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# World Heritage 44 COM

**WHC/21/44.COM/7C**

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**UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION**

**CONVENTION CONCERNING THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE**

**WORLD HERITAGE COMMITTEE**

**Extended forty-fourth session**

**Fuzhou (China) / Online meeting**
**16 – 31 July 2021**

**Item 7C of the Provisional Agenda: Draft updated Policy Document on the impacts of climate change on World Heritage properties**


**SUMMARY**

This document presents a detailed overview of the process followed for the updating of the 2007 Policy Document on the impacts of climate change on World Heritage properties, as well as a draft updated Policy Document in Annex 1, as requested by the World Heritage Committee at its 40th session (Istanbul/UNESCO, 2016).

It also provides an overview of the different climate change-related activities undertaken by the World Heritage Centre in collaboration with the Advisory Bodies since the last session of the World Heritage Committee for the conservation of natural and cultural World Heritage properties.

***Draft Decision***: ***44 COM 7C***

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# I. UPDATING OF THE 2007 POLICY DOCUMENT ON THE IMPACTS OF CLIMATE CHANGE ON WORLD HERITAGE PROPERTIES

## A. BACKGROUND

1. Climate change has become one of the most significant threats to World Heritage properties, potentially impacting their Outstanding Universal Value, including their integrity and authenticity, and their potential for economic and social development at the local level.

2. The issue of the impacts of climate change on World Heritage was brought to the attention of the World Heritage Committee in 2005 by a group of concerned organizations and individuals. Subsequently, UNESCO has been at the forefront of exploring and managing the impacts of climate change on World Heritage. In 2006, under the guidance of the World Heritage Committee, and along with the World Heritage Committee's Advisory Bodies (ICCROM, ICOMOS, IUCN) and a broad working group of experts, UNESCO prepared a report on 'Predicting and Managing the effects of climate change on World Heritage', as well as a 'Strategy to Assist States Parties to the Convention to Implement Appropriate Management Responses'. This was followed by a compilation of case studies on climate change and World Heritage. This process led to the adoption in 2007 by the General Assembly of States Parties to the World Heritage Convention of a Policy Document on the impacts of climate change on World Heritage properties (hereafter called "Policy Document").

3. Since the adoption of the Policy Document, an important number of reports on the state of conservation of World Heritage properties affected by climate change have been presented to the World Heritage Committee. In 2017, the World Heritage Committee reiterated the importance of States Parties undertaking the most ambitious implementation of the Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC) by "*holding the increase in the global average temperature to well below 2°C above pre-industrial levels and by pursuing efforts to limit the global average temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change"*.

4. Aware that knowledge related to adaptation and mitigation to climate change has drastically increased over the past 10 years, the World Heritage Committee requested at its 40th session (Istanbul/UNESCO, 2016), the World Heritage Centre and the Advisory Bodies to periodically review and update the Policy Document, to make available the most current knowledge and technology on the subject to guide the decisions and actions of the World Heritage community (Decision **40 COM 7**, para. 16).

5. An international expert workshop, funded by the German Federal Agency for Nature Conservation and organized in cooperation with IUCN, ICOMOS, ICCROM and the UNESCO World Heritage Centre, took place in October 2017 in the Baltic Sea island of Vilm, Germany, to discuss the challenges posed by climate change to the conservation and management of World Heritage properties. The meeting brought together international experts on heritage and climate change to discuss the revision of the 2007 "Policy Document" and to make recommendations to guide the updating process (see https://whc.unesco.org/en/news/1736/), which were brought to the attention of the Committee at its 42nd session in 2018 (see Document WHC/18/42.COM/7, paragraph 51).

## B. Development of the project

6. A project was initiated by the UNESCO World Heritage Centre to update the Policy Document for consideration by the World Heritage Committee at its 44th session in 2020 and ensure its widespread communication and dissemination to all stakeholders

concerned. This project received the generous support of the Netherlands Funds-in-Trust.

7. Under the overall supervision of the World Heritage Centre, and in close consultation with the three Advisory Bodies (including through the valuable inputs of the ICOMOS Climate Change and Heritage Working Group), this project has been carried out by a team of two senior internationally recognized experts: Mr. Rohit Jigyasu (India), addressing the cultural aspects of the project, and Mr. Oscar Guevara (Colombia), addressing the natural aspects, both of them bringing also their solid expertise in the fields of heritage conservation and management, disaster risk management, capacity-building and climate science and policy, *inter alia*.

## C. Wide online consultation

8. A wide online consultation of all stakeholders of the World Heritage Convention on the updating of the "Policy Document" was launched at the end of December 2019 until 31 January 2020. This questionnaire was widely circulated to World Heritage stakeholders, including States Parties, site managers, local communities, indigenous peoples, academics, NGOs, civil society, Advisory Bodies and the Secretariat (see https://whc.unesco.org/en/news/2074/). The full questionnaire is accessible at https://whc.unesco.org/document/180635.

9. The aim of this consultation was to gather feedback and comments from key World Heritage stakeholders of the Convention on this crucial matter. They were invited to share their views, expectations and best practice examples, and were also requested to flag the importance of several aspects for their possible inclusion into the updated Policy Document, such as, *inter alia*:

- Scientific and technical information needed to assess the impacts of climate change on World Heritage properties and associated communities;
- Potential role of World Heritage properties for climate mitigation and adaptation;
- Synergies of the Convention with other international conventions / programmes;
- Legal aspects for States Parties to the Convention in addressing climate change for Word Heritage properties;
- Awareness, capacity building, etc.

10. A total of 366 contributions were collected through this successful exercise. This represents the highest response rate to any online survey conducted by the World Heritage Centre to date and demonstrates the interest of the international community as a whole for action on climate.

11. The contributions mostly highlighted a number of key challenges faced in properly implementing the 2007 Policy Document, as well as some gaps in this Policy Document, which should be addressed in its updated version. The results of the survey also provided suggestions and key considerations to ensure an improvement in the implementation of the updated Policy Document, including suggestions on the role of the Convention in addressing climate change threats to World Heritage properties, and on the role of the existing processes of the Convention (Nomination, Reactive Monitoring, Periodic Reporting), of Management Plans/Systems or national legislation, to better assess, manage and/or report climate-related activities (see summary of all responses at https://whc.unesco.org/document/181913).

12. In addition to the rich outcomes of the online consultation, a 1st draft updated Policy Document (referred to as 'Zero draft') was prepared by the experts also taking into account policies and strategies already adopted at the international level, within the overarching framework of the UN 2030 Agenda for sustainable development, such as

the regular reports of the Intergovernmental Panel on Climate Change (IPCC), the Paris Agreement (2015), the Policy Document for the integration of a sustainable development perspective into the processes of the World Heritage Convention (2015), the New UNESCO Strategy for Action on Climate Change (2017), the UNESCO Declaration of Ethical Principles in relation to Climate Change (2017), as well as the outcomes of recent meetings held on this issue, such as the recommendations of the 2017 Vilm meeting.

13. This 'Zero draft' was shared on 13 April 2020 (Circular Letter CL/WHC-20/08) with all States Parties to the Convention for information.

## D. The Technical Advisory Group of experts

14. As indicated to the World Heritage Committee at its 43rd session (Baku, 2019) (Document WHC/19/43.COM/7), a Technical Advisory Group of experts in the fields of natural and cultural heritage, climate change, with a sound understanding of the processes of the Convention, was established with the main objectives to review the draft updated Policy Document and provide inputs to this World Heritage Centre/Advisory Bodies-driven process. The Chairpersons of all six UNESCO Electoral Groups were consulted and invited to nominate two regional representatives and up to two observers to be part of this Technical Advisory Group. Therefore, experts from Australia, Bahrain, Czechia, Italy, Mexico, Morocco, Republic of Moldova, Senegal, The Netherlands and Zimbabwe took part in the discussions, with observers from Brazil, France, Greece, Hungary and Mexico. In addition to this diverse representation of States Parties, this geographically and gender-balanced group also included representatives of the three Advisory Bodies and the Secretariat, including the UNESCO Natural Sciences Sector.

15. In implementing this project addressing the current climate crisis, and in line with UNESCO Director-General's full support to implement environmental sustainability at UNESCO in accordance with the "Strategy for Sustainability Management in the UN System 2020-2030", it was decided to lead by example and send a positive signal to the world in holding all the meetings of this Technical Advisory Group online, making them sustainable and carbon neutral.

16. The Technical Advisory Group defined a clear roadmap for the presentation of the updated Policy Document to the Committee, and met online several times in the process to review the draft updated Policy Document prepared by the two experts, to address the potential different viewpoints or approaches and to provide further guidance (both during the meetings and in writing, as needed) until a consensual text could be achieved. The various online meetings took place on:

    - 27-29 April 2020
    - 4 June 2020
    - 15-17 July 2020
    - 22 September 2020

17. During its meetings, the Technical Advisory Group addressed the crucial issues of the purpose and the scope of the updated Policy Document, its structure, as well as the means to ensure its proper implementation by all stakeholders of the Convention, and particularly focused its attention on the following necessities/needs:

    - Ensure that the updated Policy Document is fully anchored in the World Heritage system, and within the remit of the World Heritage Convention,
    - Ensure clear links with the UN Agenda 2030, the SDGs, the Paris Agreement and with all other relevant World Heritage documents,

- Ground the updated Policy Document in contemporary climate policy and in the best available climate science,
- Integrate the concept of the "theory of change",
- Take into account the different meanings of "Loss and Damage" as interpreted within the World Heritage context and the Paris Agreement context,
- Highlight the importance of education and capacity-building,
- Have an action-oriented updated Policy Document, which clearly identifies the actors and their roles and responsibilities (Committee-level, national-level, site-level),
- Find the balance between having a too general approach and one which would be too prescriptive and inappropriately demanding on site-managers,
- Make sure that the updated Policy Document provides sufficient guidance to encourage and facilitate its implementation at all levels.

18. As a means to reinforce the fact that climate action is now needed more than ever before, it was also overwhelmingly suggested to take the opportunity of this updating process to change the title of the 2007 Policy Document and move away from "*impacts of climate change on World Heritage properties*" to a more positive title calling for "*climate action for World Heritage*".

19. A point discussed at length during the Technical Advisory Group meetings was that related to the inscription of a property on the List of World Heritage in Danger on account of climate change. Members of the Group were of the view that this may call for the establishment of a dialogue, inclusive of States Parties, the World Heritage Centre, the Advisory Bodies and civil society, to address significant legal and interpretative questions raised by climate change with respect to the Convention, based on the line of questioning initially proposed in Annex 2 of the 2007 Policy Document, which was as follows:

- Whether a property should be inscribed on the World Heritage List while knowing that its potential OUV may disappear due to climate change impacts;
- Whether a property should be inscribed on the List of World Heritage in Danger or deleted from the World Heritage List due to impacts beyond the sole control of the concerned State Party;
- The reality that for some natural and cultural properties, it will be impossible to maintain the "original" OUV for which they were originally inscribed on the World Heritage List, even if effective adaptation and mitigation strategies are applied, and this may require an "evolving" assessment of OUV.

## E. Finalization of the updated text

20. Following the last meeting of the Technical Advisory Group, the draft updated Policy Document was revised to take into account the last comments made and was reviewed by the three Advisory Bodies and the World Heritage Centre. During this final review process, the text was shared with professionals from the UNESCO Natural Science Sector to ensure consistency of language with other relevant UNESCO and U.N. documents and recommendations.

21. The 2007 Policy Document having been endorsed by the World Heritage Committee before being adopted by the General Assembly of States Parties to the Convention, it is recommended to follow the same procedure for its updated version. It is therefore suggested that the updated Policy Document, presented as Annex 1 of this document, be endorsed by the World Heritage Committee at its present extended 44th session, and subsequently presented to the 23rd session of the General Assembly in November 2021.

## F. Future implications

22. Once the updated Policy Document is adopted, the relevant implications in procedural terms should be identified, so as to ensure that its principles are translated into actual practice in the implementation of the various processes of the World Heritage Convention. These should result in proposals for specific changes to the Operational Guidelines, which the World Heritage Centre and the Advisory Bodies could develop.

23. The adopted updated Policy Document should also be included within the Policy Compendium of the World Heritage Convention.

24. In addition, the process for the elaboration of the updated Policy Document, and particularly the comments received from the members of the Technical Advisory Group and results of the online consultation, strongly suggested that a number of education and capacity-building initiatives would be needed to enable the application of the updated Policy Document by those concerned.

25. The Technical Advisory Group was also of the view that, subject to available resources, the World Heritage Centre and the Advisory Bodies could prepare a Guidance Document to facilitate effective implementation of, and support for, the actions, goals and targets of the updated Policy Document. The Guidance Document could also elaborate indicators and benchmarking tools for measuring and reporting progress towards achieving the World Heritage Climate Action Goals.

26. In addition, an internationally collaborative approach was advocated, engaging communities and stakeholders to develop and implement additional tools and methodologies that support transformative change and achievement of the World Heritage Climate Action Goals.

# II. OTHER CLIMATE CHANGE-RELATED ACTIVITES UNDERTAKEN BY THE SECRETARIAT, INCLUDING IN COLLABORATION WITH THE ADVISORY BODIES

27. Under the motto "*Changing Minds, Not the Climate*", and in line with the Major Programme IV / Main Line of Action 1 / Expected Result 1 of the 40C/5, and with the 2017 UNESCO Strategy for Climate Action (Thematic Action Focus Area C.: "Promoting cultural diversity and cultural heritage safeguarding for climate change mitigation and adaptation"), the World Heritage Centre has continuously promoted a culture-based response to climate change and contributed to sensitize States Parties to the Convention to the disastrous impacts of climate change on heritage. The action of the World Heritage Centre has been oriented towards clearly demonstrating the under-estimated potential cultural and natural World Heritage offers globally to drive climate action.

28. Through its actions with other entities of the UNESCO Culture Sector and the Advisory Bodies, the World Heritage Centre has pursued or been involved in a number of climate change-related activities to contribute to a better conservation of natural and cultural World Heritage properties and has encouraged States Parties to mainstream the protection of cultural and natural heritage into their climate change policies and processes, in line with UNESCO policies and recommendations.

## A. Climate change-related activities specific to World Heritage

- **Climate change-related activities more specific to natural World Heritage**

29. In collaboration with UNESCO's Intergovernmental Oceanographic Commission (IOC), and with the support of the governments of Monaco and France, the World Heritage Centre published a scientific assessment illustrating that marine World Heritage properties cover at least 21% of the world's blue carbon ecosystems and 15% of the

world's blue carbon assets that are equivalent to about 10% of annual greenhouse gas emissions.

