indicated that the World Heritage Convention should focus on its ‘comparative advantage’ of management of outstanding cultural and natural properties.<sup>111</sup> While the document did advert to the obligation of the parties under Article 6(3) to address climate change, it merely emphasized the need for a ‘collaborative approach’.<sup>112</sup> The document also amplified the joint report and strategy’s prescriptions for future research needs, including monitoring and adaptation strategies.<sup>113</sup>

<sup>99</sup> *Ibid.*, at 1–6.

<sup>100</sup> UNESCO, World Heritage Committee, *Issues Relating to the State of Conservation of the World Heritage Properties: The Impact of Climate Change on World Heritage Properties* (WHC-06/30.COM/7.1, 26 June 2006), available at <http://whc.unesco.org/archive/2006/whc06-30com-07.13.pdf>.

<sup>101</sup> *Ibid.*, at 3.

<sup>102</sup> *Ibid.*, at 4–5.

<sup>103</sup> See UNESCO, World Heritage Committee, n. 100 above, Annex 4.

<sup>104</sup> *Ibid.*, at 20–33.

<sup>105</sup> *Ibid.*, at 34–55.

<sup>106</sup> UNESCO, World Heritage Committee, *Issues Related to the State of Conservation of World Heritage Properties: The Impacts of Climate Change on World Heritage Properties*, Decision 30 COM 7.1 (23 August 2006), available at <http://whc.unesco.org/en/activities/471/>.

<sup>107</sup> The World Heritage Centre was established in 1992 as the focal point and coordinator for world heritage issues in UNESCO. Among its responsibilities are organizing annual sessions of the World Heritage Committee and its Bureau, providing advice to the parties in preparation of site nominations, and reporting on the condition of sites and emergency action that is undertaken when a site becomes threatened. See UNESCO, *World Heritage Centre* (UNESCO, undated), available at <http://whc.unesco.org/en/134/>.

<sup>108</sup> The General Assembly of State parties to the Convention meets during the sessions of the General Conference of UNESCO. See World Heritage Convention, n. 26 above, Article 8(1).

<sup>109</sup> *Ibid.*

<sup>110</sup> UNESCO, World Heritage Centre, *Policy Document on the Impacts of Climate Change on World Heritage Properties* (UNESCO, undated), available at <http://whc.unesco.org/uploads/activities/documents/activity-393-2.pdf> and <http://whc.unesco.org/uploads/activities/documents/activity-397-2.pdf>.

<sup>111</sup> *Ibid.*, at 4.

<sup>112</sup> *Ibid.*, at 7.

<sup>113</sup> *Ibid.*, at Annex 1.

## THE WORLD HERITAGE CONVENTION DECISIONS: A MIXED BAG . . . BUT MOSTLY EMPTY

### THE POSITIVE ASPECTS OF THE COMMITTEE'S DECISIONS

There were some praiseworthy elements of the Committee's decision making in this matter. First, by acknowledging receipt of the petition for inscription of the Waterton-Glacier International Peace Park on the In Danger list, the Committee at least implicitly rejected the contention of the USA that sites cannot be inscribed without the consent of the States in which such sites are found.<sup>114</sup> The World Heritage Convention's fundamental tenet is that it is important to protect natural and cultural sites 'for all the peoples of the world . . . safeguarding this unique and irreplaceable property, to whatever people it may belong'.<sup>115</sup> To have accepted the position of the USA would have permitted it, or other State Parties, to make a unilateral decision to refuse to take measures to protect properties of great value to all of mankind, as well as future generations, when those sites became imperiled.

While the Convention does bow to principles of State sovereignty in Article 11(3) by providing that 'the inclusion of a property on the World Heritage List requires the consent of the State concerned',<sup>116</sup> Article 11(4) authorizes the World Heritage Committee to establish, update and publish the 'List of World Heritage in Danger' 'whenever circumstances shall so require'.<sup>117</sup> Thus, once a party chooses to include a property on the World Heritage List, the Convention by its terms appears to accord the Committee the authority to determine if it should be listed on the In Danger list due to a change of circumstances that threatens its viability. This conclusion is bolstered by Article 11(6), which requires the Committee to at least consult with a party before it *refuses* to list a property under Article 11. By contrast, there is no provision for Committee consultation with a party prior to making the decision to list a site under Article 11(4). As Thorson argues, the drafters of the Convention clearly knew how to craft language requiring State consent when they deemed it necessary;

however, they chose not to require such consent for inclusion of sites on the In Danger list.<sup>118</sup>

Another positive outgrowth of the Committee's deliberative process was its clear rejection of the increasingly anachronistic position of the USA that there was not a clear link between anthropogenic greenhouse gas emissions and climate change. This may make it increasingly difficult for the USA to advance such position in international fora, perhaps engendering more cooperation in the future to confront climate change. Even more helpful, perhaps, has been the assessment of the Committee and its supporting bodies of the impacts of climate change on individual World Heritage sites, including detailed case studies for 26 sites.<sup>119</sup> Micro-scale impacts analyses of this nature can assist the UNFCCC in ascertaining the appropriate stabilization level of atmospheric greenhouse gas concentrations to 'prevent dangerous anthropogenic interference with the climate system', as provided for under Article 2 of the UNFCCC.<sup>120</sup>

Perhaps the most salutary aspect of the Committee's response to the petitions has been its commitment to developing effective adaptation strategies for protecting natural and cultural world heritage sites. While the emphasis for most of the first decade after the UNFCCC was opened for signature was on mitigation research and strategies,<sup>121</sup> adaptation has emerged in the past few years as an 'urgent priority'.<sup>122</sup> This is true for two primary reasons. First, as indicated in the introductory section of this article, the world community's wholly inadequate response to climate change virtually ensures that many World Heritage sites will be imperiled during this century,<sup>123</sup> necessitating efforts to ameliorate potential impacts. Second, there is a 'timescale

<sup>114</sup> This interpretation is bolstered by the Committee's decision in 2003 to reject a proposal by Australia that would have amended the *Operational Guidelines* to give parties a veto over inscription of sites within their jurisdiction on the In Danger list. See World Heritage Committee, *Decisions Adopted by the World Heritage Committee at its Sixth Extraordinary Session* (WHC-03/6 EXT.COM/8, 27 May 2003).

