

# Protecting World Heritage Sites from the Adverse Impacts of Climate Change: Obligations for States Parties to the World Heritage Convention

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## Abstract

Through its mandate to protect and preserve places of ‘outstanding universal value’, the World Heritage Convention provides an unlikely yet effective tool in global efforts to mitigate climate change. The practical efficacy of the *Strategy to Assist States Parties to Implement Appropriate Management Responses* (‘the *Strategy*’), which represents the World Heritage Committee’s primary response to the threats posed by climate change to World Heritage sites, is undermined by its weak stance on mitigation. This paper argues that the World Heritage Convention imposes stronger obligations on States Parties than those contained in the *Strategy*, including a duty on States Parties to commit to ‘deep cuts’ in greenhouse gas emissions. In order to ensure the continuing success of the World Heritage Convention States Parties must engage in extensive mitigation strategies without delay.

## Introduction

In recent years, the combined weight of the *Stern Review on the Economics of Climate Change*,<sup>1</sup> Al Gore’s film in *An Inconvenient Truth* and the United Nations (‘UN’) Intergovernmental Panel on Climate Change’s (‘IPCC’) *Fourth Assessment Reports*<sup>2</sup> have contributed to a widespread consensus on the reality and gravity of anthropogenic climate change. As a result, public and political debate has shifted from whether or not climate change is occurring, to what action needs to be taken to mitigate and manage adverse climate impacts. It is widely agreed that although some degree of climate change is inevitable as a result of historic greenhouse gas (‘GHG’) emissions, ‘dangerous’ climate change may still be prevented if global temperatures do not increase by more

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1 Nick Stern, ‘The Stern Review on the Economics of Climate Change’ (2006) <[www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/stern\\_review\\_report.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm)> accessed 17 September 2007, (‘The Stern Report’).

2 See for example, Intergovernmental Panel on Climate Change (IPCC), ‘Working Group I Report: The Physical Science Basis – Summary for Policy Makers’ (2007) <[www.ipcc.ch](http://www.ipcc.ch)> accessed 17 September 2007.

than an average of 2 to 3°C. To achieve this, 'deep cuts' in GHG emissions of 60 to 80 per cent less than 1990 levels will need to be achieved by 2050, with further reductions thereafter.<sup>3</sup>

The primary mechanisms for addressing climate change at the international level are the *United Nations Framework Convention on Climate Change* ('UNFCCC')<sup>4</sup> and its *Kyoto Protocol*<sup>5</sup> which sets binding, quantitative targets for GHG emissions. However, given the obfuscation of the *Kyoto Protocol* by the United States, one of the highest per capita GHG emitting countries in the world, and the limitations of the *Kyoto Protocol* in facilitating sufficient reductions in GHG emission to prevent 'dangerous' climate change, other legal avenues for promoting greater action on climate change should be explored. Through its mandate to protect and preserve places of 'outstanding universal value', many of which are grave risk from climate change, the *World Heritage Convention* ('the *Convention*') provides one such avenue.<sup>6</sup>

The fact that 'the impacts of climate change are affecting many World Heritage properties and are likely to affect many more, both natural and cultural, in the years ahead' was recognized by the Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value ('World Heritage Committee') at its 29th session in 2005.<sup>7</sup> The primary document representing the Committee's approach to this issue is the *Strategy to Assist States Parties to Implement Appropriate Management Responses* ('the Strategy').<sup>8</sup> This article examines the efficacy of the Strategy in realising the objects of the *Convention*. It also considers whether the provisions of the *Convention* provide scope for stronger obligations on States Parties than those contained in the Strategy to mitigate climate change and thereby protect invaluable World Heritage sites.

## I. Climate Change and World Heritage

The UNFCCC defines climate change as 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable periods of time'.<sup>9</sup> Highly regarded sources such as the *Stern Review* and the IPCC confirm that climate change is occurring, is largely attributable to human activities and 'presents very

3 Chris McGrath, 'Legal Liability for Climate Change in Queensland' (2007) unpublished at 4.

4 *The United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992, 1771 UNTS 107 (entered into force 21 March 1994) ('UNFCCC').

5 *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 11 December 1997, 37 ILM 22 (entered into force 16 February 2005).

6 *Convention Concerning the Protection of the World Cultural and Natural Heritage*, opened for signature 16 November 1972, 1037 UNTS 151 (entered into force 17 December 1975).

7 Decision 29 Com 7B.a reproduced as part of UNESCO's recent report: UNESCO World Heritage Centre, 'World Heritage Reports 22: Climate Change and World Heritage' (2007) 50 <<http://hc.unesco.org/en/series/22/>> accessed 17 September 2007 ('UNESCO World Heritage Centre').

8 Id at 40–42.

9 UNFCCC, above n4, art 1.

serious global risks'.<sup>10</sup> In its most recent *Fourth Assessment Report*, Working Group III of the IPCC concluded that global GHG emissions have increased by 70 per cent between 1970 and 2004, and with 'current climate change mitigation policies and related sustainable development practices will continue to grow over the next few decades'.<sup>11</sup> By the end of this century, the global mean surface temperature is projected to increase by somewhere between 1.8°C (likely range 1.1 to 2.9°C) for a 'low scenario' and 4.0°C (likely range 2.4 to 6.4°C) for a 'high scenario'. The corresponding sea level rises for these low and high scenarios are 18 to 83 centimetres, and 26 to 59 centimetres, respectively.<sup>12</sup>

