

# Climate Change & the World Heritage Convention:

A Handbook for Low-lying Island States



The International Environmental Law Project (IELP) is a legal clinic at Lewis & Clark Law School that works to develop, implement, and enforce international environmental law. IELP works on a range of issues, including wildlife conservation, climate change, oceans and fisheries, and issues relating to trade and the environment.

For more information, contact:

Erica Lyman  
Clinical Professor of Law  
International Environmental Law Project  
Lewis & Clark Law School  
10015 SW Terwilliger Blvd  
Portland, OR 97219 USA  
TEL +1-503-768-6734  
FX +1-503-768-6671  
E-mail: [ejt@lclark.edu](mailto:ejt@lclark.edu)  
[law.lclark.edu/org/ielp](http://law.lclark.edu/org/ielp)

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Lead Authors: Erica Lyman, Karen Barnett, Sara Foroshani, and Danielle Shaw

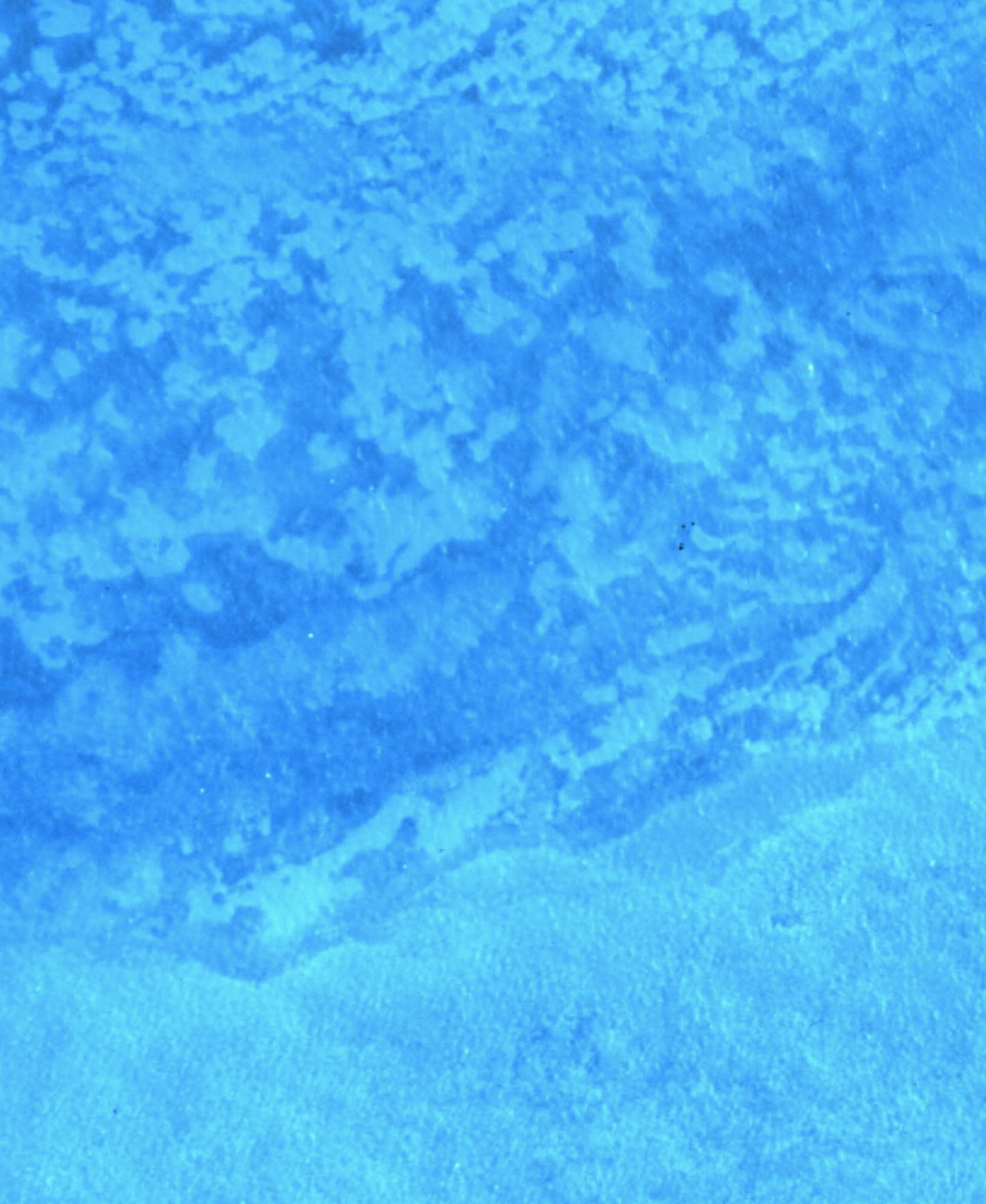
Photos: Tuvalu (front cover, bottom left), courtesy of Gary Braasch.  
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The Maldives (front cover, top, and back cover).

This Handbook is printed on 30% post-consumer recycled paper.



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# Preface

When a rich cultural tradition is lost, a historic monument destroyed, or one of earth's great natural areas damaged, humanity itself is diminished. In recognition of this, nations come together through the World Heritage Convention to protect sites of cultural and natural importance throughout the world. For 35 years, the World Heritage Convention has formally recognized and sought to protect areas of "outstanding universal value." It has become one of the most widely ratified multilateral treaties of all time.

At no point in human history has so much World Heritage been threatened as it is presently. Climate change is altering the earth in countless ways, many of which we are just beginning to understand. While climate change is a global threat, few areas are as immediately imperiled as low-lying island States.

The purpose of this Handbook is to provide a detailed explanation of the functions and processes of the World Heritage Convention, including the nomination and listing processes and the role of a State Party once a site is listed. The Handbook also provides an overview of climate change as it relates to low-lying island States and a brief examination of the World Heritage Convention's response to climate change thus far. The World Heritage Convention provides opportunities for capacity-building, education, funding, and management support for World Heritage sites. Thus, it is hoped that this Handbook will assist low-lying island States in their consideration of the World Heritage Convention as one tool to address the effects of climate change.

Aerial photo of coral reef, courtesy of Sean Linehan, National Oceanic Atmospheric Administration/Department of Commerce.

## Introduction to the World Heritage Convention

Photos: Fels Cave Drawings, courtesy of Phillip Capper (WikiCommons).  
Aswan Dam (opposite page, right), courtesy of The Egyptian (WikiCommons).  
Nubian temples (opposite page, left), courtesy of the UNESCO Courier, Dec. 1964.

