**Forum:** UNESCO

**Issue:** Measures to preserve cultural heritage among rising climate threats

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**Introduction**

Cultural heritage is a crucial link to humanity's shared past, identity, and values. Itincludes material objects, as well as historical sites and customs. However, the growing effects of climate change are endangering these heritages. Historic monuments, cultural landscapes, and traditional knowledge systems are threatened by environmental deterioration, harsh weather, rising sea levels, and changing temperatures. Urbanization, pressures from economic development, and insufficient policy frameworks all increase these threats, making cultural heritage preservation a crucial and complex global issue. Recent statistics emphasize the growing threats climate change poses to cultural heritage worldwide. Climate change is now the most prevalent risk to natural World Heritage Sites, affecting 33% of them, a significant rise from 15% in 2014. In the Mediterranean region, projections indicate that by 2100, 47 out of 49 UNESCO sites will be at risk of coastal flooding or erosion due to rising sea levels. Globally, an alarming 50 UNESCO World Heritage Sites are predicted to face significant climate-related damage by 2050. These figures highlight the urgent need for comprehensive and proactive measures to safeguard cultural heritage against the escalating impacts of climate change.

This report examines how to protect cultural assets in the face of growing climate risks, emphasizing creative approaches and cooperative efforts from a range of stakeholders. It highlights the significance of utilising technology breakthroughs, encouraging community involvement, and incorporating climate resilience into heritage conservation techniques. This paper attempts to offer practical insights and suggestions to preserve cultural heritage for future generations while advancing sustainable development by reviewing case studies and looking at best practices. Protecting cultural integrity is not only an environmental or cultural necessity, but also a moral obligation as climatic dangers continue to rise. This paper emphasizes the necessity of an inclusive and proactive approach, acknowledging the interdependence of environmental conservation, cultural preservation, and global sustainability.

**Definition of Key Terms**

**Term 1**

Cultural heritage

The legacy of physical artifacts (cultural property) and intangible attributes of a group or society inherited from the past.

Indigenous

O[riginating](https://www.google.com/search?sca_esv=6742166bc9627837&rlz=1C1IMSH_enQA1077QA1077&sxsrf=ADLYWILHZQQ_SnAlJ1ikOhFpbBCE_0ykqg:1736624793075&q=originating&si=ACC90nwKPQWKXvO0LWGU61hOTgoDAWvLeCx_C9Eaa-dIpEJUb6wtezph75J7zIwlSrpNWMwuWKWwoUM3bieIbKZIyr3J1yD_sq81bk0o1oasDLpxmWcekz4%3D&expnd=1&sa=X&ved=2ahUKEwiK3Ji_t-6KAxXuTmwGHRraHeoQyecJegQILRAO) or occurring naturally in a particular place.

Conservation

Prevention of [wasteful](https://www.google.com/search?sca_esv=6742166bc9627837&rlz=1C1IMSH_enQA1077QA1077&sxsrf=ADLYWIL9ddC-mTUY4_IRuNWbm681ZBbksQ:1736624842479&q=wasteful&si=ACC90nwZKElgOcNXBU934ENhMNgqtUhnFOmBwtr-zz1cI2mqwH_dqd5yHUIcSk1xrgvCzwIueBbtpFNADVOWYnDhuFIKQz1RWcXsCQMcpr6SXjSAwDPjATs%3D&expnd=1&sa=X&ved=2ahUKEwiDkuDWt-6KAxUAcGwGHbW4OxkQyecJegQIPRAO) use of a resource.

Sustainability

A[voidance](https://www.google.com/search?sca_esv=6742166bc9627837&rlz=1C1IMSH_enQA1077QA1077&sxsrf=ADLYWIKknC_q9c6ryBrbg9tOk7ZX1QSOog:1736624892457&q=avoidance&si=ACC90nytWkp8tIhRuqKAL6XWXX-N5Za0v7abVEhVf643SbMq_l0EG_6XluBNts6E4pUuAFHKnMQowfovXKeitaAR2pZHfAaZSKV0M4wBR8yebSZzQHuLsmU%3D&expnd=1&sa=X&ved=2ahUKEwjfv8rut-6KAxWld2wGHbeqBXEQyecJegQIIRAP) of the [depletion](https://www.google.com/search?sca_esv=6742166bc9627837&rlz=1C1IMSH_enQA1077QA1077&sxsrf=ADLYWIKknC_q9c6ryBrbg9tOk7ZX1QSOog:1736624892457&q=depletion&si=ACC90nytWkp8tIhRuqKAL6XWXX-Na2Wg21ZlFLko52fnXiQw2P8I2Q8vQR5HlhDBZiUALzcKMLPVciO0uQmaCp1MIPlDJRI77L3qpY_Cj9DfztAT37ZAnUw%3D&expnd=1&sa=X&ved=2ahUKEwjfv8rut-6KAxWld2wGHbeqBXEQyecJegQIIRAQ) of natural resources in order to maintain an [ecological](https://www.google.com/search?sca_esv=6742166bc9627837&rlz=1C1IMSH_enQA1077QA1077&sxsrf=ADLYWIKknC_q9c6ryBrbg9tOk7ZX1QSOog:1736624892457&q=ecological&si=ACC90nyOnVY18Aw7zUtkWPYo5mTnaDeAVen4Czy3ggCuFy3hO_g-f5xygmUZQieJ6Xd-SbHT6ALkUE31QD5AwaEUtJRnjqUHi6sGfE_uHBRQPoNE-7hyEeU%3D&expnd=1&sa=X&ved=2ahUKEwjfv8rut-6KAxWld2wGHbeqBXEQyecJegQIIRAR) balance.

