

Global Climate Change and the Great Barrier Reef: Australia's Obligations under the World Heritage Convention

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For

the Environmental Defender's Office (NSW) Ltd

CANA – Climate Action Network Australia Greenpeace Australia Pacific

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EXECUTIVE SUMMARY

Introduction

The Sydney Centre for International and Global Law has been asked to provide a report in relation to Australia's obligations under international law to protect the Great Barrier Reef World Heritage Area ('GBRWHA') from the effects of global climate change. The Centre has been asked:

- (a) whether in deciding not to ratify the Kyoto Protocol Australia has breached its obligations under the World Heritage Convention in relation to the GBRWHA;
- (b) whether in negotiating the conclusion of the Kyoto Protocol, Australia acted in breach of its obligations under the World Heritage Convention;
- (c) whether a failure by Australia to commit to deep cuts in greenhouse gas emissions amounts to a breach of Australia's obligations under the World Heritage Convention;
- (d) whether other States Parties to the World Heritage Convention have obligations to protect the GBRWHA from the effects of climate change;
- (e) whether Australia must report its climate change policies pursuant to the World Heritage Convention;
- (f) in what circumstances the GBRWHA may be included on the List of World Heritage in Danger by the World Heritage Committee.

The Effects of Climate Change on the GBRWHA and the Australian Government's Climate Change Policies

The conclusions that are reached in this report are based on the following information concerning the impact of climate change upon the GBRWHA:

- In its Third Assessment Report, the Intergovernmental Panel on Climate Change ('IPCC') concluded that globally averaged temperatures have increased since 1861 as a result of anthropogenic (human-induced) emissions of greenhouse gases. The IPCC predicts that the globally averaged surface temperature will rise by 1.4 to 5.8 degrees Celsius over the period 1990 to 2100.
- The approximately 2,500 individual coral reefs that make up the Great Barrier Reef are particularly sensitive to climate change. According to well-documented scientific analyses, increases in sea temperature of as little as 1 degree Celsius may lead to coral bleaching and the eventual death of corals. In both 1998 and 2002 the Great Barrier Reef experienced mass coral bleaching events. The Great Barrier Reef Marine Park Authority considers climate change to pose the greatest long-term risk to the GBRWHA. Without reductions in greenhouse gas emissions, the Great Barrier Reef is likely to experience between a 2 and 6 degrees Celsius increase in sea temperature by 2100. It is predicted that without substantial reductions ('deep cuts') in global emissions of anthropogenic greenhouse gases (that are the main cause of climate change), coral cover worldwide will decrease to less than 5 per cent on most reefs by the middle of this century.
- The Australian Government has not adopted a policy of pursuing deep cuts in Australia's greenhouse gas emissions. Nor is the Australian Government committed to ratifying the Kyoto Protocol and working within the framework of that instrument to pursue more substantial emissions reduction targets than those agreed under the first commitment period of the Protocol.

Australia's Obligations under the World Heritage Convention

- The World Heritage Convention seeks to establish an effective system of collective protection of the world cultural and natural heritage of outstanding universal value. Australia became the fifth party to the Convention in 1974. The responsibility for the protection of world cultural and natural heritage is primarily a matter for those States in which the heritage is situated; however under the World Heritage Convention it is also incumbent on the international community as a whole to participate in the protection of the world cultural and natural heritage.
- The GBRWHA was inscribed on the World Heritage List in 1981 as a natural property possessing world heritage values. As a party to the Convention, and under accepted principles of international law, Australia is required to perform the obligations imposed by the Convention in relation to the GBRWHA in good faith. The Convention imposes several binding obligations upon parties. The key obligations are set out in Part II of the Convention (Articles 4, 5, 6 and 7). In relation to World Heritage Properties in Australia, the Australian Government has assumed the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of those properties. Australia must do all it can to this end, to the utmost of its own resources.

Australia's Failure to Ratify the Kyoto Protocol

- The Kyoto Protocol offers the only currently existing international legal framework for achieving specified reductions in global greenhouse gas emissions that are responsible for the increases in sea temperatures which constitute the most serious threat to the world heritage values of the GBRWHA. Although it has attracted significant international support, the Kyoto Protocol has not yet entered into force. Australia signed the Kyoto Protocol on 29 April 1998, but has indicated that it does not intend to move to ratification. Instead the Australian Government has stated that it will voluntarily comply with the target set for Australia (an increase of emissions of greenhouse gases to 108 per cent of 1990 levels over the period 2008-2012).
- Article 4 of the World Heritage Convention imposes a general and broad obligation of conduct upon Australia in relation to the GBRWHA and other world cultural and natural heritage situated in its territory. Under Article 4 Australia is required to "do all it can", "to the utmost of its own resources", in order to discharge its duty of "ensuring the identification, protection, conservation, presentation and transmission to future generations" of the natural heritage of the GBRWHA. As global warming represents the most significant long-term threat to the heritage values of the GBRWHA, and the Kyoto Protocol is the only available legal framework for achieving binding reductions in greenhouse gas emissions, a strong argument can be made that by not ratifying the Kyoto Protocol Australia has failed to "do all it can" to ensure the protection and conservation of the GBRWHA. Further, by not ratifying the Kyoto Protocol and implementing its provisions in Australian law, it can be argued that Australia has not taken the appropriate legal and administrative measures necessary for the protection, conservation and rehabilitation of the GBRWHA as required by Article 5(d) of the World Heritage Convention.

Australia's Actions in Negotiations on the Kyoto Protocol

- As a party to the World Heritage Convention, Australia is required to perform its obligations under the Convention in good faith. It is arguable that Australia's stance on several issues in negotiations prior and subsequent to the adoption of the Kyoto Protocol raises serious questions as to Australia's commitment to comply in good faith with the requirements of the World Heritage Convention. Given the sensitivity of the GBRWHA to the effects of climate change, the Australian Government must in the future ensure that it does not advocate or support measures which will exacerbate the deterioration of the GBRWHA. Consistent with the principle of good faith, in future negotiations (for example those regarding the second commitment period under the Kyoto Protocol) Australia must not adopt an unreasonable position that would prevent the conclusion of an effective international legal framework to address climate change.

Australia's Failure to Commit to 'Deep Cuts' in Greenhouse Gas Emissions

- Although Australia's failure to ratify the Kyoto Protocol amounts to a violation of Articles 4 and 5 of the World Heritage Convention, neither Australia's stated objective of voluntarily meeting its Kyoto Protocol emissions target nor its ratification of the Kyoto Protocol will necessarily entail the complete discharge of Australia's obligations under the World Heritage Convention given the significance of the threat posed by climate change to the GBRWHA. Further measures are required in order to satisfy Article 4 of the Convention. Such additional measures are likely to include significant reductions by Australia of its greenhouse gas emissions. Determining the precise level of reductions in greenhouse gases that must be adopted in order to meet the requirements of Article 4 is a complex

and difficult legal question. Nonetheless it can be argued that Australia's decision not to commit to any reduction in greenhouse gases below its 1990 baseline emissions level constitutes a clear failure to comply with Article 4 of the World Heritage Convention if it is within the resources of the Australian Government to pursue more substantial cuts. At the very least, the Australian Government should justify publicly why it is not within Australia's resources to commit to a policy of deep cuts, if it believes that this is the case.

The Obligations of Other States under the World Heritage Convention in Relation to the GBRWHA

- The World Heritage Convention recognises that cultural and natural heritage of outstanding universal value constitutes a world heritage for whose protection it is the duty of the international community as a whole to cooperate (Article 6(1)). Consistent with this, each State Party "undertakes not to take any deliberate measures which might damage directly or indirectly" world heritage properties situated in the territory of other States Parties (Article 6(3)). Because this obligation applies only to "deliberate measures," States Parties will not be liable for unintentional damage caused by pollution or other environmental impacts. However anthropogenic greenhouse gas emissions cannot be understood in this way. Given the broad scientific recognition that anthropogenic greenhouse gas emissions are a major cause of the climate change that causes damage to the reef through coral bleaching, it can be argued that Article 6(3) requires all States Parties to the World Heritage Convention to ensure, both individually and in co-operation with other States Parties, that emissions of greenhouse gases are reduced.