<sup>115</sup> See World Heritage Convention, n. 26 above, Preamble.

<sup>116</sup> *Ibid.*, Article 11(3).

<sup>117</sup> *Ibid.*, Article 11(4).

<sup>118</sup> E.J. Thorson, 'On Thin Ice: The Failure of the United States and the World Heritage Committee to Take Climate Change Mitigation Pursuant to the World Heritage Convention Seriously', 38 *Env'tl. L.* (2008), 139, at 173. For a contrary view, see N. Affolder, 'Democratizing or Demonising the World Heritage Convention?', 38:2 *Victoria U. Wellington L. Rev.* (2007), 341, at 355.

<sup>119</sup> UNESCO, World Heritage Centre, *Case Studies on Climate Change and World Heritage* (UNESCO, 2007), available at ([http://whc.unesco.org/documents/publi\\_climatechange.pdf](http://whc.unesco.org/documents/publi_climatechange.pdf)).

<sup>120</sup> See UNFCCC, n. 3 above, Article 2.

<sup>121</sup> I. Burton and B. Lim, 'Achieving Adequate Adaptation in Agriculture', 70:1-2 *Climatic Change* (2005), 191, at 191; R.J.T. Klein *et al.*, *Portfolio Screening to Support the Mainstreaming of Adaptation to Climate Change into Development Assistance*, Tyndall Centre for Climate Change Research, Working Paper 102 (2007), at 1, available at ([http://www.tyndall.ac.uk/publications/working\\_papers/twp102.pdf](http://www.tyndall.ac.uk/publications/working_papers/twp102.pdf)).

<sup>122</sup> United Nations Department of Economic and Social Affairs, Division for Sustainable Development, *Adaptation to Climate Change in the Context of Sustainable Development*, Climate Change and Sustainable Development: A Workshop to Strengthen Research and Understanding (7-8 April 2007), at 1.

<sup>123</sup> See n. 12 above and accompanying text.

mismatch<sup>124</sup> between mitigation measures and results. As a consequence, even if the world community were to stir from its slumber and implement effective measures to reduce emissions, it will be many decades before there are discernible effects of even meaningful efforts to reduce greenhouse gas emissions because of the inertia of the climatic system.<sup>125</sup> Indeed, a recent study concluded that even if greenhouse gas concentrations were held constant at 2005 values, we would have already committed the planet to temperature increases of 2.4°C above pre-industrial levels.<sup>126</sup> As outlined above, this increase is above the temperature threshold that most scientists and policy makers believe will visit serious impacts on human institutions and ecosystems,<sup>127</sup> emphasizing the need for adaptive responses over the next 30 years.

Yet, there are daunting challenges ahead in developing effective adaptive responses to climate change. Financial constraints are perhaps the most imposing barrier that the most vulnerable States in the world face in seeking to implement adaptation programmes. It has been estimated that developing countries will require something on the order of US\$28–86 billion annually within the next few decades to adapt to climate impacts, most of which will need to come from developed countries.<sup>128</sup> By contrast, it has been estimated that the current international financial stream for meeting these needs is in the order of a mere US\$13 million per annum over the next 5 years,<sup>129</sup> though it is anticipated that future flows will be more substantial.<sup>130</sup> The commitment to developing adaptation programmes in the World Heritage regime may help to bolster funding for such programmes, as well as attract funding from other members of the world community to protect some of the world's most spectacular natural and cultural properties.

Moreover, at this point there is little concrete experience in implementing adaptation strategies, including 'analysis of alternative adaptation strategies that could be applied to particular systems, their cost, or their

likely effectiveness'.<sup>131</sup> The World Heritage regime's adaptation blueprint includes several components that most experts believe will be critical for obtaining this experience and implementing effective adaptation strategies, including development of effective monitoring systems,<sup>132</sup> application of adaptive management responses,<sup>133</sup> and creation of a clearinghouse mechanism for best-case adaptation practices.<sup>134</sup> Moreover, natural World Heritage sites are distributed around the world and represent a variety of ecosystems that are exposed to impacts from climate change of different kinds, magnitudes and rates.<sup>135</sup> Thus, adaptation projects for these sites may serve as highly effective laboratories for ascertaining optimal adaptive strategies for the global community.

### THE PROBLEMATIC ASPECTS OF THE COMMITTEE'S DECISION

Despite the positive aspects of the Committee's decision described above, on balance, the World Heritage Convention regime's response to the five climate change petitions must be considered disheartening. All five petitioners provided compelling evidence that the World Heritage sites in question warranted In Danger listings, as they were all 'threatened by serious and specific [climatic and non-climatic] dangers'.<sup>136</sup> Moreover, the petitioners made a clear case for invoking Article 6(3) of the Convention to require major greenhouse gas emitters to control their emissions given their potential serious impacts on natural and cultural heritage properties in other countries, as well as the obligations under Articles 4 and 5 for States to enact measures to protect their own sites from climate change. Under Article 28 of the Vienna Convention on the Law of Treaties (VCLT),<sup>137</sup> parties to treaties are required to perform obligations of this nature in good faith.

Yet, despite the fact that the World Heritage Committee has inscribed 30 sites to date on the In Danger list,<sup>138</sup>

<sup>124</sup> R. Pielke Jr *et al.*, 'Lifting the Taboo on Adaptation', 445 *Nature* (2007), 597, at 597, available at <http://www.nature.com/nature/journal/v445/n7128/pdf/445597a.pdf>.