A host of other impacts are predicted to accompany rising temperatures and sea levels.<sup>13</sup> Sensitive environments and ecosystems worldwide, many of which are protected under the *World Heritage Convention*, are highly vulnerable to climatic variability. The World Heritage Committee has produced two recent reports — *World Heritage Reports 22: Climate Change and World Heritage*,<sup>14</sup> and *Case Studies on Climate Change and World Heritage*<sup>15</sup> — detailing the impacts of climate change on World Heritage sites. According to these reports, the impacts on natural World Heritage<sup>16</sup> include: the melting of glaciers in both mountainous and Polar Regions; increased bleaching and widespread death of coral as a result of rising sea temperatures and ocean acidification; implications for terrestrial biodiversity as a result of plant and animal species migration; changes in the timing of biological cycles; more intense and frequent bushfires; and migration of pests and invasive species.<sup>17</sup> More broadly, the physical and biological changes resulting from climate change affect ecosystem functioning, with significant implications for the provision of ecosystems goods and services and therefore human livelihoods.<sup>18</sup>

The climate vulnerability of six iconic World Heritage sites — Sagarmatha National Park in Nepal, Huascarán National Park in Peru, the Great Barrier Reef in Australia, Belize's Barrier Reef Reserve System, the Waterton-Glacier International Peace Park in the United States and Canada and Greater Blue Mountains World Heritage Area in Australia — has received particular attention as a result of recent petitions to have them

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10 Stern, above n1, Executive Summary, i; IPCC, above n2.

11 Intergovernmental Panel on Climate Change (IPCC), "Working Group III Report: Mitigation of Climate Change – Summary for Policy Makers" (2007) 3 <[www.ipcc.ch/](http://www.ipcc.ch/)> accessed 17 September 2007.

12 IPCC, above n2.

13 See, for example, Joseph Smith & David Shearman, 'Climate Change Litigation: Analysing the Law, Scientific Evidence and Impacts on the Environment, Health and Property' (South Australia: Presidian, 2006) at 5–10.

14 UNESCO World Heritage Centre, above n8.

15 UNESCO World Heritage Centre, 'Case Studies on Climate Change and World Heritage' (2007) <[www.whc.unesco.org/documents/publi\\_climatechange.pdf](http://www.whc.unesco.org/documents/publi_climatechange.pdf)> accessed 17 September 2007).

16 The *Convention* defines 'natural heritage' to include: natural features 'of outstanding universal value from the aesthetic or scientific point of view'; geological and physiological formations and areas 'which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation'; and natural sites or areas 'of outstanding universal value from the point of view of science, conservation or natural beauty': UNESCO World Heritage Centre, 'UNESCO World Heritage Convention' (2007) article 2 <http://whc.unesco.org/en/conventiontext/> accessed 17 September 2007.

17 UNESCO World Heritage Centre, above n8 at 10, 14–15.

18 *Id* at 20.

included on the 'List of World Heritage in Danger'. These petitions were made under article 11(4) of the *Convention*, which provides a mechanism for the creation of an 'in danger list' for World Heritage properties requiring heightened international and national protection.<sup>19</sup> Each of the six in-danger petitions filed has been in relation to a natural World Heritage site, possibly due to the facts that these sites are particularly at risk from climate impacts, are not able to be replaced or recreated by human efforts, and are inextricably interconnected with surrounding ecosystems and processes. Thus, whilst it is recognised that climate change will have significant impacts on cultural World Heritage sites as well, for the purposes of this discussion the focus will be on the protection of natural World Heritage sites.

The protection of World Heritage sites may seem a relatively trivial concern considering the broader ecosystem degradation and devastation likely to result from unabated climate change. However, the iconic nature and high profile of many World Heritage sites makes them ideally suited to build public and political support for greater action to ameliorate climate impacts.<sup>20</sup> This is reinforced by the idea that heritage sites are 'places in the heart', that is 'places and objects [that] contribute to a sensory and emotional perception of belonging, of home and community'.<sup>21</sup> As a result, current and future climate change impacts on these sites are likely to be more tangible and immediate to ordinary people than the science of GHG concentrations in the atmosphere or global temperature variations.<sup>22</sup> Moreover, measures taken to protect these sites from climate change will potentially have flow-on positive effects for other sensitive environmental areas and ecosystems not subject to World Heritage protection. This is because States have special obligations in relation to the protection of World Heritage sites, and if strong measures are taken to meet these obligations by, for example, reducing GHG emissions to mitigate climate change impacts on protected areas, other non-protected areas will also benefit. As Achim Steiner, Director General of the World Conservation Union ('IUCN') comments:

World Heritage is not only about protecting places of exceptional value; they also protect some of the most important and endangered biodiversity of the planet and maintain ecosystems critical to the well-being of millions of people.<sup>23</sup>

Thus, the *Convention* emerges as a somewhat unlikely, but nonetheless effective, tool in the fight against climate change.

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19 UNESCO World Heritage Centre, above n17.

20 UNESCO World Heritage Centre, above n16 at 6.

21 Rosemary Lyster, Zada Lipman, Nicola Franklin, Graeme Wiffen & Linda Pearson, *Environmental and Planning Law in NSW* (2007) at 380.

22 David Hunter, 'The Implications of Climate Change Litigation for International Environmental Law-Making' (2007) at 4 <[www.ssrn.com/abstract=1005345](http://www.ssrn.com/abstract=1005345)> accessed 10 September 2007.

23 World Conservation Union, 'Facing the Threat of Climate Change at Natural World Heritage Sites' (2007) <[www.iucn.org/en/news/archive/2006/03/17\\_cc\\_wh.htm](http://www.iucn.org/en/news/archive/2006/03/17_cc_wh.htm)> accessed 30 September 2007.