Whether Australia is Required to Report its Climate Change Policies to the General Conference of UNESCO

- One of the essential functions of the World Heritage Committee is to monitor the state of the conservation of properties inscribed upon the World Heritage List. The Operational Guidelines for the Implementation of the World Heritage Convention ('Operational Guidelines') specify two types of reporting obligations: "reactive monitoring" and "periodic reporting". The effects of climate change upon the GBRWHA and the policies of the Australian Government in relation to climate change are clearly matters that may be the subject of both reactive monitoring and periodic reporting.
- In relation to reactive monitoring, it is open to the World Heritage Centre, other sectors of UNESCO and the IUCN to furnish the World Heritage Bureau and World Heritage Committee with information concerning the impacts of climate change upon the GBRWHA and the Australian Government's climate change policies. Such a report or series of reports need not be prepared with the consent and cooperation of the Australian Government, although it would be desirable if it were to occur.
- In relation to periodic reporting, it can be argued that the Australian Government should include in periodic reports on the GBRWHA information and documentation concerning the development of Australia's climate change policy and an assessment of the extent to which the integrity of the GBRWHA has been impaired by the effects of climate change.

GBRWHA as World Heritage in Danger

- Under Article 11(4) of the World Heritage Convention the World Heritage Committee is required to establish, keep up to date, and publish a List of World Heritage in Danger. It is a matter solely within the discretion of the World Heritage Committee to decide whether a property in the World Heritage List is to be included in the List of World Heritage in Danger. Under the Operational Guidelines, the Committee may include a property on the List of World Heritage in Danger if the property is threatened by "serious and specific danger." (paragraph 80). Properties must meet the criteria set out in paragraph 83 as being in either "Ascertained" or "Potential" danger. The deterioration of the GBRWHA as a result of climate change may be considered to constitute both an ascertained and a potential danger.
- It is clearly open to the Committee to consider that the GBRWHA should be inscribed on the List of World Heritage in Danger. In particular we note that a "potential danger" may arise where a State Party to the World Heritage Convention has not taken adequate steps to protect and conserve a world heritage property through failing, for instance, to establish and implement a management plan addressing all of the threats to the property (Operational Guidelines, paragraph 83(ii)(d)). On this basis the World Heritage Committee could determine that the GBRWHA should be placed on the List of World Heritage in Danger on the grounds that the Australian Government has not developed an appropriate and effective response to climate change through ratification of the Kyoto Protocol and a commitment to substantial reductions in greenhouse gas emissions.

1. INTRODUCTION

1. We have been asked to provide a report in relation to Australia's obligations under international law to protect the Great Barrier Reef World Heritage Area ('GBRWHA') from the effects of global climate change. In this connection we have been requested to determine whether Australia has complied with the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage[1] ('World Heritage Convention').
2. In relation to the World Heritage Convention we have been asked:
 - Whether Australia's decision not to ratify the 1997 Kyoto Protocol[2] to the 1992 United Nations Framework Convention on Climate Change[3] amounts to a breach of Australia's obligations under the World Heritage Convention in relation to the GBRWHA;
 - Whether Australia's actions during the negotiations for the conclusion of the Kyoto Protocol amounted to a breach of Australia's obligations under the World Heritage Convention in relation to the GBRWHA;
 - Whether a failure by Australia to commit to "deep cuts" in greenhouse gas emissions amounts to a breach of Australia's obligations under the World Heritage Convention in relation to the GBRWHA;
 - Whether State Parties other than Australia have obligations pursuant to the World Heritage Convention to protect and conserve the GBRWHA and therefore whether the failure of another State to take action to reduce greenhouse gas emissions amounts to a breach of Article 6 of the World Heritage Convention;
 - Whether Australia's climate change policies come within the scope of the World Heritage Convention and therefore are required to be reported to the General Conference of the United Nations Educational, Scientific and Cultural Organization ('UNESCO') pursuant to Article 29(1) of the World Heritage Convention; and
 - Whether, and in what circumstances, the GBRWHA may be included on the List of World Heritage in Danger pursuant to Article 11 of the World Heritage Convention.

2. THE GREAT BARRIER REEF WORLD HERITAGE AREA

3. The Great Barrier Reef is the most extensive stretch of coral reef in the world. It comprises over 2,500 individual reefs, stretches more than 2,000 kilometres along the north-east coast of Queensland and covers an area of approximately 350,000 square kilometres. It is probably the world's richest region in terms of faunal diversity with over 400 species of coral, 1500 species of fish, 4000 species of mollusc and 242 species of birds, plus a diversity of sponges, anemones, marine worms, crustaceans and other species.[4]
4. The GBRWHA was inscribed on the World Heritage List maintained by the Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value ('World Heritage Committee') in October 1981,[5] pursuant to Article 11 of the World Heritage Convention. The GBRWHA is the world's largest World Heritage Area, and is one of 16 Australian properties on the World Heritage List.
5. Approximately 99.3 per cent of the GBRWHA consists of the Great Barrier Reef Marine Park ('GBRMP'), which was declared in 1975. The GBRMP includes those areas in the Great Barrier Reef region that are declared under section 31 of the Great Barrier Reef Marine Park Act 1975 (Cth) to be parts of the GBRMP.
6. The Great Barrier Reef Marine Park Act 1975 (Cth) establishes the Great Barrier Reef Marine Park Authority ('GBRMPA') (section 6), the functions of which include the overall management of the GBRMP (section 7(1B)). The Commonwealth and State legislative framework for the protection of the heritage values of the GBRWHA is extensive. The core Commonwealth legislation comprises the GBRMPA Act and the Environmental Protection and Biodiversity Act 1999 (Cth). However several other Commonwealth[6] and Queensland[7] Acts are also applicable to the Great Barrier Reef.

3. THE EFFECTS OF CLIMATE CHANGE ON THE GREAT BARRIER REEF AND THE AUSTRALIAN GOVERNMENT'S CLIMATE CHANGE POLICIES

7. The conclusions that we have reached in this Report are based on the following information concerning the impact of climate change upon the Great Barrier Reef and an assumption that the Australian Government has the capacity to pursue additional reductions in greenhouse gas emissions if it so desires.

3.1. Impacts to Date

8. In 2001 the Intergovernmental Panel on Climate Change ('IPCC') published its Third Assessment Report in which it found that:[8]
 - The globally averaged surface temperature has increased since 1861. Over the twentieth century the increase has been approximately 0.6 degrees Celsius;
 - It is very likely that the 1990s was the warmest decade, and 1998 the warmest year, in the instrumental record since 1861;
 - There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to anthropogenic greenhouse gas emissions;
 - The globally averaged surface temperature is projected to increase by 1.4 to 5.8 degrees Celsius over the period 1990 to 2100. This is much larger than the observed changes during the twentieth century and is very likely to be without precedent during at least the last 10,000 years based on paleoclimate data.
9. Coral reefs are particularly vulnerable to climate change. Increases in sea temperatures of as little as 1 degree Celsius alone, or in combination with other

9. Coral reefs are particularly vulnerable to climate change increases in sea temperatures of as little as 1 degree Celsius above, or in combination with other stresses (such as declines in water quality caused by pollution), can lead to corals ejecting the coloured algae living within the coral tissue ('coral bleaching') and the eventual death of corals.[9] Bleached corals may recover if stresses are removed within time, but will die if the stresses persist. In 1998, 75 per cent of the world's reefs were affected by coral bleaching, and 16 per cent died.[10]
10. The Great Barrier Reef has been significantly affected by coral bleaching as a result of increased water temperatures. According to a report prepared by the CSIRO, Australian Institute for Marine Science and CRC Reef Research Centre for the Queensland Government:[11]

"There can be little doubt ... that global climate change has made the previously infrequent 'coral bleaching' disturbance commonplace".

