THE AUSTRALIAN CLIMATE CRISIS AND THE GREAT BARRIER REEF WORLD HERITAGE AREA

Update: March 2021

ABOUT EARTHJUSTICE

Founded in 1971, Earthjustice fights for the right of all to a healthy environment. As the largest nonprofit environmental law organization in the United States, Earthjustice uses the power of the law and the strength of partnership to protect people's health, preserve magnificent places and wildlife, advance clean energy, and combat climate change. We partner with thousands of groups and individuals to take on the critical environmental issues of our time and bring about positive change.

EARTHJUSTICE

50 California, Suite 500
San Francisco, CA USA 94111

earthjustice.org

ABOUT ENVIRONMENTAL JUSTICE AUSTRALIA

Established in 1991, Environmental Justice Australia is the environment's legal team. We use the law to protect our environment, and we work to change our laws to make sure they protect the right of all Australians to clean air, clean water and healthy ecosystems.

Environmental Justice Australia

60 Leicester Street
Carlton, VIC, Australia 3053

envirojustice.org.au

Lizard Island, Australia, May 2016
The Ocean Agency

THE AUSTRALIAN CLIMATE CRISIS AND THE GREAT BARRIER REEF WORLD HERITAGE AREA

Update: March 2021

This report updates Earthjustice and Environmental Justice Australia's 2020 report, *The Australian Climate Crisis – How Australia is Fueling the Destruction of the Great Barrier Reef and Other Climate-Vulnerable Australian World Heritage Properties* ("2020 Report"): www.earthjustice.org/reefclimatecrisis.

SUMMARY

As custodian of the Great Barrier Reef World Heritage Area, Australia has an obligation under the World Heritage Convention to address threats to the Reef and its Outstanding Universal Value ("OUV").[*]

However, Australia is violating this obligation by failing to address the most significant threat to the Reef and its OUV – climate change. Climate change has already led to events which have harmed the Reef's OUV, including unprecedented coral bleaching and mortality in 2016, 2017, and 2020.

Unfortunately, the impacts of climate change on the Reef led the International Union for Conservation of Nature ("IUCN") to assess the Reef's outlook as "critical" in 2020. This means the Reef is now in worse condition than when the World Heritage Committee last considered an "in-danger" listing in 2014.

But it is not too late to protect the Great Barrier Reef. The scientific evidence is clear that the Reef's OUV can be maintained if global temperature rise is limited to well-below 1.5°C above preindustrial levels.

Despite this, instead of aligning its actions with an emissions pathway that is consistent with its fair share[†] of limiting global temperature rise to well-below 1.5°C, Australia is actively fueling the climate change that is harming the Reef's OUV:

- Australia has not increased its ambition under the Paris Agreement, submitting the same 2030 target in December 2020 as it did in 2016.
- Australia is not on track to meet its 2030 target under the Paris Agreement; does not project a significant decline in emissions to 2030; and lacks any major policies to ensure sufficient emissions reductions to meet its 2030 target.
- Australia's 2030 target fails to reflect its fair share of responsibility for limiting temperature rise to 2°C, let alone 1.5°C.
- Australia is among the world's largest exporters of coal and liquefied natural gas and is determined to expand these exports. As recently as February 2021, a coal mine located just 10 kms from the World

[*] "Outstanding Universal Value means 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." *Operational Guidelines for the Implementation of the World Heritage Convention* (Jul. 2019), para. 49.

[†] A state party's "fair share" of responsibility for limiting global temperature rise to a particular level is a recognition of both its contributions to climate change and its resources and capacity to address the threat. *See* section 3 of this report.

Heritage Area was permitted to move to the next stage of assessment despite its contributions to climate change and its likely impacts on Reef water quality.

Australia's actions are also in direct conflict with advice from the IUCN and World Heritage Centre that the framework for managing the Reef – the "Reef 2050 Plan" – include concrete and consistent measures to address the threat of climate change.

Of course, no single country can solve the climate crisis, but this does not absolve Australia of its obligation under the World Heritage Convention as custodian of the Reef. The World Heritage Committee should also call on all state parties to align their actions with an emissions pathway consistent with limiting warming to a level that would protect the OUV of World Heritage sites across the globe.