## 2. The World Heritage Convention

The *Convention* was adopted by the General Assembly of the United Nations Educational, Scientific and Cultural Organization ('UNESCO') on 16 November 1972. The Preamble reflects the *Convention's* *raison d'être*, recognising that as:

[P]arts of the cultural or natural heritage are of outstanding interest and ... need to be preserved as part of the world heritage of mankind ... it is incumbent on the international community as a whole to participate in the protection of the cultural and natural heritage of outstanding universal value, by the granting of collective assistance which, although not taking the place of action by the State concerned, will serve as an effective complement thereto.<sup>24</sup>

The *Convention's* protection strategy for sites with universal heritage value is three-pronged — 'listing of heritage sites, recognition of sites in danger, and financial support for maintenance and restoration of sites'.<sup>25</sup> The World Heritage Committee, which is composed of 21 States Parties elected by the General Assembly of States Parties for a fixed term, oversees the administration of the *Convention*. The *Convention* is one of the most widely adopted multilateral environmental agreements with 184 States Parties. As of 11 October 2007, there were 851 sites inscribed on the list, including 660 cultural sites, 166 natural sites, and 25 mixed cultural and natural properties in 141 countries.<sup>26</sup>

The primary obligations assumed by States Parties to the *Convention* are found in articles 4, 5 and 6. In line with the principle of State sovereignty, each Party assumes the primary responsibility for the preservation and protection of World Heritage sites within its territory. Article 4 provides that:

[E]ach State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage...situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources...<sup>27</sup>

The obligation of States to take all necessary actions to protect World Heritage areas is built upon in article 5. This article includes, *inter alia*, obligations on States Parties to 'endeavor, in so far as possible' to develop methods to counteract dangers that threaten their cultural or natural heritage<sup>28</sup> and to 'take appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage'.<sup>29</sup>

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24 UNESCO World Heritage Centre, above n17.

25 David Hunter, James Salzman & Durwood Zaelke, *International Environmental Law and Policy* (3<sup>rd</sup> ed, 2007) at 1161.

26 UNESCO World Heritage Centre 'World Heritage List' (2007) <<http://whc.unesco.org/en/list>> accessed 11 October 2007.

27 UNESCO World Heritage Centre, above n17.

28 *Id.*, art5(c).

29 *Id.*, art5(d).

As foreshadowed in the Preamble, although the chief responsibility for the protection of World Heritage sites lies with the State in which they are situated, the *Convention* recognises that some threats to World Heritage cannot be addressed by national efforts alone. Thus, article 6(1) recognises the duty of the international community as a whole to cooperate to protect World Heritage sites and article 6(3) imposes an obligation on the States Parties ‘not to take any deliberate measure which might damage directly or indirectly ... [heritage sites] ... situated on the territory of other States Parties’.<sup>30</sup> Collectively, these provisions comprise the responsibility of States Parties to cooperate to preserve sites with universal heritage value for the benefit of current and future generations.

### 3. The World Heritage Committee’s Response to Climate Change

An examination of the primary obligations in articles 4, 5 and 6 raises the question: does the *World Heritage Convention* impose an obligation on States Parties to protect World Heritage sites from the effects of climate change? The World Heritage Committee has indicated that the answer to this question is yes, although opinions on the extent of this obligation differ widely. As outlined above, from November 2004 to July 2005, NGOs submitted three petitions and a report to the World Heritage Committee requesting that certain World Heritage sites particularly at risk from climate change be included on the ‘List of World Heritage in Danger’.<sup>31</sup> In response to these petitions, the World Heritage Committee adopted Decision 29 Com 7B.a in July 2005 which recognised the threat climate change posed to many World Heritage properties and encouraged States Parties to ‘seriously consider the potential impacts of climate change within their management planning’ for such sites.<sup>32</sup> It also requested the creation of a working group of experts to study the risks to World Heritage arising from climate change, the outcomes of which led to the publication of a report on *Predicting and Managing the Effects of Climate Change on World Heritage* (‘the Joint Report’) and the *Strategy to Assist States Parties to Implement Appropriate Management Responses*.<sup>33</sup> The Strategy, which was endorsed in Decision 30 Com 7.1 in July 2006,<sup>34</sup> represents the World Heritage Committee’s chief response to addressing the threats posed by climate change to World Heritage sites. The steps the World Heritage Committee has taken to date to respond to the concerns raised in the Petitions indicate that it considers climate change impacts to be within the ambit of the types of risks the *Convention* was designed to address.

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30 Ibid.

31 These first four petitions related to the Sagarmatha National Park in Nepal, Huascarán National Park in Peru, the Great Barrier Reef in Australia and Belize’s Barrier Reef Reserve System. Since July 2005, two further submissions have been made regarding the Waterton-Glacier International Peace Park in the United States and Canada (submitted on 16 February 2006) and the Greater Blue Mountains World Heritage Area in Australia (submitted on 22 June 2007).

32 UNESCO World Heritage Centre, above n8.

33 Both documents were reproduced as part of UNESCO’s Climate Change and World Heritage Report: UNESCO World Heritage Centre, above n8.