<sup>125</sup> *Ibid.*

<sup>126</sup> V. Ramanathan and Y. Feng, 'On Avoiding Dangerous Anthropogenic Interference With the Climate System: Formidable Challenges Ahead', 105:38 *Proc. Nat'l Acad. Sci.* (2008), 14245, at 14246.

<sup>127</sup> See n. 13 above and accompanying text.

<sup>128</sup> S. Harmeling, 'Adaptation to Climate Change – Where Do We Go From Bali?', *Tiempo Climate Newswatch* (20 October 2008), available at <http://www.tiempocyberclimate.org/newswatch/comment080321.htm>.

<sup>129</sup> B. Müller, *International Adaptation Finance: The Need for an Innovative and Strategic Approach* (Oxford Institute for Energy Studies, June 2008), at 7, available at <http://www.oxfordenergy.org/pdfs/EV42.pdf>.

<sup>130</sup> Economist.com, 'Adapt or Die', *Economist* (11 September 2008), available at [http://www.economist.com/world/international/displaystory.cfm?story\\_id=12208005](http://www.economist.com/world/international/displaystory.cfm?story_id=12208005).

<sup>131</sup> Australian Government, Department of the Environmental and Heritage, Australian Greenhouse Office, *Climate Change Risk and Vulnerability* (Australian Government, 2005), 107. See also United Nations Department of Economic and Social Affairs, n. 122 above, at 2; Global Environment Facility, *Financing Adaptation Action* (GEF, 2007), at 8, available at <http://www.energyandenvironment.undp.org/undp/indexAction.cfm?module=Library&action=GetFile&DocumentAttachmentID=2366>.

<sup>132</sup> See UNESCO, World Heritage Committee, n. 106 above, at 54.

<sup>133</sup> *Ibid.*

<sup>134</sup> See UNESCO, World Heritage Centre, n. 110 above, at 6.

<sup>135</sup> UNESCO, 'Climate Change and World Heritage', 22 *World Heritage Rep.* (2007), at 27, available at [http://whc.unesco.org/documents/publi\\_wh\\_papers\\_22\\_en.pdf](http://whc.unesco.org/documents/publi_wh_papers_22_en.pdf).

<sup>136</sup> See World Heritage Convention, n. 26 above, Article 11(4).

<sup>137</sup> Vienna Convention on the Law of Treaties (Vienna, 23 May 1969), Article 53 (entered into force 27 January 1980).

<sup>138</sup> UNESCO, World Heritage Convention, List of World Heritage in Danger (UNESCO, undated), available at <http://whc.unesco.org/en/danger/>.

most of which appear to face dangers no more pressing than those set forth in the climate petitions, the World Heritage Committee opted for an extremely tepid alternative to inscribing the sites, a climate change 'strategy', with no binding components. This approach is particularly distressing given the Committee's conclusion that climate change poses a growing threat to World Heritage sites,<sup>139</sup> and the finding in a survey that 72% of responding World Heritage States discerned climatic impacts on their World Heritage properties.<sup>140</sup>

The primary rationale advanced by the Committee for this approach appears to be the alleged primary role of the UNFCCC in addressing mitigation of greenhouse gas emissions at the international and national level.<sup>141</sup> It is unclear if the Committee's position is based on legal or political considerations, but, in either case, I would suggest it is misguided.

The Committee may have believed that its approach was dictated by a generally accepted principle for interpretation or conflict-resolution in public international law, *lex specialis derogat legi generali*.<sup>142</sup> The principle of *lex specialis* is 'grounded in the idea that the "most closest, detailed, precise or strongest expression of state consent", as it relates to a particular circumstance, ought to prevail'.<sup>143</sup> While the principle was not

included in the VCLT,<sup>144</sup> it has frequently been invoked in both domestic and international fora.<sup>145</sup>

*Lex specialis* may be applicable in the context of provisions within a single treaty, between provisions within two or more treaties, between a treaty and a non-treaty standard, or between two non-treaty standards.<sup>146</sup> In considering the climate change In Danger petitions, the World Heritage Committee may have held the position that: (1) the UNFCCC was specifically established to mitigate anthropogenic greenhouse gas emissions that precipitate climate change; and (2) as such, it constitutes a *lex specialis* regime, and thus should be the forum in which States address this issue.

I would argue that this conclusion is not dictated by the principle of *lex specialis*. First, it should be emphasized that the principle of *lex specialis* is only apposite when legal norms clash.<sup>147</sup> However, under international law there is a strong presumption that when creating new obligations, States will not derogate from their current obligations.<sup>148</sup> Under the well-recognized international legal principle of harmonization, '[w]hen two States have concluded two treaties on the same subject-matter, but have said nothing of their mutual relationship, it is usual to first try to read them as compatible . . .',<sup>149</sup> 'recognizing the necessity of

<sup>139</sup> See UNESCO, World Heritage Centre, n. 110 above, at 3. See also UNESCO, World Heritage Centre, n. 119 above ('As far as natural heritage is concerned, the vast majority of biomes may be adversely impacted by the effects of climate change'). See also 'World Heritage Sites Threatened by Climate Change', ABC News (21 June 2008) ('over 120 world heritage sites are threatened by climate change around the world'), available at <http://www.abc.net.au/news/stories/2008/06/21/2281633.htm>.