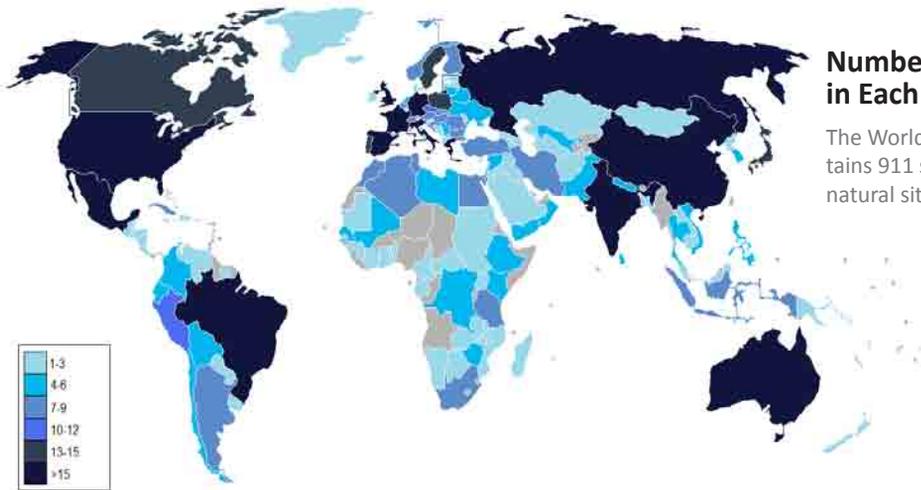
The Convention Concerning the Protection of the World Cultural and Natural Heritage, known as the World Heritage Convention, arose out of the global community's growing awareness of threats to cultural and natural sites around the world. In the 1950s, Egypt made plans to build the Aswan Dam and thereby flood a valley containing Nubian temples dating to the 13th Century B.C. An international campaign to save the temples was launched with the assistance of the United Nations Educational, Scientific, and Cultural Organization (UNESCO).

As a result, the temples were dismantled and reassembled in a safe location on higher ground. During the following years, UNESCO undertook similar projects to protect cultural heritage, eventually prompting the UNESCO General Conference to draft a convention to protect such sites. The World Heritage Convention entered into

force on 17 December 1975. Since then, 187 States have joined the treaty.

The World Heritage Convention identifies, protects, and preserves areas of cultural and natural heritage considered to be of "outstanding universal value" to humanity. The Convention creates a mechanism for the collective recognition and protection of these sites, known as the World Heritage List.

Articles 1 and 2 of the Convention create two broad categories of World Heritage sites: 1) cultural sites, which include human-made architectural works, cave art, and areas of significance to human traditions, and 2) natural sites, which include geologic formations, physical features, and natural areas. Once listed, States Parties must protect and manage World Heritage Sites.



### Number of World Heritage Sites in Each Country

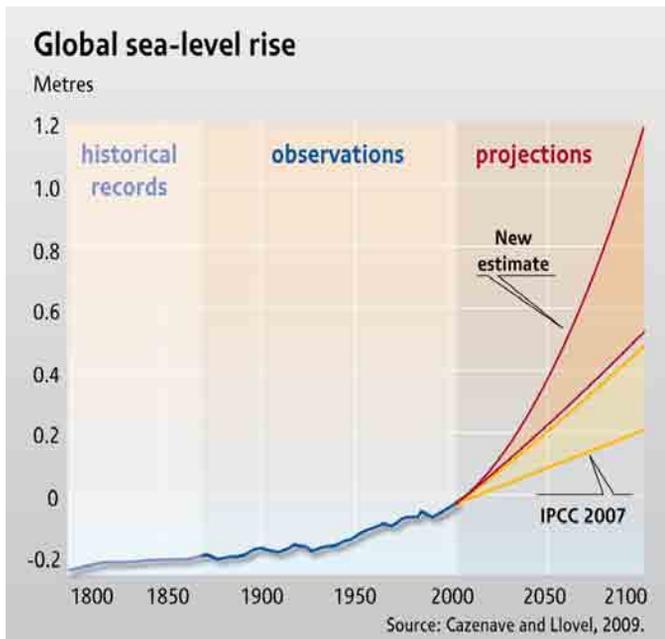
The World Heritage List currently contains 911 sites: 704 cultural sites, 180 natural sites, and 27 mixed sites.



# Climate Change and Low-lying Island States

Throughout the world, climate change threatens World Heritage sites in many ways. From London's Big Ben to the glaciers of Nepal, from Australia's Great Barrier Reef to South Africa's Cape Floral Region, our cultural and natural heritage is experiencing the effects of climate change. Few World Heritage sites will remain untouched.

In its 2007 Fourth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) found the warming of the planet to be "unequivocal" and that temperature increases since the mid-twentieth century are "very likely" due to human causes, namely increases in greenhouse gas emissions. The atmospheric concentrations of carbon dioxide, the most prevalent greenhouse gas, has increased in atmospheric concentration from 278 parts per million (ppm) at the time of the industrial revolution to 388 ppm in 2010. Increases in greenhouse gas concentrations have a corresponding impact on temperature. According to the IPCC, global average temperature has already increased from 0.2 to 0.6°C since pre-industrial levels.



Contemporary sea level rise, in Cazenave, A. & Llovel, W., Annual Review of Marine Science (2009).



Effects of King Tides in Tuvalu, photos courtesy of Gary Braasch.

Low-lying island States are likely to suffer disproportionately the adverse effects of climate change. The 2007 IPCC Report predicts that by 2100, global warming will lead to a sea level rise of 0.18 to 0.59 meters. However, according to a 2010 report from the National Academy of Sciences, predications now indicate sea levels will rise 0.5 to 1.5 meters.

Many low-lying island States rest only a few meters above sea level. Because of climate change, the continued habitability of many of these uniquely situated countries is in jeopardy. The IPCC Fourth Assessment Report describes the effects climate change will have on low-lying island States as including the following:

- Salt water intrusion into aquifers, which negatively impacts fresh-water tables, causing shortages in drinking water.
- Salination caused by king tides and storm surges resulting in significant damage to agricultural land.
- Loss of trees and mangrove forests due to salination and storm events.
- Salt water inundation of wetlands, rivers, and inland lakes.
- Increased beach erosion leading to significant loss of territory. This is exacerbated by the loss of trees due to storms and salination.
- Rising sea surface temperatures, which causes bleaching of coral reefs and leads to the destruction of fishery habitats, a major source of livelihoods. The loss of coral reefs also causes reduced storm surge protection.
- Stronger tropical storms and cyclones, which damage coastlines, buildings, and infrastructure.
- Changes in precipitation that cause drought, affecting already limited drinking water and agriculture.
- Increases in pests and disease rates.
- Decreases in tourism revenue.

