

【Article】

## A Study on Climate Change and the Protection of the World Cultural and Natural Heritage

KATASE Youka

### Summary :

This study explores the concept of “transformative change” as outlined in UNESCO’s *Policy Document on Climate Action for World Heritage*. It discusses the necessary urgent and rapid actions to support this change and identifies approaches to recognize World Heritage properties as both assets to be protected from climate impacts as well as resources to strengthen community capacity for pursuing transformative change. Finally, it presents the challenges that must be addressed to protect the Outstanding Universal Value of heritage in the face of climate change.

Keyword : World Cultural and Natural Heritage, Climate Action, Transformative Change, Integrated Approach

### 1. Introduction

Today, climate change threatens World Heritage, with floods, rising sea levels, and large fires, among others. The issue of the impacts of climate change on World Heritage was drawn to the attention of the World Heritage Committee in 2005 by a group of concerned organizations and individuals. Subsequently, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has been at the forefront of investigating and managing the impacts of climate change on World Heritage. In 2007, the *Policy Document on the Impacts of Climate Change on World Heritage Properties*<sup>1</sup> (hereinafter called the *Policy Document*) was adopted 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*) at its 16th session.<sup>2</sup> This *Policy Document* states that climate change has become one of the most significant threats to World Heritage, affecting not only Outstanding Universal Value but also the socioeconomic development and quality of life of communities connected with World Heritage properties.<sup>3</sup> While climate change is accelerating the destruction of ecosystems, the main drivers of climate change are the “loss and unsustainable use of nature.”<sup>4</sup> Therefore, to protect the Outstanding

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<sup>1</sup> Document code: WHC-07/16.GA/10, 28 September 2007.

<sup>2</sup> paragraph 2 of *Updated Policy Document on Climate Action for World Heritage* (as recommended by consensus by the Open-ended Working Group established by Resolution 23 GA 11 of the General Assembly of States Parties at its 23rd session, 23 November 2021) (hereinafter called the *Updated Policy Document*) (WHC/23/24.GA/INF.8, 3 November 2023), p. 3.

<sup>3</sup> paragraph 1 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 3.

<sup>4</sup> paragraph 4 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), pp. 3-4.

Universal Value of heritage, it is necessary to pursue climate action, that is, to bring about “transformative change.”<sup>5</sup> Outstanding Universal Value represents “cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole.”<sup>6</sup>

This study examines the concept of “transformative change” identified in UNESCO’s *Policy Document on Climate Action for World Heritage*. It discusses the necessary urgent and rapid actions to support this change and identifies approaches to recognize World Heritage properties as both assets to be protected from climate impacts as well as resources to strengthen community capacity for pursuing transformative change. Following this, it presents the challenges that must be addressed to protect the Outstanding Universal Value of heritage in the face of climate change.

## 2. Transformative Change and Urgent Action

The *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.”<sup>7</sup> This chapter explores the urgent and rapid action needed “to support bold decisions to transition to a carbon neutral and resilient world that can sustain World Heritage properties for future generations.”<sup>8</sup>

### 2.1. Global Change and World Heritage

The following views are presented in the *Policy Document*: “World Heritage is immersed in unprecedented global change: a rapidly changing climate and the progressive loss of global biodiversity are examples of 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.”<sup>9</sup>

As to natural heritage,<sup>10</sup> it is stated that “[b]y representing some of the world’s most outstanding

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<sup>5</sup> paragraph 8 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 4.

<sup>6</sup> paragraph 49 of *Operational Guidelines for the Implementation of the World Heritage Convention* (hereinafter called *the Operational Guidelines*) (WHC.23/01, 24 September 2023), p. 24.

<sup>7</sup> paragraph 18 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 6.

<sup>8</sup> paragraph 73 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 16.

<sup>9</sup> paragraph 4 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), pp. 3-4.

<sup>10</sup> Natural heritage is defined in Article 2 of the *World Heritage Convention*.

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.” Furthermore, they “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.”<sup>11</sup>

With regard to cultural heritage,<sup>12</sup> it is noted that “[c]ultural 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.” It is further highlighted that “[c]limate 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. Loss of livelihoods of communities living in and around the sites may also impact their livelihood, knowledge systems and their capacity to maintain the site. In addition, local knowledge and wisdom and traditional practice represent different knowledge system that are key source of information to inform mitigation and adaptation options needed to prepare communities for future climate risks.”<sup>13</sup>

## 2.2. Fair and Equitable Transition

The *Document* makes the following observations: “Our understanding of the impacts of climate change increased considerably since 2007, and so has knowledge related to climate adaptation and mitigation measures.” As analyses by the Intergovernmental Panel on Climate Change (IPCC) illustrate, “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.”<sup>14</sup>

This fair and equitable transition needed is considered to be “unprecedented in breadth and scale, and requires significant greenhouse gas emissions management, including reductions, removals, reuse, and recycling in all sectors, including manufacturing, transport, tourism, construction and infrastructure development, forestry, health, water management, and agriculture; a wide portfolio of mitigation and adaptation options; as well as a significant upscaling of investments in those options.” Altogether, a climate action program designated to bring about “transformative change” is invited, and in the context

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<sup>11</sup> paragraph 5 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 4.