Climate change

Long-term shifts in temperatures and weather patterns.

Urbanisation

The process of making an area more urban.

**Background Information**

A major worldwide concern now is the protection of cultural assets in the face of growing climate challenges. Historical landmarks, monuments, and intangible traditions are suffering from unprecedented harm due to climate change-induced phenomena like sea level rise, harsh weather, and temperature changes. For example, desertification jeopardises cultural landscapes in dry locations, while coastal erosion threatens renowned attractions like Venice and the statues of Easter Island. A number of steps have been taken in recognition of these difficulties in order to reduce hazards and preserve cultural heritage for coming generations. These include incorporating climate resilience into historic management plans, using digital tools like 3D scanning to document at-risk sites, and employing adaptive conservation strategies.

**World heritage convention**

By offering an international framework for the administration and conservation of sites of exceptional universal value, the UNESCO World Heritage Convention is essential to maintaining cultural heritage in the face of climate change. In order to ensure that heritage sites are protected over the long term from a variety of dangers, including climate change, the 1972 Convention encourages signatory nations to identify and conserve these sites. UNESCO assesses the most vulnerable sites through the World Heritage List and offers financial support, guidelines, and technical assistance to nations in order to help them create adaptation plans. Furthermore, by encouraging cooperation between governments, local communities, and scientific organizations, the Convention encourages the incorporation of climate change issues into cultural protection initiatives.

**Global landmarks**

Climate change poses serious hazards to a number of heritage sites around the world, underscoring the urgent need for preservation measures. Venice, Italy, is becoming more and more susceptible to flooding and sea level rise. Similarly, heavier storms and coastal erosion could destroy Easter Island's famous Moai monuments. The Incan civilization's emblem, Machu Picchu in Peru, is threatened by landslides and intense rains that compromise its structural integrity. Rising sea temperatures are causing coral bleaching and ocean acidification in Australia's Great Barrier Reef, a UNESCO site of great ecological and cultural significance. Meanwhile, the rich cultural legacy of Kenya's old Swahili village, Lamu Old Town, is in danger due to coastal erosion and increasing sea levels.

**Major Countries and Organizations Involved**

**Italy**

Due to its abundance of UNESCO World Heritage Sites, which include ancient sites like Pompeii and towns like Venice, Florence, and Rome, Italy is a leader in the preservation of cultural heritage. To handle the increasing threats posed by climate change, the Italian government has created comprehensive conservation programs in cooperation with regional and global organizations. The MOSE Project, a network of barriers intended to shield the city from storm surges and rising tides, is one example of the safeguards the administration of Venice has put in place. In order to document and monitor heritage monuments, Italy also makes investments in research and technology advancements. To identify flaws, it uses methods such as GIS mapping and 3D scanning. Italy also actively participates in international efforts, such as the UNESCO World Heritage Convention, to promote the global exchange of best practices and build resilience against climate change impacts on cultural heritage.

**Peru**

Peru has a strong commitment to protecting its rich cultural legacy, which includes many archaeological monuments and famous locations like Machu Picchu and the Sacred Valley. The Peruvian government has taken action to combat the increasing hazards posed by climate change, especially extreme weather events like flooding, landslides, and excessive rainfall, in coordination with international organizations. Peru has responded by putting policies in place to improve site management and safeguard cultural landscapes that are at risk. For example, conservation initiatives that aim to stabilize the site's structural integrity and control tourist flow to reduce environmental effect are used to keep a watchful eye on Machu Picchu. Utilizing tools like remote sensing and GIS mapping to track climate-related hazards, Peru also collaborates with UNESCO and other international partners to include climate resilience into heritage management. It also encourages community participation, involving locals in conservation initiatives and guaranteeing the transmission of traditional knowledge. Peru aims to balance the demands of sustainable development and tourism with the preservation of its culture.

**Chile**

With an emphasis on protecting places like Easter Island, the site of the famous Moai statues, and other important archeological and historical sites throughout the nation, Chile is actively engaged in conserving its cultural legacy. Chile has put in place a number of protection measures in response to the mounting threat that climate change poses to these sites, especially through rising sea levels and coastal erosion. For instance, the government of Easter Island has implemented initiatives to prevent further deterioration of the Moai sculptures. These initiatives use both conventional and novel methods, such as strengthening coastal fortifications and keeping an eye on the environment.