## The Convention's Response to Climate Change



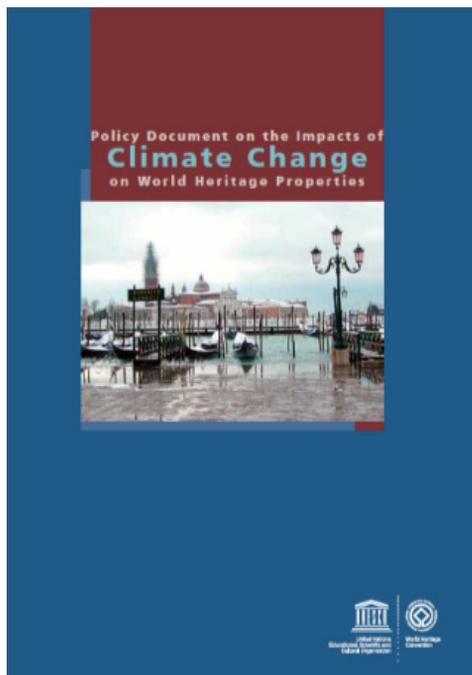
Between 2004 and 2006, the World Heritage Committee, the main decision-making body of the World Heritage Convention, received five petitions to include sites on the List of World Heritage in Danger (discussed on page 20) because of the effects of climate change. The five petitions included the Sagarmatha National Park in Nepal, the Huascarán National Park in Peru, the Great Barrier Reef in Australia, the Belize Barrier Reef Reserve System in Belize, and Waterton-Glacier International Peace Park in the United States and Canada. The petitions alleged that climate change is a significant threat to the integrity of these World Heritage sites. Two of the petitions focused on coral bleaching, and the other three focused on glacial melting. Another petition, in 2009, highlighted the threat of black carbon to World Heritage sites affected by glacial melt and sea-level rise.

Although the Committee did not include these sites on the List of World Heritage in Danger, it adopted a decision in 2005 recognizing the threat of climate change to the integrity of World Heritage sites and encouraging States Parties and the Advisory Bodies “to use the network of World Heritage sites to highlight the threats [posed] by climate change to natural and cultural heritage.”

Additionally, the Committee requested that the Secretariat create a working group of experts to study the effects of climate change on World Heritage sites. The working group met in March 2006 and produced two documents: a Joint Report on “Predicting and Managing the Effects of Climate Change on World Heritage” and a “Strategy to Assist States Parties to Implement Management Responses.”

The Joint Report provides a detailed assessment of the potential effects of climate change on World Heritage sites, emphasizing the importance of site-specific mitigation and adaptation for addressing the threat of climate change. The Strategy presented site-specific mitigation and adaptation options, including research and education, rigorous monitoring, and emergency preparedness.

After review of the Strategy at the 30th session of the World Heritage Committee in 2006, the Committee requested that States Parties implement the Strategy in order to protect World Heritage sites from the adverse effects of climate change. Additionally, the Committee requested that the World Heritage Centre develop a “Policy Document on the Impacts of Climate Change on World Heritage Properties” for presentation at the 31st session of the World Heritage Committee. The Policy Document outlines a number of ways in which World Heritage Convention mechanisms might help address the effects of climate change. The General Assembly of States Parties adopted the Policy Document in 2008.



## Climate Change at the 2010 World Heritage Committee Meeting

At its 34th session, the World Heritage Committee adopted several decisions that demonstrate a broad recognition of the threat climate change poses to World Heritage sites. These decisions make clear that the World Heritage Convention offers several management options for addressing the effects of climate change.

During this session, the Committee encouraged States Parties to consider taking a number of specific actions to manage the effects of climate change. For example:

- The United States and Canada were encouraged to share experiences in the development of climate change mitigation and adaptation strategies at Waterton-Glacier International Peace Park with other States Parties.
- The Committee urged the Russian Federation to monitor the effects of climate change on Lake Baikal and recommended setting up a long-term scientific research and monitoring program to document the effects of climate change at the Putorana Plateau site.
- In the case of the Everglades National Park in the United States, the Committee noted that it considers rapid implementation of restoration projects as “the single most effective strategy to preserve the Everglades aquatic ecosystem in the face of climate change and sea level rise.”

**“The impacts of climate change are affecting many and are likely to affect many more World Heritage properties, both natural and cultural in the years to come.”**

World Heritage Committee  
Decision, 29 COM 7B.a

# Structure of the World Heritage Convention

The World Heritage Convention includes several bodies to facilitate its implementation. These include the General Assembly of States Parties, the World Heritage Committee, Advisory Bodies to the World Heritage Committee, and the UNESCO World Heritage Centre, which acts as Secretariat.

## The General Assembly of States Parties

The General Assembly of States Parties to the World Heritage Convention meets during the sessions of the UNESCO General Conference. The General Assembly determines the percentage of contributions to the World Heritage Fund applicable to all States Parties and elects new members to the World Heritage Committee.

## The World Heritage Committee

The entity charged with implementing the World Heritage Convention is the Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value, otherwise known as the World Heritage Committee. The Committee acts as the Convention's decision-making body and is responsible for the following:

- (1) establishing and maintaining the World Heritage List and the List of World Heritage in Danger;
- (2) monitoring the state of conservation of sites included on the List;

(3) managing the World Heritage Fund and requests for assistance by States Parties; and

(4) reviewing the implementation of the Convention and reporting to the General Assembly of States Parties and UNESCO.

The Committee, which meets annually, includes representatives of twenty-one States Parties elected by the General Assembly of States Parties and serving terms of up to six years. However, committee members often voluntarily reduce their terms to four years to ensure equitable representation. The Committee reports to the General Assembly of States Parties and the UNESCO General Conference on its activities.

The World Heritage Committee adopted the Operational Guidelines to provide direction for the Committee and States Parties regarding implementation of the World Heritage Convention. Because of the importance of the Operational Guidelines for implementing the Convention, this Handbook provides references to relevant sections.

## Bureau of the World Heritage Committee

The Bureau coordinates the work of the Committee and sets the time and order of business for meetings. The Bureau comprises representatives of seven States Parties elected annually by the Committee.

**“The World Heritage Centre and the Advisory Bodies will cooperate with States Parties . . . during the reactive monitoring and periodic reporting processes and in research activities, so that the impacts of, adaptation to, and mitigation of climate change are properly assessed, reported and managed.”**

Policy Document on the Impacts of Climate Change on World Heritage Properties, the World Heritage Centre