34 UNESCO World Heritage Centre, above n16 at 7.

What does the Strategy require or recommend that States Parties do in order to protect World Heritage sites from adverse climate change impacts? Essentially, the Strategy outlines three types of action that need to be taken to address climate change falling under the broad headings of ‘preventive actions’, ‘corrective actions’ and ‘sharing knowledge’.<sup>35</sup> Each heading is then broken down further into global level, regional and State Party/site level actions. Some of the recommendations of the Strategy include: increased monitoring and reporting of climate impacts on individual sites;<sup>36</sup> reducing non-climatic stress factors on sites;<sup>37</sup> the integration of climate change issues, including risk preparedness and adaptation, into the management plans of new and existing sites;<sup>38</sup> the development of pilot projects to promote lessons learnt and best practices;<sup>39</sup> greater inter-linkages and knowledge sharing with other conventions, instruments and institutions;<sup>40</sup> and using the global network of World Heritage sites to raise public and political awareness about the impacts of climate change on World Heritage sites.<sup>41</sup> In terms of mitigation, the Strategy explicitly states that ‘the UNFCCC is the UN instrument through which mitigation strategies at the global and States Parties level is being addressed’.<sup>42</sup> It also encourages the reduction of GHG emissions at the site level.<sup>43</sup>

Although the Strategy makes valuable suggestions on techniques to manage climate change impacts on World Heritage sites, its overall effectiveness in terms of protecting these sites from such impacts is greatly hampered by its soft stance on mitigation. The Strategy was ostensibly developed after close analysis of the issues discussed in the Joint Report,<sup>44</sup> yet the limitations of the mitigation approach adopted in the Strategy are clearly foreshadowed in the earlier report. The Joint Report recommends the implementation of site-level mitigation and adaptation techniques, as advocated in the Strategy. However, this is only one part of a ‘two-pronged approach’, the second half of which requires:

States Parties and site managers...to look beyond the individual site level and develop and implement regional and/or trans-boundary mitigation and adaptation strategies that reduce the vulnerability of natural World Heritage sites in a larger landscape or seascape context.<sup>45</sup>

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35 UNESCO World Heritage Centre, above n8 at [3].

36 Id at [7–11].

37 Id at [12].

38 Id at [19].

39 Id at [24], [41].

40 Id at [25]. The conventions referred to in the Joint Report, upon which the Strategy was based, included the UNFCCC and its *Kyoto Protocol*, UNESCO’s Programme on Man and the Biosphere, the *Ramsar Convention on Wetlands*, the *Convention on Biological Diversity* and the Intergovernmental Panel on Climate Change: UNESCO World Heritage Centre, above n8 at 28–30.

41 Id at [37].

42 Id at [13].

43 Id at [16].

44 Id Prelude.

45 Id at 34.

The Strategy is notably silent on any action to be taken in relation to this second prong, severely undermining its efficacy in terms of mitigating climate impacts on World Heritage sites. This is despite the fact that the Joint Report's recommendations are clearly conservative, stopping short of advocating a general mitigation strategy. Moreover, the Joint Report notes that the benefit of site-level mitigation is 'likely to be negligible on a quantitative basis'.<sup>46</sup> Reduction of global GHG emissions to mitigate climate impacts is by far the most effective and comprehensive way to protect World Heritage sites from climate change. As Thorson notes,

Many World Heritage sites will never be preserved for transmission to future generations unless the States Parties, led by the World Heritage Committee, act more proactively than merely supporting site-specific mitigation.<sup>47</sup>

The Strategy's approach for site-specific mitigation falls far short of the 'deep cuts' in GHG emissions advocated by the world's climate experts,<sup>48</sup> and indeed fails to fully implement the circumspect and cautious recommendations in the Joint Report. Thus, the Strategy's practical efficacy is questionable.

The appropriateness of the Strategy can also be assessed by its conformity to relevant principles of international environmental law (IEL). Firstly, the *Convention* itself embodies a number of IEL principles. As reflected in the Preamble, the *Convention* attempts to strike a balance between 'State sovereignty over natural resources', that is, the rights of the State to exploit the resources within its jurisdiction,<sup>49</sup> and the 'duty of States to cooperate' with other States in addressing international environmental issues<sup>50</sup> to protect sites of outstanding universal value. This latter principle is premised upon the recognition that some natural and cultural resources that are located within State boundaries are the 'common concern of humankind'<sup>51</sup> and should be preserved for future generations.<sup>52</sup> Moreover, Article 4 obliges States Parties to, inter alia, protect and conserve World Heritage sites in their territory, bringing into play the 'precautionary principle' which provides that scientific uncertainty should not be used as a reason for delaying action to prevent environmental degradation.<sup>53</sup> Moreover, the obligation in

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46 Id at 37.

47 Erica Thorson, 'The World Heritage Convention and Climate Change: The Case for a Climate-Change Mitigation Strategy beyond the Kyoto Protocol' (2007) 13 <[www.ssrn.com/abstract=981643](http://www.ssrn.com/abstract=981643)> accessed 10 September 2007.

48 Whether or not the terms of the Convention can be read as imposing an obligation on State Parties to drastically reduce their GHG emissions is discussed in Part 4 below.

49 See for example Principle 21 of *The Declaration of the United Nations Conference on the Human Environment*, U.N. Doc. A/Conf.48/14/Rev.1 (1973) (Stockholm Declaration): Hunter et al, above n26 at 472–6.

50 The 'duty to cooperate' is reflected in Principle 24 of the *Stockholm Declaration*: Id at 525–526.

51 The principle that the protection of the global environment is the common concern of humanity is reflected in, inter alia, the Preamble to the *UNFCCC*, above n4. See discussion in Hunter et al, above n26, 489–491.

52 The principle of 'intergenerational equity', which involves 'meeting the needs of present generations without sacrificing the needs of future generations', was outlined in the 1987 Report of the Brundtland Commission, *Our Common Future*: id at 491–494.

53 The precautionary principle is defined in Principle 15 of the *Rio Declaration on Environment and Development*, U.N. Doc. A/Conf.151/26 (Vol. 1) (1992) (*Rio Declaration*): id at 510–512.



article 6(3) that States Parties cannot cause damage to World Heritage sites within another State's territory reflects the 'duty not to cause trans-boundary harm', that is, the duty of States to ensure that activities within their jurisdiction do not cause environmental damage to other States,<sup>54</sup> and the 'principle of pollution prevention', which emphasises the need to take action to prevent prospective environmental degradation.<sup>55</sup> The principle of 'common but differentiated responsibilities', which recognises that the differing social, economic and ecological situations of countries should be taken into account when determining their responsibilities for protection of the global environment,<sup>56</sup> is also evident in the wording of article 4, which says a State Party must do all it can "to the utmost of its own resources", and article 5, which specifies that States must endeavour to undertake appropriate measures "in so far as possible". An understanding of the principles of IEL underpinning the *Convention* provides a useful framework for analysing the extent to which the Strategy reflects and/or diverges from IEL concepts.