30. In collaboration with a global private-public consortium of partners, the marine programme is piloting a major initiative to build climate adaptation strategies across four initial marine World Heritage listed coral reefs in Palau, Belize, Australia and France. The first local chief resilience officers are now operational and draft climate resilience strategies are underway. The initiative is a follow-up to the outcomes of the first global assessment of the effects of climate change in World Heritage listed coral reefs, published in 2017 and updated in 2018.

31. With the financial support from the Government of Australia and the Government of Flanders (Belgium), the World Heritage Centre is preparing the design and implementation of a comprehensive funding strategy aimed at securing a sustainable long term financing through which climate adaptation capacity can be significantly increased across natural properties, in particular properties in developing countries. The initiative addresses one of the most critical conclusions of the survey undertaken in preparation of the revision of the climate change Policy Document (see Section I.C above), i.e. the lack of financial resources to address climate change effects across World Heritage properties.

32. IUCN supported a 2019 study published on the impact of climate change on World Heritage glaciers. The study inventoried 19,000 glaciers within 46 World Heritage properties and revealed an alarming loss of glacial mass under various forecast climate change scenarios. https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2018EF001139.

33. IUCN's World Heritage Outlook, which assesses the conservation prospects across all natural and mixed World Heritage properties, was updated in late 2020. Where the previous 2017 assessment found that climate change was the fastest growing threat to natural World Heritage properties, this third iteration of the Outlook process revealed that climate change is now the number one threat to all natural World Heritage properties, impacting a third of all sites (https://doi.org/10.2305/IUCN.CH.2020.16.en).

- **Urban Heritage and Climate Change**

34. The World Heritage Centre in collaboration with the Group on Earth Observation (GEO) Secretariat and GEO Greek Office, has recently launched the Urban Heritage Climate Observatory (UHCO) as a GEO Community Activity that applies earth observation tools to understand and document the impacts of climate change on World Heritage cities. The aim of the initiative is to place World Heritage properties in cities at the heart of local and national policies and actions for sustainable urban development and climate change by proposing local and practical solutions and mechanisms to assist States Parties to implement actions towards sustainable development, adaptation to climate change, and towards enhancing resilience and disaster risk reduction integrated with the conservation of urban heritage, and, where feasible and relevant, contribute towards prompting mitigation actions in World Heritage cities. The UHCO also aims to support global efforts for conservation of World Heritage properties with the use of space data, products, and services in the framework of sustainable development, including the 2030 Agenda for Sustainable Development and the World Heritage Sustainable Development Policy(2015) by collecting and bringing together relevant data collected by multiple institutions on one platform. (see also Document WHC/21/44.COM/7, Section on earth observations for World Heritage conservation).

- **Warsaw international mechanism's expert group on non-economic losses**

35. Established at the 19th Conference of the Parties (COP 19, 2013) of the United Nations Framework Convention on Climate Change (UNFCCC), the Warsaw International

Mechanism is the main vehicle under the UNFCCC process to promote the implementation of approaches to avert, minimize and address loss and damage associated with climate change impacts, including extreme events and slow onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change. In this context, the Executive Committee of the Warsaw International Mechanism established an Expert Group on Non-economic losses. The UNESCO World Heritage Centre was invited to take part of this Working Group to bring in the perspective of loss of heritage.

- **Other activities**

36. The ICCROM-IUCN World Heritage Leadership initiative working in partnership with ICOMOS and the World Heritage Centre, has taken a continued focus on building capacity in the area of disaster risk and climate change resilience. This work, supported by the Norwegian Ministry of Climate and Environment and other partners, will continue to develop integrated tools and guidance on disaster risk management and climate change adaption for natural and cultural heritage practitioners.

37. In 2020, the ICOMOS Triennial General Assembly declared a Climate and Ecological Emergency, calling for "urgent collective action" to safeguard natural and cultural heritage from climate change, including through adaptive management as well as implementation by all relevant actors of a "precautionary approach that pursues pathways for limiting global warming to 1.5°C". Accordingly, ICOMOS continued to prioritize climate change in World Heritage work, and innovation in heritage conservation practice to address the climate emergency. In 2020, ICOMOS joined with Google Arts and Culture and CyArk to launch "Heritage on the Edge". In addition, ICOMOS along with the African World Heritage Fund and others is a lead a partner in the UK-funded "CVI:Africa" project, and contributed to the "Report on Climate Change, Culture and Cultural Rights" issued by the UN Special Rapporteur in the Field of Cultural Rights (see Document WHC/21/44.COM/5B for further details on these ICOMOS' climate change related activities).

## B. Climate change-related activities in relation with culture and heritage

- **UNESCO Reflection Group on Culture and Climate Change**

38. On the eve of the 52nd session of the Intergovernmental Panel on Climate Change (IPCC) held in February 2020 at UNESCO Headquarters, the Culture Sector convened the first meeting of a UNESCO Reflection Group on Culture and climate change, bringing together experts from across the globe to discuss the role of culture in climate change mitigation and adaptation, including World Heritage experts and the Director of the World Heritage Centre, as well as ICOMOS and IUCN (see https://en.unesco.org/news/experts-highlight-role-culture-climate-change-mitigation-and-adaptation).

39. The experts noted that climate change represents one of the greatest threats facing culture today and puts entire ways of life at risk. The experts also stressed that culture plays also a role as a resource for climate change mitigation and adaptation and noted that culture makes communities more resilient in the face of climate change.

40. It was also highlighted that cultural and natural heritage sites, including World Heritage properties, can serve as a refuge strengthening resilience, for communities during and after climate-related emergencies and can also act as assets for recovery in the wake of intercommunal conflicts linked to climate change. Yet despite the fundamental relationship between culture and climate change mitigation and adaptation, these experts were unanimous in their assertion that culture is largely absent from discussions

on climate change today, yet there is a need to ensure the inclusion of culture in decision-making processes related to climate change.

- **"Cultural heritage and Climate Change" Initiative between UNESCO, the Intergovernmental Panel on Climate Change (IPCC) and ICOMOS**

41. The "Cultural Heritage and Climate Change" Initiative between UNESCO, IPCC and ICOMOS has three major objectives:

    a) To organise an International Expert Meeting co-sponsored by UNESCO, IPCC and ICOMOS on the theme of Culture, Heritage and Climate Change;

    b) To produce a set of White Papers to be considered by the International Expert Meeting to assess the state of knowledge and practice linking culture and climate change;

    c) To develop policy recommendations to contribute to the integration of culture in the international climate agenda, including the IPCC 7th Assessment Report (AR7) and the Special Report on Climate Change and Cities.

42. In June 2020, the IPCC approved a UNESCO/ICOMOS proposal for an online co-sponsored International Expert Meeting on Culture, Heritage and Climate Change, to be organized by UNESCO, ICOMOS and the IPCC in 2021, with the support of donors including the German Federal Environmental Foundation (DBU). This Expert Meeting is planned to be held online in early December 2021 and will bring together experts representing scientific, cultural and heritage agencies and bodies, as well as indigenous peoples' and local communities' representatives, international organisations, key experts at national and local levels, NGOs and academics from around the world.

43. In preparation of this meeting, a Scientific Steering Committee (SSC), composed of partner organizations and other experts was established to support research in the field of culture and climate change and help with the meeting's organization. The Director for the World Heritage Centre is one of the three co-chairs of the SSC. Ahead of this meeting, three White Papers will be prepared by experts selected through the SSC and will focus on the following themes:

    a) A 1st White Paper on the *role of cultural and natural heritage in climate action*, focusing on the various ways in which culture and heritage are interconnected in climate change resilience and in advancing climate action;

    b) A 2nd White Paper will address *impacts, vulnerability and understanding of risks*, focusing on the effects and consequences of climate change for cultural and natural heritage and the creative economy;

    c) And finally, a 3rd White Paper on *intangible cultural heritage, diverse knowledge systems and climate change*, which will focus on diverse knowledge systems and intangible cultural heritage, and their relationship with climate change.

44. In addition, this co-sponsored International Expert Meeting is in line with the previous World Heritage Committee decisions (Decisions **30 COM 7.1**, **31 COM 7.1**, **40 COM 7**), recommending that the World Heritage Centre reinforce its relations with the IPCC, and requesting the World Heritage Centre and the Advisory Bodies to work with IPCC with the objective of including a specific chapter on heritage in its future assessment reports.

- **Initiative on the protection of cultural and natural heritage from climate change**

45. As announced in the recent Report of the United Nations Secretary-General on the "2019 Climate Action Summit - The way forward in 2020", UNESCO was identified as lead Agency for an initiative on the protection of cultural and natural heritage from climate

change (see https://www.un.org/en/climatechange/assets/pdf/cas_report_11_dec.pdf, page 29). This initiative is included under Theme 10 "*People centered action now*".

46. Created by the State Party of Greece, on the occasion of the 2019 UN Climate Action Summit, with the support of 54 countries, this initiative will be implemented by UNESCO, with the support of the United Nations Framework Convention on Climate Change (UNFCCC) and the State Party of Greece. The Science Sector (SC/EES/ESP) is UNESCO's focal point for this initiative, in close consultation with the World Heritage Centre. Through this initiative UNESCO will continue outreach on the initiative and work together with other signatories towards designing, developing and implementing plans and programmes to help mitigate the effects of climate change on cultural and natural heritage.

47. At the initiative of Greece, a "Flexible Mechanism", that aims to promote and accelerate the implementation of practical actions and cooperation on addressing climate change impacts on cultural and natural heritage, was adopted by UNESCO's Executive Board at its 210th session in November 2020 (210 EX/40). The Flexible Mechanism is comprised of representatives from Greece, UNESCO and the WMO. This initiative was also presented at the request of Greece as item "Addressing climate change impacts on cultural and natural heritage".

- **G20 Webinar on climate changes**

48. In the framework of the Italian Presidency of the G20, bringing together representatives of all G20 Members, a number of webinars on Culture were held. On "Addressing the Climate Crisis through Culture" a webinar took place on 12 April 2021 with the participation of the Director of the UNESCO World Heritage Centre and many specialists. It discussed the multifaceted impact of climate change on heritage and highlighted the close linkages between cultural diversity and biodiversity. Participants discussed possible ways forward to leverage culture for climate action notably by: (i) supporting the inclusion of culture in the global climate agenda, in particular in the context of the COP-26; (ii) enhancing the role of traditional and Indigenous knowledge in climate adaptation and mitigation; (iii) further investing in new technologies to assess the impact of climate change on cultural heritage and scale up local efforts towards climate adaptation; (iv) ensuring more systematic knowledge sharing on both the impact of climate change on cultural heritage and the role of culture for climate action (v) reducing the carbon footprint of the cultural sector, notably building on digital opportunities, (vi) amplifying awareness raising and education efforts, notably building on the power of the creative sector; and (vii) prioritizing cities and youth in leveraging culture for climate action efforts (see also https://whc.unesco.org/en/news/2273).

- **Evaluation of the implementation of the UNESCO Strategy for Action on Climate Change**

49. The UNESCO Internal Oversight Service (IOS) Evaluation Office is currently carrying out an evaluation of the UNESCO Strategy for Action on Climate Change (2018-2021), with the purpose of taking stock and assessing activities implemented by UNESCO so far in pursuit of the Strategy's objectives. The evaluation should also determine whether this Strategy should be further extended and, if so, what revisions to include, if any. As per IOS' general practice, a reference group for this corporate evaluation project was formed, with the main objective to support and help guide the evaluation. In this regard, the World Heritage Centre, which was part of the UNESCO Task Team on climate change that developed the current Strategy, was invited by IOS, together with colleagues from the Field Offices and representatives of the UNESCO Global Priorities, to take part in this reference group.

50. The final evaluation will be presented at the 212th session of the Executive Board in October 2021 (see 209 EX/5.I.B).

## III. DRAFT DECISION

***Draft Decision: 44 COM 7C***

*The World Heritage Committee,*

1. *Having examined Document WHC/21/44.COM/7C,*

2. *Recalling Decisions **40 COM 7**, **41 COM 7**, **42 COM 7** and **43 COM 7.2**, adopted at its 40th (Istanbul/UNESCO, 2016), 41st (Krakow, 2017), 42nd (Manama, 2018) and 43rd (Baku, 2019) sessions respectively,*

3. *Takes note with satisfaction of the wide range of climate change-related activities undertaken by the World Heritage Centre, in collaboration with the Advisory Bodies;*

4. *Thanks the State Party of the Netherlands for having funded the project to update the 2007 Policy Document on the impacts of Climate Change on World Heritage properties, and expresses its gratitude to all the experts and representatives of States Parties, of the World Heritage Centre and of the Advisory Bodies who contributed to the meetings of the Technical Advisory Group;*

5. *Also takes note with appreciation that a wide diversity of stakeholders of the World Heritage Convention (States Parties, site managers, Advisory Bodies, World Heritage Centre and representatives of local communities, indigenous peoples, academics, NGOs and civil society) were able to contribute to the updating process through the online consultation launched by the World Heritage Centre;*

6. *Takes note of the new title proposed for the updated Policy Document to become "Policy Document for Climate Action for World Heritage";*

7. *Endorses the draft "Policy Document on Climate Action for World Heritage", as presented in Annex 1 of Document WHC/21/44.COM/7C, and requests the World Heritage Centre, in consultation with the Advisory Bodies, to revise it by incorporating views expressed at the extended 44th session and, as appropriate, to consult Committee members;*

8. *Also decides to transmit the draft "Policy Document on Climate Action for World Heritage", following final revisions, for review and adoption at the 23rd session of the General Assembly of States Parties to the* Convention *in 2021;*

9. *Also requests the World Heritage Centre, jointly with the Advisory Bodies, once the "Policy Document on Climate Action for World Heritage" is adopted by the General Assembly of the States Parties and within the available resources, to elaborate proposals for specific changes to the* Operational Guidelines *that would be required to translate the principles of this Policy Document into actual operational procedures, and to develop education and capacity-building initiatives that would be needed to enable wide implementation of this Policy Document, and calls on States Parties to contribute financially to this end;*

10. *Further requests the World Heritage Centre, jointly with the Advisory Bodies, and subject to available resources, to consider preparing a Guidance Document to facilitate effective*

*implementation of, and support for, the actions, goals and targets of this Policy Document, which could include indicators and benchmarking tools for measuring and reporting progress towards achieving the World Heritage Climate Action Goals, and also calls on States Parties to support this activity through extrabudgetary funding;*

11. *Encourages the States Parties, the World Heritage Centre and the Advisory Bodies to disseminate widely the "Policy Document on Climate Action for World Heritage", once adopted, through appropriate means to the World Heritage community and the broader public, including in local languages, and to promote its implementation;*

12. *Also recommends that the "Policy Document on Climate Action for World Heritage" be interpreted within the overarching framework of the Paris Agreement (2015) and the United Nations 2030 Agenda for sustainable development, and in conjunction with the Policy Document for the integration of a sustainable development perspective into the processes of the World Heritage Convention (2015);*

13. *Urges States Parties and all stakeholders of the Convention to urgently integrate climate change mitigation and adaptation actions in risk preparedness policies and action plans, in order to protect the Outstanding Universal Value of all World Heritage properties, in line with the "Policy Document on Climate Action for World Heritage";*

14. *Further recommends that World Heritage-related Category 2 Centres and UNESCO Chairs prioritize issues related to the implementation of the "Policy Document on Climate Action for World Heritage" within their capacity-building and research initiatives;*

15. *Finally requests the World Heritage Centre, in consultation with the Advisory Bodies, to present a progress report on the implementation status of the "Policy Document on Climate Action for World Heritage" at its 48th session, after four years of implementation.*

**ANNEX 1**

United Nations
Educational, Scientific and
Cultural Organization

World
Heritage
Convention

# UPDATING OF THE 2007 POLICY DOCUMENT ON THE IMPACTS OF CLIMATE CHANGE ON WORLD HERITAGE PROPERTIES

Photo by Simon Berger on Unsplash

# DRAFT POLICY DOCUMENT ON CLIMATE ACTION FOR WORLD HERITAGE (2021)

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# I. PREAMBLE

## A. Overview

1. Climate change has become one of the most significant threats to World Heritage, impacting the Outstanding Universal Values (OUV), including integrity and authenticity, of many properties, as well as the economic and social development and quality of life of communities connected with World Heritage properties.