### The World Heritage Centre

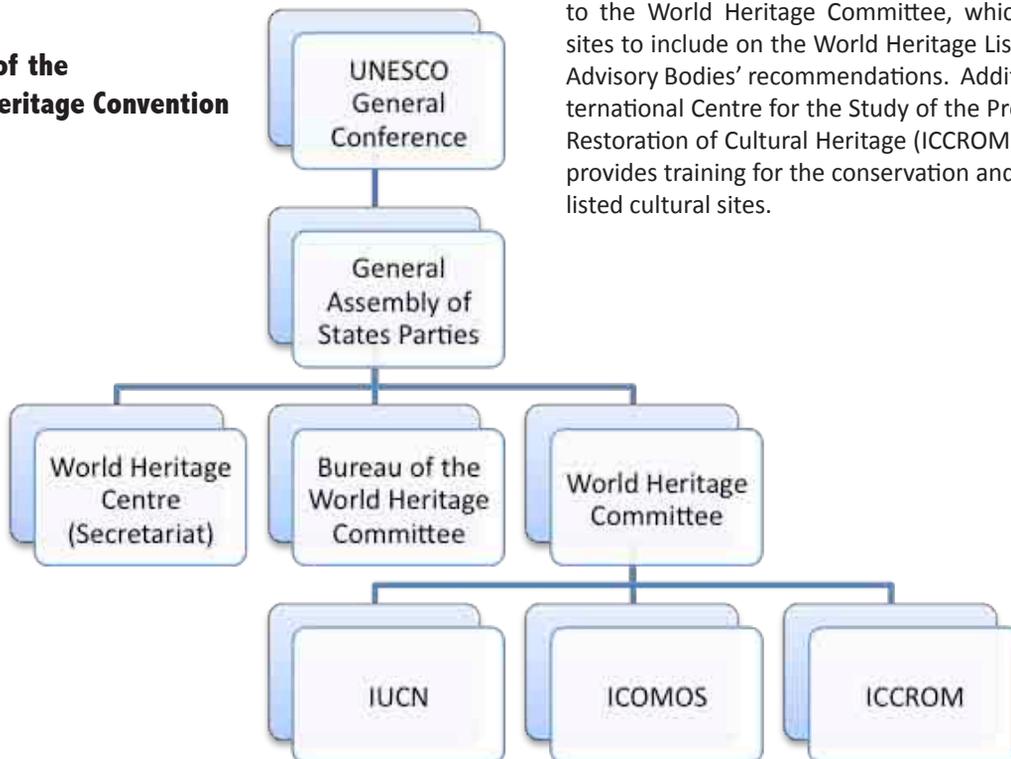
Article 14 of the Convention provides for a Secretariat to facilitate the World Heritage Committee's functioning and to implement its decisions. In 1992, the World Heritage Centre was created to fulfill this function. The World Heritage Centre manages the day-to-day operation of the Convention. It organizes the annual sessions of the General Assembly of States Parties and of the World Heritage Committee, provides advice to States Parties in the preparation of site nominations, coordinates international assistance from the World Heritage Fund, and facilitates monitoring and reporting on the condition of sites and the emergency action undertaken when a site is threatened. The Centre also organizes technical seminars and workshops, updates the World Heritage List and database, develops teaching materials, and keeps the public informed of World Heritage issues.

### Advisory Bodies

The World Heritage Committee is assisted by three international organizations specifically named in Article 13(7) of the Convention. The Advisory Bodies advise the Committee on the implementation of the World Heritage Convention in the field of their expertise, monitor the state of conservation of World Heritage sites, and review requests for international assistance. The Advisory Bodies attend meetings of the World Heritage Committee in an advisory capacity and assist the World Heritage Centre with some of its functions, including the preparation of the Committee's documentation and implementation of the Committee's decisions.

Two of the advisory bodies evaluate sites nominated for inscription on the World Heritage List and monitor listed sites. The World Conservation Union (IUCN) evaluates and monitors natural sites and the International Council on Monuments and Sites (ICOMOS) evaluates and monitors cultural sites. IUCN and ICOMOS present evaluations to the World Heritage Committee, which decides the sites to include on the World Heritage List based on the Advisory Bodies' recommendations. Additionally, the International Centre for the Study of the Preservation and Restoration of Cultural Heritage (ICCROM) monitors and provides training for the conservation and restoration of listed cultural sites.

### Bodies of the World Heritage Convention



## Nominating Sites to the World Heritage List

Under Article 3 of the World Heritage Convention, only States Parties to the Convention may nominate sites for inclusion on the World Heritage List. If a State is not a party to the Convention, its first step toward nominating a site is to accede to or ratify the Convention. Annex 1 of the Operational Guidelines contains model instruments of Ratification/Acceptance and Accession. The Convention enters into force with respect to any newly ratifying State Party three months after the deposit of its instrument of ratification.

### The Tentative List

Prior to nominating a particular site for inclusion on the World Heritage List, a State Party must first submit a Tentative List of potential cultural and natural sites within its territory. Paragraph 63 of the Operational Guidelines provides that the World Heritage Committee will not consider nominations to the World Heritage List unless the nomination is included on the State Party's Tentative List. According to Paragraph 65, Tentative Lists should “preferably” be submitted at least one year prior to the submission of any nomination.

### The Nomination Process

After a State Party has submitted a Tentative List, it may nominate sites from this list for inclusion on the World Heritage List. The annual nomination application deadline is 1 February. A State Party prepares nomination documents demonstrating that the site meets at least one of the criteria for outstanding universal value (discussed in the next section). The World Heritage Centre provides States Parties with advice and assistance in preparing these documents.

### Consideration of Nominations

The Advisory Bodies then evaluate the nomination documents. IUCN evaluates natural sites and ICOMOS evaluates cultural sites. The Advisory Bodies consult with the nominating State Party, conduct their own research through evaluation missions to the site, and prepare recommendations for consideration by the World Heritage Committee.



Vanuatu, photo courtesy of Glenis M. Padilla Plaza.

The World Heritage Committee meets once annually, generally between June and August to determine, among other things, whether or not to include nominated sites on the World Heritage List. Under Paragraph 61 of the Operational Guidelines, the Committee reviews a maximum of 45 nominations per year and no more than two per country annually.

After reviewing a nomination, the Committee does one of four things: includes the site on the World Heritage List, decides not to include it, requests additional information, or defers the nomination for more in-depth assessment and study. If the Committee requests further information, the State Party has until the following February to fulfill the request. If the Committee decides not to include a site on the World Heritage List, the nomination may not be presented to the Committee again absent exceptional circumstances, such as new discoveries or new scientific information.

## Priority of Listings

The World Heritage Committee seeks to establish a “representative, balanced and credible” World Heritage List. If the overall annual limit of 45 nominations is exceeded, Paragraph 61 of the Operational Guidelines outlines the order of priorities the Committee will use to decide which nominations to review. Sites submitted by States Parties without sites on the World Heritage List will be considered first. Priority is also given to nominations from States Parties in Africa, the Pacific, and the Caribbean and to nominations from States Parties who have ratified the World Heritage Convention within the past ten years.

As part of the nomination process, States Parties are asked to identify the factors affecting nominated sites, including the threat of climate change.

**Formal for the nomination of properties for inscription on the World Heritage List**

**Formal for the nomination of properties for inscription on the World Heritage List - Annex 2**

**Formal for the nomination of properties for inscription on the World Heritage List - Annex 3**

**Operational Guidelines for the Implementation of the World Heritage Convention**

Pressure	Settings
(ii) Environmental pressures (e.g., pollution, climate change, desertification)	List and summarize major sources of environmental deterioration affecting building fabric, flora and fauna.
(iii) Natural disasters and risk preparedness (earthquakes, floods, fires, etc.)	Itemize those disasters which present a foreseeable threat to the property and what steps have been taken to draw up contingency plans for dealing with them, whether by physical protection measures or staff training.
(iv) Visitor/tourism pressures	Describe the "carrying capacity" of the property.

## Requirements for Inclusion on the World Heritage List

To be included on the World Heritage List, a site must meet at least one of ten criteria establishing outstanding universal value (the Listing Criteria) and must also meet conditions of “integrity” and/or “authenticity” and adequate protection and management. The Listing Criteria

are outlined in Paragraph 77 of the Operational Guidelines. The first six criteria apply to cultural sites, and the last four apply to natural sites. States Parties may, and generally do, apply to list a site under more than one criterion.