11. In the summers of 1998 and 2002 the Great Barrier Reef experienced mass coral bleaching events. The GBRMPA reports that in 1998 sea temperatures in some parts of the Great Barrier Reef were between 1 and 2 degrees Celsius above normal temperatures for that period, and that "globally, the temperatures reached and the extents of bleaching at this time were the highest ever recorded." [12]
12. The 1998 bleaching event led to some bleaching of 87 per cent of surveyed inshore reefs and 28 percent of surveyed mid-shelf and offshore reefs.[13] The 2002 bleaching event was the largest on record, with 69 per cent of surveyed inshore reefs indicating moderate to high levels of bleaching and 51 per cent of surveyed mid-shelf and offshore reefs showing moderate to high levels of bleaching.[14]

3.2. Future Impacts

13. The GBRMPA reports that "[c]onsidering its potential to directly affect the entire Great Barrier Reef at one time, and the potential to exacerbate the effects of other pressures, climate change and coral bleaching are likely to pose the greatest long-term risks to the Great Barrier Reef." [15]
14. According to the CSIRO, Australian Institute for Marine Science and CRC Reef Research Centre Report:

"The waters of the Great Barrier Reef are warming and are predicted to continue to do so at an accelerating rate throughout the 21st Century. The increasing temperatures will lead to increased levels of coral bleaching, coral mortality and biodiversity depletion that could have serious consequences for the Reef's biodiversity, ecology, appearance and dependent recreational use and economic activity." [16]

15. Professor Ove Hoegh-Guldberg estimates that the corals of the Great Barrier Reef will experience between a 2 degrees Celsius and 6 degrees Celsius increase in sea temperature by 2100 as a result of anthropogenic (human-induced) emissions of greenhouse gases.[17] He also concludes that:

"The flora and fauna of the Great Barrier Reef is going to change dramatically if current estimates of climate change are correct. The past behaviour of coral reefs to warming has revealed that thermal stresses of 5 degree [Celsius] heating months remove the majority of reef-building corals and other living organisms. There is no evidence to the contrary. The Great Barrier Reef will see thermal stresses of 5 or more degree [Celsius] heating months on an annual basis by 2050. They are projected to rise to as high as 15-20 degree [Celsius] heating months by 2100. Coral cover will decrease to less than 5 per cent on most reefs by the middle of the century even under the most favourable assumptions. This is the only plausible conclusion if sea temperatures continue to rise. Reefs will not disappear but they will be devoid of coral and dominated by other less appealing species such as macroalgae [seaweed] and cyanobacteria [blue-green algae]." [18]

3.3. The Australian Government's Response

16. The GBRMPA has acknowledged the threat posed by climate change and has developed the Great Barrier Reef Coral Bleaching Response Program in order to mitigate the effects of climate change on the Great Barrier Reef.[19]
17. In addition, the Australian Government has adopted a new zoning plan pursuant to section 32(11) of the Great Barrier Reef Marine Park Act 1975 (Cth), which came into force on 1 July 2004. Although the Great Barrier Reef Marine Park Zoning Plan 2003 ('Zoning Plan') is not directed specifically at addressing the threat of climate change to the reef, it is likely to improve the resilience of some parts of the GBRWHA to the stress of increased sea temperatures. The Zoning Plan is the primary planning instrument for the conservation and management of the GBRMP. The Zoning Plan aims to protect and conserve the biodiversity of the Great Barrier Reef within a network of highly protected zones while providing opportunities for sustainable economic use of the Great Barrier Reef region. The plan increases the protected areas of the GBRMP from 4.8 per cent of the park to 33.3 per cent.[20]
18. It is acknowledged that the Great Barrier Reef is one of the best-managed reef systems in the world. The Great Barrier Reef Coral Bleaching Response Plan, the new zoning arrangements and other policies relating to the management of the GBRWHA will help mitigate the effects of warmer sea temperatures upon the Great Barrier Reef by removing other stresses and thereby enhancing the resilience of coral communities. However even with these measures, and notwithstanding an optimum management regime, significant damage will be caused to the reef unless climate change is stabilised or reversed through substantial reductions in global greenhouse gas emissions.

3.4. Australia's Climate Change Policies

19. The report prepared by the CSIRO, Australian Institute of Marine Sciences and CRC Reef Research Centre concludes that "societal measures that reduce rates of greenhouse emissions should have demonstrable benefits for the Great Barrier Reef's coral reefs." [21]
20. The Australian Climate Group, a group of eminent Australian Scientists, concludes that a significant reduction in global emissions of greenhouse gases, well in excess of the targets set by the Kyoto Protocol, ('deep cuts') is necessary in order to stabilise global temperatures and thereby reduce and reverse the impact upon the Great Barrier Reef.[22] They recommend the adoption by the Australian Government of several policies to achieve deep cuts in global emissions. These include:
- o setting a national target of a 60% reduction in greenhouse gas emissions by 2050;
 - o implementing a national emissions trading scheme by 2007 to ensure that target is met;
 - o international leadership by Australia – ratifying the Kyoto Protocol and actively working within that regime in order to promote deep cuts in the second and subsequent commitment periods of the Kyoto Protocol;
 - o adopting national policies both to reduce Australia's greenhouse gas emissions and to promote the international adoption of clean, renewable energy sources.
21. The most recent statement of the policies of the Australian Government in relation to climate change can be found in the White Paper (entitled Securing Australia's Energy Future) released by the Prime Minister on 15 June 2004.[23] In Securing Australia's Energy Future the Australian Government committed to meeting the target set for Australia in Annex B of the Kyoto Protocol of restricting the increase in Australia's emissions to 108 per cent of 1990 baseline levels by 2008-12.
22. However, the White Paper states that the "Australian Government will not ratify the Kyoto Protocol, as it does not provide the effective global framework required for meeting long-term objectives." [24] The White Paper further states that "No internationally agreed global regime to contain emissions exists for the period beyond 2012, or is currently in prospect. In the absence of such a response, and given Australia is on track to meet its Kyoto 108 per cent target, it is premature to impose significant economy-wide costs in order to meet a specific long-term target..." [25]
23. The Australian Government has not adopted a policy of pursuing deep cuts in Australia's greenhouse gas emissions. Nor is the Australian Government committed to ratifying the Kyoto Protocol and working within the framework of that instrument to pursue more substantial global emissions reduction targets in the second or subsequent Kyoto Protocol commitment periods. Accordingly the Australian Government has not adopted policies that are likely to result in the global reductions in greenhouse gas emissions that scientific opinion concludes is necessary in order to avert significant damage to the corals and dependent ecosystems that make up the GBRWHA.

4. AUSTRALIA'S OBLIGATIONS UNDER THE WORLD HERITAGE CONVENTION

24. On 16 November 1972 the General Conference of UNESCO adopted the World Heritage Convention. As at 1 May 2004 there were 178 parties to the Convention, making it one of the most widely adopted multilateral environmental agreements. There are 788 properties inscribed on the World Heritage List, with 611 cultural, 154 natural and 23 mixed properties situated in the territory of 134 States Parties.
25. The World Heritage Convention was ratified by Australia on 22 August 1974 and entered into force for Australia and generally on 17 December 1975. As a party to the Convention, Australia is required to perform the obligations imposed by the Convention in good faith.[26] Australia must act in good faith to do all it can to achieve the Convention's objects and purposes.
26. The World Heritage Convention was designed to respond both to actual and threatened damage to the world cultural and natural heritage. The Convention recognises that the "deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all nations of the world." [27] As "parts of the cultural and natural heritage are of outstanding interest" they "therefore need to be preserved as part of the world heritage of mankind as a whole." [28]
27. The responsibility for the protection of world cultural and natural heritage is primarily a matter for those States in which the heritage is situated. However, it is also

"incumbent on the international community as a whole to participate in the protection of the cultural and natural heritage of outstanding universal value." [29]

28. The Convention seeks to establish "an effective system of collective protection of the cultural and natural heritage of outstanding universal value, organized on a permanent basis and in accordance with modern scientific methods" [30] and establishes a framework for global cooperation to preserve cultural and natural

heritage of "outstanding universal value."

29. "Natural heritage" is defined in Article 2 of the World Heritage Convention to comprise:

"natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from a scientific point of view;

geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals or 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."