2. The issue of the impacts of climate change on World Heritage was brought to the attention of the World Heritage Committee in 2005 by a group of concerned organisations and individuals. Subsequently, UNESCO has been at the forefront of exploring and managing the impacts of climate change on World Heritage. In 2006, under the guidance of the World Heritage Committee, and along with the Advisory Bodies (ICCROM, ICOMOS, IUCN) to the World Heritage Committee and a broad working group of experts, a report on 'Predicting and Managing the effects of Climate Change on World Heritage' as well as a 'Strategy to Assist States Parties to the *Convention* to Implement Appropriate Management Responses' was prepared by the UNESCO World Heritage Centre. This was followed by a compilation of case studies on climate change and World Heritage, prepared by UNESCO. This process led to the adoption in 2007 by the General Assembly of States Parties to the 1972 Convention concerning the protection of the World Cultural and Natural Heritage (hereinafter called the World Heritage Convention or the Convention) of a Policy Document on the impacts of Climate Change on World Heritage properties thereinafter called the 2007 Policy Document).

3. Since the adoption of the 2007 Policy Document, science has continued to provide evidence of the magnitude of this threat, its causes and consequences. Unprecedented atmospheric concentrations of greenhouse gases (GHG), resulting from human activities such as burning of fossil fuels and deforestation, are estimated to have caused an increase in global warming by one (1) degree Celsius (°C) above pre-industrial times. This warming has caused and continues to cause long-term changes in the climate system with resulting changes in the dynamics of rain patterns, sea level rise, ocean warming and acidification; and also increased the risk of extreme events such as hurricanes, storms, bushfires, floods, and droughts. According to the Intergovernmental Panel on Climate Change (IPCC), "*some impacts may be long-lasting or irreversible*."[1]

4. World Heritage is immersed in unprecedented global change: a rapidly changing climate and the progressive loss of global biodiversity are perhaps the most prominent indicators of how rapidly humans are negatively transforming the planet. Climate change accelerates the destruction of ecosystems, while the loss and unsustainable use of nature are in turn, key drivers of climate change.

5. By representing some of the world's most outstanding natural ecosystems, natural World Heritage properties also serve as natural buffers against climate impacts and other disasters, providing space for floodwaters to disperse, stabilizing soil against landslides and blocking storm surges. They further contribute to healthy, resilient ecosystems that might withstand impacts of climate change and continue to provide the food, clean water, shelter and income communities rely upon for survival.

[1] IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of Climate Change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press. [hereinafter, the 'IPCC Report'].

6. Cultural World Heritage properties represented by cultural landscapes, historic cities, archaeological sites and vernacular architecture also demonstrate various locally developed strategies for mitigation against climate change through energy efficient built form and sustainable use of local resources. Climate change may also affect Indigenous Peoples' and local communities' cultural heritage, landscapes and traditional practices due to changes in the distribution of flora and fauna. Moreover, resulting loss of livelihoods of communities living in and around the sites may also impact their knowledge systems and their capacity to maintain the site.

7. Our understanding of the impacts of climate change increased considerably since 2007, and so has knowledge related to climate adaptation and mitigation measures. As the globe continues to warm, the IPCC has projected that the impacts of climate change on biodiversity, ecosystems and a variety of human systems would be lower at 1.5°C of global warming compared to those at 2°C. Analyses by the IPCC indicate that limiting global warming to 1.5°C (with no or limited overshoot) would require rapid and far-reaching transitions in energy, land use, urban areas, infrastructure (including transport and buildings) and industrial systems.

8. This transition needed is unprecedented in breadth and scale, and requires significant greenhouse gas emissions reductions in all sectors, including manufacturing, transport, tourism, construction and infrastructure development; a wide portfolio of mitigation and adaptation options; as well as a significant upscaling of investments in those options. Taken together, they invite a programme of climate action designed to bring about 'transformative change'[2]. In the context of the World Heritage Convention, transformative change would be exemplified by decisions that contribute towards making World Heritage properties carbon neutral, as much as possible, and more resilient and better adapted to a changing climate, while safeguarding their Outstanding Universal Value. By acting as exemplars of climate action, World Heritage properties may serve as catalysts for change in the wider policy, economic, environment and social sectors for the benefit of present and future generations. World Heritage properties can embrace transformative change to become demonstration cases of the change the world needs.

9. World Heritage properties are part of physical and social processes and are strongly connected to surrounding areas, ecosystems, communities and societies. They are not isolated areas, their safeguard depends on the support of communities. For World Heritage stakeholders, it is therefore fundamental to increase the awareness of connectivity of climate change and interactions between decision makers, communities, and natural and cultural heritage to support transformative change. In the context of this Policy Document, transformative change should integrate cross-sectoral thinking and approaches that account for direct, indirect, and cumulative impacts on World Heritage properties, and offer opportunities to reconcile multiple interests.

10. Since the adoption of the 2007 Policy Document, an important number of reports on the state of conservation of World Heritage properties affected by climate change have been presented to the World Heritage Committee. Following the adoption of the 2030 UN Agenda for Sustainable Development, in 2015, outlining 17 Sustainable Development Goals (SDGs), the World Heritage Committee in the same year adopted the 'Policy for the Integration of a Sustainable Development Perspective into the Processes of the *World Heritage Convention*' (the '2015 Sustainable Development Policy') with a view of ensuring policy coherence between the Convention and the SDGs. The 2015 Sustainable Development Policy expressly recognises the linkages between climate change and sustainable development, noting that "*[i]n the face of increasing disaster risks and the impact of climate change, States Parties should recognise that World*

[2] Defined by the IPCC as a system-wide change that requires more than technological change through consideration of social and economic factors that, with technology, can bring about rapid change in the fundamental attributes of natural and human systems at scale.

*Heritage represents both an asset to be protected and a resource to strengthen the ability of communities and their properties to resist, absorb, and recover*". In addressing climate governance challenges that are common to many sectors and policy domains and creating conditions for implementing transformative change, World Heritage can also contribute to the implementation of the SDGs in line with the 2015 Sustainable Development Policy.

11. In 2017, the World Heritage Committee stated that "*the growing evidence of climate impacts across World Heritage properties confirm that urgent and rapid action to reduce global warming is essential and the highest degree of ambition and leadership by all countries is needed to secure the full implementation of the 2015 Paris Agreement adopted under the United Nations Framework Convention on Climate Change (UNFCCC).*" The Paris Agreement aims to strengthen the global response to climate change and countries have committed to climate action through their Nationally Determined Contributions. International action on climate change must be consistent with the Paris Agreement and national climate priorities for Parties to that Agreement. However, it must be recognised that the Paris Agreement is an independent legal agreement.

12. The Paris Agreement noted the importance of ensuring the integrity of all ecosystems and the protection of biodiversity when taking action to address climate change (Preamble). Future scientific understanding led by the IPCC and IPBES (the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) has deepened knowledge on the role of nature, including natural heritage sites, in climate mitigation and adaptation. Research[3] suggests that ecosystem-based approaches, sometimes referred to as nature-based solutions, could deliver more than one-third of the climate mitigation needed by mid-century to keep warming below 2°C. Cultural World Heritage properties similarly may embody both past carbon investments and also traditional practices, knowledge, and experience handed down through time that must be part of the solution to climate change[4].

13. Considering their stature and visibility, there is an enormous benefit to World Heritage properties sharing their experiences, tools, methodologies and approaches more broadly. For example, World Heritage properties can play an exemplary role in implementing integrated approaches that link both cultural and natural heritage in climate action and demonstrate how transformative change can help in strengthening resilience and achieving sustainable development. A two-pronged approach is therefore needed, recognising that World Heritage properties represent both an asset to be protected from climate impacts and a resource to strengthen the ability of communities to pursue transformative change. In any case, Outstanding Universal Value must be safeguarded, and climate action must be pursued.

14. Ultimately, World Heritage properties cannot be safeguarded from climate change in isolation because climate change is a global problem. However, many properties have already demonstrated how management systems that engage with local communities can strengthen natural, cultural and social resilience and offer sustainable futures. In order to better respond to climate change, these approaches should be expanded to

[3] IUCN French Committee (2019). Nature-based Solutions for climate change adaptation and disaster risk reduction. Paris, France. https://uicn.fr/wp-content/uploads/2019/07/uicn-g20-light.pdf
Griscom, B. et al. We need both natural and energy solutions to stabilize our climate - Griscom - 2019 - Global Change Biology - Wiley Online Library. https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.14612.

[4] The ICOMOS Report "The Future of Our Pasts: Engaging Cultural Heritage in Climate Action" (2019) identifies a variety of traditional practices with relevance to contemporary greenhouse gas mitigation strategies including the inherently sustainable, passive features of traditional architecture (e.g. eaves, verandas, shutters, shading devices); traditional urban land-use patterns (dense, walkable, mixed-use space); and the knowledge embedded in low carbon agricultural heritage systems. Many traditional cultural systems also epitomize circular economy models that emphasize stewardship, reuse and resource efficiency.

ensure that all properties are linked to their wider territories and efforts are linked to wider national and international climate change processes, while protecting Outstanding Universal Value. Approaches and communities especially those living in or around the properties must be brought together through integrated, inclusive, informed and adaptive governance that will facilitate the transformative change needed for addressing climate change.

15. Over and above all of this, collective action is needed, as envisaged in the Convention, which sees the international community as a whole participating in the protection of the cultural and natural heritage of Outstanding Universal Value, by the granting of collective assistance as an efficient complement to the actions of States Parties. In the face of climate change, this responsibility must be called upon in support of the transformative change needed to protect the Outstanding Universal Value of World Heritage properties.

## B. Purpose and Scope

16. The purpose of this Policy Document is to provide high-level guidance on enhancing the protection and conservation of heritage of Outstanding Universal Value through comprehensive adoption of climate action measures, including climate adaptation, mitigation, resilience building, innovation and research, and in so doing, to create coherence with, and take advantage of synergies between, the objectives and processes of the World Heritage Convention and those of the Paris Agreement and related multilateral agreements, processes and instruments, including but not limited to the 2030 Agenda for Sustainable Development, the 2015 Sendai Framework on Disaster Risk Reduction, the 2016 New Urban Agenda, the Small Island Developing States Accelerated Modalities of Action ("Samoa Pathway") and the Post-2020 Global Biodiversity Framework.

17. The Policy Document provides an outcome-oriented policy framework for the development of goals and targets at national and heritage site levels, updating of national heritage management tools and action plans, and facilitating regular monitoring of the implementation and subsequent review of this Policy Document.

18. This Policy Document aims to galvanise urgent action in support of transformative change by States Parties to the Convention, which can reflect its aims in their own national policies that guide the implementation of the Convention at the World Heritage property level. While this Policy Document is aimed primarily at States Parties to the Convention and managers of World Heritage properties, the implementation of its provisions will often require the contribution and support of the UNESCO World Heritage Centre, the Advisory Bodies and other relevant bodies.

19. The Policy Document is also intended to be of relevance to all stakeholders and rights holders, including Indigenous Peoples and local communities, civil society, and the private sector. Moreover, while the Policy Document is specifically aimed at World Heritage properties, its principles are relevant to cultural and natural heritage in general, in the spirit of Article 5 of the World Heritage Convention.

20. The Policy Document is intended to be embedded in the existing processes of the World Heritage Convention and does not impose any new legal obligations on States Parties. It is intended to operate within the mandate of the World Heritage Convention and does not aim to duplicate the mandate of any other multilateral agreements, processes and instruments.

## C. Guiding Principles

21. **Adopt a precautionary approach aimed at minimising the risks associated with climate change.** The risks associated with climate change depend, among other factors, on the magnitude and rate of warming, geographic location, levels of adaptive capacity that all together determine specific conditions of climate vulnerability. Moreover, for many natural and cultural systems, adaptation in the face of these risks is expected to be more challenging at 2°C of global warming than at 1.5°C. In view of this, the implementation by all States Parties of a precautionary approach that pursues pathways limiting global warming to 1.5°C, with no or limited overshoot, is the most effective approach for the protection, conservation and management of the cultural and natural heritage. Uncertainty (i.e. lack of scientific certainty) should not be used as a reason for not implementing such a precautionary approach to address the causes and minimise the risks associated with climate change.

22. **Anticipate, avoid and minimise harm to protect the heritage of Outstanding Universal Value.** Considering that climate change threatens both World Heritage properties and the future well-being of people through harmful and negative consequences, some of which are potentially irreversible, States Parties to the Convention and all World Heritage stakeholders and rights holders are urged to take appropriate measures, within their powers, to anticipate, avoid and minimise harm, consistent with their obligations under the World Heritage Convention to protect the world's natural and cultural heritage considered to be of Outstanding Universal Value.

23. **Use best available knowledge, generated through disciplinary, interdisciplinary and transdisciplinary processes, including from scientists, researchers, site managers, Indigenous Peoples and local communities.** Proposed actions should be based on, and guided by, the best available disciplinary, interdisciplinary and transdisciplinary knowledge, that is developed by researchers, practitioners and Indigenous Peoples and local communities, working together to address climate change as a persistent problem. The heritage management decision-making process should be informed by this ‘best available knowledge’ approach and the different types of knowledge generated. They also should meet the highest standards of research integrity and be rigorous and transparent in their analysis of the climate risks including estimates of uncertainty, and undertake rigorous impact assessments on potential threats to Outstanding Universal Value to provide decision-makers with insight into, and understanding of, the underlying risks as well as opportunities, and guidance for the formulation of long-term strategies.