A nominated site must:

- (i) represent a masterpiece of human creative genius;
- (ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;
- (iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;
- (iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
- (v) be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;
- (vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance (The Committee considers that this criterion should preferably be used in conjunction with other criteria);
- (vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;
- (viii) be outstanding examples representing major stages of earth’s history, including the record of life, significant on-going geological processes in the development of land forms, or significant geomorphic or physiographic features;
- (ix) be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals; and/or
- (x) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.



Vanuatu, photo courtesy of Glenis M. Padilla Plaza.

## Cultural Landscapes and Climate Change

In Annex 3 of the Operational Guidelines, the World Heritage Committee identifies several specific types of cultural property and further defines the criteria for their inclusion on the World Heritage List. One such category is the cultural landscape—a property illustrative of the “evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment.” The Operational Guidelines describe three types of cultural landscapes: landscapes designed and created intentionally by man, organically evolved landscapes, and associative cultural landscapes. The latter two are particularly prevalent in the Pacific Island region and have been identified by ICOMOS as “being a highly appropriate way to recognize the unique heritage of the region, because they reflect the ways in which Pacific Island communities have interacted with the Oceanic environment through time.”

Organically evolved cultural landscapes arise from an initial social, economic, administrative, or religious imperative in response to the natural environment. They may be ongoing, retaining an active role in contemporary society, or they may be relicts, where the evolutionary process has come to an end, but where its features are still present in material form.

Associative cultural landscapes are based on the cultural, religious, or artistic significance of a natural area rather than on material cultural artifacts, which may be entirely absent. In deciding whether such a property should be included on the World Heritage List, the Committee will consider the area’s ability to represent adequately the totality of the cultural landscape it illustrates.

Cultural landscapes may be an important listing category for low-lying island States. As cultures adapt to rising sea levels, salination, and other consequences of climate change, relationships to the landscape, traditional stories based on the landscape, and societies evolve.

# Requirements for Inclusion on the World Heritage List

In addition to meeting at least one of the criteria for outstanding universal value, a site must meet several other requirements for inclusion on the World Heritage List. Both natural and cultural nominations must meet the condition of integrity, and cultural sites must also meet the condition of authenticity. Additionally, the Operational Guidelines require all nominated sites to have adequate protection and management systems in place.

## Integrity

The condition of integrity, outlined in paragraphs 87 to 95 of the Operational Guidelines, applies to both cultural and natural nominations. Integrity is defined in paragraph 88 as “a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes.” Each nomination must include a Statement of Integrity, assessing the extent to which the site:

- (1) includes all elements necessary to express its outstanding universal value;
- (2) is of adequate size to ensure the complete representation of the features and processes which convey the site’s significance; or
- (3) suffers from adverse effects of development and/or neglect.

For natural sites, Paragraph 89 of the Operational Guidelines requires that bio-physical processes and landform features be relatively intact and the impact of deterioration processes controlled. However, this does not mean that the site must be completely pristine. In fact, Paragraph 90 limits the integrity requirement by recognizing that all natural areas are dynamic and to some extent involve human contact. Human activities, including those of traditional societies and local communities, sometimes occur in natural areas and may be consistent with outstanding universal value. Additionally, the effects of climate change are not necessarily a barrier to meeting the integrity requirement, especially if a site is listed because of climate change. If the effects of climate change are one of the outstanding universal values of a site, then deterioration caused by climate change would not negatively impact the integrity of the site.

## Additional Integrity Requirements for Specific Types of Natural Heritage Properties

Properties proposed under criterion (vii) on the basis of a superlative natural phenomenon or aesthetic value should include areas that are “essential for maintaining the beauty of the property.” The Operational Guidelines provide the example of a site for which scenic value is based on a waterfall. Such a site would need to include adjacent catchment and downstream areas that are integrally linked to the maintenance of the aesthetic qualities of the site.

Properties proposed under criterion (viii) as outstanding examples of the major stages of earth’s history should contain “all or most of the key inter-related and interdependent elements in their natural relationships.” An “ice age” area, for example, would meet the conditions of integrity if it included the snow field, the glacier itself, and samples of cutting patterns and deposition.

Properties nominated under criterion (ix) as representations of significant ongoing ecological or biological processes should have “sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long term conservation of the ecosystems and the biological diversity they contain.” The Operational Guidelines provide the example of a coral reef, which should include things like “seagrass, mangrove or other adjacent ecosystems that regulate nutrient and sediment inputs into the reef.”

Sites proposed under criterion (x) as habitats for in-situ conservation should be the “most important sites for the conservation of biological diversity.” Only those sites which are the most biologically diverse and/or representative are likely to meet this criterion. For example, an island ecosystem should include “habitats for maintaining endemic biota.”





### **Authenticity**

States Parties demonstrate the authenticity of a nominated cultural site through the inclusion of a Document of Authenticity in the nomination documents. “Authenticity” refers to the credibility of the information that provides the basis for attributing value to cultural heritage. As the Operational Guidelines state, “[k]nowledge and understanding of these sources of information in relation to original and subsequent characteristics of the cultural heritage, and their meaning, are the requisite bases for assessing all aspects of authenticity.”

### **Adequate Management Systems**

Nominations of sites for inclusion on the World Heritage List must also demonstrate the existence of adequate protection and management systems. These requirements are found in Paragraphs 97 to 119 of the Operational Guidelines. The nominating State Party must submit evidence of a management plan, which specifies how the site will be preserved. In light of the criteria for which the site was listed, the State Party must show adequate long-term legislative, regulatory, institutional and/or traditional protection and management measures at national and local levels. The boundaries of the site must be clearly delineated and, whenever necessary for the proper conservation of the site, an adequate buffer zone should be provided. Where human actions threaten the intrinsic qualities of a nominated site, a plan outlining corrective measures must be submitted with the nomination documents.



## Recent Listings and Climate Change

In August 2010, two vast protected marine areas were added to the World Heritage List: the Phoenix Islands Protected Area in Kiribati and Papahānaumokuākea Marine National Monument in the United States. Together, these two sites encompass over 25 percent of the world's protected marine territory.

### The Phoenix Islands Protected Area

The Phoenix Islands Protected Area is the largest World Heritage site. The Phoenix Islands are one of the most intact and functioning marine systems in the world due to their remoteness and absence of human settlement and exploitation. An isolated chain of islands, this protected area is an important midway point for migratory birds and a critical breeding and resting area for many threatened and endangered species.

The nomination documents for the Phoenix Islands highlight the reality that low-lying island States may disappear due to sea level rise, stating that “rising sea levels could submerge these atolls . . . and warming sea surface temperatures can result in coral bleaching.” The nomination also emphasizes that “climate change is considered the most significant environmental risk to Kiribati as a nation.” The nomination further states that “the islands are acknowledged as critical sites for ongoing study of climate change and sea-level events.”