30. The World Heritage Convention imposes on each State Party a duty to ensure the identification of the cultural and natural heritage situated in its territory. Under Article 3 of the Convention, it is for each State Party to identify and delineate the different properties situated on its territory that satisfy the definition of cultural and natural heritage of outstanding universal value set out in Articles 1 and 2. Under Article 11(1) each State Party is required to submit to the World Heritage Committee an inventory of the properties forming part of the cultural heritage and natural heritage situated within its territory that it considers suitable for inclusion in the World Heritage List.
31. The World Heritage List is to be established and kept up-to-date by the Committee on the basis of the inventories submitted by the States Parties and is to contain properties which form part of the cultural heritage or natural heritage and which the Committee considers as having outstanding universal value in terms of such criteria as the Committee shall have established (Article 11(2)). The World Heritage Committee therefore exercises a gateway function in determining whether a property should be placed on the World Heritage List.[31]
32. The Operational Guidelines for the Implementation of the World Heritage Convention ('Operational Guidelines'),[32] adopted by the World Heritage Committee, set out four criteria, one or more of which must be met for a property to be considered to be of "outstanding universal value" for the purposes of the Convention.
33. When the GBRWHA was inscribed in 1981 as a natural property possessing World Heritage values, it satisfied all four then applicable natural criteria:[33]
- as an outstanding example representing a major stage of the earth's evolutionary history;
 - as an outstanding example representing significant ongoing geological processes, biological processes and man's interaction with his natural environment;
 - as containing unique, rare and superlative natural phenomena, formations and features of exceptional natural beauty; and
 - as providing habitats where populations of rare and endangered species of plants and animals still survive.
34. The listing of properties on the World Heritage List "assures the international community that the property has outstanding universal value as part of the cultural heritage or natural heritage." [34] Submission by a State Party of a property and the inclusion of a property on the World Heritage List "are the means by which the status of a property is ascertained and the duties attaching to that status are established." [35]
35. In addition, the World Heritage Convention reflects an early attempt by the international community to implement the 'precautionary approach' of environmental protection. The Convention does so by highlighting the "magnitude and gravity of the new dangers threatening"[36] cultural and natural heritage of universal value and calls upon the members of the international community both individually and collectively to protect these properties. The precautionary approach has since become widely accepted as a fundamental principle of international environmental law,[37] and is now widely reflected in Australian environmental law and policy.[38]

4.1. Australia's Obligations to Protect and Conserve the GBRWHA

- the identification, conservation, protection and transmission to future generations of cultural and natural heritage;
 - the establishment of policies and services for the protection, conservation and presentation of cultural and natural heritage;
 - to undertake study and research so as to develop methods to counteract dangers which threaten cultural or natural heritage;
 - to undertake appropriate legal, scientific, technical, administrative and financial measures for the identification, conservation, presentation, and rehabilitation of heritage; and
 - not to take any deliberate measures which may directly or indirectly damage cultural or natural heritage.
36. The key provisions of the World Heritage Convention are set out in Part II of the Convention, which comprises four Articles (Articles 4, 5, 6 and 7). These obligations include the following:
37. In *Commonwealth v Tasmania* (the 'Tasmanian Dam Case')³⁹ a majority of the High Court of Australia held that, for the purposes of the Commonwealth's constitutional power to legislate with respect to external affairs, Articles 4 and 5 imposed binding obligations upon Australia.[40] Based on those obligations, and the High Court's interpretation of the Commonwealth's power over external affairs, the constitutional validity of the World Heritage Properties Conservation Act 1983 (Cth) was upheld.
38. A pivotal provision of the Convention is Article 5, in relation to which Mason J in the *Tasmanian Dam Case* noted:
- "[Article 5] cannot be read as a mere statement of intention. It is expressed in the form of a command requiring each party to endeavour to bring about the matters dealt with in the lettered paragraphs. Indeed, there would be little point in adding the qualifications 'in so far as possible' and 'as appropriate for each country' unless the article imposed an obligation... There is a distinction between a discretion as to the manner of performance and a discretion as to performance or non-performance. The latter, but not the former, is inconsistent with a binding obligation to perform." [41]
39. This conclusion was affirmed in the later High Court decisions of *Richardson v Forestry Commission*[42] and *Queensland v Commonwealth*. [43]
40. The High Court's construction of Articles 4 and 5 accords with the natural and ordinary meaning of those provisions. As a natural reading of Articles 4 and 5 does not leave the meaning of the provisions ambiguous or obscure or lead to a result which is manifestly absurd or unreasonable, there is no need to have recourse to the travaux préparatoires for the Convention.[44] In any event the travaux préparatoires do not suggest an interpretation that displaces the natural construction of Articles 4 and 5 as imposing mandatory obligations.[45]
41. The World Heritage Convention imposes significant and long-term obligations upon Australia to protect and conserve world cultural and natural heritage including the GBRWHA. As Gibbs CJ observed in the *Tasmanian Dam Case*, Articles 4 and 5 on their face impose "onerous" requirements on contracting parties. The Chief Justice considered that, if mandatory, Articles 4 and 5:
- "...would require a State Party to the Convention to take all legal measures within its constitutional power that might reasonably be regarded as appropriate for the identification and protection of such property, and to apply all of its financial resources that it could possibly make available for the same purpose." [46]
42. Of particular significance are the provisions of Article 5(d) which require State parties to take:
- "...appropriate legal, scientific, technical, administrative and financial measures necessary for the ... conservation, presentation and rehabilitation of this heritage."
43. The legal measures required, taken together with the required scientific, technical, administrative and financial measures, place fundamental obligations on the Australian Government in relation to conservation and rehabilitation of the the GBRWHA and other World Heritage properties.
44. It can be argued that such legal measures would extend not only to the domestic implementation of the provisions of the Convention into Australian law but also support for, and adoption of, additional international legal initiatives which complement and further support the principles of the World Heritage Convention. [47]
45. Based upon the High Court's decisions in the cases discussed above, and Australia's continuing commitment to the implementation of the World Heritage Convention in Australian law and practice, the Commonwealth elected to repeal the World Heritage Properties Conservation Act 1983 (Cth) and replace it with the Environment Protection and Biodiversity Conservation Act 1999 (Cth) ('EPBC Act'), the constitutional validity of which is not in doubt. It is the latter statute that currently seeks to give principal effect to the Convention under Australian law. Section 322 of the EPBC Act sets out the responsibilities of the Commonwealth with respect to a property such as the Great Barrier Reef which is a World Heritage declared property and is not entirely within a Commonwealth area. Section 322(2) provides that: "(2) The Commonwealth and each Commonwealth agency must take all reasonable steps to ensure it exercises its powers and performs its functions in relation to the property in a way that is not inconsistent with:
- the World Heritage Convention; and
 - the Australian World Heritage management principles; and
 - if the property is on the World Heritage List and a plan for managing the property has been prepared as described in section 321—that plan."