<sup>140</sup> See UNESCO, World Heritage Committee, n. 100 above, Annex 4, at 16. See also Convention on Biological Diversity, Proposals for the Integration of Climate Change Activities within the Programmes of Work of the Convention, Options for Mutually Supportive Actions Addressing Climate Change within the Rio Conventions and a Summary of the Findings of the Global Assessment on Peatlands, Biodiversity and Climate Change (UNEP/CBD/SBSTTA/12/7, 7 July 2007), available at <http://www.cbd.int/doc/meetings/sbstta/sbstta-12/official/sbstta-12-07-en.doc> ('the negative impacts of climate change on protected areas are manifested within at least 79 Natural and Mixed World Heritage Sites identified as being threatened by climate change'). Climate change is likely to pose a threat to both natural and cultural sites. The World Monuments Fund recently included climate change among the threats considered in its 2008 List of Most Endangered Sites. See Shearing, n. 72 above, at 9.

<sup>141</sup> See n. 102 above; see also UNESCO, World Heritage Centre, 'Climate Change and World Heritage', 22 *World Heritage Rep.* (2007), 37, available at [http://whc.unesco.org/documents/publi\\_wh\\_papers\\_22\\_en.pdf](http://whc.unesco.org/documents/publi_wh_papers_22_en.pdf).

<sup>142</sup> United Nations General Assembly, International Law Commission, Fifty-Eighth Session, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law* (A/CN.4/L.682, 13 April 2006), at 37.

<sup>143</sup> J. Pauwelyn, *Conflict of Norms in Public International Law: How the WTO Law Relates to Other Rules of International Law* (Cambridge University Press, 2003), at 388. See also E. de Vattel, *The Law of Nations: Or Principles of the Law of Nature Applied to the Conduct*

*and Affairs of Nations and Sovereigns*, Book II (T. & J.W. Johnson & Co., 1867), chapter XVII, paras 311, and 316.

<sup>144</sup> While the principle was not incorporated into the Vienna Convention on the Law of Treaties, it was acknowledged during the drafting process that a treaty might be 'special' in relation to another treaty. See Statement of the Expert Consultant (Waldock), United Nations Conference on the Law of Treaties, Second Session, Vienna, 9–22 April, *Official Records* (1970), 270.

<sup>145</sup> N. Prud'homme, 'Lex Specialis: Oversimplifying a More Complex and Multifaceted Relationship?', 40:2 *Isr. L. Rev.* (2007), 355, at 368; *Southern Bluefin Tuna (New Zealand-Japan, Australia-Japan)*, XXIII *Rep. Int'l Arbitral Awards* (4 August 2000), at 22–23, available at [http://untreaty.un.org/cod/riaa/cases/vol\\_XXIII/1-57.pdf](http://untreaty.un.org/cod/riaa/cases/vol_XXIII/1-57.pdf) (*Southern Bluefin Tuna*).

<sup>146</sup> United Nations General Assembly, International Law Commission, *Fragmentation of International Law: Difficulties Arising from Diversification and Expansion of International Law* (A/CN.4/L.702, 3 July 2006), at 8.

<sup>147</sup> W.A. Schabas, 'Lex Specialis? Belt and Suspenders? The Parallel Operation of Human Rights Law and the Law of Armed Conflict and the Conundrum of *Jus Ad Bellum*', 40:2 *Isr. L. Rev.* (2007), 592, at 597; see *Southern Bluefin Tuna*, n. 145 above, at 35 ('only where there is actual inconsistency between two treaties do questions of exclusion arise . . .').

<sup>148</sup> See United Nations General Assembly, n. 142 above, at 26. See also *In the Case Concerning the Right of Passage over Indian Territory (Portugal v. India) (Preliminary Objections)*, [1957] ICJ Rep. 142 ('It is a rule of interpretation that a text emanating from a government must, in principle, be interpreted as producing and is intended to produce effects in accordance with existing law and not in violation of it'); J. Pauwelyn, 'The Role of Public International Law in the WTO: How Far Can We Go?', 95 *Am. J. Int'l L.* (2001), 535, at 550; R. Jennings and A. Watts (eds), *Oppenheim's International Law*, 9th edn (Oxford University Press, 1992), at 1275.

<sup>149</sup> V. Czaplinski and G.I. Danilenko, 'Conflict of Norms in International Law', XXI *Netherlands Y.B. Int'l L.* (1990), 20; United Nations

maintaining two distinct yet complementary systems'.<sup>150</sup> As the International Law Commission stated in its study on 'The Fragmentation of International Law', Article 31(3) of the VCLT calls for treaties to be interpreted within the context of 'any relevant rules of international law applicable in the relations between the parties'. This reflects a principle of 'systemic integration'.<sup>151</sup>

This same rule applies in the context of multilateral treaties, unless the parties have expressed their intent to supplant the obligations of the earlier treaty with those of the latter.<sup>152</sup> This principle was incorporated into the VCLT.<sup>153</sup> Article 59 provides that prior treaties are not terminated between States that have entered into a subsequent treaty, absent evidence that the parties intended that the subsequent treaty should govern a particular matter, or the provisions of the two treaties are so incompatible that they cannot be applied simultaneously.

The International Tribunal for the United Nations Convention on the Law of the Sea also applied the principle of harmonization in the *MOX Plant Case*. In *MOX*, Ireland brought an action against the UK under the UN Convention on the Law of the Sea (UNCLOS), alleging that the UK's plan to site a mixed oxide fuel plant on the eastern shore of the Irish Sea threatened the Sea with nuclear contamination.<sup>154</sup> In finding that an *ad hoc* arbitral tribunal had *prima facie* jurisdiction over the dispute, the Tribunal emphasized the fact that multiple treaty regimes may have authority to address the same environmental issue:

... even if the OSPAR Convention, the EC Treaty and the Eurotom treaty contains rights or obligations similar to or identical with the rights set out in [UNCLOS], the rights and

obligations under these agreements have a separate existence from those under [UNCLOS].<sup>155</sup>

Similarly, in the *Southern Bluefin Tuna Case* involving Japan, Australia and New Zealand, an arbitral tribunal concluded:

... there is support in international law and in the legal systems of States for the application of a *lex specialis* that governs general provisions of an antecedent treaty or statute. But the Tribunal recognizes as well that it is a commonplace of international law and State practice for more than one treaty to bear upon a particular dispute. There is no reason why a given act of a State may not violate its obligations under more than one treaty. There is frequently a parallelism of treaties, both in their substantive content and in their provisions for settlement of disputes arising thereunder. The current range of international legal obligations benefits from a process of accretion and cumulation; in the practice of States. . . .<sup>156</sup>

In the context of climate change issues, then, the presumption should be that the World Heritage Committee has the authority to craft measures to protect World Heritage properties imperiled by climate change, including mandating greenhouse gas emissions reductions by major emitting States under Article 7 because these emissions constitute deliberate measures that threaten the heritage sites of other parties under Article 6(3). The issue, then, is whether the world community, in establishing the UNFCCC, effectively supplanted the authority of the World Heritage Committee in this context under the principle of *lex specialis*.

There is no language in the text of the UNFCCC that evinces the intent of the parties to displace potentially parallel mandates under other regimes to address climate change when this is deemed necessary to effectuate the objectives of those regimes. We must presume that the parties would have included such language if this was their intent, because States, including many that are parties to the UNFCCC, have done so in numerous other international environmental regimes where they wished to delineate the relationship of two or more regimes. For example, Article 311 of UNCLOS<sup>157</sup> provides that UNCLOS prevails between its parties over the Geneva Conventions on the Law of the Sea. Conversely, Article XIV(4) of the Convention on International Trade in Endangered Species (CITES)<sup>158</sup> provides that

General Assembly, International Law Commission, Fifty-Eighth Session, *Conclusions of the work of the Study Group on the Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law* (ILC, 2006), at 2, available at [http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/1\\_9\\_2006.pdf](http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/1_9_2006.pdf).

<sup>150</sup> A.H. Robertson, 'Humanitarian Law and Human Rights', in C. Swinarski (ed.), *Studies and Essays on International Humanitarian Law and Red Cross Principles in Honour of Jean Pictet* (Martinus Nijhoff Publishers, 1984), at 801.

<sup>151</sup> International Law Commission, *Report on the Work of its Fifty-Seventh Session* (UN Doc. A/60/10, 3 August 2005), at 457. See especially chapter XI, 'Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law'.

<sup>152</sup> See V. Czaplinski and G.I. Danilenko, n. 149 above, at 20–21.

<sup>153</sup> See Vienna Convention on the Law of Treaties, n. 137 above.

<sup>154</sup> United Nations Convention on the Law of the Sea, Arbitral Tribunal, *In the Dispute Concerning the MOX Plant, International Movements of Radioactive Materials, and the Protection of the Marine Environment of the Irish Sea, Ireland v. United Kingdom*, Memorial of Ireland, Vol. 1 (2002), paras 1.65–169, available at <http://www.pca-cpa.org/upload/files/Ireland%20Memorial%20Part%201.pdf>.

<sup>155</sup> *MOX Plant Case, Request for Provisional Measures Order (Ireland v. the United Kingdom)* (3 December 2001), International Tribunal for the Law of the Sea', 126 *Int'l L. Rev.* (2005), 273, para. 50. See also *Southern Bluefin Tuna*, n. 145 above, at 23 ('possible that a given act may violate more than one treaty').

<sup>156</sup> *Southern Bluefin Tuna*, *ibid.*, at 40. See also *ibid.*, at 35 ('the presumption of parallelism of jurisdictional clauses is of long standing').

<sup>157</sup> UN Convention on the Law of the Sea (Montego Bay, 10 December 1982) (UNCLOS).

<sup>158</sup> Convention on International Trade in Endangered Species (Washington DC, 3 March 1973).

its parties are relieved of their trade obligations for marine species under Appendix II of the Convention if they are also parties to a marine conservation agreement in force at the time that CITES entered into force. Finally, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity provides that it 'shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreements'.<sup>159</sup> To the extent that similar language was not included in the UNFCCC, the World Heritage Committee should not have felt compelled to defer to the climate regime in considering the climate change In Danger petitions. Of course, under the VCLT, drafters of an agreement can also specify that it is subordinate to the provisions of another treaty.<sup>160</sup> However, the drafters of the World Heritage Convention did not include such language in the treaty; thus, there is no basis to believe that the drafters intended for the agreement to 'stand down' when other treaties address similar issues.

Second, even assuming, *arguendo* that the maxim of *lex specialis* were apposite in this matter, international law recognizes the right of States to avail themselves of alternative remedies in the face of 'regime failure':

Special regimes or the institutions set up by them may fail. Failure might be inferred when the special laws have no reasonable prospect of appropriately addressing the objectives for which they were enacted. It could be manifested, for example, by the failure of the regime's institutions to fulfill the purposes allotted to them, persistent non-compliance by one or several of the parties, desuetude, withdrawal by parties instrumental for the regime, among other causes . . . In the event of failure, the relevant general law becomes applicable.<sup>161</sup>

The UNFCCC might be characterized as a quintessentially failed regime, with burgeoning global greenhouse gas emissions and critical thresholds for severe impacts looming for both human institutions and ecosystems. Thus, it would be reasonable for the World Heritage Convention to step into the vacuum created by the UNFCCC to fashion remedies to protect the sites within its trust. This, of course, would not preclude the World Heritage Convention from reverting to a more secondary role on this issue should the parties to the UNFCCC commit themselves to the kind of deep cuts in green-

house gas emissions that will be critical to protect the world's natural and cultural heritage.