The World Heritage Committee can rectify Australia's failures. At its meeting in 2021, we recommend that the Committee:

1. **Express deep concern about the very poor and deteriorating outlook for the Great Barrier Reef and the immediate and long-term threat that climate change poses to the health and survival of the Great Barrier Reef and its OUV.**

2. **Note that scientific evidence demonstrates that average global temperature increase must be limited to well-below 1.5°C above preindustrial levels to protect the Reef's OUV.**

3. **Require Australia to revise the *Reef 2050 Long-Term Sustainability Plan* to include:**

    a. **Concrete and consistent measures to align its actions with a well-below 1.5°C pathway, including steps to decarbonize its economy; promote renewable energy sources; phase out domestic reliance on, and production and export of, fossil fuels; and intensify efforts to meet and strengthen its 2030 emissions reduction target.**
    b. **Details of national policies and investments with implementation timelines to deliver the above actions.**
    c. **Identification of the specific impacts of climate change on the Great Barrier Reef and its OUV, and the actions that Australia will take to address each of these impacts.**

4. **Request Australia to implement the new commitments in the *Reef 2050 Long-Term Sustainability Plan* through legislation.**

5. **Request Australia to invite a monitoring mission as soon as possible to review Australia's response to the climate crisis that is threatening the Reef's OUV.**

6. **Inscribe the Great Barrier Reef World Heritage Area on the List of World Heritage in Danger.**

7. **Urge all state parties to align themselves with a well-below 1.5°C pathway to assist in protecting the OUV of the Great Barrier Reef and all tropical coral reef World Heritage properties.**

1. The OUV of the Great Barrier Reef continues to deteriorate and is in worse condition than when the Committee last considered an "in-danger" listing in 2014

In December 2020, the IUCN World Heritage Outlook 3 concluded that the Great Barrier Reef is one of only two World Heritage properties to enter the "critical"[1] conservation outlook category since the IUCN's last assessment in 2017.[2] Only 17 other sites, out of 252 sites assessed, are considered "critical."[3]

This accords with the Great Barrier Reef Marine Park Authority's conclusion in 2019 that the long-term outlook for the Reef ecosystem is "very poor," having deteriorated significantly since the Authority's last review just five years earlier.[4]

There is no doubt that the Great Barrier Reef meets the criteria for inscription on the List of World Heritage in Danger.[5]

Additional information is available at pages 4-5 of our 2020 Report.

2. Climate change is the most serious threat to the Great Barrier Reef, and global temperature rise must be limited to well-below 1.5°C to protect the Reef's OUV

As the IUCN noted in 2020, the most serious threat to the Great Barrier Reef and its OUV is climate change.[6] Coral bleaching events in 2016, 2017, and 2020 – driven by elevated sea temperatures attributed to climate change – resulted in "unprecedented levels of coral mortality … [and] have seriously affected many elements underpinning" the Reef's OUV.[7]

The scientific evidence is clear that global warming must be limited to well-below 1.5°C above pre-industrial levels to protect the Reef's OUV.[8] At even 1.5°C of warming, "world heritage elements [will be] significantly deteriorated," and "lost" at over 1.5°C of warming.[9] The time to act is now: in 2019, global temperatures were already 1.1°C above the long-term average.[10]

Additional information is available at pages 4-5 of our 2020 Report.

3. Australia must align its actions with limiting global temperature rise to well-below 1.5°C

To fulfil its responsibility to protect the OUV of the Great Barrier Reef, Australia must align its actions with an emissions pathway that is consistent with its fair share of limiting global temperature rise to well-below 1.5°C. A state party's "fair share" of responsibility for limiting global temperature rise to a particular level is a recognition of both its contributions to climate change and its resources and capacity to address the threat.[11]

This obligation arises under the World Heritage Convention itself, which requires state parties to do all they can to the utmost of their resources to protect their World Heritage properties from any threat.[12] Where climate change threatens a property's OUV, the state party in which the property is situated must address that threat by aligning its actions with its fair share of limiting warming to the level at which the OUV is most likely to be sustained.[13] Whilst the World Heritage Committee has recognized the importance of state parties ambitiously implementing

the Paris Agreement,[14] the obligation to protect World Heritage properties by addressing climate change exists independently of the Paris Agreement.[15]

Of course, no single country can solve the climate crisis, but this does not absolve a state party of its responsibility to address the threat of climate change under the World Heritage Convention. Furthermore, the World Heritage Committee should urge all state parties to align their actions with their fair share of limiting warming to protect the OUV of all World Heritage properties.[16] This is particularly important given evidence that World Heritage marine sites are globally important carbon sinks.[17]

Additional analysis is available at pages 5-6 of our 2020 Report, and in ***Attachment 1*** *(a legal analysis of state party obligations under the World Heritage Convention, also available at www.earthjustice.org/worldheritagelegalanalysis).*

4. Australia is failing to protect the Reef's OUV because it is actively contributing to the climate crisis and failing to align its actions with its fair share of limiting warming to well-below 1.5°C