5. BREACHES BY AUSTRALIA OF ITS OBLIGATIONS UNDER THE WORLD HERITAGE CONVENTION IN RELATION TO THE

GBRWHA

46. Both treaty law and the general law of state responsibility make it clear that a State may not invoke the provisions of its internal law as justification for a failure to perform a treaty obligation.[48] It is not possible, therefore, for Australia to refer to the provisions of Australian law to avoid any obligations it has assumed under international law. Whilst the Environment Protection and Biodiversity Conservation Act 1999 (Cth) seeks to implement the World Heritage Convention in Australian municipal law it cannot, for international law purposes, be classified as the definitive response to the Convention's obligations. Australia's obligations under the Convention are judged by international law standards and it is for the international community to determine whether Australia is acting in good faith in meeting its international obligations under the Convention.
47. Australia will be in breach of its international legal obligations under the World Heritage Convention if its conduct is not in conformity with the obligations imposed by the Convention.[49] The basic principle of treaty law in relation to the obligations upon States parties to conventions and treaties is that of *pacta sunt servanda*. The Vienna Convention on the Law of Treaties, Article 26, states this principle in the following terms:
- "Every treaty in force is binding upon the parties to it and must be performed by them in good faith."
48. Failure by Australia to perform an obligation imposed by the World Heritage Convention in good faith will result in a breach by Australia of that international obligation and the incurring of international legal responsibility. As the International Law Commission observed in its commentary to Article 12 of its Draft Articles on State Responsibility, "whether and when there has been a breach of an obligation depends on the precise terms of the obligation, its interpretation and application, taking into account its object and purpose and the facts of the case." [50]
49. A breach may exist even if Australia's conduct is only partly contrary to the requirements of the World Heritage Convention. As we have noted above, in specifying the assumptions on which this Report is based, the GBRWHA is a well-managed reef ecosystem and Australia has complied with Articles 4 and 5 to the extent that it has developed an appropriate management regime and protection and conservation measures. However, as argued below, Australia has not met, in full, the requirements of Articles 4 and 5 as the Australian Government has not adopted adequate measures to address the threat of climate change to the World Heritage values of the GBRWHA.
50. The World Heritage Convention recognises the collective duties of all State parties to protect world heritage. Article 6 of the Convention provides:
- "State Parties to this Convention recognize that such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate."
- All State Parties to the World Heritage Convention therefore have a collective interest in the GBRWHA as part of the world natural heritage and are beneficiaries of Australia's obligations to protect and conserve the heritage property.[51] This is consistent with the *erga omnes partes* obligations [52] owed by Australia and may therefore be enforced notwithstanding Australian sovereignty over the area within which the GBRWHA is situated.
51. It is therefore open to other States Parties to assert that Australia's breach of its obligations under the Convention in relation to the GBRWHA constitutes an internationally wrongful act that entails international responsibility [53] and that Australia is required to cease its wrongful conduct [54] and to perform fully its obligations under the Convention.
52. We note that the World Heritage Convention contains no provision for the resolution of disputes that arise between States Parties. Nonetheless all States are bound by an obligation to resolve their disputes by one or more peaceful means including negotiation, mediation, conciliation, arbitration or judicial settlement. [55] One potential dispute resolution mechanism could conceivably include the referral of a dispute between Australia and another State Party to adjudication by a specially-constituted arbitral tribunal, the Permanent Court of Arbitration (utilising its new rules applicable to environmental disputes) or the International Court of Justice.

5.1. Australia's Failure to Ratify the Kyoto Protocol

53. The Kyoto Protocol is the first and only international instrument incorporating binding country targets for the reduction of greenhouse gas emissions. It offers the only currently existing international legal framework for achieving specified reductions in global greenhouse gas emissions that are responsible for the increases in sea temperatures which constitute the most serious threat to the world heritage values of the GBRWHA.
54. The Kyoto Protocol will enter into force on the ninetieth day following ratification by 55 states parties to the UNFCCC incorporating sufficient Annex I parties to account for at least 55 per cent of the total carbon dioxide emissions as at 1990 levels.[56] As of 10 September 2004, 124 parties have ratified the Kyoto Protocol, including 31 Annex I parties, representing 44.2 per cent of emissions.[57] The Kyoto Protocol is on the cusp of entry into force; ratification by Australia would bring the total number of parties to 125, and the total greenhouse gas emissions of Annex I parties that have ratified to 46.8 per cent of 1990 emissions.
55. Although the entry into force and effective operation of the Kyoto Protocol will achieve a relatively small reduction in global greenhouse gas emissions, more substantial reductions are unlikely to be achieved outside the framework of the Kyoto Protocol. The Kyoto Protocol has now attracted very widespread support (albeit not yet sufficient to enter into force) and at the time of writing offers the only mechanism through which the international community may reach agreement on binding targets for achieving deep cuts in global greenhouse gas emissions.
56. Moreover, until the Kyoto Protocol enters into force and becomes operational, global emissions will continue to increase and an opportunity for reducing emissions will have been missed. We have assumed that as greenhouse gas emissions remain in the atmosphere, and continue to have a warming effect for centuries after their emission,[58] a delay in reducing emissions will have some impact upon the GBRWHA.
57. Australia signed the Kyoto Protocol on 29 April 1998, but currently refuses to ratify. After the United States Government announced in 2001 that it would not ratify the Kyoto Protocol, the Australian government's position has consistently been that it is not currently in Australia's best interests to ratify the Protocol. This position has recently been reaffirmed in the White Paper Securing Australia's Energy Future released on 15 June 2004. [59]
58. The question arises as to whether in deciding not to proceed to ratification of the Kyoto Protocol, Australia has done all it can as required by the World Heritage Convention to ensure that the GBRWHA will be protected, conserved, and thereby able to be presented and transmitted to future generations.

The World Heritage Convention and the Kyoto Protocol

Article 4

59. Article 4 of the World Heritage Convention imposes a general and broad obligation of conduct upon Australia in relation to cultural and natural heritage situated within Australia. As such, Australia is required to "do all it can", "to the utmost of its own resources", in order to discharge its duty of "ensuring the identification, protection, conservation, presentation and transmission to future generations" of the natural heritage of the GBRWHA.
60. Global warming presents the most significant long-term threat to the heritage status of the GBRWHA and international cooperation is essential for addressing global climate change. Accordingly, as the Kyoto Protocol is the only available legal framework for achieving demonstrable reductions in greenhouse gas emissions, a strong argument can be made that, by not ratifying the Protocol, Australia has failed to do "all it can" to ensure the protection and conservation of the GBRWHA as required by Article 4 of the World Heritage Convention.
61. This conclusion is supportable notwithstanding that Australian ratification of the Kyoto Protocol will, of itself, be insufficient to bring the Protocol into force. As a significant Annex I State party to the FCCC, Australia's decision not to ratify the Kyoto Protocol has contributed to the Protocol not attracting the required ratifications in order to enter into force. Australia's decision not to ratify the Kyoto Protocol has therefore been a factor in delaying entry into force of the Kyoto Protocol which, it is anticipated, would result in some reduction in global greenhouse gas emissions in the first commitment period and provide the legal framework for much more substantial reductions in subsequent periods.
62. The key issue is the effect that Australia's decision not to ratify the Kyoto Protocol has, and will have, on the prospects and timeframe for its entry into force and effective operation. Therefore our conclusion that Australia has not complied with Article 4 of the World Heritage Convention is not altered in light of the Australian Government's 'no regrets' policy of voluntarily complying with the Kyoto Protocol target set for Australia of limiting increases in Australia's total greenhouse gas emissions to 108 per cent of 1990 levels over the period 2008-2012.[60] Although this unilateral abatement commitment is consistent with the spirit of Article 4 of the World Heritage Convention, it is not adequate to discharge Australia's obligations as the 'no regrets' policy is arguably not sufficient (as argued below) and, more significantly, is not made in the context of a binding international legal framework for the alleviation of a global threat to the GBRWHA.

Moreover, Article 4 of the World Heritage Convention is primarily one of conduct rather than result, and mandates the adoption of measures designed to prevent the deterioration of world cultural and natural heritage notwithstanding that, at the time of their adoption, such measures may have no immediate protective effect.

Article 4 must also be understood in light of the object and purpose of the World Heritage Convention which is to establish a framework for "co-operative international action"[61] by all States Parties to ensure the collective protection of world cultural and natural heritage in which all States have a common interest. In this context, although not ostensibly an expression of cooperative international action directed at protecting and conserving world heritage, the Kyoto Protocol does represent an international legal framework which will have the indirect effect of protecting several heritage properties, including the GBRWHA, that are vulnerable to the effects of climate change. These properties would include those which are within or adjacent to maritime areas vulnerable to the effects of sea level rise, and alpine and polar heritages areas which are sensitive to the effects of global warming. Australia already has existing World

Heritage properties which fall within these categories or, in the case of lands within the Australian Antarctic Territory, would be considered to be a part of global natural heritage.

The Kyoto Protocol is therefore an international regime consistent with the World Heritage Convention and with the UNESCO Recommendation Concerning the Protection, at a National Level, of the Cultural and Natural Heritage (adopted by UNESCO together with the World Heritage Convention on 16 November 1972) [62] which provides in Article 25 that:

"Member States should take measures to protect their cultural and natural heritage against the possible harmful effects of the technological developments characteristic of modern civilization....Measures...should be taken to prevent pollution and guard against natural disasters and calamities, and to provide for the repair of damage to the cultural and natural heritage."