24. **Integrate a Sustainable Development perspective.** Actions taken by States Parties to address climate change impacts can also contribute to the implementation of the Sustainable Development Goals (SDGs), in line with the 2015 Sustainable Development Policy through adoption of mutually reinforcing, inclusive and adaptive approaches. Those approaches can help to reflect a wider range of heritage values and knowledge systems beyond Outstanding Universal Value, and support equity, including through equitable sharing of heritage-benefits arising from their use and rights-based approaches. Adaptive approaches, including learning from heritage experience, monitoring and feedback loops, contribute to preparing for and managing the inevitable uncertainties and complexities associated with climate change.

25. **Promote global partnership, inclusion and solidarity.** In addressing climate change, and particularly in the implementation of this Policy Document, relevant stakeholders and rights holders at all levels should work together in a spirit of global partnership, inclusion, and in solidarity with the poorest and most vulnerable people, who are in the front lines of climate change impacts. Climate change does not stop at borders. It conjoins the safeguarding of World Heritage properties with larger sustainability challenges, spatial, social, economic and cultural ones in the surroundings of the properties. Solutions for

the safeguarding of the properties can only be found if they are connected to spatial, social and cultural transformations beyond the site. Strategies need to be developed that provide solutions for sustainable development beyond the borders of the World Heritage property.

## II. THE POLICY FRAMEWORK

### A. Long-Term Vision

26. The vision of the Policy Document is that each State Party understands the current and future potential impacts of climate change on the Outstanding Universal Value of the World Heritage properties situated on their territory, and undertakes climate action in an effective, ambitious, cooperative and active way. This is undertaken consistent with States Parties' obligations under the World Heritage Convention to ensure the protection, conservation and management of their cultural and natural heritage to the utmost of its own capacities and resources and, where appropriate, with international assistance and co-operation.

### B. World Heritage Climate Action Goals

27. The Policy Document establishes the following set of World Heritage Climate Action Goals towards 2030, to guide how World Heritage processes can effectively contribute to the transformative change needed to halt and reverse the negative trends associated with climate change causes and effects, through enhanced and improved collaboration, and effective and synergistic implementation of local, national and international climate policy instruments. While the goals are targeted primarily at States Parties to the Convention, they require the contribution and support of the World Heritage Committee, Advisory Bodies, site managers and civil society. These goals should be viewed in light of national circumstances.

- **Goal 1 (Climate risk assessment):** By 2030, States Parties should develop tools and build capacity needed to assess climate risks and identify potential reversible or irreversible damage to attributes carrying the Outstanding Universal Value associated with current and projected impacts of climate hazards, and to report the resulting climate risks assessments through World Heritage processes such as Periodic Reporting and state of conservation reports (see Section D.1 below);
- **Goal 2 (Climate Adaptation):** By 2030, States Parties should establish at the national and/or other appropriate levels, and implement at the site level, robust climate adaptation frameworks that can demonstrate measurable progress on monitoring of climate hazards, assessing and reducing climate risks and vulnerabilities, and in doing so enhancing adaptive capacity and building climate resilience for all World Heritage properties (see Section D.2 below);
- **Goal 3 (Climate Mitigation):** By 2030, States Parties should implement at national and/or other appropriate levels, comprehensive climate mitigation frameworks that guide mitigation action for cultural, natural and mixed properties that encourage the reduction of net greenhouse gas emissions associated with World Heritage properties, including, where appropriate, actions to safeguard natural ecosystems that are carbon sinks (see Section D.3 below);
- **Goal 4 (Knowledge sharing, capacity building and awareness):** By 2030, States Parties should have developed and implemented activities aimed at improving education, awareness raising, and human and institutional capacity in relation to the risks and responses related to climate change impacts on World

Heritage properties, including programmes designed to promote these properties as exemplars of climate action (see Section D.4 below).

## C. Legal framework

28. The World Heritage Convention and the Operational Guidelines for its implementation provide the legal and administrative framework respectively within which this Policy Document is to be applied. Key duties and obligations of States Parties under the Convention are set out in Articles 4, 5 and 6.

29. Article 4 establishes the basis for States Parties to do all that they can to ensure the conservation, protection, presentation and transmission to future generations of World Heritage properties situated on their territories.

30. Climate change is recognised among the most significant threats to World Heritage properties and is growing. As per Article 5(d), to ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to the Convention shall endeavour, in so far as possible, and as appropriate for each country, to "*take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage"*.

31. Under Article 6(1), "…*the States Parties to this Convention recognise that such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate*". Under Article 6(3), States Parties undertake "*not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage on the territory of other States Parties*". Article 7 enables establishment of a system of international co-operation and assistance designed to support States Parties in their efforts to conserve heritage.

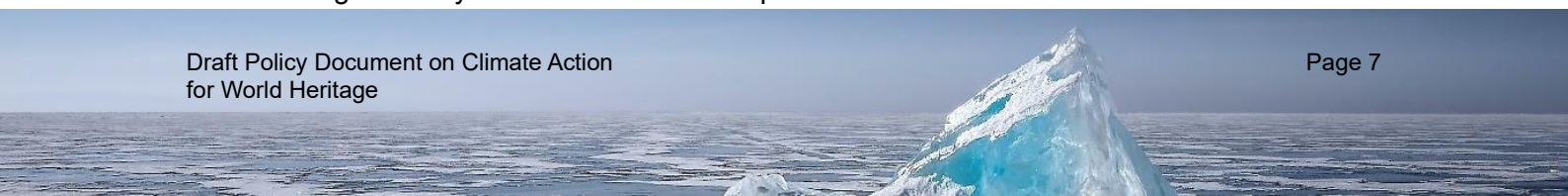
32. While the enumeration of "*serious and specific dangers*" under Article 11 (4) of the Convention concerning the inclusion of properties on the List of World Heritage in Danger does not specifically refer to climate change (which was not under the same scrutiny in the early 1970s as it is now), the provision is clearly sufficiently broad to include its effects.

33. The Operational Guidelines, in paragraphs 179 and 180, set out the criteria for placing cultural and natural properties on the List of World Heritage in Danger for both ascertained and potential dangers. Currently, only Paragraph 179 (b) and Paragraph 180 (b) refer to "*threatening impacts of climatic, geological or other environmental factors*" as a potential danger. Paragraph 181 provides that the "*factor or factors which are threatening the integrity of the property must be those which are amenable to correction by human action*".

34. It is also recommended that climate change be considered in the nomination of properties for inscription on the World Heritage List. Each nominated property should have a management plan or other documented management system (Paragraph 108 of the Operational Guidelines). The nomination dossier (Paragraph 132(4)) should address the state of conservation and a description of the factors affecting the property, including threats. The format for the nomination of properties is included in Annex 5 of the Operational Guidelines and refers to "*environmental pressures*" as factors affecting the property and lists, as an example, climate change (Section 4a(ii) of the format).

35. Current management and protection requirements (paragraphs 111, 118, 118bis) address climate change impacts and identify the assessment of vulnerabilities of the nominated site to actual and potential social, economic, environmental and other pressures and changes, including climate change, as a common element any effective management system could include. Impact assessments must also be carried out as a





pre-requisite for adaptation and mitigation responses within or around a World Heritage property to ensure that the Outstanding Universal Value is not negatively impacted.

36. This Policy Document foresees that over the coming decade and beyond, climate change will negatively impact the Outstanding Universal Value of World Heritage properties and also the potential Outstanding Universal Value of many places proposed for inscription on the World Heritage List. This may call for the establishment of a dialogue, inclusive of States Parties, the UNESCO World Heritage Centre, the Advisory Bodies, and civil society, to address significant legal and interpretative questions raised by climate change with respect to the Convention, based on the line of questioning first proposed in Annex 2 of the 2007 Policy Document, as follows:

- Whether a property should be inscribed on the World Heritage List while knowing that its potential Outstanding Universal Value may disappear due to climate change impacts;
- Whether a property should be inscribed on the List of World Heritage in Danger or deleted from the World Heritage List due to impacts beyond the sole control of the concerned State Party (i.e. threats and/or the detrimental impacts on the integrity of World Heritage properties associated with the global impacts of warming from anthropogenic GHG emissions);
- The reality that for some natural and cultural properties, it will be impossible to maintain the “original” Outstanding Universal Value for which they were originally inscribed on the World Heritage List, even if effective adaptation and mitigation strategies are applied, and this may require an “evolving” assessment of Outstanding Universal Value.

## D. Climate action

37. Climate actions include responses within the framework of the World Heritage Convention to the threat of climate change, based on the most recent scientific and political developments. Key categories of climate action with respect to World Heritage properties are: (i) Assessing climate risks (ii) Climate adaptation (iii) Climate mitigation and (iv) Knowledge sharing, capacity building and awareness. These responses take advantage of better coordination and effective implementation of the local, subnational, national and international developments since the adoption of the Paris Agreement.

38. Latest scientific findings, especially those documented in IPCC reports, indicate that both mitigation and adaptation options are specific to national contexts, and if carefully selected together with enabling conditions, can be mutually reinforcing. However, mitigation and adaptation can also have adverse impacts on Outstanding Universal Value, if these are poorly designed or implemented. Even with best efforts, real and perceived tensions may develop between proposed climate action pathways and the obligations of States Parties under the Convention to preserve the Outstanding Universal Value of World Heritage properties, including the conditions of integrity and/or authenticity at the time of inscription.

39. Climate-related risks to World Heritage properties depend on the rate, peak and duration of global warming. Risks are generally higher for warming of 1.5°C above pre-industrial levels than at present, but lower than at 2°C. Adaptation is correspondingly expected to be more challenging for some World Heritage properties at 2°C of global warming than for 1.5°C. This underscores the importance of considering both adaptation and mitigation approaches. In addition, adaptation options that also mitigate GHG emissions can provide synergies and cost savings.

## D.1. Assessing climate risks to World Heritage properties

40. Improving capacity to assess climate change risks is the objective of World Heritage Climate Action Goal 1 (see Section II.B. above). This goal asks States Parties, in light of the national circumstances, to develop, by 2030, tools and build capacity needed to identify potential reversible or irreversible loss of attributes of Outstanding Universal Value associated with current and projected climate hazards including those that may exceed the adaptive capacity of relevant human or natural systems. Climate risk assessments are crucial for understanding and anticipating negative impacts and potential loss of Outstanding Universal Value and provide critical information to help determine how to manage them. It also asks States Parties to report the results thereof through World Heritage processes.

41. To design effective climate actions, including mitigation and adaptation strategies, the heritage community needs to have a good understanding of the climate risks involved. Correspondingly, there is a need for methodologies and mechanisms to systematically assess such risks. These methodologies should promote improved measurability of impacts and potential loss of heritage values and improved understanding of the economic, social, health, education, and environmental cost of such losses (including effects on ecosystem and cultural services). Defining or clarifying risks to Outstanding Universal Value and other measurable, non-monetary values that support a given World Heritage property can also aid in determining the adaptation limits of that resource or system, including the acceptability or non-acceptability of levels of change and consequent perceptions of loss and irreplaceability. Although climate actions will often result in adjustments that are within a given heritage system's adaptive limits, completely preventing all projected impacts of climate change on every World Heritage property will not be possible with the result being damage to or loss of attributes of Outstanding Universal Value.

42. There exists a range of approaches and instruments to undertake risk assessments associated with the impacts of climate change. The challenge is to identify the more appropriate methodologies, not only to the type of hazard but also to the social, environmental, economic, geographical, landscape and institutional context of the properties for which the Outstanding Universal Value may be at risk of being irretrievably damaged or lost. Special consideration should also be included for populations at disproportionately higher risk of adverse consequences, for example disadvantaged and vulnerable populations, Indigenous Peoples, and local communities.

43. Managers of World Heritage properties require a clear understanding of the climate risks to which their properties are vulnerable, the capacity needed to prepare for and respond to those risks, and the residual risks afterwards. Within this context, the Policy Document encourages States Parties to the Convention to aim to integrate climate risk management for World Heritage properties within wider national approaches and frameworks for climate adaptation. As noted in this Policy Document, further dialogue is needed on how the impacts of climate change on Outstanding Universal Value are dealt with by the World Heritage system.

44. Sharing experiences of methods and results to assess climate hazards, vulnerabilities and risks across World Heritage properties can also help to build adaptive capacity and resilience. Cross-property actions such as promoting the development of climate risk assessment tools for regions, ecosystems or heritage typologies is encouraged. Transboundary and transnational properties also present an important case where shared responses to common climate risks should be encouraged.

45. This Policy Document encourages the UNESCO World Heritage Centre, in collaboration with the Advisory Bodies, to find ways to integrate climate risk management mechanisms, including assessment and monitoring of climate hazards and the factors that cause or exacerbate them, into existing World Heritage processes. Mechanisms

could include, but not limited to, making the consideration of climate change a requirement in the nomination process, Periodic Reporting, Reactive Monitoring, protective measures, and management systems, including management plans. Climate change considerations should similarly be incorporated into related World Heritage doctrines, policies and resource manuals. New tools might be needed to assess climate change impact on the state of conservation of World Heritage properties, as well as to identify factors that can become threats and that could ultimately impact on the Outstanding Universal Value of properties.

46. Further technical considerations in developing a climate risk management assessment and management strategies are presented in Annex II of this Policy Document.

## D.2. Climate Adaptation

47. World Heritage Climate Action Goal 2 (see Section II.B above) refers to the necessary climate adaptation actions to avoid and minimise climate impacts on heritage values, consistent with the obligations of States Parties under the Convention to preserve the Outstanding Universal Value of properties. According to IPCC, "*in human systems, climate adaptation is the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, it is the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects*".

48. Climate adaptation should relate to all hazards that are directly and indirectly attributed to climate change, exposure of various components of the World Heritage properties to these hazards and related vulnerability factors (physical, social, economic, institutional, etc.) This reflects not only the importance of addressing all components of climate risks (hazards, exposure, vulnerability), but also makes clear that climate change adaptation cannot be seen in isolation from other risk factors.

49. Climate change is a risk multiplier that can exacerbate current hazards, exposures and vulnerabilities including poverty, urbanisation, pollution, and insecurity, with potential implications for social conflict. World Heritage properties may also be impacted by improper adaptation or mitigation responses to climate change (i.e. maladaptation).

50. Climate change may have positive impacts on the Outstanding Universal Value of some World Heritage properties. Therefore, climate adaptation strategies should consider whether there are opportunities to exploit these positive impacts, while also reducing the risks of the negative impacts of climate change. A lost opportunity may be as harmful as a negative impact.

51. The importance of addressing non-climate threats and pressures, in particular to natural and mixed World Heritage properties, is emphasised because doing so effectively can help build their resilience to climate change and improve their adaptive capacity. In circumstances where the impacts of climate are intensifying and increasing in frequency, action on other pressures will become increasingly important to sustaining the resilience of World Heritage properties and protecting their Outstanding Universal Value.