Australia's framework for managing the Reef – the *Reef 2050 Long-Term Sustainability Plan* ("Reef 2050 Plan")[18] and the proposed update released in August 2020 ("Proposed Update")[19] – fails to meaningfully address the threat of climate change. Neither document contains any concrete measures to address Australia's responsibility for reducing its emissions to help protect the Reef's OUV by aligning its actions with a well-below 1.5°C pathway. This is despite the World Heritage Centre and IUCN recommending that the long-term plan contain "concrete and consistent management measures sufficiently robust to ensure the overall conservation of the property and its OUV, in particular addressing major drivers of reef decline such as … climate change."[20]

Instead, the 2050 Plan and Proposed Update purport to rely on existing inadequate government policy to reduce emissions, and misrepresent Australia's compliance with the Paris Agreement and extent of its climate action. These documents indicate that Australia will submit progressively more ambitious NDCs every five years including in 2020 as contemplated by the Paris Agreement,[21] that Australia is on track to meet its 2030 target,[22] and that Australia's 2030 target represents a halving of emissions per person in Australia.[23] However,

- **Australia has not increased its ambition under the Paris Agreement, submitting the same NDC in December 2020 as it submitted in 2016**.[24] This is contrary to the World Heritage Committee's request that state parties ambitiously implement the Paris Agreement,[25] which contemplates increasingly stronger emissions reductions.[26]

- The government's own data demonstrates that **Australia is not on track to meet its 2030 target**, projecting emissions in 2030 to be 478 Mt CO_2e, which is only 22% below 2005 levels, well below Australia's 2030 target of 26-28% below 2005 levels (*i.e.,* 443-455 Mt CO_2e in 2030).[27] The United Nations Environment Programme ("UNEP") agrees that Australia is projected to fall short of its 2030 target.[28]

- Furthermore, **Australia does not project any significant decline in its emissions to 2030**, with emissions in 2030 projected to be only 6.8% below emissions in 2020.[29] Emissions are expected to increase to 2030 in the sectors of liquified natural gas and coal production due to increased energy exports; stationary energy (excluding electricity generation); transport; and agriculture.[30]

- In any event, **Australia's 2030 target fails to reflect its fair share of responsibility for limiting temperature rise to 2°C, let alone the well-below 1.5°C limit required to protect the Reef's OUV**.[31] In January 2021, an independent group of Australian climate scientists concluded that Australia's fair share 2030 target must be 74% below 2005 levels (with a 50% probability of limiting warming to 1.5°C, and net-

zero emissions reached by 2035) or 50% below 2005 levels (with a 67% probability of limiting warming to below 2°C, and net-zero emissions reached by 2045).[32]

- **Australia's claim in relation to per-capita emissions is irrelevant**, both because a real and quantitative reduction in emissions is required to protect the Reef's OUV[33] and because it misrepresents the adequacy of overall reductions by relying on the historically high emissions in 1990 resulting from large-scale deforestation as well rapid population growth that depresses per-capita emissions without reducing overall emissions.[34] In any event, the UNEP projects that, under current policies, Australia will be the second-highest per-capita emitter in the G20[35] by 2030, behind Saudi Arabia.[36]

- As the UNEP noted in 2019, **Australia lacks any major policies to ensure sufficient emissions reductions to meet its 2030 target**, and the UNEP's 2020 Emissions Gap Report similarly identifies a lack of adequate policies.[37]

Furthermore, **the 2050 Plan and Proposed Update fail to recognize that Australia has responsibility for, and control over, its domestic and exported emissions**, instead shifting responsibility for climate action to the global community. This ignores Australia's role in contributing to the climate change that is destroying the Reef. For example:

- **Australia is among the world's largest exporters of coal and liquefied natural gas**,[38] with only Russia and Saudi Arabia exporting more carbon dioxide equivalent each year.[39] **Australia is also determined to expand its fossil fuel production and export by opening massive new coal and gas basins across the country**, and promoting a "gas-fired recovery" from Covid-19, including $52.9 million funding for gas projects in its October 2020 budget.[40] These projects will contribute to emissions for decades to come, intensifying future threats to the Reef's OUV.

- As recently as February this year, **the Queensland government permitted a 10 million-tonne-per-year coal mine located just 10 kms from the World Heritage Area boundary to proceed to the next stage of environmental assessment**.[41] Not only will this mine contribute to climate change, at a time when scientific evidence is clear that fossil fuels must remain unburned to limit global temperature rise,[42] an independent scientific expert body established by the Australian government concluded that the water pollution impacts of the project present "very significant risks" to the Great Barrier Reef World Heritage Area.[43] In December 2020, this expert body stated that it "cannot envisage any feasible mitigation measures, including offsets, that could safeguard" the World Heritage Area.[44]

Additional information is available at pages 6-10 of our 2020 Report.