Article 5

63. In addition, it can be argued that by not ratifying the Kyoto Protocol, and implementing its provisions in Australian law, Australia has not taken the appropriate legal and administrative measures necessary for the protection, conservation and rehabilitation of the GBRWHA as required by Article 5(d) of the World Heritage Convention.
64. In *Richardson v Forestry Commission* Mason CJ and Brennan J noted that an omission to implement domestic legislation in order to protect an area that may form part of the world natural heritage area from damage "involves a risk that the Convention obligation will not be discharged." [63] Similarly, the Australian Government's decision not to ratify the Kyoto Protocol and implement its provisions in Australian law amounts to a failure to adopt legislative measures that are necessary, although not sufficient, for the protection and conservation of the GBRWHA.
65. Although Australia enjoys some flexibility in selecting those legal measures that are "appropriate" for the protection and conservation of world cultural and natural heritage, this discretion must be exercised in good faith. In the context in which emission targets and flexibility mechanisms under the Kyoto Protocol offer the only current, tailor-made, legal framework for achieving binding reductions in global greenhouse gas emissions, both the executive act of ratification and those legislative measures which implement the Protocol can be characterised as measures that are "necessary" for the protection and conservation of the GBRWHA within the meaning of Article 5(d).

5.2. Australia's Actions in Negotiations on the Kyoto Protocol

66. The Kyoto Protocol to the FCCC was adopted in December 1997 at the third Conference of the Parties to the FCCC ('COP3') and was opened for signature on 16 March 1998. It was the product of negotiations initiated at the first Conference of the Parties ('COP1') held in Berlin in 1995. The "Berlin Mandate" negotiations, which were principally conducted through the Ad-Hoc Group on the Berlin Mandate, sought to elaborate a protocol or another legal instrument incorporating quantified limitation and reduction objectives within specified timeframes for Annex I parties to the FCCC.
67. During the course of these negotiations, Australia broadly opposed the adoption of an agreement which would include binding reduction commitments for Annex I parties without similar commitments from developing countries. Australia also insisted that any agreed text must accommodate Australia's economic dependence on fossil-fuels and the resource sector and the significant contribution of land use changes to Australia's greenhouse gas signature.
68. At COP3 in December 1997, Australia secured two significant concessions in the final text of the Kyoto Protocol. First, although most Annex I parties were allocated emissions reduction targets (the United States, for instance, committed to a 7 per cent reduction in greenhouse gases from 1990 levels), Australia successfully sought permission to increase greenhouse gases to 108 per cent of 1990 levels during the first commitment period (2008-2012). Second, Australia secured an amendment to Article 3(7) of the Kyoto Protocol in order to include net greenhouse gas emissions from land use change and forestry in Australia's 1990 emissions base year. The effect of this provision is that Australia is able to meet its Kyoto target primarily through reductions in forest cover removal without substantial reductions in industrial sector emissions.
69. Since the Kyoto Protocol was adopted at COP3, negotiations have continued on rules, methodologies and guidelines for the implementation of the Protocol. At the COP7 in November 2001 these were incorporated in the agreed 'Marrakesh Accords' which translated the political agreements reached at the resumed session of the sixth Conference of the Parties ('COP6') in Bonn in July 2001 (the 'Bonn Agreements') into a legal text.
70. Consistent with international treaty law, a State party to a treaty is required to perform its obligations in good faith. In the *Nuclear Tests cases* [64] the International Court of Justice observed that:

"one of the basic principles governing the creation and performance of legal obligations, whatever their source, is the principle of good faith. Trust and confidence are inherent in international co-operation, in particular in an age when this co-operation in many fields is becoming increasingly essential."

Australia must therefore refrain from entering into international agreements that are inconsistent with Australia's existing obligations under the World Heritage Convention.

71. It can be argued that in participating in the COP3 negotiations, prior to the adoption of the Kyoto Protocol, Australia was required to adhere not only to the strict terms of its obligations under the World Heritage Convention, but was also required to negotiate in good faith having regard to the object and purpose of the Convention.
72. It is arguable that Australia's stance on several issues in negotiations prior, and subsequent to, the adoption of the Kyoto Protocol at COP3 raises serious questions as to Australia's commitment to comply in good faith with the requirements of the World Heritage Convention. However, it is not possible to argue that Australia's conduct in these negotiations amounts to a clear breach of Australia's obligations under the World Heritage Convention as the effects of climate change on the GBRWHA were not then as widely recognised and understood as they are today.
73. Given the sensitivity of the GBRWHA to the effects of climate change, future negotiations within, or outside of, the FCCC and the Kyoto Protocol are likely to have an impact upon the performance of Australia's obligations under the World Heritage Convention. In order to ensure that Australia complies fully, and in good faith, with its commitments under the World Heritage Convention, the Australian Government must ensure that it does not advocate or support measures that will exacerbate the deterioration of the GBRWHA. Australia cannot negotiate in such a way as to undermine its obligations under the World Heritage Convention.
74. Accordingly it can be argued that, consistent with the principle of good faith, Australia could not adopt an unreasonable position that would prevent the conclusion of an effective international legal framework to address climate change. Similarly in the consideration of binding targets for the second commitment period under the Kyoto Protocol (which must commence in 2005 [65]) Australia must engage in good faith in the negotiations in order to promote an outcome that offers a beneficial outcome for the long-term maintenance of the World Heritage values of the GBRWHA. Moreover it is arguable that in relation to the GBRWHA, and other properties sensitive to climate change, Articles 4 and 6 of the World Heritage Convention require the Australian Government both to encourage all States Parties to reduce their greenhouse gas emissions beyond their current commitments and to assist Annex II parties to the FCCC to pursue substantial reductions in their greenhouse gas emissions.

5.3. Australia's Failure to Commit to 'Deep Cuts' in Greenhouse Gas Emissions

75. Although Australia's failure to ratify the Kyoto Protocol is argued in this Report to constitute a violation of Articles 4 and 5 the World Heritage Convention, neither Australia's stated objective of meeting its Kyoto emissions target nor its ratification of the Protocol will necessarily entail the complete discharge of Australia's obligations under the World Heritage Convention, given the significance of the threat posed by climate change to the integrity of the GBRWHA.
76. Ratification of the Kyoto Protocol, and the implementation of its provisions in Australian law, are arguably "necessary" legal measures required by Article 5(d) of the World Heritage Convention. However, it can be argued that further measures are required in order to satisfy Article 4 of the Convention which obliges contracting parties to do all that they can "to the utmost of their resources" to ensure the identification, protection, conservation and transmission to future generations of the heritage values of the GBRWHA.
77. Such additional measures conceivably include significant reductions by Australia of its greenhouse gas emissions. However, the determination as to whether Australia has adopted appropriate measures to the "utmost" of Australia's resources is a complex and difficult legal question of fact and degree. In addition, the World Heritage Convention leaves significant discretion to States Parties in adopting appropriate policies in response to threats to world cultural and natural heritage. For these reasons it is not possible to identify with any precision a level of emissions reductions required of Australia by the operation of Article 4 of the World Heritage Convention.
78. Nonetheless it can be argued that Australia's decision not to commit to any reduction in greenhouse gases below its 1990 baseline emissions level constitutes a clear failure to comply fully with Article 4 of the World Heritage Convention, on the assumption that it is within the resources of the Australian Government to pursue more significant cuts (an assumption which appears to be confirmed by the willingness of Australian State Governments to adopt greenhouse gas abatement programs independently of the Australian Government). At the very least, in order to demonstrate that it is complying with the World Heritage Convention in full and in good faith, the Australian Government should justify publicly why it is not within Australia's resources to pursue deep cuts in its greenhouse gas emissions, if it believes this to be the case.