Both IUCN and the Committee recognized climate change and sea level rise as threats to the Phoenix Islands. In its technical evaluation, IUCN noted the effects of climate change and commented that these threats may have a continuous effects on the Phoenix Islands. In its decision to list the Phoenix Islands, the Committee stated that the site “is of crucial scientific importance in identifying and monitoring the processes of sea level change and in evaluating effects from climate change.”

These listings demonstrate that sites affected by climate change are not precluded from potential World Heritage designation. This is important for low-lying island States because most areas that would qualify as World Heritage are likely also threatened by rising sea levels, coral bleaching, and other climate change impacts. In fact, the Committee has suggested that it views the World Heritage monitoring process as a potentially useful tool for sites that are affected by climate change. Inclusion of a site on the World Heritage List could be an avenue to promote coordinated planning and management efforts to cope with climate change.

With these listings, the World Heritage Committee has also made clear that areas affected by rising sea levels may have outstanding universal value simply because of the threat of climate change. These are sites where scientists and others may study and evaluate the effects of climate change. In other words, areas that may serve as climate change laboratories may qualify as World Heritage sites.



Photos: Coral reef in the Phoenix Islands Protected Area, courtesy of Dr. Randi Rotjan, New England Aquarium.  
*Papa and Wakea* (opposite page), painting courtesy of Solomon Enos, a native Hawaiian artist. [www.solomonenos.com](http://www.solomonenos.com)



### **Papahānaumokuākea**

At the same time as it listed the Phoenix Islands, the World Heritage Committee listed Papahānaumokuākea Marine National Monument in the United States, a vast and isolated chain of low-lying Hawaiian islands. The Papahānaumokuākea nomination highlights the site's geology, natural habitats, abundance of marine and bird species, and the presence of a top predator ecosystem. The World Heritage Committee listed Papahānaumokuākea as a mixed natural and cultural property based on its traditional significance to Native Hawaiian culture.

The nomination describes several threats to Papahānaumokuākea. The United States identifies climate change as an environmental pressure, stating that sea level rise is likely to have a “significantly deleterious

effect on Hawaiian Monk Seal pupping sites, Green Turtle nesting areas and Laysan Finch habitat, in addition to numerous other endangered and endemic species.” The nomination also recognizes that climate change poses a threat to Papahānaumokuākea resulting from weather changes, coral bleaching, sea level rise inundating important habitat, and ocean chemical composition change.

While the Committee recognized a variety of threats to Papahānaumokuākea, it specifically recommended that the United States develop a climate change response plan for the site. The Committee noted that the response plan would strengthen conservation and management efforts in the area by “harmoniz[ing] existing agency plans and activities” regarding climate change.

## Monitoring World Heritage Sites

States Parties to the World Heritage Convention have a duty to ensure the ongoing protection and conservation of World Heritage sites within their national borders. Articles 4 and 5 of the World Heritage Convention obligate States Parties to take measures to the utmost of their ability to protect their listed sites. For example, States Parties should integrate site protection in planning processes, provide adequate staffing and infrastructure, develop effective laws, facilitate appropriate scientific and technical research, and fund protection and conservation programs.

To ensure the continued protection of World Heritage sites and facilitate States Parties' management efforts, the Operational Guidelines provide for two types of post-listing monitoring: periodic reporting and reactive monitoring. Additionally, the Committee has recently adopted a new monitoring process—the reinforced monitoring mechanism—which allows for responsive, intercessional monitoring when necessary.

### Periodic Reporting

Under paragraphs 199 to 210 of the Operational Guidelines, the Committee requests that States Parties submit periodic reports addressing the general actions taken in support of the Convention and the state of conservation of World Heritage sites. The four main purposes of periodic reporting are to 1) assess each State's application of the Convention, 2) determine whether States Parties are effectively maintaining the "outstanding universal value" of World Heritage sites, 3) develop a record of the evolving state of conservation worldwide, and 4) assist States Parties in exchanging information and strategies among one another. Periodic reports detail any legislative and administrative provisions adopted by a State Party in support of the Convention and the ongoing activities and regulations in place at each World Heritage site within its territory. Detailed requirements for periodic reporting are found in Annex 7 of the Operational Guidelines.

States Parties submit periodic reports to the Secretariat in six-year cycles, staggered according to region. The Secretariat then integrates individual State Party reports into regional reports for the Committee's evaluation. The Committee reviews the reports at its annual meeting and advises States Parties on matters arising from the reports.

### Reactive Monitoring

Reactive monitoring, detailed in paragraphs 169 to 176 of the Operational Guidelines, is a collaborative process responding to changes and specific issues of concern at World Heritage sites. Whereas all States Parties must regularly engage in periodic monitoring, reactive monitoring only arises "each time exceptional circumstances occur or work is undertaken which may have an effect on the state of conservation of [a site]," or when a site is included on the List of World Heritage in Danger. The fundamental purpose of reactive monitoring is to ensure that all possible measures are taken to prevent the destruction of a World Heritage site and its deletion from the World Heritage List.

Most frequently, a State Party initiates reactive monitoring with a report to the Committee. Each State Party is invited to notify the Secretariat when a State authorizes or undertakes new construction or major restorations



Vanuatu, photo courtesy of Glenis M. Padilla Plaza.

at a World Heritage site. This notification should occur before the decision to construct or renovate becomes irreversible in order for the Committee to “assist in seeking appropriate solutions to ensure that the outstanding universal value of the site is fully preserved.”

Additionally, the Advisory Bodies, other States Parties, and any other interested third party may inform the Secretariat when work is undertaken at a World Heritage site or serious deterioration of a World Heritage site has occurred. Advisory Bodies regularly engage in reactive monitoring of sites listed as World Heritage in Danger (discussed in the next section) in order to ensure conservation measures are undertaken as the Committee recommends. When the Secretariat receives notification from a source other than the State Party itself, it will solicit comments from the relevant State Party and conduct further investigations as necessary.

The Secretariat compiles all relevant information into a state of conservation report. This report will include any information submitted by the relevant State Party, Advisory Bodies, and other States Parties, as well as information from outside sources that has been examined and confirmed. The state of conservation report will also include responses from the relevant State Party or Advisory Bodies, in addition to information gathered from any missions or other investigations undertaken by the Secretariat. A state of conservation report should include 1) “threats and significant improvements” since the last report, 2) follow-up information to previous decisions made by the Committee, and 3) information on any threat or damage to, or loss of, the “universal outstanding value,” integrity, or authenticity of the World Heritage site.

The Secretariat shares these reports with the Committee at its annual meeting. After review, the Committee will take one or more of the following actions:

- Determine no significant deterioration of the World Heritage site has occurred and there is no need for additional action;

- Determine that serious deterioration has occurred but restoration is feasible. In these circumstances, the Committee will propose that the State Party take action within a recommended period of time and potentially seek international assistance;

- Include the site on the List of World Heritage in Danger;

- Delete the site from the World Heritage List; or

- Determine that not enough information is available to make a decision and request more information.