<sup>12</sup> Cultural heritage is defined in Article 1 of the *World Heritage Convention*.

<sup>13</sup> paragraph 6 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 4.

<sup>14</sup> paragraph 7 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 4.

of the *World Heritage Convention*, such a 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.”<sup>15</sup>

### 3. World Heritage and Climate Action

The *Policy Document* presents a vision 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.”<sup>16</sup>

The following set of World Heritage Climate Action Goals towards 2030 is established in this Document: Goal 1 (Climate risk assessment); Goal 2 (Climate adaptation); Goal 3 (Climate mitigation); and Goal 4 (Knowledge sharing, capacity building and awareness), “to guide how World Heritage processes can effectively contribute to the transformative change needed for climate action, through enhanced and improved collaboration, and effective and synergistic implementation of local, national and agreed climate-related policy instruments based on/deriving from respective policies.”<sup>17</sup>

#### 3.1. Heritage-Climate Vulnerability and Risk Assessment

One of the principles that should be considered within the scope of this *Policy Document* in relation to World Heritage protection is a precautionary approach. This approach aims at “minimising the risks to World Heritage properties associated with climate change and contributing to protect the World Heritage properties from these risks.” Notably, “[t]he 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. Uncertainty (i.e., lack of full scientific certainty) regarding the above should not be used as a reason for postponing action to address the causes and minimise the risks to World Heritage properties associated with climate change.”<sup>18</sup>

The implementation of climate actions related to World Heritage Climate Action Goal 1 (Assessing climate risks) can be realized (1) at the World Heritage Committee<sup>19</sup> level by “[i]dentifying regional

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<sup>15</sup> paragraph 8 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 4.

<sup>16</sup> paragraph 26 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 8.

<sup>17</sup> paragraph 27 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), pp. 8-9.

<sup>18</sup> paragraph 21 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 7.

<sup>19</sup> An Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value, called "the World Heritage Committee", is established within UNESCO, which is composed of 21 States members (Article 8-1 of the *World Heritage Convention*).

(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;”<sup>20</sup> (2) at the national-level by “[c]onsistent 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;” as well as, “[d]eveloping 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;”<sup>21</sup> and (3) at the World Heritage property level, by “[u]ndertaking 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.”<sup>22</sup>

Notably, “[c]urrent management and protection requirements 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.” Furthermore, “[i]mpact 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.”<sup>23</sup>

### 3.2. Climate Change Adaptation

Adaptation to climate change should be related 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 expresses “the importance of addressing all components of climate risks (hazards, exposure, vulnerability),” as well as “makes clear that climate change adaptation cannot be seen in isolation from other risk factors.”<sup>24</sup>

Climate change may have both positive and negative impacts on the Outstanding Universal Value of some World Heritage properties. Therefore, strategies for climate change adaptation should consider “whether there are opportunities to exploit these positive impacts, while also reducing the risks of the

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<sup>20</sup> paragraph 87 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 19.

<sup>21</sup> paragraph 92 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), pp. 20-21.

<sup>22</sup> paragraph 96 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 22.

<sup>23</sup> paragraph 35 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 10.

<sup>24</sup> paragraph 48 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 12.

negative impacts of climate change.”<sup>25</sup> The *Policy Document* also recognizes that “[t]he importance of addressing non-climate threats and pressures, in particular to natural and mixed World Heritage properties, is emphasized because doing so effectively can help build their resilience to climate change and improve their adaptive capacity.”<sup>26</sup>

### 3.3. Climate Change Mitigation

Remarkably, “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.”<sup>27</sup>

World Heritage properties, especially natural, mixed, and large-scale cultural landscapes are among those places that might have significant contributions to climate mitigation by “[s]afeguarding natural ecosystems that are carbon sinks; [w]hen feasible and consistent with protecting Outstanding Universal Value, undertaking actions to enhance carbon sequestration in natural systems.” It is noteworthy that “[s]uch approaches would need to adhere to strict environmental and social safeguards and consider carbon storage permanence.”<sup>28</sup>

In the context of cultural and mixed properties, and for cultural landscapes in particular, “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.”<sup>29</sup>

### 3.4. Development and Implementation of Climate Measures

Implementation of climate actions related to World Heritage Climate Action Goal 4 (Knowledge sharing, capacity building and awareness) at the World Heritage Committee level could be supported by “[d]eveloping, 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; [f]acilitating sharing of scientific information and experience across States Parties through

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<sup>25</sup> paragraph 50 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), pp. 12-13.

<sup>26</sup> paragraph 51 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 13.

<sup>27</sup> paragraph 60 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 14.

<sup>28</sup> paragraph 61 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 14.