The weak language and conservative recommendations regarding mitigation contained in the Strategy suggest that the principle of 'State sovereignty over natural resources' is the prevailing paradigm in the document. As mentioned above, there is no recommendation that States Parties reduce their GHG emissions, or be encouraged to sign up to the *Kyoto Protocol* as contained in Resolution VIII.3 of the COP to the *Ramsar Convention*,<sup>57</sup> which would clearly alleviate the threats caused by climate change yet may encroach upon States' abilities to act as they choose within their own territories. The recommendations in the Strategy for States Parties to share knowledge of best practices in regards to site management and adaptation with other States Parties, and for the World Heritage Committee to cooperate more closely with other international conventions, instruments and institutions working to address climate change reflect the 'duty to cooperate' to ameliorate adverse climate impacts. The implicit principles underlying such efforts are the protection of the 'common concern of humankind' and 'intergenerational equity'. The Strategy also mentions 'guidance, capacity building and financial assistance or assistance for developing project proposals'<sup>58</sup> and improved networking and knowledge sharing across north-south and south-south States Parties,<sup>59</sup> which invokes the principle of 'common but differentiated responsibilities', albeit in a 'soft' manner. The suggestion that relevant stakeholders, including local communities and users of the site, be informed about the impacts of climate change and management responses to addressing this issue also encourages a role for 'public participation'<sup>60</sup> in protecting

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54 See for example Principle 21 of the *Stockholm Declaration* and Principle 2 of the *Rio Declaration*: id at 502–507.

55 See for example Principle 6 of the *Stockholm Declaration*: id at 507–510.

56 See for example Principle 7 of the *Rio Declaration*: id at 495–497.

57 Ilona Millar 'International Legal Frameworks for Climate Change and Biodiversity' (2006) at 18 <[www.edu.org.au/edonsw/site/pdf/biodiv\\_clim\\_change\\_paper0600426.pdf](http://www.edu.org.au/edonsw/site/pdf/biodiv_clim_change_paper0600426.pdf)> accessed 10 September 2007.

58 UNESCO World Heritage Centre, above n8 at [24].

59 Id at [36].

60 The idea that 'environmental issues are best handled with the participation of all concerned citizens, at the relevant level' is reflected in Principle 10 of the *Rio Declaration*: Hunter et al, above n26 at 534–535.

World Heritage sites. However, as previously mentioned, the mitigation approach adopted by the Strategy is ineffectual, and does not do justice to the ‘precautionary principle’, the ‘principle of pollution prevention’ and the ‘duty to prevent trans-boundary harm’ by reducing GHG emissions. Thus, the Strategy’s weak application of some IEL principles and lack of conformity with others highlights its inadequacy as a tool for protecting World Heritage sites from climate change impacts.

In summary, the Strategy adopted by the World Heritage Committee is primarily concerned with monitoring and adapting to the impacts of climate change upon World Heritage sites, ostensibly on the basis that broader mitigation strategies are beyond the scope of the *Convention*. The above analysis indicates that the Strategy fails for lack of practical efficacy and principle. The question remains, however, as to whether the Strategy represents the full extent of actions in relation to climate change that are within the mandate of the *Convention*, or whether there is in fact scope for more far reaching obligations under articles 4, 5 and 6.

#### 4. Other Possible Responses to Climate Change under the Convention

Each of the in danger petitions to date have argued that the obligations under the *Convention* require States Parties to adopt mitigation strategies that include a drastic reduction in their national GHG emissions.<sup>61</sup> In this section, I will assess the merits of this line of argument using the most recent petition relating to the Greater Blue Mountains World Heritage Area (‘GBMWA Petition’)<sup>62</sup> as an exemplar. This petition is appropriate for this purpose as it was filed on 22 June 2007, sixteen months later than the next most recent petition concerning the Waterton-Glacier International Peace Park filed in February 2006. Thus the GBMWA Petition refers to the World Heritage Committee’s response to the previous Petitions, the Joint Report and the Strategy, as well as recent scientific evidence from, inter alia, the IPCC, in making the case for an in danger listing.

##### A. The GBMWA Petition

The GBMWA consists of 1.03 million hectares dominated by temperate eucalypt forests. The site is “noted for its representation of the evolutionary adaptation and diversification of the eucalypts in post-Gondwana isolation on the Australian continent”.<sup>63</sup> The GBMWA Petition details the risks posed by climate change,

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61 Thorson, above n48 at 1.

62 Climate Action Network Australia (CAN), Friends of the Earth Australia, NSW Nature Conservation Council and Greenpeace Australia Pacific, ‘Petition to the 31st Session of the World Heritage Committee at Christchurch, New Zealand from 23 June 2007 to 1 July 2007 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) <[www.climatelaw.org/media/UNESCO%20Blue%20Mountains.pdf](http://www.climatelaw.org/media/UNESCO%20Blue%20Mountains.pdf)> accessed 17 September 2007.