If further investigation and more information would aid the Committee’s decision-making, the Committee will urge the relevant State Party to invite a mission, comprising the Secretariat, experts from Advisory Bodies, and others, to visit the site and assess any threats. The Committee may also request further information from the State Party.

#### **REINFORCED MONITORING:**

In 2007, the Committee adopted a decision calling for a Reinforced Monitoring Mechanism. The Director-General of UNESCO initiated the development of reinforced monitoring in response to concern that States Parties were not uniformly implementing the Committee’s recommendations. As envisioned, reinforced monitoring will be employed only in exceptional circumstances—in particular, when threats to a site are made known between annual sessions and some form of immediate action is viewed as necessary. Additionally, the Committee may invoke reinforced monitoring when it believes a site might benefit from heightened levels of monitoring. Overall, reinforced monitoring offers more flexibility for the Committee and shorter timeframes than reactive monitoring, as well as the possibility of initiation outside of the Committee’s annual meetings. The Committee and the Secretariat are currently reviewing the first reinforced monitoring efforts in order to assess the mechanism’s efficacy and outline a formal procedure.

## The List of World Heritage in Danger

The World Heritage Committee manages the List of World Heritage in Danger. A site may be included on the List of World Heritage in Danger when:

- (1) the site is on the World Heritage List;
- (2) there is a serious and specific danger threatening the site;
- (3) conservation requires major operations; and
- (4) assistance is requested under the Convention.

A “serious and specific danger” exists when a site is “faced with specific or proven imminent danger” or when threatened with potential danger that could have “deleterious effects” on the site’s inherent qualities. For example, a cultural site would face danger if a serious deterioration of materials, structures, or architecture occurred, or when a significant loss of historic or cultural value takes place. Natural sites may face danger when human settlements, construction of reservoirs, or industrial and agricultural developments, among other things, cause severe deterioration to the site’s natural beauty or scientific value.

The Committee may also consider supplementary factors to decide if a site should be included on the List of World Heritage in Danger. The Committee may consider the State Party’s course of action, and when the Com-



Tuvalu, photo courtesy of Gary Braasch.

mittee is examining a threat to a damaged cultural or natural site, the Committee should consider the intensity of the perceived danger on a case-by-case basis. Further, the Operational Guidelines suggest consideration of the impossibility of assessing certain types of potential dangers, such as natural disasters. The Operational Guidelines recognize that a State Party cannot anticipate all threats, but when threats may be recognized, they should be considered within relevant economic and social frameworks.

Additionally, the threats or impacts of the threats facing a site must be amenable to corrective action for a site to qualify for inscription on the List of World Heritage in Danger. As part of the process of including a site on the List of World Heritage in Danger, the Secretariat, the Committee, and the State Party collaboratively design a “programme for corrective measures.”

To develop the programme, the Committee requests that the Secretariat assess the present condition of the site, the dangers to the site, and the feasibility of corrective measures. The Committee may appoint relevant Advisory Bodies to visit the site, evaluate the nature and extent of the threats, and suggest corrective actions. The Secretariat will then provide this information to the Committee so that it may decide whether to include the site on the List of World Heritage in Danger. For the Committee to take such action, it must have a two-thirds majority vote.

Annual state of conservation reports help protect the sites inscribed on the List of World Heritage in Danger. After reviewing the reports, the Committee, in consultation with the relevant State Party, has several options. First, the Committee may decide that additional measures will facilitate conservation. Second, the Committee could delete the site from the List of World Heritage in Danger if the site is no longer under threat. Third, if the site has deteriorated to the point that it has lost its outstanding universal value, the Committee may delete the site from the List of World Heritage in Danger and the World Heritage List.

In 2008, the World Heritage Committee amended the Operational Guidelines to include climate change as a potential threat sufficient to cause both cultural and natural sites to be added to the List of World Heritage in Danger. It also broadened the requirement that threats to sites be amenable to correction by human action. Now the Operational Guidelines state that either the threat or *the impact of the threat* be amenable to human action. This removes a potential barrier to the listing of a site as “in danger” when it is threatened by climate change. Thus, although climate change itself may not be immediately amenable to correction by human action, the effects of climate change may be addressed through the World Heritage Convention.



### EMERGENCY LISTINGS

A State Party may petition for the Emergency Listing of a site on its Tentative List that is under threat. If approved, the site will simultaneously be included on the World Heritage List and the List of World Heritage in Danger. The Committee will consider emergency nominations only when, in the opinion of the relevant Advisory Body, such site would “unquestionably meet the criteria for inscription on the World Heritage List and has suffered damage or faces serious and specific dangers from natural events or human activities.”

Emergency nominations go through the same general procedures as regular nominations, except that they are processed outside of the typical timetable for submissions. The Secretariat immediately transmits emergency nominations to the relevant Advisory Body for assessment. If ICOMOS or IUCN determines that the site both meets the requirements for inscription and is in immediate danger, the nomination is then added to the agenda of the next session of the World Heritage Committee.

## Deleting Sites from the World Heritage List

### Deletion of World Heritage Sites

Sites are deleted from the World Heritage List only under two circumstances: 1) when a site has deteriorated to a point that the characteristics by which it qualified for listing are no longer present or 2) when human actions threaten the intrinsic qualities of a World Heritage site at the time of listing and the State Party failed to take the necessary corrective measures within the time proposed. If either of these situations occurs with respect to a listed site, the State Party has the duty to inform the Secretariat.

If the Secretariat receives third-party information that a World Heritage site has seriously deteriorated or that a State Party has failed to take necessary corrective action, the Secretariat must attempt to communicate with the State Party to verify the information and allow the State Party the opportunity to make comments to the appropriate Advisory Bodies. The Advisory Bodies then forward their comments, along with any other pertinent information, to the Secretariat. Finally, the Committee may decide to delete a World Heritage site by a two-thirds vote.

In 2007, the Oman Arabian Oryx Sanctuary was deleted from the World Heritage List in response to Oman's decision to reduce the size of the protected area by 90 percent.

The Arabian Oryx Sanctuary is a unique desert ecosystem that was included on the World Heritage List in 1994. Seasonal fogs and dews support a diverse assortment of flora and fauna including the first free-ranging herd of Arabian oryx (a large antelope species) since the global extinction of the species in the wild in 1972 and its reintroduction to the Arabian site in 1982.

The Committee determined that Oman's unilateral action to reduce the size of the protected area was in contravention of the Operational Guidelines and that it destroyed the outstanding universal value of the site. As a result, the Committee determined that it had no alternative but to delist the Arabian Oryx Sanctuary from the World Heritage List—a first for the Committee.



Vanuatu, photo courtesy of Glenis M. Padilla Plaza.



Signs at World Heritage sites, photos courtesy of Kastej (top), Ali Imran (middle), © BrokenSphere/Wikimedia Commons (bottom).

States Parties are obliged to support the World Heritage Convention. Thus, States Parties are asked to provide training and educational programs to increase public awareness of the Convention. The Committee has adopted a number of capacity-building programs to support these efforts. If a site threatened by climate change is listed, these programs may provide an opportunity for public awareness campaigns, as well as training opportunities for site managers and others.