52. The impacts of climate change can also exacerbate the many drivers of human mobility (migration, planned relocation and displacement). Communities associated with some World Heritage properties are already experiencing climate change impacts that could ultimately induce migration and/or displacement of people and impact Outstanding Universal Value, particularly for those properties for which Outstanding Universal Value depends on cultural continuity. This Policy Document emphasises that adequate support be given to States Parties who face not only the potential loss of World Heritage properties, but the displacement of communities associated with them. Clear guidance needs to be developed on how such eventualities will be considered and evaluated by the World Heritage Committee and on how implementation strategies might be framed.

A useful starting point would be to create methodologies for identifying World Heritage properties associated with communities at greater risk for displacement.

53. The Policy Document also recognises that adaptation is a global challenge faced at local, subnational, national, regional and international levels. World Heritage properties can support wider adaptation efforts at all levels. World Heritage properties and the values they embody have the potential to contribute to social resilience and the recovery from climate change losses by providing a common framework for identifying potential loss and by supporting a sense of place, continuity and identity. World Heritage properties can also serve an educational and communication function by highlighting the links between nature and culture, and the sustainability of many historic, traditional and indigenous practices. Heritage values can support social cohesion, which is an important element of adaptive capacity, which in turn can be fostered through participatory approaches to heritage management.

54. In the Preamble and Article 7.5 of the Paris Agreement, its Parties acknowledge that adaptation action should follow "a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate". World Heritage properties should seek to exemplify this approach. The importance of Indigenous Peoples' and local communities' knowledge for understanding impacts and designing and implementing appropriate adaptation actions should be valued and appropriately utilised via a participatory process characterised by respect for the diversity of cultural expressions[5]. The use of traditional practices in climate adaptation should be supported by practical training for local experts and communities in order to support dynamism, internal creativity and experimentation in such knowledge systems.

55. This Policy Document also acknowledges that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems. Adaptation actions at World Heritage properties should also contribute towards increasing the resilience of indigenous peoples and local communities.

56. World Heritage processes need to be strengthened to support the expected climate adaptation outcomes. Areas for further focus on this topic to World Heritage properties and World Heritage Climate Action Goal 2 are set out in Annex II to the Policy Document.

### D.3. Climate Mitigation

57. Aligning the management of World Heritage properties with the imperative of climate change mitigation through a comprehensive climate mitigation framework is the objective of World Heritage Climate Action Goal 3 (see Section II.B above). This goal asks States Parties to implement at national and/or other appropriate levels, comprehensive climate mitigation frameworks that guide mitigation action for cultural sites and safeguard natural ecosystems that are carbon sinks. It also encourages the reduction of greenhouse gas emissions associated with World Heritage properties.

[5] See https://unfccc.int/LCIPP-FWG for more details on the UNFCCC's Facilitative Working Group of the Local Communities and Indigenous Peoples Platform

58. The IPCC defines mitigation as "*a human intervention to reduce emissions or enhance the sinks of greenhouse gases.*"[6]. IPCC´s reports, and most notably the 1.5°C Special Report (2018), makes clear that limiting global warming to 1.5°C would require rapid and far-reaching transitions in the global economy, with deep emissions reductions in all sectors, a wide portfolio of mitigation options and a significant upscaling of investments in those options. Within this context, this Policy Document encourages States Parties to the Convention to aim for a transition towards low-carbon alternatives for World Heritage properties management as soon as possible.

59. Given the high profile, global reach, and a broad mix of heritage typologies included within the World Heritage List, States Parties are encouraged to maximise the 'signalling' value and inspirational power of World Heritage properties to showcase 'win-win' mitigation practices that both reduce greenhouse gases and safeguard Outstanding Universal Value, with the potential to set international standards in heritage management.

60. Noting that by representing some of the world´s most outstanding natural ecosystems and by their important role in the mitigation of climate change with the large amount of carbon they store, the protection of natural World Heritage properties is considered the Convention's most impactful contribution to addressing climate change mitigation.

61. World Heritage properties, especially natural, mixed and large-scale cultural landscapes, are among those places that might significantly contribute to climate mitigation by:

- Safeguarding natural ecosystems that are carbon sinks;
- When feasible and consistent with protecting Outstanding Universal Value, undertaking actions to enhance carbon sequestration in natural systems.

Such approaches would need to adhere to strict environmental and social safeguards and consider carbon storage permanence.

62. In the context of cultural and mixed properties, and especially for cultural landscapes, mitigation actions based on enhanced land use management, should avoid and minimise impact on heritage values including customary land management practices, consider the concomitant impact on the livelihoods of Indigenous Peoples and local communities, and be consistent with the States Parties' obligations under the Convention to preserve the Outstanding Universal Value.

63. Among the options to consider are:

- Use of traditional passive measures in historical buildings as strategies to reduce energy consumption;
- Use of the Life cycle assessment (LCA) methodology for the selection of replacement materials requiring less energy to produce, and thus emitting less GHG;
- Promoting the critical role of routine maintenance and good conservation in reducing operational GHG.

64. Annex III to this Policy Document frames some key areas for additional focus of GHG emissions reduction efforts in the context of management of World Heritage properties,

[6] The word 'mitigation' is used in this Policy Document in the technical sense in which it is used by the IPCC: "*a human intervention to reduce emissions or enhance the sinks of greenhouse gases*." This is essentially the same sense in which the word was used in the 2007 Policy Document ("*Mitigation: an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases* (IPCC)"). Users of this Policy Document should not confuse this usage with the sense in which the word 'mitigation' is used in the heritage context (namely, measures to avoid, prevent, reduce or offset negative effects on Outstanding Universal Value or other values).

including: (a) Built environment; (b) Land use management; (c) Life cycle assessment; (d) Tourism management.

### D.4. Knowledge Sharing, Capacity Building and Awareness

65. The 2015 Paris Agreement recognises the importance of education and capacity building for enhancing climate action. The World Heritage Convention and its processes also consider these factors as important for the effective management and conservation of World Heritage.

66. In line with World Heritage Climate Action Goal 4 (see Section II.B above), States Parties are encouraged to build capacities of decision-makers, stakeholders, local communities, users and managers of the World Heritage properties, and other heritage specialists to upgrade their skills and knowledge about the impacts of climate change on properties, including the intrinsic link between nature loss and climate change, developing and implementing appropriate climate actions, possible sources of technical and financial assistance, and engaging with climate change-related networks.

67. The vast majority of the climate-related issues that World Heritage properties are facing are persistent problems. Therefore, World Heritage needs interdisciplinary and transdisciplinary knowledge, that is created by researchers, practitioners, site managers and local communities and Indigenous Peoples, working together to address climate change that will influence heritage management for the decades to come.

68. In line with references to training and awareness-raising set out in the World Heritage Convention and the UNFCCC, national educational strategies should adequately address the intersections between heritage, in general, and World Heritage in particular, and climate change. Such approaches benefit from emphasising the importance of knowledge exchange across a wide range of stakeholders and rights holders including those from heritage management and climate science, encouraging research, recognising existing ways of learning about climate change, while encouraging the intergenerational exchange of knowledge.

69. States Parties and managers of World Heritage properties are encouraged to share with other managers their experience on dealing with climate change impacts on their properties by developing case studies on challenges and good practices and the lessons learnt. World Heritage properties should also be used, wherever appropriate and possible, as means to raise awareness about the impacts of climate change on heritage and should act as a catalyst in the international debate to obtain support for policies, and to communicate good practices of climate action.

70. Mobilising public and political support for climate action inside and outside World Heritage properties is essential. This can be achieved through workshops, exhibitions and expositions, site interpretation, media campaigns, audio-visual material and publications which link the impacts of the global phenomenon of climate change to national, local and property levels. This would require the development of tools to communicate effectively the impacts of climate change and implications of actions on World Heritage properties to various audiences, including civil society, with subsequent benefits for research, decision-making, planning and management.

71. World Heritage properties can serve as living laboratories, or platforms for knowledge and research, for monitoring change, linking policy and practice and fostering understanding of climate change and of the need for climate action. World Heritage properties should take advantage of the diverse fields of heritage research both in sciences and humanities, and World Heritage properties should be monitored to advance understanding of short-term and long-term environmental and global change on properties. This could include using science, traditional/indigenous and local knowledge (with free, prior and informed consent as appropriate) and the history of World Heritage

properties to track past human interactions and their effects on environments, and to assess climatic, environmental and social baselines from where contemporary climate and society are shifting.

72. Areas for further focus regarding knowledge sharing, capacity building and awareness are set out in Annex IV to the Policy Document.

### D.5. Transformative change

73. This transformative change section of the Policy Document highlights and synthetises the elements associated with the urgency and scale of action required by the World Heritage Convention to support bold decisions to transition to a carbon neutral and resilient world that can sustain World Heritage properties for future generations.

74. World Heritage is immersed in an unprecedented global change: a rapidly changing climate and the progressive loss of global biodiversity are perhaps the most prominent indicators of how rapidly humans are negatively transforming the planet. The majority of direct drivers of those changes share common causes in that they are underpinned by societal values and behaviours that induce unsustainable production and consumption patterns.

75. Global initiatives, most notably led by IPCC and IPBES, are indicating the need for urgent and concerted efforts for a "fundamental, system-wide reorganisation across technological, economic and social factors, including paradigms, goals and values", that ultimately lead to a "*transformative change*" to address both nature loss and climate change. Both IPCC and IPBES indicate that except in scenarios that include transformative change, negative trends in climate and nature are projected to continue to 2050 and beyond.

76. In the short term (before 2030), all heritage decision-makers could contribute to that transformative change, through enhanced and improved implementation and enforcement of effective national and local climate policy. Additional measures are necessary to enable transformative change in the long term (up to 2050) to contribute to addressing the indirect drivers that are the root causes of climate change, including changes in social, economic and technological structures within and across nations.

77. In the context of climate adaptation, transformative change for limiting the risks from global warming of 1.5°C implies system transitions that can be enabled by an increase of adaptation investments, policy instruments, the acceleration of technological innovation and behaviour changes. For example, World Heritage can be safeguarded through enhanced international cooperation and linked locally relevant measures. The review and renewal of agreed climate-related international goals and targets based on the best available scientific knowledge and the widespread adoption and funding of transformative and resilient heritage management plans, are key to this safeguarding.

78. Another aspect of transformative change in the heritage sector, are the pathways undertaken by each country for limiting global warming to 1.5°C that should imply rapid and far-reaching transitions in many heritage-related sectors. These transitions are unprecedented in terms of scale, and imply deep GHG emissions reductions in all sectors, a wide portfolio of mitigation options and a significant upscaling of investments in those options.

## III. IMPLEMENTATION OF THE POLICY DOCUMENT

79. This section articulates recommendations for implementing the Policy Document at various levels, namely World Heritage Committee, States Parties and World Heritage property levels. The five key considerations for implementing the Policy Document are:

- Integrating measures to identify and manage climate related risks to the Outstanding Universal Value at the property level and in the processes of the Committee;
- Integrating World Heritage in climate change planning and design at national and local levels;
- Developing and sharing tools and methodologies to assess and manage the current and future impact of climate change with various stakeholders and rights holders, at the property, national and international levels (particularly through the process of establishing regional Action Plans);
- Enabling World Heritage properties to contribute to the transformative change that is necessary for low carbon resilient development;
- Utilising a place-based approach to contextualise climate action responses, integrating nature and culture in the management of all properties in response to climate change, and respecting the rights and interests of Indigenous Peoples and local communities.

80. To achieve these, various actions are recommended at World Heritage Committee, States Parties and World Heritage property levels. For the effective implementation of the Policy Document, an internationally collaborative approach is advocated through engagement of all the stakeholders and rights holders to develop and implement the tools and methodologies that can support climate action for World Heritage properties. This should utilise existing mechanisms where appropriate, including Reactive Monitoring and Periodic Reporting, to promote best practice and regional engagement opportunities for climate-related action concerning World Heritage protection.

### A. Enabling conditions

81. Successful implementation of this Policy Document requires enabling conditions that support the feasibility of adaptation and mitigation options and can accelerate and scale-up systemic transitions and enhance capacities of systems and societies to adapt to climate change, while safeguarding the Outstanding Universal Value, achieving sustainable development, eradicating poverty and reducing inequalities. These include finance, technological innovation, institutional capacity, multi-level governance, and changes in human behaviour and lifestyles. They also include inclusive processes, attention to power asymmetries and unequal opportunities. States Parties will endeavour to enhance the feasibility of actions contemplated through this Policy Document by attention to the enabling conditions underpinning climate action in the World Heritage context. The World Heritage Committee will be an advocate for climate action and will work to support partners that are expected to carry out such action under this Policy Document.

#### Governance

82. Climate governance is key to creating the conditions for implementing transformative change in the World Heritage context. Such World Heritage climate governance systems should embrace inclusive approaches that accommodate a plurality of heritage values, beyond Outstanding Universal Value, and can ensure equitable sharing of heritage-

benefits, including through rights-based approaches. Climate governance should encourage novel strategies for climate–related knowledge production and co-production that are inclusive of diverse values and knowledge systems. Local communities should be closely involved in the processes of investigation of the impacts of climate change and the development of climate action strategies. Adaptive approaches, including learning from heritage experiences, monitoring and feedback cycles, contribute to preparing for and managing the inevitable uncertainties and complexities associated with climate change. Governance systems should also link the management of natural and cultural values, including at a landscape scale, where possible.

83. The 2017 UNESCO Declaration of Ethical Principles in relation to climate change provides a useful framework for addressing justice and equity and the need for prioritising action in an equitable and transparent manner. The 2017 UNESCO Policy on engaging with Indigenous Peoples provides further useful references on participation and actions.

**Finance**

84. Transfer and mobilisation of finance are among the necessary enabling conditions to promote climate action for World Heritage properties, including investment in infrastructure for mitigation and adaptation. Adaptation needs have typically been supported by public sector sources such as national and subnational government budgets, and in developing countries together with support from development assistance, multilateral development banks, and the UNFCCC. In this aspect, World Heritage properties should be considered as part of the overall national and regional planning strategies to ensure that adequate financial resources are made available to support property-level climate action. Barriers include the scale of adaptation financing, limited capacity and access to adaptation finance. The better incorporation of funding for World Heritage properties into global climate finance mechanisms is needed. International cooperation is a critical enabler for developing countries and vulnerable regions to strengthen their action for the implementation of responses at World Heritage properties consistent with transformative change.

**Technological Innovation**

85. Climate technologies are technologies used to address climate change and include renewable energies such as wind energy, solar power and hydropower that help reduce GHG. Traditional knowledge and Indigenous science can also constitute climate technology with relevance to contemporary climate action. Various climate technologies – such as drought-resistant crops, early warning systems and sea walls – can be used to adapt to the adverse effects of climate change at World Heritage properties. This is particularly useful for active cultural landscapes in which the strong human connections to the natural environment are key to the survival of such sites and to the conservation of the Outstanding Universal Value of such properties.