63 UNESCO World Heritage Centre, ‘Greater Blue Mountains Area’ (2007) <[http://whc.unesco.org/pg.cfm?cid=31&id\\_site=917](http://whc.unesco.org/pg.cfm?cid=31&id_site=917)> accessed 17 September 2007.

including more frequent and destructive bushfires, species invasion, and shrinkage and dislocation that may jeopardise the outstanding universal value of the site.<sup>64</sup> For the purposes of satisfying article 11(4), the Petition argues that the GBMWHHA faces ‘specific and proven imminent danger’ due to climate change impacts.<sup>65</sup> It therefore calls for the GBMWHHA’s inscription on the in danger list without delay.<sup>66</sup> The Petition goes on to provide an extensive list of ‘achievable’ measures and actions that Australia could take to meet its obligations under the *Convention*, particularly if the GBMWHHA was subject to additional protection under article 11(4). Relevantly for this discussion, these measures include ratification of the *Kyoto Protocol*<sup>67</sup> and the implementation of legislation mandating a national emissions reduction target of at least 30 per cent below 1990 levels by 2020, with a long-term target of at least 80 per cent below 1990 levels by 2050.<sup>68</sup>

### **B. The Extent of States Parties’ Obligations under Articles 4, 5 and 6**

The issue of whether or not the far-reaching measures called for by the GBMWHHA Petition are within the ambit of the obligations imposed by the *Convention* hinges on the interpretation of articles 4, 5 and 6. In other words, are these provisions mere recommendations to be implemented at the discretion of States Parties or do they impose more substantive obligations? Looking firstly at the broad provisions in article 4, States are merely obliged to ‘recognize’ their duties with regards to World Heritage sites. Similarly in article 5, the precatory verb ‘endeavor’ is employed, as is qualifying language such as ‘as far as possible’. Is the language of the *Convention* text so vague<sup>69</sup> and discretionary that it precludes a reading of binding obligation? This issue was considered by the High Court of Australia in *Commonwealth v Tasmania*.<sup>70</sup> A narrow majority of the Court held that, notwithstanding the qualifying language in articles 4 and 5, these articles impose a binding legal obligation on Australia to take appropriate measures for the protection of World Heritage sites. Deane J in the majority held that the lack of precision in the language of articles 4 and 5 did not prevent Australia assuming real and substantive obligations with respect to the World Heritage areas in question.<sup>71</sup> Similarly, Mason J held that article 5 imposed obligations on each State which ‘could not be read as a mere statement of intention: it was expressed in the form of a command requiring each party to endeavour to bring about the matters dealt with’ in the subparagraphs.<sup>72</sup> His Honour nonetheless recognised that ‘there may be an element of discretion and value judgment

64 UNESCO World Heritage Centre, above n64 at 15–17.

65 This is pursuant to the requirements in paragraphs 177–180 of the *Convention’s Operational Guidelines*: see id at 16.

66 Id at 56.

67 Id at 58.

68 Id at 61.

69 As Affolder notes, this vagueness ‘reflects the unresolved balancing of communal obligations and state sovereignty and the sacrificing of precision to secure universal acceptance’: Natasha Affolder, ‘Mining and the World Heritage Convention: Democratic Legitimacy and Treaty Compliance’ (2007) 24 *Pace Environmental Law Review* at 35–66, 66.

70 *Commonwealth of Australia v Tasmania* [1983] HCA 21 (*Tasmanian Dam*).

71 *Tasmanian Dam* [1983] HCA 21 at [23] (Deane J).

72 *Tasmanian Dam* [1983] HCA 21 at [31] (Mason J).

on the part of the State to decide what measures are necessary and appropriate', however, this discretion extends to the manner of performance not to the issue of performance or non-performance of the obligation.<sup>73</sup>

The High Court's interpretation of articles 4 and 5 in *Commonwealth v Tasmania*<sup>74</sup> is consistent with international law principles. According to the *Vienna Convention on the Law of Treaties*, a treaty must be interpreted 'in accordance with the ordinary meaning of the terms of the treaty in their context and in light of its object and purpose'.<sup>75</sup> Here, the Court's finding that articles 4 and 5 impose substantive and binding obligations on States Parties accords with the natural and ordinary meaning of these provisions. Principles of international law also provide guidance on how the terms of treaties should be implemented. In particular, the principle of *pacta sunt servanda*, arguably the most fundamental principle of treaty law, provides that States are bound to perform their international treaty obligations in good faith.<sup>76</sup> Thus, as Thorson argues, the aims of the *Convention* — namely, the protection and conservation of World Heritage — guide the implementation of States Parties' obligations to implement articles 4 and 5 in good faith.<sup>77</sup>

In contrast to the preceding two articles, the language in article 6 is less discretionary and does not contain any qualifications. Relevantly, article 6(3) states that States Parties 'undertake not to take any deliberate measures' which will damage World Heritage sites in other States. The ordinary meaning of article 6(3) imposes a non-discretionary obligation on States not to deliberately harm other States' World Heritage. The *travaux préparatoires* support this natural construction; although earlier drafts of this article contained the qualifier that States will refrain from causing damage to other States' World Heritage 'as far as possible', this language of limitation was deliberately excluded from the final version of article 6(3).<sup>78</sup> In summary, then, articles 4, 5 and 6 of the *Convention* provide binding obligations on States Parties with regards to the protection of World Heritage sites in their own and other States' territories.

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73 *Tasmanian Dam* [1983] HCA 21. See the judgments of Gibbs CJ and Dawson J in the minority. Gibbs CJ concluded that, on 'the proper construction of the articles, the questions of what a state party can do, how far its resources extend, which is possible and what is appropriate are clearly left up to the state party itself to decide. [Articles 4 and 5] do not impose on any state party an obligation to take any specific action': Id at [70].