## Training and Research

The Committee has adopted a Global Training Strategy for World Cultural and Natural Heritage. The goal is to have a wide range of actors in all parts of the world develop skills for assisting in the preservation, conservation, and presentation of World Heritage. The Strategy involves the Committee conducting an annual review of relevant training issues, assessing training needs, reviewing annual reports on training initiatives, and making recommendations for future training initiatives. The Operational Guidelines also encourage States Parties to develop national and regional training strategies. States Parties may seek funding for training programs from the World Heritage Fund.

## Promotion and Support

States Parties are encouraged to share resources and research with other States Parties. Additionally, the Committee will develop and coordinate research. States Parties are also encouraged to post signs and promote general awareness of World Heritage sites.

## Education

The Committee encourages and supports the development of educational programs and activities that promote awareness of the Convention and the Convention's purpose. States Parties may request international assistance from the World Heritage Fund to develop and implement educational programs and activities.

## International Assistance

The Convention provides international assistance to States Parties for the protection of World Heritage sites within their territories or World Heritage that may be suitable for inclusion on the World Heritage List. However, international assistance is understood to be supplementary to national conservation and management efforts and should be accessed only when adequate resources cannot be secured at the national level. Three types of international assistance are available to States Parties: 1) emergency assistance, 2) preparatory assistance, and 3) conservation and management assistance. Conservation and management assistance includes assistance for training, research, technical cooperation, promotion, and education.



### **The World Heritage Fund**

Established under Article 15 of the Convention, the World Heritage Fund is the primary source of financing for international assistance. The Fund provides about US \$4 million annually in assistance. States Parties make annual compulsory contributions to the World Heritage Fund equal to one percent of their contributions to UNESCO's general fund. Voluntary contributions are also encouraged. For example, Pacific Island States Parties' typical contribution to the World Heritage Fund was US \$32 in 2009.

Another source of funding for assistance requests comes from donations by States Parties to support specific projects. These "Funds-in-Trust" are voluntary and are made in support of defined goals. For example, Australia has established a Funds-in-Trust Agreement to support implementation of the World Heritage Convention in the Asia-Pacific Region with a particular focus on identifying and conserving World Heritage sites in the Pacific. It is anticipated that AUS \$1 million will be provided specifically for Pacific Islands.

### **Allocation of International Assistance**

When distributing international assistance, priority is given to sites on the List of World Heritage in Danger. Additional consideration will be given to the urgency of the request and the recipient State Party's structural and financial support. Costs of the activity will be weighed against expected results. Consideration will also be given to the potential value of the international assistance—specifically, whether it directly addresses issues raised in periodic reporting or reactive monitoring, causes a catalytic or multiplier effect, supports the Convention's goals, further educates the public or trains experts, or facilitates scientific education and the development of cost-effective conservation. The Committee will also seek to allocate international assistance in conformity with priorities set out by Regional Programmes.

When funds are limited, preference will be given to Least Developed Countries or Low Income Economies, as defined by UNESCO's Committee for Development Policy; Lower Middle Income Countries, as defined by the World Bank; Small Island Developing States; and States Parties in post-conflict situations.

### **Procedure**

The Committee determines the budget for international assistance on a biennial basis and then decides how to allocate the funds. States Parties make formal requests for international assistance following the format provided in Annex 8 of the Operational Guidelines. States Parties are encouraged to consult with the Secretariat and Advisory Bodies during preparation of requests for international assistance and also are encouraged to consult past examples of successful requests.

If appropriate or necessary, a request for international assistance may be supplemented with additional information post-submission. Paragraph 241 of the Operational Guidelines provides a table of deadlines for submission of requests, monetary caps, and the authorities responsible for approval of the international assistance based on the type of assistance sought.

### **Post-Distribution**

Once a request for international assistance has been approved, an agreement is established between UNESCO and the State Party as to how the funds will be distributed. This agreement incorporates the work plan and the budget breakdown, as described in the approved request. Three months after completion of the activities described in the request, the Secretariat and Advisory Bodies monitor and evaluate the use of the assistance. The Secretariat, in collaboration with the Advisory Bodies, then prepare a record of the results for the Committee to examine at its next meeting.

## Capacity-building in the Pacific Region

Despite its rich cultural heritage and extraordinary biological diversity, the Pacific region is the most under-represented on the World Heritage List. Sites in Small Island Developing States (SIDS), whether in the Pacific, Caribbean or African regions, are also generally under-represented. The World Heritage Committee has created two specific Programmes to redress this imbalance—the Pacific 2009 Programme and the World Heritage Small Island Developing States Programme. Their aims include increasing awareness of and participation in the World Heritage Convention, providing technical assistance for the preparation of Tentative Lists and nominations, and capacity-building for management and conservation.

Since the implementation of the Pacific 2009 Programme, nine States Parties have submitted Tentative Lists and six new sites in the Pacific are now included on the World Heritage List. To date the SIDS Programme has resulted in the submission of five Tentative Lists (outside of the Pacific region) and three additional World Heritage listings.

The second Action Plan for the Pacific 2009 Programme specifically notes that climate change is an issue of particular concern. In addition, formal statements made by delegates from Pacific States Parties in 2007, known as

the “Pacific Appeal,” and in 2009, known as the Maupiti Ocean Declaration, emphasize the threats of climate change to the region. Both statements stress the profound cultural links among all peoples of the Pacific and the shared threats to their natural and cultural heritage due to climate change.

As part of their 2007 Pacific Appeal, States Parties from the Pacific called for the establishment of a permanent fund to support the implementation of the World Heritage Convention in the Pacific Region. Such a fund exists for Africa, financed by donations from South Africa and several other States Parties. At its 31st session in 2007, the World Heritage Committee welcomed the Pacific States Parties’ request for a fund and encouraged States Parties and international donors to donate to such a fund once established. The development of this fund remains in progress. The World Heritage Centre earmarked US \$40,000 from the 2008-2009 UNESCO budget for a feasibility study regarding its creation. The feasibility study is underway and will be shared with the World Heritage Committee at its 35th session in 2011. Apart from this funding effort, the Australian government has provided funding for World Heritage activities in the Pacific since 2008.



# World Heritage Sites in the Pacific

## Micronesia

Kiribati: Phoenix Islands Protected Area (natural)  
Marshall Islands: Bikini Atoll Nuclear Test Site (cultural)

## Polynesia

Rapa Nui: Rapa Nui National Park (cultural)  
United States: Hawai'i Volcanoes National Park (natural)  
United States: Papahānaumokuākea Marine National Monument (mixed)

## Melanesia

Papua New Guinea: Kuk Early Agricultural Site (cultural)  
Solomon Islands: East Rennell (cultural)  
Vanuatu: Chief Roi Mata's Domain (natural)  
New Caledonia: Reef Diversity and Associated Ecosystems (natural)



Map courtesy of National Geospatial-Intelligence Agency.