Third, a tenable argument can certainly be made that the UNFCCC is the *lex specialis* regime in this matter, given its mandate to address climate change through the implementation of mitigation and adaptation measures. However, an equally defensible argument could be made that the World Heritage Convention is the more 'specialized' agreement in the matter at hand because the regime focuses on the protection of individual cultural or natural sites from threats such as climate change, in contrast to the more generalized mandate of the UNFCCC to mitigate the adverse effects of climate change,<sup>162</sup> 'protect the climate system'<sup>163</sup> and prevent 'dangerous anthropogenic interference with the climate system'.<sup>164</sup>

Alternatively, in characterizing the UNFCCC as 'the preferred international tool to address mitigation',<sup>165</sup> the World Heritage Committee might have also believed that deferring to the UNFCCC in the context of mitigation of greenhouse gas emissions was salutary from a policy perspective given that regime's focus and expertise. In the best of all worlds, this would assuredly be the case. However, while the UNFCCC ostensibly seems to be optimally positioned to address the issue of climate change, empirically, it has not fulfilled its promise to date. There is a very real threat that if the World Heritage Committee waits for the UNFCCC to 'solve' this problem, much of the world's cultural and natural heritage may be lost. Given this very real threat, the most judicious approach would be for the World Heritage Convention concomitantly to address climate change in the context of the sites that it is committed to protect, or what Schabas in the context of humanitarian and human rights regimes has termed the 'belt and suspenders' approach.<sup>166</sup>

As commentators observed recently, '[r]ather than engage in a wholly unrealistic attempt to create a hierarchy within the fragmentation of global law, efforts should thus, instead, be focused on the intra-regime responsiveness to the immediate human and natural environment; that is, functional regimes must each evolve their own *ius non dispositivum*'.<sup>167</sup> Of course, there is nothing that would preclude the parties to the World Heritage Convention from 'standing down' on this issue should the parties to the UNFCCC, or the successor regime to the Kyoto Protocol, take truly substantive measures to reduce greenhouse gas emissions.

<sup>159</sup> Cartagena Protocol on Biosafety, Convention on Biological Diversity (Montreal, 29 January 2000), Articles 20, 22 and Preamble, available at (<http://www.biodiv.org/biosafety/protocol.asp>).

<sup>160</sup> See Vienna Convention on the Law of Treaties, n. 137 above, Article 30(2): 'When a treaty specifies that it is subject to, or that it is not to be considered as incompatible with, an earlier or later treaty, the provisions of that other treaty prevail'.

<sup>161</sup> See United Nations, General Assembly, n. 146 above, at 13. See also G. Arangio-Ruiz, Fourth Report on State Responsibility, Doc. A/CN.4/444, II:1 Y.B. *Int'l L. Comm'n* (1992), 40–41, available at ([http://untreaty.un.org/ilc/publications/yearbooks/Ybkvolumes\(e\)/ILC\\_1992\\_v2\\_p1\\_e.pdf](http://untreaty.un.org/ilc/publications/yearbooks/Ybkvolumes(e)/ILC_1992_v2_p1_e.pdf)).

<sup>162</sup> See UNFCCC, n. 3 above, Article 3(3).

<sup>163</sup> *Ibid.*, Article 3(1).

<sup>164</sup> *Ibid.*, Article 2.

<sup>165</sup> See UNESCO, World Heritage Centre, n. 141 above.

<sup>166</sup> See W.A. Schabas, n. 147 above, at 598.

<sup>167</sup> A. Fischer-Lescano and G. Teubner, 'Regime-Collisions: The Vain Search for Legal Unity in the Fragmentation of Global Law', 25:4 *Mich. J. Int'l L.* (2004), 999, at 1037.

Of course, the Committee did call for site-specific mitigation measures 'where appropriate',<sup>168</sup> as well as at the Committee's headquarters.<sup>169</sup> However, even stringent measures in these limited venues would do virtually nothing to slow or reverse greenhouse gas emissions trends.<sup>170</sup> As Shearing observed, 'regardless of actions that may be taken by site managers, the causes of emissions generally occur almost entirely outside the parameters of a World Heritage site'.<sup>171</sup> Some parties to the Convention maintain that the scope of party obligations to protect World Heritage sites is limited to activities at the site level, relying primarily on Article 31(1) the VCLT, which provides that treaty provisions are to be interpreted 'in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose'.<sup>172</sup> Because numerous provisions of the Convention refer to protection of World Heritage *sites* without referring to broader preventative actions, parties such as Canada and Australia contend that the overarching objective and purpose of the Convention is to enact measures at the site level.<sup>173</sup>

However, this position is not supported by the plain terms of the Convention. First, the Preamble to the Convention clearly emphasizes that the threats to natural and cultural sites exist both at the site level and as a consequence of forces exogenous to heritage sites:

*Noting* that the cultural heritage and the natural heritage are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction.<sup>174</sup>

Given this explicit acknowledgment by the parties of the fact that stressors external to the site present even stronger threats to these sites than deterioration at the locus of the sites themselves, it strains credulity to believe that the drafters only contemplated site-specific intervention. This conclusion is further supported by the requirement in Article 5(1) of the Convention that the parties 'integrate the protection of . . . heritage into *comprehensive planning programmes*'.<sup>175</sup> Finally, under Article 6(3), parties 'undertake . . . not to take any deliberate measures which might damage directly

or indirectly . . . cultural and natural heritage . . . situated on the territory of other States Parties to this Convention'.<sup>176</sup> By definition, this mandate requires that measures be taken.

Ultimately, the Committee's decision may have reflected regime *realpolitik*. Should the Committee have chosen to list the five sites in question on the In Danger List, it may have felt compelled to include among its corrective measures a call for large greenhouse gas-emitting States to reduce significantly their greenhouse gas emissions, either to protect sites within their respective jurisdictions, or to ensure the protection of some of the sites of other party States.