5. Recommendations

To ensure the protection of the Great Barrier Reef and its OUV into the future, and to address Australia's failure to fulfil its obligations under the World Heritage Convention, we recommend that the World Heritage Committee, at its 44th session in 2021:

1. **Express deep concern about the very poor and deteriorating outlook for the Great Barrier Reef and the immediate and long-term threat that climate change poses to the health and survival of the Great Barrier Reef and its OUV.**

2. **Note that scientific evidence demonstrates that average global temperature increase must be limited to well-below 1.5°C above preindustrial levels to protect the Reef's OUV.**

3. **Require Australia to revise the *Reef 2050 Long-Term Sustainability Plan* to include:**

a. **Concrete and consistent measures to align its actions with a well-below 1.5°C pathway, including steps to decarbonize its economy; promote renewable energy sources; phase out domestic reliance on, and production and export of, fossil fuels; and intensify efforts to meet and strengthen its 2030 emissions reduction target.**
b. **Details of national policies and investments with implementation timelines to deliver the above actions.**
c. **Identification of the specific impacts of climate change on the Great Barrier Reef and its OUV, and the actions that Australia will take to address each of these impacts.**

4. **Request Australia to implement the new commitments in the *Reef 2050 Long-Term Sustainability Plan* through legislation.**

5. **Request Australia to invite a monitoring mission as soon as possible to review Australia's response to the climate crisis that is threatening the Reef's OUV.**

6. **Inscribe the Great Barrier Reef World Heritage Area on the List of World Heritage in Danger.**

7. **Urge all state parties to align themselves with a well-below 1.5°C pathway to assist in protecting the OUV of the Great Barrier Reef and all tropical coral reef World Heritage properties.**

[1] "Critical" means that the "site's values are severely threatened and/or deteriorating. Immediate large-scale additional conservation measures are needed to maintain and/or restore the site's values over the short to medium term, or the values may be lost." IUCN, *IUCN World Heritage Outlook 3 – A conservation assessment of all natural World Heritage sites* (Nov. 2020), p. 3, https://portals.iucn.org/library/sites/library/files/documents/2020-035-En.pdf.

[2] *Id*., pp. vii, 22. The other site to have entered the critical conservation category in 2020 is the Islands and Protected Areas of the Gulf of California (Mexico).

[3] *Id*., pp. 8, 22.

[4] Great Barrier Reef Marine Park Authority ("GBRMPA"), *Great Barrier Reef Outlook Report 2019* (2019), p. 270, available to download at https://elibrary.gbrmpa.gov.au/jspui/handle/11017/3474.

[5] *See, for example*, Earthjustice and Environmental Justice Australia, *Protecting the Great Barrier Reef – A legal assessment of the World Heritage Committee's May 2015 draft decision concerning the potential inscription of the Great Barrier Reef on the List of World Heritage in Danger* (Jun. 2015), https://earthjustice.org/sites/default/files/files/Protecting-the-Great-Barrier-Reef.PDF.

[6] IUCN, *World Heritage Outlook – Great Barrier Reef* (Dec. 2, 2020), Summary – Overall threats, https://worldheritageoutlook.iucn.org/explore-sites/wdpaid/2571 ("Climate change poses the most significant threat to the long-term conservation of the Great Barrier Reef."). *See also*, Commonwealth of Australia, *State Party report on the state of conservation of the Great Barrier Reef World Heritage Area (Australia)* (2019), p. 12, https://www.environment.gov.au/system/files/resources/bfcd4506-2d94-4dc4-9eab-2cc97b931fac/files/gbr-state-party-report-2019.pdf ("Climate change (especially sea temperature rise and temperature extremes) remains the most serious and pervasive threat to the Reef….").

[7] IUCN, *World Heritage Outlook – Great Barrier Reef*, above n. 6, Summary – Current state and trend of values, and Overall threats.