74 This decision was affirmed in the subsequent High Court rulings in *Richardson v Forestry Commission* (1988) 164 CLR 261 and *Queensland v Commonwealth* (1989) 167 CLR 232: Sydney Centre for International Law, 'Global Climate Change and the Great Barrier Reef: Australia's Obligations under the World Heritage Convention' (2004) <[www.cana.net.au/ACJP/cases.php?case\\_table=cases\\_acjp](http://www.cana.net.au/ACJP/cases.php?case_table=cases_acjp)> accessed 10 September 2007.

75 *Vienna Convention on the Law of Treaties*, opened for signature on 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980), art 31.

76 *Vienna Convention on the Law of Treaties*, art 26.

77 Thorson, above n48 at 7. Significantly, the International Court of Justice ('ICJ') has indicated that the 'present-day state of scientific knowledge', in this case pertaining to climate change, may be used as a supplementary basis of interpretation: *Case Concerning Kasikili/Sedudu Island (Botswana v Namibia)*, ICJ, Dec. 1999, discussed in Hunter et al, above n26 at 312.

78 Thorson, above n48 at 8.

### C. Does the Convention Require Aggressive Mitigation Strategies?

Having examined the nature and extent of the obligations imposed by the substantive provisions of the *Convention*, it is possible to assess whether the calls for aggressive mitigation strategies in the GBMWA Petition fall within the scope of the *Convention*. Arguably, the effect of articles 4, 5 and 6, when read together, is to impose an obligation on States Parties to drastically reduce their GHG emissions to protect their own and other countries' World Heritage sites. Turning first to article 4, a literal interpretation of this article suggests that if States are to do 'all [they] can', 'to the utmost of [their] own resources' to protect World Heritage sites within their territories from climate change, national measures for 'deep cuts'<sup>79</sup> in GHG emissions are required. As outlined above, this is the mitigation strategy being advocated by the world's leading climate experts to prevent 'dangerous' climate change and is supported by the literature on the protection of World Heritage sites in particular. For example, Australian climate experts Don Rothwell and Tim Stephens argue that:

It is predicted that without substantial reductions ('deep cuts') in global emissions of anthropogenic greenhouse gases, the corals of the Great Barrier Reef will be decimated and coral cover worldwide will decrease to less than 5 per cent of most reefs by 2050.<sup>80</sup>

As evidenced by the Petitions to the World Heritage Committee and recent World Heritage Reports, the science points to similar fates for a wide range of World Heritage protected sites and ecosystems unless urgent action is taken to mitigate climate impacts.

The *Kyoto Protocol* is the agreed international mechanism for systematic reductions of GHG emissions, but will meeting targets under this *Protocol* suffice to satisfy States Parties' duties under article 4? Climate experts suggest that the *Kyoto Protocol*, even if it were ratified and faithfully implemented by all of the world's industrialised countries, would reduce projected warming by one-twentieth of 1°C by 2050.<sup>81</sup> As previously mentioned, in order to stabilise global temperatures at less than an average increase of 2-3°C to prevent 'dangerous' climate change, GHG emissions will need to be reduced by 60-80 per cent on 1990 levels by 2050.<sup>82</sup> Taking into account the overwhelming historic and ongoing responsibility of industrialised countries for GHG emissions and the

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79 The issue of the precise level of reductions in GHG emissions that must be achieved in order to meet the requirements under article 4 is discussed in the following paragraph.

80 Donald R Rothwell & Tim Stephens, 'Global Climate Change, the Great Barrier Reef and Our Obligations' (2007) <[www.onlineopinion.com.au/view.asp?article=2770](http://www.onlineopinion.com.au/view.asp?article=2770)> accessed 10 October 2007.

81 William Burns, 'Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention' (2007) 31 <<http://www.ssrn.com/abstract=930438>> (10 September 2007). If there is an obligation on States Parties to mitigate their GHG emissions in order to meet their obligations under the Convention, States may arguably have a cause to take international legal action against other States not meeting the reductions called for 60-80+ per cent reduction in GHG emissions called for by the world's climate experts. A detailed discussion of this issue is beyond the scope of this paper. For an interesting analysis on how other international conventions may provide an avenue for climate change litigation, and some of the challenges that such litigation may face, see Burns, above, and Smith & Shearman, above n14 at 44-55.

82 McGrath, above n3 at 4.

development requirements of developing countries,<sup>83</sup> industrialised countries may need to reduce their emissions further still. Thus, a strict interpretation of the obligation under article 4 or the *Convention* may require States Parties to go beyond their commitments under the *Kyoto Protocol* and commit to more aggressive national emissions reductions targets. The recent *Climate Change Bill 2007* (UK) which mandates GHG emissions reductions of 30 per cent of 1990 levels by 2020, and 60 per cent by 2050<sup>84</sup> provides one example of how this could be achieved. Significantly, an obligation on States Parties to implement mitigation strategies independent of the *Kyoto Protocol* will also apply to the United States.

Article 5 builds upon and substantiates the obligation of States to take all necessary actions to protect World Heritage in article 4. Alongside national emissions reduction targets, detailed guidance on other ‘appropriate legal, scientific, technical, administrative and financial measures’ to reduce GHG emissions and thereby ensure the ‘identification, protection, conservation, presentation and rehabilitation of heritage’ is provided in highly respected sources such as the *Stern Review* and the IPCC’s Working Group III Report on *Mitigation of Climate Change*. For example, the most recent IPCC Working Group III Report details an array of measures, technologies and practices by which GHG emissions can be mitigated or even reduced to below current levels. A diverse range of national policies and instruments are available to governments including: integrating climate policies in broader development strategies; emissions regulations and standards; carbon taxes and levies; emissions trading schemes; subsidies and tax credits to stimulate technological development and diffusion; voluntary agreements between industry and governments; educational campaigns; and Research, Development and Demonstration (‘RD&D’).<sup>85</sup> If national emissions targets as arguably required under article 4 are adopted, they will guide the development of other legislative and policy measures which may include binding targets for the uptake of renewable energy, energy efficiency regulation, plans for the development of world-class public transport systems, and stringent regulation of land clearing and logging of rainforests.<sup>86</sup> Although States have discretion in deciding which measures are ‘appropriate’ for the protection and conservation of their World Heritage sites, this discretion must be exercised in good faith.<sup>87</sup> This entails the adoption of a comprehensive range of ‘effective and active measures’ as part of intensive national mitigation strategies.