However, should a large greenhouse gas-emitting State, such as the USA, have chosen to flout such corrective measures, the Convention's authority could have been substantially undermined. As Andrew Strauss observes, international tribunals carefully marshal their political capital in an effort to preserve and enhance their legitimacy:

While the official function of international tribunals is to find the pre-existing law; in reality, for judges to have their decisions so accepted, they must engage in the creative process of negotiating the differing global interests to formulate results that are in accord with the international community's normative center of gravity. In arriving at politically viable legal standards, in addition to formally reviewing submitted briefs and memoranda and informally reading other legal commentary, judges engaged in a pragmatic assessment of the political situation, by factoring in the relative power of the protagonists and the interests of other important international actors.<sup>177</sup>

Indeed, State non-compliance with the orders of a regime body is always a possibility<sup>178</sup> and there are instances in the past where this has occurred.<sup>179</sup> The Committee may have simply opted to avoid this prospect by taking a wholly non-confrontational stance. Of course, one must ask the question as to whether a regime such as the World Heritage Convention can deem itself to be 'legitimate' if it fails to address an issue that may already be having substantial impacts on the

<sup>168</sup> See UNESCO, World Heritage Committee, n. 95 above, at 4.

<sup>169</sup> See UNESCO, World Heritage Centre, n. 110 above, at 9.

<sup>170</sup> See E.J. Thorson, n. 118 above, at 13.

<sup>171</sup> See S. Shearing, n. 72 above, at 17–18.

<sup>172</sup> See n. 137 above.

<sup>173</sup> UNESCO, *Background Document*, Prepared for Working Group Meeting to Develop the Policy Paper on Impacts of Climate Change on World Heritage Properties, Contribution from the IUCN's Academy of Environmental Law Environmental Law Programme (5–7 January 2007), at 20 and 40, available at <http://whc.unesco.org/uploads/activities/documents/activity-471-1.doc>.

<sup>174</sup> See World Heritage Convention, n. 26 above, Preamble.

<sup>175</sup> *Ibid.*, Article 5(1) (emphasis added).

<sup>176</sup> *Ibid.*, Article 6(3).

<sup>177</sup> A. Strauss, 'Toward an International Law of Climate Change: Utilizing a Model of International Tribunals as Law-Makers', in W.C.G. Burns and H. Osofsky (eds), *Adjudicating Climate Change: Sub-National, National, and Supra-National Approaches* (2009) (in press), at 107.

<sup>178</sup> D. Horowitz, 'Southern Bluefin Tuna Case (*Australia And New Zealand v. Japan*) (Jurisdiction and Admissibility); The Catch of Poseidon's Trident: The Fate of High Seas Fisheries in the *Southern Bluefin Tuna Case*', 26 *Melbourne U. L. Rev.*, available at <http://www.austlii.edu.au/au/journals/MULR/2001/26.html>.

<sup>179</sup> R.J. Silk Jr, 'Nonbinding Dispute Resolution Processes in Fisheries Conflicts: Fish Out of Water?', 16 *Ohio St. J. on Disp. Resol.* (2001), 791, at 800–801.

vast majority of the sites it seeks to protect, and will have far more serious ramifications in the future.<sup>180</sup>

## THE WAY FORWARD?

Since the Committee rejected the five climate-related In Danger petitions described in this article, two more have been filed, affording the Committee an opportunity to take a new course. In 2007, Climate Action Network Australia, Greenpeace, the New South Wales Nature Conservation Council and Friends of the Earth filed a petition with the Committee requesting that the Greater Blue Mountains World Heritage Area in Australia be inscribed on the List of World Heritage in Danger.<sup>181</sup> The petition alleges that rising temperatures could substantially increase the incidence of bushfires, imperiling the diversity of major Eucalyptus species and other flora, ultimately undermining the ecosystem integrity of the region.<sup>182</sup> Moreover, it is argued that rising temperatures would force species to migrate to less hospitable ecosystems and would displace some species with others more attuned to drier conditions.<sup>183</sup> The petition calls both for on-site management measures and actions to reduce greenhouse gas emissions by Australia, which is cited as the world's largest exporter of coal.<sup>184</sup>

Then, in January of 2009, two non-governmental organizations, Earthjustice and the Australian Climate Justice Programme, filed a petition with the Committee that focused on the threat that black carbon emissions posed for an array of World Heritage sites.<sup>185</sup> Black carbon is a component of soot and is primarily produced through the combustion of fossil fuels (coal and diesel) and the burning of biomass, such as burning crop residues or indoors for cooking.<sup>186</sup> While black carbon is a short-lived atmospheric pollutant, usually residing in the atmosphere for only one to several weeks,<sup>187</sup> recent research indicates that it is a powerful

greenhouse warming agent,<sup>188</sup> exerting as much as 60% of the warming impact of carbon dioxide.<sup>189</sup> This occurs both as a direct consequence of direct absorption of solar radiation by black carbon particulates, and indirectly by increasing cloud droplet concentrations and thickening low-level clouds that trap the Earth's radiated heat.<sup>190</sup> Additionally, once deposition occurs on snow and ice, black carbon reduces albedo, or surface reflectivity, increasing the rate of melting.<sup>191</sup> James Hansen of the US National Aeronautics and Space Administration (NASA) has estimated that the 'soot effect on snow albedo may be responsible for a quarter of observed global warming'.<sup>192</sup> Overall, recent research indicates that black carbon is the second most important greenhouse warming agent after carbon dioxide.<sup>193</sup>

The petition alleges that the warming caused by black carbon forcing (and decreased surface reflection of solar radiation) threatens many World Heritage sites through increased glacial melt and sea-level rise, including many of the sites included in the climate-related In Danger petitions.<sup>194</sup> While the petition suggested that the threat that black carbon posed might justify inscription of some World Heritage sites on the List of World Heritage In Danger,<sup>195</sup> it also suggested other tools that the Committee might use to address this threat, including allocating resources from the World Heritage Fund to assist parties and site managers to develop mitigation and adaptation measures,<sup>196</sup> coordinating with other pertinent bodies, such as the UNFCCC, to mitigate these threats,<sup>197</sup> as well as increased research monitoring by relevant Convention

ranging from 10 years for methane to 100 years or more for nitrous oxide and carbon dioxide. See EarthJustice and Australian Climate Justice Programme, n. 185, at 4.