## B. World Heritage Committee-level implementation

86. Implementation of climate actions related to the enabling conditions (see Section III.A above) at the World Heritage Committee-level could be supported by:

- Developing and implementing a funding strategy to attract public and private sector support for climate action and capacity building for World Heritage properties. Prioritisation process should be set up to provide financial support to the States Parties for carrying out various mitigation and adaptation measures for protecting, conserving and presenting the Outstanding Universal Value of World Heritage properties. Moreover, better incorporation of funding for World Heritage properties into global climate finance mechanisms is needed;

- Ensuring that basic documents of the World Heritage system, such as the Operational Guidelines and the Resource Manuals, adequately address climate change;
- Promoting climate action measures for properties that are on the frontlines of climate change impacts in order to express solidarity with them and encourage South-South collaboration.

87. Implementation of climate actions related to World Heritage Climate Action Goal 1 (Assessing Climate Risks) (see Section II.B above) at the World Heritage Committee-level could be supported by:

- Strengthening the link between the World Heritage Convention and UNFCCC in terms of monitoring and reporting mechanisms related to climate change and World Heritage properties;
- Promoting synergies with existing international policies and tools from various sectors including SDGs, Sendai framework, biodiversity conventions and agreements, Paris Agreement, New Urban Agenda, as well as the site-based instruments such as the 1971 Ramsar Convention of Wetlands of International Importance, the UNESCO Man and the Biosphere and Global Geoparks Programmes for a comprehensive approach towards climate change and its impact on World Heritage;
- Considering amendments to the formats of World Heritage Periodic Reporting and state of conservation reporting by including indicators that identify the impact of climate change on World Heritage properties and indicate site-specific adaption strategies based on the UNESCO's Culture|2030 Indicators;
- Identifying regional (across States Parties) or thematic actions such as promoting the development of risk and vulnerability maps for regions and sub-regions, which overlay climate data and World Heritage property locations and operationalise such initiatives.

88. Implementation of climate actions related to World Heritage Climate Action Goal 2 (Adaptation) (see Section II.B above) at the World Heritage Committee-level could be supported by:

- Enhancing opportunities for collaboration and partnerships with key international organisations such as the World Bank, the United Nations Environment Programme (UNEP), the United Nations Office for Disaster Risk Reduction (UNDRR), the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC), the G20, etc. for various projects that promote climate action in World Heritage properties; In this regard, it should be recognised that the ability of the World Heritage Committee to interact with other international mechanisms will depend on, and be limited by, the respective mandates and responsibilities of each body.

89. Implementation of climate actions related to World Heritage Climate Action Goal 3 (Mitigation) (see Section II.B above) at the World Heritage Committee-level could be supported by:

- Considering amendments to the formats of World Heritage Periodic Reporting and state of conservation reporting by including indicators that collect information on site-specific mitigation strategies being pursued.

90. Implementation of climate actions related to World Heritage Climate Action Goal 4 (Knowledge, Capacity Building and Awareness) (see Section II.B above) at the World Heritage Committee-level could be supported by:

- Strengthening the links between the World Heritage Convention and UNFCCC in terms of sharing of information and communication related to climate change and World Heritage properties;
- Developing, compiling and sharing good practice guidance and capacity building tools for climate vulnerability and risk assessment and developing and implementing climate mitigation and adaptation measures;
- Facilitating sharing of scientific information and experience across States Parties through setting up of an online platform for effective implementation, monitoring and review of implementation of the Policy Document;
- Identifying mechanisms to support needs and capacities of the Least Developed Countries (LDCs) and the Small Island Developing States (SIDS) to address climate change impacts.

## C. National-level implementation

91. Implementation of climate actions related to the enabling conditions (see Section III.A above) at the national-level could be supported by:

- Identifying and accessing the resources needed from all sources through collaboration with government and corporate/private sectors;
- Achieving coherence with other national policies by building synergies between the heritage sector and other sectors such as environment, urban and disaster risk management. This may include identification and mapping of relevant sectors which can collaborate and creation of shared data sources and benchmark methodologies;
- Ensuring that national guidance on World Heritage and for cultural and natural heritage generally addresses climate change;
- Developing pilot projects that promote good practices in climate action for World Heritage properties that are inclusive of diverse values and knowledge systems and disseminating these at international, national and property levels to demonstrate how World Heritage properties are assets to protect as well as resources to strengthen community adaptation, resilience and continuity.

92. Implementation of climate actions related to World Heritage Climate Action Goal 1 (Assessing Climate Risks) (see Section II.B above) at the national-level could be supported by:

- Standardising and sharing data gathering across various World Heritage properties to facilitate identification and analysis of common hazards and impacts of climate change at national level;
- Consistent with any World Heritage Committee standards and guidelines, developing effective processes for assessing the vulnerability of Outstanding Universal Value and other heritage values to climate change impacts, and evaluating the effectiveness of climate action measures implemented at the World Heritage properties in the Nomination process, Periodic Reports and the state of conservation reports;
- Developing climate vulnerability and risk indicators and establishing baseline data for World Heritage properties at national level to assess and track Climate risks, as the first step in strengthening capacity to manage climate risks at all World Heritage properties. These can include the Climate Adaptation and Resilience indicators (under the Environment and Resilience thematic dimension) of the UNESCO's Culture|2030 Indicators;

- Supporting reassessment and adjustments in all stages of heritage practice including inventorying, documentation and monitoring, impact assessments, conservation and management planning, and risk assessment in view of the unprecedented, systemic threat posed by climate change.

93. Implementation of climate actions related to World Heritage Climate Action Goal 2 (Adaptation) (see Section II.B above) at the national level could be supported by:

- Recognising and including World Heritage in National Adaptation Frameworks and other national policies for climate action in order to strengthen actions to adapt and build resilience to climate change, and to promote collaboration to ensure that adequate financial resources are made available to support property-level climate action, including investment in infrastructure for adaptation;
- Working in partnership with relevant organisations, stakeholders and rightsholders in field activities to develop and implement adaptation strategies;
- Sharing methodologies and tools, respecting traditional knowledge and methods;
- Encouraging, relevant institutions to the extent possible and within the available resources, to monitor relevant climate parameters and contribute to preparing for and managing the inevitable uncertainties and complexities associated with climate change through various adaptation strategies.

94. Implementation of climate actions related to World Heritage Climate Action Goal 3 (Mitigation) (see Section II.B above) at the national level could be supported by:

- Implementing precautionary approaches that pursue pathways that contribute to limiting global warming to 1.5°C, with no or limited overshoot;
- Recognising and including World Heritage in national climate action plans and other national policies for climate action in order to strengthen actions to mitigate and to promote collaboration to ensure that adequate financial resources are made available to support property-level climate action, including investment in infrastructure for mitigation;
- Working in partnership with relevant organisations, stakeholders and rightsholders in field activities to develop and implement mitigation strategies;
- Developing frameworks that identify and promote the co-benefits of climate action and heritage safeguarding and which reduce real and perceived tensions between climate action and safeguarding Outstanding Universal Value, for example through impact assessment tools, environmental and social standards and taxonomies which take into account the cultural and social dimension of climate action projects; as well as through planning processes and methodologies for proactively avoiding and mediating conflicts. Such frameworks may be particularly relevant in addressing proposed renewable energy projects (e.g. terrestrial and maritime “wind farms” energy infrastructure, transmission grids), carbon dioxide removal/capture projects, flood control schemes, changes in land-use, and the renovation of heritage buildings for energy efficiency.

95. Implementation of climate actions related to World Heritage Climate Action Goal 4 (Knowledge, Capacity Building and Awareness) (see Section II.B above) at the national level could be supported by:

- Elaboration on the role of World Heritage in climate-resilient development pathways that strengthen sustainable development (including efforts to eradicate poverty and reduce inequalities) and promote mitigation of and adaptation to a changing climate.

## D. World Heritage property-level implementation

96. Implementation of climate actions related to World Heritage Climate Action Goal 1 (Assessing Climate Risks) (see Section II.B above) at the World Heritage property level could be supported by:

- Undertaking climate vulnerability and risk assessments for World Heritage properties to assess potential impact on Outstanding Universal Value caused by projected climate change hazards and the impact on associated communities including:
  - i) Acquiring data on climate related hazards, vulnerabilities and risks and other baseline information, including a current inventory of not only attributes of Outstanding Universal Value, but other relevant cultural and natural values,
  - ii) Developing strategies to reduce non-climatic stress factors on properties to enhance resilience of the property to climate change impacts.

97. Implementation of climate actions related to World Heritage Climate Action Goal 2 (Adaptation) (see Section II.B above) at the World Heritage property level could be supported by:

- Developing and implementing climate adaptation strategies consistent with climate adaptation frameworks developed at the national level including:
  - i) Integrating climate action measures (mitigation and adaptation) in site management systems and management plans, and reporting, monitoring and evaluating the effectiveness of these measures,
  - ii) Developing the capacity to access local climate scenarios (i.e. simulations of the future climate at local level) and incorporate the results into medium term planning and policy making for the property;
- Prioritising monitoring of climate hazards, assessing and reducing climate risks and enhancing adaptive capacity at the property;
- Implementing management practices that reduce the vulnerability and increase the resilience of World Heritage properties to existing non-climatic pressures and threats that will be exacerbated by climate change impacts, such as urbanisation and uncontrolled tourism;
- Engaging with traditional knowledge holders and local communities to appreciate and apply community and indigenous values and understanding of climate change and adaptation, when formulating and implementing climate actions and priorities.

98. Implementation of climate actions related to World Heritage Climate Action Goal 3 (Mitigation) (see Section II.B above) at the World Heritage property level could be supported by:

- Contributing to the establishment of carbon footprint systems that demonstrate measurable progress on quantifying and, where appropriate, reducing or otherwise offsetting any net greenhouse gas emissions associated with the property, including by engaging with relevant stakeholders and service providers in order to monitor, measure and reduce the GHG emissions associated with the property, including from tourism, land use and buildings.

99. Implementation of climate actions related to World Heritage Climate Action Goal 4 (Knowledge, Capacity Building and Awareness) (see Section II.B above) at the World Heritage property level could be supported by:

- Designed and implemented activities to improve diverse knowledge mobilisation, education, awareness raising, and human and institutional capacity in relation to

the risks and responses arising from climate change impacts on World Heritage properties, including:

i) Using properties as observatories of climate change to support climate science, Indigenous Peoples' knowledge systems and understanding of short-term and long-term environmental change,

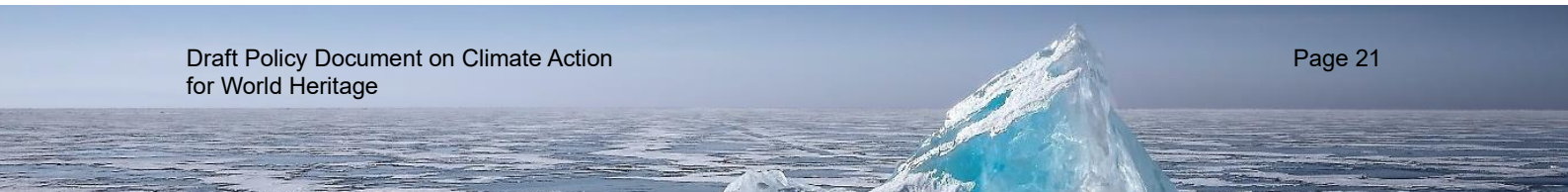
i) Increasing messaging on climate change matters,

ii) Showcasing case studies and better conservation practices related to climate action and climate change,

iii) Updating site interpretation by including climate change stories for increasing awareness and providing enhanced visitor experience of World Heritage;

- Enhancing climate action governance processes including by involving local communities closely in the processes of investigation of the impacts of climate change and the development of climate action strategies;
- Contributing knowledge, data and perspectives derived from the properties to broader climate policy processes through participation in appropriate local, regional and national climate planning processes and climate science initiatives, including interdisciplinary and transdisciplinary cooperation and knowledge co-production.





# ANNEXES

## ANNEX I - GLOSSARY

The glossary contains definitions of concepts that have been used in the Policy Document. These are drawn from IPCC reports (2012 – "Special report on Managing the risks of extreme events and disasters to advance Climate Change adaptation" – SREX; 2018 – "Special report on the impacts of global warming of 1.5°C"; 2019 – "Special report on Climate Change and land"). It is hoped that these terms will understood by heritage sector to enable better communication and coordination with environment sector. The discrepancy between some of the terms such as mitigation used in heritage and defined in the glossary based on IPCC reports also need to be recognised.