<sup>29</sup> paragraph 62 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 15.

setting up of an online platform for effective implementation, monitoring and review of implementation of the Policy Document.”<sup>30</sup>

#### 4. Integrated Approaches

The *Policy Document* recognizes that given their stature and visibility, there is a significant benefit for World Heritage properties to share their experiences, tools, methodologies, and approaches more widely. World Heritage properties are considered to be able to “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.”

Therefore, a two-pronged approach is necessary to acknowledge World Heritage properties as both assets to be safeguarded from climate impacts and resources that can strengthen community capacity for pursuing transformative change.<sup>31</sup>

##### 4.1. Heritage and Community

Essentially, “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.” Thus, it is fundamental for World Heritage stakeholders to “increase the awareness of connectivity of climate change and interactions between decision makers, communities, and natural and cultural heritage to support transformative change.”<sup>32</sup>

This leads to the argument that “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,” in line with the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, and its principles.<sup>33</sup>

In Article 7-5 of the 2015 Agreement, “[p]arties 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

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<sup>30</sup> paragraph 90 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 20.

<sup>31</sup> paragraph 13 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 6.

<sup>32</sup> paragraph 9 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), pp. 4-5.

<sup>33</sup> paragraph 9 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), pp. 4-5.

*systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.*” The *Policy Document* recognizes that “[t]he 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.” It also acknowledges that “[t]he 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.”<sup>34</sup>

Article 11-1 of the Paris Agreement recognizes “the importance of education and capacity building for enhancing climate action.” In the context of the *World Heritage Convention* and its processes these factors are considered “important for the effective management and conservation of World Heritage, especially for those that are particularly vulnerable to the adverse effects of climate change, such as Small Island Developing States (SIDS) and Least Developed Countries (LDC).”<sup>35</sup>

#### 4.2. Adaptive Governance

Evidently, as climate change is a global problem, World Heritage properties cannot be safeguarded from climate change in isolation. However, many properties have already illustrated “how management systems that engage with local communities can strengthen natural, cultural, and social resilience and offer sustainable futures.” To respond better, “these approaches should be expanded to ensure that all properties are linked to their wider settings and efforts are linked to wider national and international efforts to combat climate change, while protecting Outstanding Universal Value.” In other words, “[a]pproaches 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.”<sup>36</sup>

#### 4.3. International Assistance

As envisaged in the *Convention*, collective action, 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,” is needed. Facing climate change, “this responsibility must be called upon in support, in the form of

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<sup>34</sup> paragraph 54 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 13.

<sup>35</sup> paragraph 65 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 15.

<sup>36</sup> paragraph 14 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 6.



finance, technology, and capacity-building, to enable necessary transformative change needed to protect the Outstanding Universal Value of World Heritage properties.”<sup>37</sup>

## 5. Conclusion

This study aimed to explore what urgent and rapid action can be taken to support “transformative change” in the pursuit of climate action, that is, to support the decision to make World Heritage properties “carbon neutral, as much as possible, and more resilient and better adapted to a changing climate,” while protecting their Outstanding Universal Value. A two-pronged approach is necessary to acknowledge World Heritage properties as both assets to be safeguarded from climate impacts and resources that can strengthen community capacity for pursuing transformative change. Community pertains to a matter of “scale,” whereas reducing greenhouse gas emissions constitutes a “global” issue. While the latter does not directly protect heritage, taking action now to protect the Earth will indirectly contribute to the protection of world heritage. Accordingly, the following issues will be addressed in the future. Regarding the effective management of World Heritage properties, which involves “a cycle of short, medium and long-term actions to protect, conserve and present the nominated property,” the essentiality of an “integrated approach” to planning and management “to guide the evolution of properties over time and to ensure maintenance of all aspects of their Outstanding Universal Value” will be investigated. This approach “goes beyond the property to include any buffer zone(s), as well as the wider setting.” How may the management of the wider setting relate to various elements, including “the property’s topography, natural and built environment, and other elements such as infrastructure, land use patterns, spatial organization, and visual relationships” as well as “related social and cultural practices, economic processes and other intangible dimensions of heritage”? Particular attention will be paid to the role of intangible values in supporting the Outstanding Universal Value. The likelihood of the intangible attributes of heritage contributing to effective management to further “sustainable development, through harnessing the reciprocal benefits for heritage and society”<sup>38</sup> will be explored; this is in addition to investigating whether they may be “important indicators of character and sense of place, for example, in communities maintaining tradition and cultural continuity.”<sup>39</sup>

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<sup>37</sup> paragraph 15 of the *Updated Policy Document* (WHC/23/24.GA/INF.8, 3 November 2023), p. 6.

<sup>38</sup> paragraph 112 of the *Operational Guidelines* (WHC.23/01, 24 September 2023), p. 35.

<sup>39</sup> paragraph 83 of the *Operational Guidelines* (WHC.23/01, 24 September 2023), p. 31.