<sup>188</sup> Black carbon particulates directly absorb sunlight, heating the atmosphere. Moreover, black carbon increases cloud droplet concentrations and thicker lower-level clouds, which also traps the Earth's radiated heat. See EarthJustice and Australian Climate Justice Programme, n. 185 above, at 5.

<sup>189</sup> See V. Ramanathan and G. Carmichael, n. 186 above, at 222; World Resources Institute, EarthTrends, *Black Carbon Emerges as a Main Contributor to Global Warming* (30 March 2008), available at <http://earthtrends.wri.org/updates/node/295>. Black carbon can circulate from the equator to the poles prior to deposition by precipitation. See C.S. Zender, *Arctic Climate Effects of Black Carbon*, Testimony to the Oversight and Government Reform Committee, United States House of Representatives (17 October 2007).

<sup>190</sup> See EarthJustice and Australian Climate Justice Programme, n. 185, at 5.

<sup>191</sup> *Ibid.*, at 7.

<sup>192</sup> J. Hansen and L. Nazarenko, 'Soot Climate Forcing Via Snow and Ice Albedos', 101:2 *Proc. Nat'l Acad. Sci.* (2004), 423, at 427.

<sup>193</sup> See J. Lash, n. 187 above.

<sup>194</sup> See EarthJustice and Australian Climate Justice Programme, n. 185 above, at 7–34.

<sup>195</sup> *Ibid.*, at 38–41.

<sup>196</sup> *Ibid.*, at 41–42. Unlike in the case of many of the other climate-focused petitions where on-site efforts to mitigate greenhouse gases would do little to address the threat, 'measures to reduce emissions of black carbon emissions at or near to threatened World Heritage sites can be particularly effective': *ibid.*, at 40.

<sup>197</sup> *Ibid.*, at 42.

<sup>180</sup> See n. 140 above and accompanying text.

<sup>181</sup> Petition to the Thirty-First Session of the World Heritage Committee, Requesting Inscription of the Greater Blue Mountains World Heritage Area in the List of World Heritage in Danger and for Protective Measures and Actions (2007), available at (<http://climatelaw.org/cases/country/intl/cases/case-documents/unesco/unozblmntns/body.pdf>).

<sup>182</sup> *Ibid.*, at 15–16.

<sup>183</sup> *Ibid.*, at 17.

<sup>184</sup> *Ibid.*, at 27–41.

<sup>185</sup> EarthJustice and Australian Climate Justice Programme, Petition to the World Heritage Committee, *The Role of Black Carbon in Endangering World Heritage Sites Threatened by Glacial Melt and Sea Level Rise* (29 January 2009), available at (<http://whc.unesco.org/uploads/activities/documents/activity-393-4.pdf>).

<sup>186</sup> V. Ramanathan and G. Carmichael, 'Global and Regional Climate Changes Due to Black Carbon', 1 *Nature Geosci.* (2008), 221, at 221.

<sup>187</sup> J. Lash, 'Black Carbon an Easy Target for Climate Change', *Policy Innovations* (Carnegie Council, 2 February 2009), available at (<http://www.policyinnovations.org/ideas/innovations/data/000084>).

By contrast, long-lived greenhouse gases have atmospheric lifetimes

bodies and its parties.<sup>198</sup> The petition may be most notable in addressing the threat posed by a greenhouse agent that is currently neither regulated under the UNFCCC nor the Kyoto Protocol, nor is likely to be regulated under the successor to Kyoto,<sup>199</sup> potentially undercutting the argument that the World Heritage Convention should defer to the climate change regimes.

Beyond taking a new approach in the context of these petitions, the World Heritage Committee could enhance protection of sites from climate threats by substantially revising the *Operational Guidelines*. While the policy document endorsed at the thirty-first session of the parties indicated that the Committee will consider taking climate change into account in the next revision cycle for the guidelines,<sup>200</sup> it appears that this will be restricted to issues associated with on-site protection, including preparation of nominations, monitoring, periodic reporting and management planning.<sup>201</sup>

The Committee should consider expanding the scope of its guideline revisions to include the following components:

- specification of measures that parties should take to mitigate their greenhouse gas emissions to protect World Heritage sites, including adoption of the Kyoto Protocol and its successor;
- a requirement that the Convention's parties specify activities that are being taken to reduce greenhouse

gas emissions, including pertinent legislation and policies;

- specification of adaptation protocols for World Heritage sites that may be threatened by climate change, including vulnerability assessments and methods to improve site resilience.

## CONCLUSION

The World's Heritage Convention's failure to take the opportunity to address the potential effects of climate change in a meaningful fashion is lamentable given the virtual abdication of responsibility by the parties to the UNFCCC to confront one of the most pressing issues of this generation, and many more to come. If our world heritage is truly 'a gift from the past to the future',<sup>202</sup> then every effort must be made to address the climatic threats to both natural and cultural sites. Should the parties to the Convention continue to ignore these threats, essentially indulging the fiction that other regimes will act effectively, it will have abdicated its responsibility to both this generation and those that follow.

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<sup>198</sup> *Ibid.*, at 43.

<sup>199</sup> *Ibid.*, at 36.

<sup>200</sup> See UNESCO, World Heritage Centre, n. 110 above, at 7.

<sup>201</sup> *Ibid.*

<sup>202</sup> See UNESCO, World Heritage Centre, n. 27 above, at 5.