5.4. The Obligations of Other States under the World Heritage Convention in Relation to the Great Barrier Reef

79. Under the World Heritage Convention, the duty of identifying, protecting, conserving, presenting and transmitting to future generations the world cultural and natural heritage belongs primarily to the State upon which heritage properties are situated (Article 4).
80. However the Convention recognises that cultural and natural heritage of outstanding universal value constitutes a world heritage "for whose protection it is the duty of the international community as a whole to cooperate." (Article 6(1)). For this reason each State Party undertakes to provide, when requested,

- assistance to other States Parties in the identification, protection, conservation and preservation of world heritage properties (Article 6(2)).
81. In addition each State Party "undertakes not to take any deliberate measures which might damage directly or indirectly" world heritage properties situated in the territory of other States Parties (Article 6(3)).
 82. The reference in Article 6(3) to "deliberate measures" indicates that States Parties undertake only to avoid positive conduct that may have the direct or indirect effect of damaging world heritage properties. The travaux préparatoires reveal that the words "deliberate measures" were inserted in the provision so as to ensure that States Parties would not be strictly liable for unintentional damage caused by pollution or other environmental impacts.^[66]
 83. However, in our view anthropogenic greenhouse gas emissions cannot be understood as unintentional pollution of this character. This is because there is broad scientific consensus that anthropogenic greenhouse gas emissions are a major cause of the climate change which is leading to coral bleaching of the Great Barrier Reef. On this basis it can be argued that States Parties to the World Heritage Convention must endeavour, both individually and in co-operation with other States Parties, to ensure that emissions of greenhouse gases and other pollutants are controlled so as to minimise the potential deterioration of the GBRWHA.

5.5. Whether Australia is Required to Report its Climate Change Policies to the General Conference of UNESCO

Reporting Obligations under the World Heritage Convention and Operational Guidelines

84. One of the essential functions of the World Heritage Committee is to monitor the state of the conservation of properties inscribed upon the World Heritage List, in liaison with State Parties (Operational Guidelines, paragraph 3(ii)).
85. Under Article 29(1) of the World Heritage Convention, States Parties are required, in the reports which they submit to the General Conference of UNESCO, to "give information on the legislative and administrative provisions which they have adopted and other action which they have taken for the application of [the] Convention." These reports must be brought to the attention of the World Heritage Committee (Article 29(2)).

Reactive Monitoring

86. The Operational Guidelines for the Implementation of the World Heritage Convention specify two additional types of reporting obligations: "reactive monitoring" and "periodic reporting".
87. Paragraph 68 of the Operational Guidelines provides that reactive monitoring is reporting undertaken by the World Heritage Centre, other sectors of UNESCO and the IUCN and other advisory bodies to the Bureau and the Committee on the state of specific World Heritage properties that are under threat. This reporting may occur without the consent or support of the State Party in which the property is located. However, to facilitate this process, paragraph 68 requires States Parties to submit to the UNESCO World Heritage Centre specific reports and impact studies each time exceptional circumstances occur or work is undertaken which may have an effect on the state of conservation of the property. State Party reports are therefore required to be submitted if and when threats to the conservation of a World Heritage property arise.
88. Reactive monitoring is foreseen in the Operational Guidelines as an initial step in the procedure for the inclusion of properties in the List of World Heritage in Danger or in the eventual deletion of a property from the World Heritage List (paragraph 68).

Periodic Reporting

89. In relation to periodic reporting, paragraph 73 of the Operational Guidelines invites States Parties to submit periodic reports, every six years, on the application of the World Heritage Convention including the state of conservation of the World Heritage properties located in its territories. The Operational Guidelines envisage that national reports will be synthesised by region and then considered as a whole for each region (paragraph 74).
90. Paragraph 71 specifies the objectives of periodic reporting, which are to assess the overall application of the World Heritage Convention by States Parties and to assess whether the World Heritage values for which a property was inscribed on the World Heritage List are maintained over time.
91. Paragraph 77 sets out the recommended format and content of periodic reports. Periodic reports are to comprise two sections. Section I is to include the State Party's report on the application of the World Heritage Convention. Section II is to include a report on the state of conservation of specific World Heritage properties located on the State Party's territory. The main objective of Section II is to obtain an assessment as to whether the World Heritage values for which a property was inscribed on the World Heritage List are maintained over time. States Parties are also requested to provide up to date information on management regimes, factors affecting the property, and monitoring arrangements.

Monitoring and Reporting Obligations in Relation to the GBRWHA

92. In our view the effects of climate change upon the GBRWHA and the policies of the Australian Government in relation to climate change are clearly matters that may be the subject of both reactive monitoring and periodic reporting.
93. In relation to reactive monitoring, it is open to the World Heritage Centre, other sectors of UNESCO and the IUCN to furnish the World Heritage Bureau and the World Heritage Committee with information concerning the impacts of climate change on the GBRWHA and the Australian Government's climate change policies. Such a report or series of reports may be prepared with or without the consent and cooperation of the Australian Government.
94. As part of the reactive monitoring process, Australia may also be requested to report to the World Heritage Bureau upon the effects of climate change on the GBRWHA and Australia's climate change policies. In this respect we note that the Bureau has in the past sought details from Australia concerning impacts upon the GBRWHA (such as, for instance, in relation to the grounding of a vessel in the GBRWHA on 9 November 2000).
95. If requested to provide a report, Australia is obliged to comply with the terms of that request in full. Matters in relation to which the World Heritage Committee and World Heritage Bureau may seek details from Australia could include: (a) the effects of the 1998 and 2002 coral bleaching events upon the state of conservation of the GBRWHA; (b) an assessment of the likely future effects of climate change upon the World Heritage values of the GBRWHA; and (c) details of policy measures adopted by the Australian Government to address climate change.
96. In relation to periodic reporting, it can strongly be argued that the Australian Government is required to furnish the World Heritage Committee with information concerning the impact of climate change on the GBRWHA and the effectiveness of Australia's climate change policies in addressing these impacts.
97. We have noted that, in relation to periodic State Party reports, the Operational Guidelines require the information provided by States Parties to be divided into two sections. It can be argued that, in its periodic reports on the GBRWHA, the Australian Government should include the following information on its management of the GBRWHA in order to meet the requirements of paragraph 78 of the Operational Guidelines:
 - In section I.3 of the periodic report, information and documentation concerning the Australian Government's development of climate change policy should be included by way of addressing issues of general policy development (section I.3.a) and relevant measures for the protection, conservation, presentation and rehabilitation of the GBRWHA (section I.3.d). In section I.4 of the report ("International Co-operation and Fund Raising") the Australian Government should include details of its policy with respect to ratification of the Kyoto Protocol, the only currently existing international framework incorporating binding commitments for reductions of greenhouse gas emissions;
 - In section II.3 the periodic report should provide an assessment of the extent to which the integrity of the GBRWHA has been impaired by the effects of climate change. In section II.5 the periodic report should identify the effects of climate change upon the GBRWHA to date and identify the magnitude of the future threat of climate change to the integrity of the property.

5.6. World Heritage in Danger and Deletion from the World Heritage List

GBRWHA as World Heritage in Danger

98. Under Article 11(4) of the World Heritage Convention the World Heritage Committee is required to establish, keep up to date and publish a List of World Heritage in Danger comprising those properties for the conservation of which major operations are necessary and for which assistance has been requested under the Convention. Article 11(4) further provides:

"The list may include only such property forming part of the cultural and natural heritage as is threatened by serious and specific dangers, such as 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."
99. Under Article 11(4) it is a matter solely within the discretion of the World Heritage Committee to decide whether a property in the World Heritage List is to be included in the List of World Heritage in Danger. Such a decision may be made without the consent of the State Party on whose territory the property is situated.
100. The Secretariat is responsible for ascertaining the condition of a property that is threatened and the feasibility of taking corrective measures. The Committee may further decide to send a mission of qualified observers from IUCN or other organisations to visit the property, evaluate the nature and extent of the threats and propose preventative or corrective measures to be taken in response (Operational Guidelines, paragraph 87).
101. We note that the reactive monitoring and periodic reporting procedures are an important means by which the World Heritage Committee may obtain information concerning the state of the World Heritage property concerned, the actions of the relevant State Party in protecting and conserving the property, and the feasibility of preventative and corrective measures.

102. Under Article 11(4) of the Convention, if the GRBWH satisfies the relevant criteria for inclusion in the List of World Heritage in Danger, the World Heritage Committee may decide upon its inclusion notwithstanding any contrary views of the Australian Government. However we note that a decision by the Committee inscribing a property on the List of World Heritage in Danger must be taken by a majority of two-thirds of the Committee members present and voting (Operational Guidelines, paragraph 89).