**Adaptation**:

"In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects" (IPCC-2018)

**Adaptation limits**:

"The point at which an actor's objectives (or system needs) cannot be secured from intolerable risks through adaptive actions". (IPCC-2018)

**Adaptive capacity**:

"The ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences". (IPCC-2018)

**Baseline scenario**:

"In much of the literature the term is also synonymous with the term business-as-usual (BAU) scenario, although the term BAU has fallen out of favour because the idea of business as usual in century-long socio-economic projections is hard to fathom. In the context of transformation pathways, the term baseline scenarios refers to scenarios that are based on the assumption that no mitigation policies or measures will be implemented beyond those that are already in force and/or are legislated or planned to be adopted. Baseline scenarios are not intended to be predictions of the future, but rather counterfactual constructions that can serve to highlight the level of emissions that would occur without further policy effort. Typically, baseline scenarios are then compared to mitigation scenarios that are constructed to meet different goals for greenhouse gas (GHG) emissions, atmospheric concentrations or temperature change. The term baseline scenario is often used interchangeably with reference scenario and no policy scenario". (IPCC-2018)

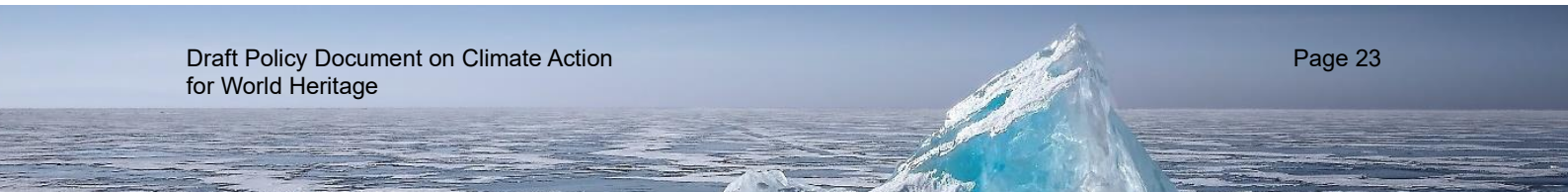
**Carbon budget**:

"This term refers to three concepts in the literature: (1) an assessment of carbon cycle sources and sinks on a global level, through the synthesis of evidence for fossil-fuel and cement emissions, land- use change emissions, ocean and land CO2 sinks, and the resulting atmospheric CO2 growth rate. This is referred to as the global carbon budget; (2) the estimated cumulative amount of global carbon dioxide emissions that is estimated to limit global surface temperature to a given level above a reference period, taking into account global surface temperature contributions of other GHG and climate forcers; (3) the distribution of the carbon budget defined under (2) to the regional, national, or sub-national level based on considerations of equity, costs or efficiency". (IPCC-2018)

**Carbon footprint**:

"The process of storing carbon in a carbon pool" (IPCC-2018)





**Carbon sink**:

“A reservoir (natural or human, in soil, ocean, and plants) where a greenhouse gas, an aerosol or a precursor of a greenhouse gas is stored. Note that UNFCCC Article 1.8 refers to a sink as any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere”. (IPCC-2018)

**Climate change**:

“Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use. Note that the Framework Convention on Climate Change (UNFCCC), in its Article 1, defines climate change as: “*a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods*.” The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition and climate variability attributable to natural causes”. (IPCC-2018)

**Climate risk**:

“In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences of a climate-related hazard, or of adaptation or mitigation responses to such a hazard, on lives, livelihoods, health and wellbeing, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Risk results from the interaction of vulnerability (of the affected system), its exposure over time (to the hazard), as well as the (climate-related) hazard and the likelihood of its occurrence”. (IPCC-2018)

**Co-benefits**:

The positive effects that a policy or measure aimed at one objective might have on other objectives, thereby increasing the total benefits for society or the environment. Co-benefits are often subject to uncertainty and depend on local circumstances and implementation practices, among other factors. Co-benefits are also referred to as ancillary benefits. (IPCC-2018)

**Enabling condition**:

“Conditions that affect the feasibility of adaptation and mitigation options, and can accelerate and scale-up systemic transitions that would limit temperature increase to 1.5°C and enhance capacities of systems and societies to adapt to the associated climate change, while achieving sustainable development, eradicating poverty and reducing inequalities. Enabling conditions include finance, technological innovation, strengthening policy instruments, institutional capacity, multi-level governance, and changes in human behaviour and lifestyles. They also include inclusive processes, attention to power asymmetries and unequal opportunities for development and reconsideration of values”. (IPCC-2018).

**Exposure**:

“The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected”. (IPCC-2018)

**Extreme weather event**:

“An extreme weather event is an event that is rare at a particular place and time of year. Definitions of rare vary, but an extreme weather event would normally be as rare as or rarer than the 10th or 90th percentile of a probability density function estimated from observations. By definition, the characteristics of what is called extreme weather may vary from place to place in an absolute sense. When a pattern of extreme weather persists for some time, such

as a season, it may be classed as an extreme climate event, especially if it yields an average or total that is itself extreme (e.g., drought or heavy rainfall over a season)". (IPCC-2018)

**Land use, Land use change and Forestry (LULUCF)**:

"In the context of national greenhouse gas (GHG) inventories under the UNFCCC, LULUCF is a GHG inventory sector that covers anthropogenic emissions and removals of GHG from carbon pools in managed lands, excluding non-CO2 agricultural emissions." (IPCC-2018)

**Life Cycle Assessment (LCA)**:

A Life Cycle Assessment involves the investigation and evaluation of the environmental impacts of a given product or service, based on the identification of energy and materials inputs and emissions released to the environment. In LCA, the environmental impacts are calculated over the entire lifetime of the product 'from cradle-to-grave' – hence the name 'life cycle'. In the context of carbon mitigation, is used to quantify the emissions of products or services along the supply chain of the product or service.

**Maladaptation**:

Maladaptive actions (maladaptation) are actions that may lead to increased risk of adverse climate-related outcomes, including increased vulnerability to climate change, or diminished welfare, now or in the future. Maladaptation is usually an unintended consequence.

**Mitigation**:

This report uses the IPCC definition of mitigation: "A human intervention to reduce emissions or enhance the sinks of greenhouse gases". (IPCC 2018). This is essentially the same sense in which the word was used in the 2007 World Heritage Committee Policy ("Mitigation: an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases (IPCC)"). Readers should not confuse this usage with the more general sense in which the word 'mitigation' is sometimes used in the heritage context (namely, measures to avoid, prevent, reduce or offset negative effects on Outstanding Universal Value or other values).

**Nature-based solutions**:

"Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits". (IPBES-2019)

**Resilience**:

"The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation". (IPCC-2018)

**Risk**:

"The potential for adverse consequences where something of value is at stake and where the occurrence and degree of an outcome is uncertain". (IPCC-2018)

**Risk assessment**:

"The qualitative and/or quantitative scientific estimation of risks". (IPCC-2018)

**Risk management**:

"Plans, actions, strategies or policies to reduce the likelihood and/or consequences of risks or to respond to consequences". (IPCC-2018)

**Risk transfer**:

"The process of formally or informally shifting the financial consequences of particular risks from one party to another whereby a household, community, enterprise, or state authority will

obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party". (IPCC-2013)

**Safeguard**:

In the context of the Policy Document, it refers to law, rules, or measures intended to prevent social and environmental systems from being harmed by climate mitigation and/or adaptation actions.

**Transformation**:

A change in the fundamental attributes of natural and human systems. Societal (social) transformation A profound and often deliberate shift initiated by communities toward sustainability, facilitated by changes in individual and collective values and behaviours, and a fairer balance of political, cultural, and institutional power in society. (IPCC-2018)

**Transformative change**:

"A system wide change. This requires more than technological change to consideration of social and economic factors that with technology can bring about rapid change at scale". (IPCC-2018)

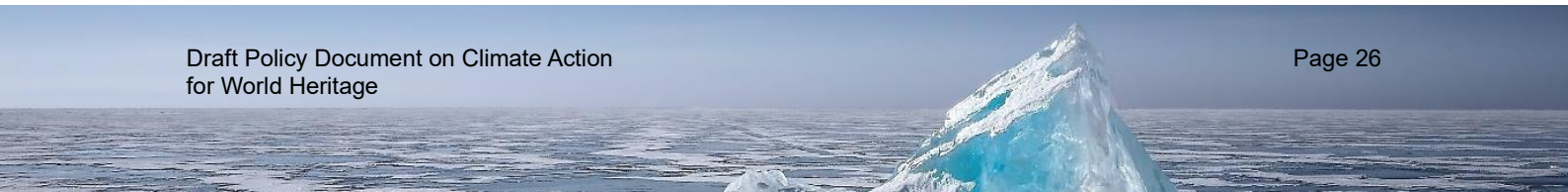
**Uncertainty**:

A state of incomplete knowledge that can result from a lack of information or from disagreement about what is known or even knowable. It may have many types of sources, from imprecision in the data to ambiguously defined concepts or terminology, incomplete understanding of critical processes, or uncertain projections of human behaviour. Uncertainty can therefore be represented by quantitative measures (e.g. a probability density function) or by qualitative statements (e.g. reflecting the judgment of a team of experts). (IPCC-2018)

**Vulnerability**:

"The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt". (IPCC-2018)





## ANNEX II - AREAS FOR FURTHER FOCUS REGARDING ADAPTATION

### Overview

1. This Policy Document recommends that each State Party implements at national and/or other appropriate levels, all the necessary actions to have in place a comprehensive climate risk management framework that fosters adaptation and resilience building actions, and that are also synergistic, better coordinated with the local, subnational, national and international climate adaptation developments (See World Heritage Climate Action Goals 1 and 2).

2. Adaptation actions should be based on and guided, as appropriate, by traditional knowledge, knowledge of Indigenous Peoples and local knowledge systems. The importance of Indigenous Peoples' and local communities' knowledge for understanding impacts and designing and implementing appropriate adaptation action should be valued and utilised via a participatory process characterised by respect for the diversity of cultural expressions. Traditional methods and systems for preventing, conserving and addressing the negative impacts of climate change on World Heritage properties should be included in relevant climate policies.

3. States Parties are also encouraged to maximising the 'signalling' value and inspirational power of World Heritage properties to showcase effective adaptation practices.

### A. Assessing climate risks

4. The Policy Document is inclusive to all hazards that are directly and indirectly attributed to climate change, and related vulnerability factors of the heritage properties (physical, social, economic, institutional, etc.).

5. Climate change will alter the severity, frequency and spatial distribution of many types of climate-related hazards. In consequence, climate risk assessments should be based on predictions of future climate change impacts developed using recent and current observations as proxies for future change, integrated with a range of local climate scenarios (i.e. simulations of the future climate at local level) (see Section II.D.1 above). While these simulations have considerable uncertainty (there are several sources of uncertainty: development patterns of society, population, wealth distribution and GHG emissions levels), current methodologies yield results that are useful to medium term planning and policy making for World Heritage properties.

6. Climate–related hazards also serving as multipliers of pre-existing threats and vulnerabilities, it is increasingly difficult to minimise the exposure of heritage sites to a dangerous climate, and the assessment of heritage-climate vulnerability and implementation of options to reduce it are central to adaptation planning.

7. Responding to the unprecedented and systemic threat of climate change calls for adjustments in all stages of heritage practice. Climate change will require reassessments of many heritage methodologies including inventorying, assessments, documentation and monitoring, impact assessments conservation management planning and risk assessment.

### B. Climate risk management

8. Climate risk management incorporates all actions necessary to assess and manage the risks of a changing climate, considering:

    - The multiplicity of climate-related hazards, including both rapid and slow onset events:
        - 'Rapid-onset' events are short-lived, acute, intensive, recurrent, highly damaging and uncontrollable. They include extreme winds, hurricanes,

typhoons, storm surge, extreme precipitation, hailstorms, flash Floods, landslides, heat waves, and wildfires. Climate change is expected to increase the frequency and intensity of many of these types of events through much of the world,

- ‘Slow-onset’ events are long-lived, progressive and potentially permanent transitions that are less damaging in the short-term, but which may have profound consequences over the longer-term. They include Glacier melt, Sea Level Rise, acidification, desertification and changes in seasonality and species distribution;

- Differences in exposure of heritage sites to those climate-related hazards;
- How climate-related hazards exacerbate other hazards and stressors, often with negative outcomes for heritage sites;
- The multidimensional factors of climate vulnerability at the human-environment system level (exposure, sensitivity and adaptive capacity) - or the combination of elements that made a heritage site more susceptible to be negatively affected;
- The climate risks (or the combined likelihood and potential negative impacts to World Heritage properties) on attributes bearing the Outstanding Universal Value and local values, and including impacts on the economic, social, health, education, and well-being of associated communities (including effects on social cohesion);[7]
- Options for responding to climate-related risks, with continuing uncertainty about the severity and timing of climate-change impacts and with limits to the effectiveness of adaptation.

9. Climate risk management approaches can benefit from:

- Partnering with relevant organisations, stakeholders and local community groups in field activities to develop and implement adaptation strategies; sharing methodologies and tools, respecting traditional knowledge and methods;
- Pilot test and share good practices at regional, national and international levels to promote climate action at World Heritage properties through knowledge dissemination, networking and coordination;
- Identifying regional (cross-State Party)/thematic actions such as promoting the development of risk and vulnerability maps for regions and sub-regions which overlay climate data and World Heritage property locations and operationalise such initiatives;
- Developing frameworks for the successful negotiation of co-benefits and trade-offs of Climate adaptation and Outstanding Universal Value to identify and avoid potential maladaptation.

10. As it is fundamental to assess climate change impact in the state of conservation of the World Heritage property, new tools may be needed to address climate change preparedness, as well as identifying factors that can become threats that could ultimately impact on the Outstanding Universal Value of the property. World Heritage processes, such as Nomination, Periodic Reporting, Reactive Monitoring, need to be strengthened to support these outcomes, with special attention to the Operational Guidelines.

[7] The 2019 ICOMOS report “*The Future of Our Pasts: Engaging Cultural Heritage in Climate Action*” contains one matrix of climate drivers (e.g. temperature and precipitation changes, climate- influenced wildfires, changes in seasonality, etc) as well as some compounding related stressors (e.g. pollution and ocean acidification) correlated to resulting impacts on six major cultural heritage typologies.

11. The integration of World Heritage within national and regional climate risk management approaches can support all necessary actions to strengthen national and local capacities to manage climate-related risks for heritage, as they can be understood now, and the more complex climate risk expected in the future. Whether dealing with actual potential negative risks and its corresponding impacts or climate-related disaster contexts, or future impacts associated with climate variability, extreme weather events and climate change, the essential challenge is both climate risk reduction and the maintenance (with possibly increase) in human and ecosystem's resilience, including through the valorisation of traditional ecological knowledge.

12. States Parties are encouraged to promote a synergistic implementation of existing international policies and tools from various sectors like SDGs, Sendai framework, biodiversity conventions and agreements, Paris Agreement, New Urban Agenda etc. for a comprehensive approach towards climate adaptation and its mainstreaming on World Heritage processes.

13. Elements of adaptation planning relevant to World Heritage properties can include anticipatory risk management (ensuring that future heritage management reduces rather than increases climate risk), compensatory risk management (actions to mitigate the negative impacts associated with existing climate risk) and reactive climate risk management (ensuring that risk is not reconstructed after climate-related impacts, including disaster events). Moreover, measurers will need to consider both potential impacts on the Outstanding Universal Value of the properties, and, where relevant, the related socio-economic and environmental systems, before decisions are made.

14. At the national level, States Parties to the World Heritage Convention should develop and implement integrated climate risk management strategies, plans and programmes, as these can ultimately increase the coordination among the disparate institutional and administrative mechanisms, projects, human and financial resources currently applied to climate adaptation and disaster risk management.

## C. Baseline information

15. Data on climate related hazards, vulnerabilities and risks should be acquired, managed and updated by the responsible agencies and consequently shared with those responsible for managing World Heritage properties. Managers of World Heritage properties must have access to relevant data and modelling, and the capacity to collect and process data so they can build climate risk models.

16. More appropriate adaptation actions can be selected and applied if there is baseline information, that includes:

- A current inventory of not only attributes of Outstanding Universal Value but other relevant cultural and natural values;
- Knowledge of current and projected climate related hazards;
- Understanding key social, physical, economic, environmental, and institutional and factors that all together determine the vulnerability of heritage properties to those hazards;
- Understanding of the potential direct and indirect Impacts (climate risks); and
- Understanding the type of heritage at risk (movable, immovable and intangible).

17. It is essential that heritage managers assess climate risks that adequately inform adaptation. These should be undertaken at macro-scale to gain a broad overview at a regional level, and micro-place level, which tends to be holistic and considers the site-specific dynamics of hazards, vulnerabilities and potential /observed negative impacts.