States Parties’ obligations to take strong measures to protect World Heritage in their own territories are reinforced by the non-discretionary obligation in article 6(3) not to deliberately cause harm to other States’ World Heritage properties. Given the broad

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83 That is, implementing the principle of common but differentiated responsibilities.

84 AAP Reuters, ‘British Climate Bill Nearing Completion’ *Sydney Morning Herald* (16 August, 2007) <[www.smh.com.au/news/environment/british-climate-bill-nearing-completion/2007/08/16/1186857654745.html](http://www.smh.com.au/news/environment/british-climate-bill-nearing-completion/2007/08/16/1186857654745.html)> accessed 30 September 2007. This Bill is expected to go before Parliament later this year.

85 IPCC, above n12 at 29.

86 Climate Action Network Australia (CANA), ‘Turning Down the Heat’ (2007) at 50–51 <[www.cana.net.au](http://www.cana.net.au)> accessed 30 September 2007.

87 Sydney Centre for International Law, above n75 at 26.

scientific consensus regarding the impacts of GHG emissions on the global climate, States can no longer claim that such impacts are unintentional or unforeseeable. In this context, one State's GHG-emitting activities may be characterised as deliberate acts resulting in deterioration of other States' World Heritage properties in breach of article 6(3). This means that the *Convention* may be interpreted as imposing an obligation on all States Parties to reduce their GHG emissions, regardless of whether or not World Heritage properties in their own territories are being adversely affected by climate change.<sup>88</sup> Thus, States Parties have an obligation in relation to their own and other States' World Heritage sites to drastically reduce their GHG emissions.

On a practical level, however, there are significant obstacles that may prevent the World Heritage Committee from adopting a strong stance on States Parties' mitigation of GHG emissions in the foreseeable future. Some State Parties are likely to view strong action from the Committee on climate change as undermining the spirit and substance of what they agreed to in ratifying the *Convention* in the first instance. This position was argued in the US Administration's position paper in response to the five earlier in danger petitions considered at a World Heritage Committee meeting in March 2006. The paper stated that:

There is no compelling argument for the Committee to address the issue of global climate change — especially at the risk of losing the unified spirit and camaraderie that has come to be synonymous with World Heritage.<sup>89</sup>

Whilst it is acknowledged that the negotiators of the *Convention* did not envisage threats on the magnitude and scale of climate change, the *Convention* was designed to protect against all threats to the world's natural and cultural heritage both at the time and in the future.<sup>90</sup> The broad protections contained in the *Convention* clearly encompass climate change. Moreover, the US Administration's position paper was premised in part on the argument that there is doubt on the science of climate change, asserting that 'there is no unanimity regarding the impacts, causes, and how to or if man can affect the changes we are observing'.<sup>91</sup> However, as outlined above, 2006-2007 marked a watershed period in the development of a widespread public and political consensus regarding the causes and consequences of anthropogenic climate change, rendering this argument in the US position paper obsolete. If the *Convention* is to have continued relevance and efficacy in the coming decades, the serious threats posed by climate change to World Heritage sites must be addressed. The most direct and effective way of doing this is by engaging the States Parties in far-reaching mitigation strategies.

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<sup>88</sup> Thorson, above n48 at 11.

<sup>89</sup> Climate Justice Programme, 'US Government to Oppose World Heritage Action on Climate Change (2006) <[www.climatelaw.org/media/UNESCO%20Climate%20Change%20meeting](http://www.climatelaw.org/media/UNESCO%20Climate%20Change%20meeting)> accessed 31 October 2007.

<sup>90</sup> Affolder, above n70 at 35.

<sup>91</sup> Climate Justice Programme, above n90.

## Conclusion

The *World Heritage Convention* represents an unlikely ally in the effort to combat global climate change. Due to its global network of iconic sites, the *Convention* is uniquely positioned as a catalyst to promote more effective international responses to climate change. However, the World Heritage Committee's actions to date do not go far enough towards realising this potential. The Strategy, which represents the centrepiece of the Committee's response to climate change, provides useful guidance on effective management and adaptation responses yet is of questionable efficacy due to its weak stance on mitigation. A strict reading of the substantive provisions of the *Convention* suggests that States Parties have obligations to take further steps than recommended by the Strategy to protect World Heritage sites in their own and other countries from climate change. Specifically, it is argued that such obligations include a duty on States Parties to commit to 'deep cuts' in GHG emissions. If the *Convention* is to remain an effective tool for protecting and conserving sites of universal value for future generations States Parties must engage in extensive mitigation strategies without delay.

The arguments presented in this article provide a number of avenues for further research and discussion. As outlined above, it is likely that States Parties who are also members of the *Kyoto Protocol* may need to go beyond their targets under the latter agreement, but further analysis is needed to determine the precise level of emissions reductions targets that individual States Parties must adopt, taking into account the principle of common but differentiated responsibilities. There are also issues of compliance and enforcement that warrant further attention. Creative legal thinking regarding how to encourage States Parties to exercise their sovereignty to comply with this interpretation of the *Convention* is necessary for this multilateral environmental agreement to be of optimum efficacy in addressing global climate change and thereby protecting World Heritage.