**The international council on monuments and sites (ICOMOS)\**

As an NGO, ICOMOS gives heritage conservation experts a forum to discuss best practices and new issues, such as those brought on by climate change. In order to make sure that cultural assets can endure the effects of extreme weather events, rising temperatures, and other environmental challenges, ICOMOS promotes the inclusion of climate resilience into heritage management methods. To assist nations and local communities in adjusting their conservation efforts to the reality of climate change, the organization conducts research, creates technical guidelines, and provides training programs through initiatives such as the ICOMOS Climate Change and Heritage Working Group. ICOMOS also assists in putting the World Heritage Convention into practice by offering guidance on safeguarding threatened sites and making sure that site management plans take climate change into account.

**Global heritage fund**

The GHF develops and implements sustainable preservation strategies through its conservation programs in collaboration with communities, local governments, and international organizations. The group focuses on historic locations that are seriously threatened by environmental issues like sea level rise. Funding important conservation initiatives that seek to maintain and safeguard these locations using both conventional methods and cutting-edge technologies is one way the GHF promotes the preservation of cultural heritage. In order to guarantee that cultural heritage management is incorporated into local development plans, the GHF is also dedicated to enhancing local capacity by offering communities resources and training. The Global Heritage Fund is contributing to the protection of the most endangered heritage places in the world for coming generations by fusing financial assistance with knowledge and community involvement.

**Timeline of Events**

| **Date** | **Description of Event** |
| --- | --- |
| 16th November 1972 | Adoption of the UNESCO World Heritage Convention |
| 1994 | The "Global Strategy for a Representative, Balanced, and Credible World Heritage List" |
| September 2007 | IPCC Fourth Assessment Report |
| 2009 | The UNESCO "Culture and Climate Change" Initiative |
| 12th December 2015 | The Paris Agreement on Climate Change |

**Relevant UN Treaties and Events**

* UNESCO World Heritage Convention, 16 November 1972
* Convention for the Safeguarding of the Intangible Cultural Heritage, October 17 2003
* The Paris Agreement, 12 December 2015
* UNESCO's "Culture and Climate Change" Initiative, 2009
* UNFCCC's Cancun Adaptation Framework, 29 November 2010

**Previous Attempts to solve the Issue**

**MOSE Project**

The MOSE (Modulo Sperimentale Elettromeccanico) initiative calls for the construction of barriers to safeguard Venice from increasing sea levels and recurrent flooding. The city's ancient canals and landmarks, which are in danger from rising tides brought on by climate change, are to be preserved with this ambitious engineering solution.

**Reforestation and Site Protection in Machu Picchu**

The Peruvian government has started reforestation and erosion control measures around Machu Picchu in response to rising rains and landslides. The goal of these initiatives is to sustain the local ecology and shield the archeological site from deterioration brought on by climate change.

**Galápagos Islands Conservation Program**

Rising sea levels and shifts in marine biodiversity are two threats posed by climate change to the Galápagos Islands, a UNESCO World Heritage site. Numerous conservation initiatives have been put in place to keep an eye on the consequences of climate change, save animals, and control how tourism affects the islands' natural and cultural heritage.

**Possible Solutions**

Several tactics can be used to successfully protect cultural assets from the escalating risks posed by climate change. One of the most important strategies is climate-resilient infrastructure, which includes building sea walls, flood barriers, and stormwater management systems to shield historic sites from flooding, extreme weather, and rising sea levels. The creation of comprehensive digital recordings of heritage sites is also becoming more and more common thanks to digital documentation and 3D scanning. This ensures that even in the event of physical damage, the sites may be examined or rebuilt using these high-resolution models. Adaptive conservation practices are also crucial because they assist in preserving the structural integrity of cultural monuments by employing materials and methods that are especially made to resist climate-related pressures including moisture, extremes in temperature, and exposure to seawater. Sustainable tourism management is another important way to ensure that cultural sites are not overburdened and can withstand the effects of increased tourism. It does this by limiting the number of visitors to sites that are vulnerable, using eco-friendly materials, and incorporating strategies to reduce environmental damage. Last but not least, community involvement is essential to cultural preservation since local people frequently have sustainable practices and traditional knowledge that may be used to tailor conservation tactics to the specific needs of the area. By encouraging a sense of accountability and ownership, this strategy contributes to the resilience and long-term maintenance of cultural heritage resources. Heritage sites can be better safeguarded and made more robust to the increasing threats posed by climate change by combining these tactics.

**Bibliography**

All citations *must* be in MLA format. You may use [www.noodletools.com](http://www.noodletools.com) or [www.easybib.com](http://www.easybib.com) to create your bibliography. Please ensure that all entries in this section are ‘left-justified’ – as this paragraph is set out. Also, any websites cited must be in hyperlinks (you must be able to click on them in this document to refer to the website).

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**Appendix or Appendices**

1. <https://globalheritagefund.org/>
2. <https://en.unesco.org/themes/culture-and-climate-change>
3. <https://www.getty.edu/conservation/>
4. <https://machupicchucity.com/>