Criteria for Inclusion in List of World Heritage In Danger

103. Paragraph 80 of the Operational Guidelines provides that the World Heritage Committee may include a property on the List of World Heritage in Danger if (i) the property is on the World Heritage List; (ii) the property is threatened by "serious and specific danger"; (iii) major operations are necessary for the conservation of the property; (iv) and a request for assistance has been made. Assistance may be requested by any Committee member, or by the Secretariat.
104. Properties may be included in the List of World Heritage in Danger if they meet the criteria set out in paragraph 83 as being in either "Ascertained" or "Potential" danger. An Ascertained Danger is specified in paragraph 83(i) as being a specific and proven imminent danger. This includes:
- a. "A serious decline in the population of the endangered species or the other species of outstanding universal value which the property was legally established to protect, either by natural factors such as disease or by man-made factors such as poaching"; or
 - b. "Severe deterioration of the natural beauty or scientific value of the property, as by human settlement, construction of reservoirs which flood important parts of the property, industrial and agricultural development including use of pesticides and fertilizers, major public works, mining, pollution, logging, firewood collection, etc."
105. A Potential Danger is a major threat which could have deleterious effects on the inherent characteristics of the property (paragraph 83(ii)). Examples given in paragraph 83(ii) include:
- o "A modification of the legal protective status of the area"; and
 - o "The management plan is lacking or inadequate, or not fully implemented."
106. The factor or factors threatening the integrity of the property must be those which are amenable to correction by human action (paragraph 84).
107. Paragraph 85 provides that in considering the inclusion of a property in the List of World Heritage in Danger the World Heritage Committee "may wish to bear in mind" several "supplementary factors" in addition to these criteria. These supplementary factors include (emphasis in original):
- "... .."
- b. Particularly in the case of *ascertained danger*, the physical or cultural deteriorations to which a property has been subjected should be judged according to the intensity of its effects and analysed case by case.
 - c. Above all in the case of *potential danger* to a property, one should consider that:
 - o the threat should be appraised according to the normal evolution of the social and economic framework in which the property is situated;
 - o it is often impossible to assess certain threats...as to their effect on cultural and natural properties;
 - o some threats are not imminent in nature, but can only be anticipated, such as demographic growth.
 - d. Finally, in its appraisal the Committee should take into account *any cause of unknown or unexpected origin* which engenders a cultural or natural property."
108. The deterioration of the GRBWH as a result of climate change may be considered to constitute both an ascertained and a potential danger. Climate change is very clearly a "serious and specific danger" to the GRBWH (Operational Guidelines, paragraph 80). Although the GRBWH has already, and will continue, to sustain damage as a result of increased sea temperatures, the threat of climate change to the integrity of the property is amenable to correction by human action, albeit on a long-term basis (Operational Guidelines, paragraph 84).
109. The deterioration in the condition of the GRBWH as a result of climate change clearly meets the criteria for the establishment of an "ascertained danger." (Operational Guidelines, paragraph 83).
110. The GRBWH is faced with the "specific and proven imminent danger" of deterioration (Operational Guidelines, paragraph 83). The Great Barrier Reef coral bleaching events of 1998 and 2002 amount to both (a) a "serious decline" in living coral colonies and dependent species that are organisms of outstanding universal value which the GRBWH was established to protect; and (b) a "severe deterioration of the natural beauty or scientific value [of the GRBWH as a result of] pollution" (Operational Guidelines, paragraph 83(i)(b)). In addition, in relation to the supplementary factors which the World Heritage Committee may refer to when considering the inclusion of a property in the List of World Heritage in Danger, we note that the widespread nature of the coral bleaching events in 1998 and 2002 suggest a high degree of intensity in the effects of climate change (Operational Guidelines, paragraph 85(b)).
111. Climate change is also a "potential danger" to the GRBWH (Operational Guidelines, paragraph 83(ii)) and the strong likelihood of further climate-change induced damage to the GRBWH may be considered by the World Heritage Committee to justify the inclusion of the GRBWH on the List of World Heritage in Danger. On the basis of substantial predicted declines in coral populations as a result of climate change, the GRBWH evidently faces "major threats which could have deleterious effects on its inherent characteristics" (Operational Guidelines, paragraph 83(ii)).
112. Furthermore we note that a "potential danger" may arise where a State Party to the World Heritage Convention has not taken adequate steps to protect and conserve a world heritage property through failing, for instance, to establish and implement a management plan addressing all of the threats to the property (Operational Guidelines, paragraph 83(ii)(d)). Hence the World Heritage Committee could determine that the GRBWH should be placed on the List of World Heritage in Danger on the grounds that the Australian Government has not developed an appropriate and effective response to climate change through ratification of the Kyoto Protocol and a commitment to substantial reductions in greenhouse gas emissions.
113. If the World Heritage Committee considers that the GRBWH should be listed on the List of World Heritage in Danger (a conclusion which, in our view, is clearly open to the Committee) then the Committee is required to develop and adopt, as far as possible and in consultation with Australia, a programme for corrective measures (Operational Guidelines, paragraph 86). In order to develop a programme for corrective measures the Committee may be assisted by proposals by the IUCN (Operational Guidelines, paragraph 87). Following the definition by the Committee of any programme for corrective action, the Committee is required to propose the programme to Australia for immediate implementation (Operational Guidelines, paragraph 87).
114. If the World Heritage Committee decides to inscribe the GRBWH on the List of World Heritage in Danger, then it is required to undertake regular reviews of the property to determine whether (i) additional measures are required to conserve the GRBWH; (ii) to delete the GRBWH from the List of World Heritage in Danger if the property is no longer under threat; or (iii) to consider the deletion of the GRBWH from both the List of World Heritage in Danger (and the World Heritage List) if it has deteriorated to the extent that it has lost those characteristics which determined its inclusion in the World Heritage List (Operational Guidelines, paragraph 93).

21 September 2004

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DISCLAIMER

This Report considers the obligations of the Australian Government under public international law in relation to the Great Barrier Reef World Heritage Area. It does not purport to provide any advice of a legal character concerning questions of Australian law, and the Report should not be relied upon for the purpose of any legal process or proceedings.

References

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40. *Commonwealth v Tasmania* (1982-83) 46 ALR 625 per Mason J at 697-699, Murphy J at 735, Brennan J at 777-779 and Deane J at 807-808. Dawson J was prepared to assume that the provisions of the World Heritage Convention were obligatory for the purposes of the arguments of the Commonwealth concerning the external affairs power (at 846). Only Gibbs CJ (at 660-663) and Wilson J (at 745-747) expressed the view that Articles 4 and 5 did not impose binding obligations upon Australia.
41. *Ibid* at 698.
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44. Vienna Convention on the Law of Treaties, Article 32. See also *Commonwealth v Tasmania* (1982-83) 46 ALR 625 at 775 per Brennan J. See generally J G Starke, "The High Court and Travaux Préparatoires in the Interpretation of Treaties" (1983) 57 *Australian Law Journal* 592. Travaux préparatoires are preliminary documents which show the preparatory work undertaken in relation to a treaty.
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47. An example of which is the 1982 United Nations Convention on the Law of the Sea [1994] ATS 31 (with respect to marine World Heritage Areas) and the 1992 Convention on Biological Diversity [1993] ATS 32 which applies both to terrestrial and marine biodiversity.
48. Vienna Convention on the Law of Treaties, Article 27; Articles on Responsibility of States for Internationally Wrongful Acts, annexed to UNGA Res 56/83, 12 December 2001, Article 32.
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50. Reproduced in James Crawford, *The International Law Commission's Articles on State Responsibility* (Cambridge: Cambridge University Press, 2002) 125.
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52. That is the obligation under treaty law owed by all State Parties to each other to implement the treaty obligations in good faith.
53. Articles on State Responsibility, Article 1.
54. Articles on State Responsibility, Article 30.
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56. Kyoto Protocol, Article 25.
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58. The IPCC has concluded that "several centuries after carbon dioxide emissions occur, about a quarter of the increase in carbon dioxide concentration caused by these emissions is still present in the atmosphere" in J T Houghton et al (eds), *Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2001) 17.
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64. *Nuclear Tests Case (Australia v France)* [1974] ICJ Rep 253, 268; *Nuclear Tests Case (New Zealand v France)* [1974] ICJ Rep 457, 473.
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66. Meyer, above n 45, 52.