18. Considering that multiple resources will be required for adaptation activities, heritage property managers need to properly assess the costs, benefits of climate adaptation strategies and, to ensure resources are allocated responsibly.

19. A key complementary method that heritage sites managers can implement, are Adaptation Capacity Assessments. This type of assessment builds on the climate risk assessments and evaluates the existing capacity to address those risks. Depending on the context, it helps to identify gaps and strengths of existing heritage sites management to effectively implement climate adaptation strategies.

20. Recognition of diverse interests, circumstances, social-cultural contexts, and expectations can benefit climate risk based–decision making processes.

## D. Damage and loss of Outstanding Universal Value

21. This Policy Document encourages every State Party to do all it can to implement site-based adaptation, to the utmost of its own resources and with any international assistance and co-operation which it may be able to obtain, including efforts of other States Parties to implement a precautionary approach.

22. Although adaptation to a changing climate will often result in adjustments that are within a given heritage system's adaptive limits, completely preventing all projected impacts of climate change on every World Heritage property may not be possible, and in some cases damage to and loss of attributes of Outstanding Universal Value as a result of climate change may still result.

23. Acknowledging that completely preventing all projected impacts of climate change on every World Heritage property may not be possible, the impact of such loss will need to be fully assessed and evaluated by the World Heritage Committee who will need to consider whether Outstanding Universal Value has been completely or partially lost.

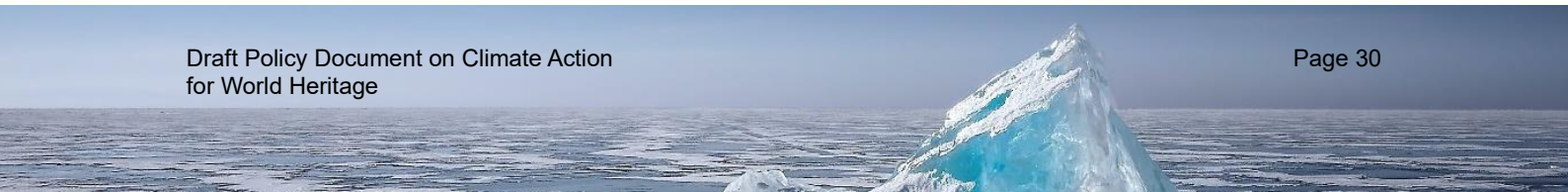
24. Strategies to avert, minimise and address damage and loss are crucial to plan for and manage potential loss of attributes of Outstanding Universal Value in World Heritage properties. There exists a range of approaches and instruments to develop damage and loss strategies associated with the impacts of climate change. The challenge is to identify which strategies are more appropriate for World Heritage properties, not only to the type of climate risks but also to the social, environmental, economic, geographical, landscape and institutional context of the properties for which Outstanding Universal Value may be a risk of being irretrievably damaged or lost (see second Guiding Principle in Section I.C).

## E. Managing for Resilience

25. Improving adaptive capacity and building climate resilience could be supported by reducing non-climate sources of stress on World Heritage properties. Consideration and management of existing non-climatic pressures should be included in adaptation plans. Doing this acknowledges that climate change will exacerbate existing pressures such as urbanisation, invasive species, pollution and uncontrolled tourism. Management approaches for these non-climatic stresses will need to be responsive and regularly reviewed to account for a changing climate (see World Heritage Climate Action Goal 2 above).

26. Management approaches for World Heritage properties should be proactive rather than reactive to allow them to better address the cumulative nature of multiple impacts. Property managers should contemplate immediate actions to address existing pressures, including 'no regret-policy' actions. Doing this has the dual benefit of reducing vulnerability and increasing the resilience of properties to existing non-climate sources of stress, and also reducing their vulnerability to climate change related stresses.





## ANNEX III – AREAS FOR FURTHER FOCUS REGARDING MITIGATION

### Overview

1. This Policy Document recommends that each State Party implements at national and/or other appropriate levels, all the necessary actions to have in place a comprehensive climate mitigation framework, that fosters synergies, better coordination and enhance effective implementation, of the local, subnational, national and international climate mitigation developments since the adoption of the Paris Agreement (see Section II.B above).
2. Climate mitigation responses of the World Heritage Convention to the threat of climate change should be based on the most recent scientific and political developments, and therefore take advantage of the body of knowledge developed to understand Green House Gas (GHG) emissions in World Heritage properties and the interventions needed to reduce those emissions and effectively decarbonise the Heritage sector (see World Heritage Climate Action Goal 3).
3. Acknowledging that there is significant progress in the international community on the technical frameworks required to accomplish climate mitigation goals, and also taking into consideration the IPCC´s GHG emissions sectors, this Policy Document frames the climate mitigation recommendations in four categories: Built environment, Land use management, Life cycle assessment, and Tourism management (see Section II.D.3 above).

### A. Built environment

4. The IPCC 1.5 °C Special Report (2018) makes clear that the built environment, including the entire building and construction supply chain, must decarbonise. In consequence, this Policy Document recognises that mitigation measures for the built environment within World Heritage properties should aim to assess and reduce their carbon footprint, with special attention to demand for electricity and other forms of energy that are required to deliver energy services for buildings.
5. Actions for climate mitigation of the built environment should avoid negative impacts on heritage values and be consistent with the obligations of States Parties under the Convention to preserve the Outstanding Universal Value of properties. Among the options to consider are:

    - Retrofitting of historical buildings to decrease energy consumption where possible, recognising that thermal massing and other features of some traditional building systems are inherently efficient, making wholesale energy retrofitting unnecessary and even wasteful;
    - Using traditional passive measures in historical buildings as strategies to reduce energy consumption;
    - Using Life cycle assessment (LCA) methodologies for the selection of replacement materials requiring less energy to produce, and thus emitting less GHG;
    - Promoting knowledge of the appropriate use of new technologies for the rehabilitation of historical buildings for energy efficiency and to reduce GHG emissions;
    - Guarding against insensitive retrofitting and maladapted mitigation strategies that fail to understand how older buildings ‘behave’ and can degrade traditional climate-friendly features, waste materials and damage heritage values.

6. Considering national circumstances, this Policy Document recommends that States Parties adopt a carbon footprint target for World Heritage properties in connection with the World Heritage Climate Action Goals. This will allow heritage managers to assess in a scientific and robust way progress towards the decarbonisation of the heritage sector.

## B. Land-use management

7. IPCC´s 1.5 °C Special Report (2018) and Climate and Land Report (2019) find that limiting global warming to 1.5°C would require rapid and far-reaching transitions in the way countries use land, specifically to minimise emissions associated with land use change.

8. Heritage properties, particularly natural properties, are among those places that can significantly contribute to climate mitigation by: (i) safeguarding the natural carbon sinks; (ii) when feasible, increasing carbon sequestration in natural systems. Such approaches should adhere to strict environmental and social safeguards and consider carbon storage permanence.

9. Considering national circumstances, this Policy Document recommends the adoption of two mitigation targets for natural World Heritage properties:

   - No net loss of the natural carbon sinks present in World Heritage properties (by 2030): the earth's natural carbon sinks are also places of exceptional importance for biodiversity conservation, and are facing major threats. The carbon stored in those ecosystems is fundamental to achieve the 1.5°C Climate target and should be a priority for natural properties;
   - Emissions from land use change are reduced to zero (by 2030): IPCC states that it is one of the most important sources of GHG emissions. Consequently, tackling land use change is imperative to address Climate Change.

## C. Life cycle assessment

10. For the World Heritage sector, another way to assess the different types of GHG emissions is by applying Life cycle assessment (LCA). This is a tool widely used among IPCC reports to assess environmental impacts of a system by accounting for all emissions along the full value chain and over the full life cycle. LCA can investigate and compare the potential carbon footprint of products and services, by understanding the mass and energy flows throughout production, use, and disposal. These flows are then translated into environmental indicators such as greenhouse gas emissions.

11. Utilising the competencies of heritage properties management, LCA methodologies can be used to provide systematic evaluation of the carbon footprint caused throughout the life cycle of products or services from raw material extraction to waste treatment, and to scientifically assess a baseline, and possible carbon reduction targets and future heritage-management practices that support climate mitigation objectives. Where possible, properties are encouraged to conduct environmental analyses of site operations, services, events and exhibitions and identify energy-saving opportunities; to adopt 'green' procurement (energy, waste and water), and to emphasise green products, services and business models.

## D. Tourism

12. As one of the world's largest industries, tourism's carbon footprint is an expanding component of global GHG emissions, with tourism to World Heritage properties being a highly visible component.

13. At the same time, World Heritage destinations, if appropriately managed through sustainable tourism strategies, can generate positive economic and social benefits for local communities[8]. Tourism can raise visitors' understanding of different history, cultures and environments and has the potential to promote empathy with communities managing the impacts of climate change on their World Heritage properties. Tourism destinations also have the opportunity of demonstrating and publicising climate impacts and sustainability practices.

14. Among the interaction between climate change and tourism at World Heritage properties, States Parties, in collaboration with World Heritage sites managers and other stakeholders, can undertake the following actions:

- Develop and implement methodologies for monitoring and measuring the GHG emissions caused by tourism at World Heritage properties, including through Life cycle assessment, and identify carbon-saving measures (for example, energy efficient visitor infrastructure);
- Work with the tourism sector at different levels to explore options for determining accountability for carbon mitigation of the GHG emissions associated with the contributing service components of the tourism industry (for example, aviation, hospitality etc.) attributable to World Heritage tourism;
- Consider alternatives for offsetting of GHG emissions associated with tourism at World Heritage properties. It is fundamental that options considered for offsetting (for example certified carbon credits) adhere to strict social and environmental safeguards.

[8] At its 36th session (Saint-Petersburg, 2012), the World Heritage Committee adopted the "World Heritage and Sustainable Tourism Programme" (Decision **36 COM 5E**), which represents a new approach based on dialogue and stakeholder cooperation where planning for tourism and heritage management is integrated at a destination level, the natural and cultural assets are valued and protected, and appropriate tourism developed. See http://whc.unesco.org/en/tourism/

## ANNEX IV - AREAS FOR FURTHER FOCUS REGARDING KNOWLEDGE SHARING, CAPACITY BUILDING AND AWARENESS

Drawn from Section I(D)(21) of the 2006 Strategy

1. The importance of education and capacity building for enhancing climate action has been recognised in the 2015 Paris Agreement (Article 12). The World Heritage Convention and its processes also consider these factors as important for the effective management and conservation of World Heritage. Indeed, strengthening of capacity building is important for dealing with effects of climate change as well as for good communication and awareness programmes.
2. The Policy Document therefore draws the attention of all actors of the World Heritage system on the crucial role of knowledge sharing, capacity building and awareness for successful climate actions (see Section II.D.4).
3. Furthermore, World Heritage Climate Action Goal 4 (see Section II.B) highlights that by 2030, States Parties should have developed and implemented activities aimed at improving education, awareness raising, and human and institutional capacity in relation to the risks and responses related to climate change impacts on World Heritage properties, including programmes designed to promote these properties as exemplars of climate action.
4. Mobilizing public and political support for climate action inside and outside World Heritage properties is essential[9]. This has to range from local to regional and global approaches and involve a variety of measures: workshops, exhibitions and expositions, media campaigns, audio-visual material and popular publications which link the global phenomenon of climate change to the local and regional contexts.

### A. Global-level actions (World Heritage Convention)

5. At the global level, the Secretariat of the World Heritage Convention (the UNESCO World Heritage Centre) is encouraged to implement knowledge sharing, capacity building and awareness activities, such as:
    - Informing the UNFCCC Secretariat and its Parties of the impacts of climate change on World Heritage in order to include these into their guidelines for national communications;
    - Establishing cooperation with the IPCC Secretariat in order to:
        i) Assess the existing and potential impacts of climate change on World Heritage,
        ii) Identify opportunities to mention issues related to World Heritage in the future Assessment Reports;
    - Ensuring that capacity building activities on climate risk assessments, reporting, adaptation and mitigation strategies are coordinated with the UNESCO World Heritage Centre, the Advisory Bodies, other international organisations and secretariats of other conventions;

[9] See paragraph 11 of Decision **29 COM 7Ba** (Durban, 2005), by which the World Heritage Committee indicated that "the results about climate change affecting World Heritage properties [should] reach the public at large, in order to mobilize political support for activities against climate change and to safeguard in this way the livelihood of the poorest people of our planet."

- Overseeing the organisation of international and regional workshops to:
  - i) Share the knowledge, experience,
  - ii) Establish networking among States Parties on addressing climate change impacts on World Heritage;
- Taking advantage of the World Heritage global network, develop communication strategies to inform the public and policy makers on climate action for World Heritage properties and build public and political support to address climate change impacts;
- Promoting and sharing good practices on climate action for World Heritage properties among States Parties.

## B. State Party-/Property-level actions

6. States Parties and managers of World Heritage properties are encouraged to implement knowledge sharing, capacity building and awareness activities, such as:
   - Collecting information and establish national level database on the past and existing impacts of climate change on World Heritage properties;
   - Promoting the development of risk and vulnerability maps at national level which overlay climate data and World Heritage property locations;
   - Providing information to decision-makers, stakeholders, local communities, users and managers of the properties, and other heritage specialists about the existing and potential impacts of climate change on properties, management responses, possible technical and financial assistance, existing networks and institutions from heritage and climate sectors and various capacity building activities;
   - Promoting and sharing of good practices on integrating climate action in conservation and management of World Heritage properties;
   - Encouraging managers of World Heritage properties to provide feed-back based on their experience by developing case studies on good practices and lessons learnt and share these with other managers of properties;
   - Encouraging academic institutions to share their research on existing and potential impacts of climate change including on social and demographic changes in relation to World Heritage properties. Furthermore, they should promote and encourage interdisciplinary projects and data synthesis to improve links between heritage research fields and other areas of climate science.
7. In addition, World Heritage properties can also support climate science in several ways, including by:
   - Using palaeoenvironmental climate data from heritage sites, museums and other curated collections to explore climate trends and shifting climatic baselines;
   - Collating and synthesising existing palaeoenvironmental and archaeological data (from heritage sites, museums and other curated collections) to assess past baselines and tipping points of ecological and social change;
   - Promoting better understanding of traditional knowledge in design, construction, materials and management practices in the light of climate change and assessing their effectiveness in current context as the basis for developing proposals for adapting them to cope with climate change;

- Researching and documenting current and recent traditional land management and maintenance processes, particularly related to water management techniques and community participation;
- Using archaeological data and other information from heritage places, museums and other curated collections to identify and explore past human impacts on environments over short, medium and long periods and at local, regional and global scales;
- Exploring application of past adaptation and mitigation techniques to climate and landscape change, including agriculture and animal husbandry, architecture and land-use patterns, subsistence strategies, and use of material culture.