[8] GBRMPA, *Great Barrier Reef Outlook Report 2019*, above n. 4, p. 208 ("[R]estricting the global temperature increase to 1.5 degrees Celsius or lower is critical to the Reef remaining a functioning ecosystem."); p. 264 ("Even a scenario of reduced greenhouse gas emissions that could restrict a global temperature increase to less than 1.5 degrees Celsius (which is what the Reef needs) would still see substantial changes occurring to marine ecosystems...."); Figure 10.2 (p. 265) "Future pathways for the Great Barrier Reef Region." *See also*, Intergovernmental Panel on Climate Change ("IPCC"), *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* (2018), para. B.4.2 (p 8), https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf ("Coral reefs ... are projected to decline by a further 70–90% at 1.5°C (*high confidence*) with larger losses (>99%) at 2°C (*very high confidence*); para. B.4 (p. 8) ("Limiting global warming to 1.5°C compared to 2°C is projected to reduce increases in ocean temperature as well as associated increases in ocean acidity and decreases in ocean oxygen levels…. Consequently, limiting global warming to 1.5°C is projected to reduce risks to marine biodiversity, fisheries, and ecosystems, and their functions and services to humans, as illustrated by recent changes to … warm-water coral reef ecosystems…."). In addition, analysis by the World Heritage Centre and Coral Reef Watch found that limiting warming to 1.5°C would prevent severe annual coral bleaching this century on all World Heritage-listed coral reefs, as well as twice-per-decade severe bleaching on 86% of those reefs, including the Great Barrier Reef. S. Heron *et al*., *Impacts of climate change on World Heritage coral reefs: update to the first global scientific assessment* (2018), pp. 3-4, http://unesdoc.unesco.org/images/0026/002656/265625e.pdf.

[9] GBRMPA, *Great Barrier Reef Outlook Report 2019*, above n. 4, Figure 10.2 (p. 265) "Future pathways for the Great Barrier Reef Region."

[10] Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan Public Consultation Draft* (Aug. 2020), p. 10, available to download at https://haveyoursay.awe.gov.au/reef-2050-plan. *See also*, GBRMPA, *Great Barrier Reef Outlook Report 2019*, above n. 4, p. 271 ("The [Great Barrier Reef's] current long-term outlook is for continued deterioration: this could be altered with urgent and coordinated actions to curb greenhouse gas emissions. The [Reef's] short to medium-term future will be determined by the actions of many within the next

five to 10 years. By 2030, or within the next decade, without timely and effective management actions a declining outlook for the Region will continue to manifest.").

[11] For a more detailed discussion, *see* Earthjustice and Environmental Justice Australia, *World Heritage and climate change: the legal responsibility of states to reduce their contributions to climate change – a Great Barrier Reef case study* (Mar. 2017), pp. 9-11, www.earthjustice.org/worldheritageandclimatechange.

[12] *World Heritage Convention*, Art. 4. *See also*, Attachment 1 to this report at pp. 7-10.

[13] *See* Attachment 1 to this report at pp. 10-13.

[14] *See* 41 COM 7 (2017), para. 22, https://whc.unesco.org/en/decisions/6940/; 42 COM 7 (2018), para. 29, https://whc.unesco.org/en/decisions/7112/.

[15] *See* Attachment 1 to this report at pp. 3-7.

[16] *See* Attachment 1 to this report at pp. 12-13.

[17] UNESCO, *UNESCO Marine World Heritage – Custodians of the globe's blue carbon assets* (2021) https://unesdoc.unesco.org/ark:/48223/pf0000375565.

[18] Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan* (Jul. 2018), https://www.environment.gov.au/system/files/resources/35e55187-b76e-4aaf-a2fa-376a65c89810/files/reef-2050-long-term-sustainability-plan-2018.pdf.

[19] Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan Public Consultation Draft*, above n. 10.

[20] UNESCO, *Great Barrier Reef – State of Conservation* (2014), https://whc.unesco.org/en/soc/2867/.

[21] Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan*, above n. 18, p. 2; Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan Public Consultation Draft*, above n. 10, p. 25.

[22] Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan Public Consultation Draft*, above n. 10, p. 25.

[23] Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan* (Jul. 2018), above n. 18, p. 1; Commonwealth of Australia, *Reef 2050 Long-Term Sustainability Plan Public Consultation Draft*, above n. 10, p. 25.

[24] UNFCCC, *NDC Registry – Australia*, https://www4.unfccc.int/sites/NDCStaging/pages/Party.aspx?party=AUS. *See also*, G. Readfearn, The Guardian, *Australia's new climate pledge to UN criticised for not improving on 2030 target* (Jan. 4, 2021), https://www.theguardian.com/australia-news/2021/jan/05/australias-new-climate-pledge-to-un-criticised-for-not-improving-on-2030-target.

[25] 41 COM 7 (2017), para. 22, and 42 COM 7 (2018), para. 29, above n. 14.

[26] Paris Agreement, Art. 4, in particular Art. 4(3) ("Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition….").

[27] Australian Government, *Australia's emissions projections 2020* (Dec. 2020), pp. 3, 11, 13, 70, https://www.industry.gov.au/sites/default/files/2020-12/australias-emissions-projections-2020.pdf. *See also*, A. Morton, The Guardian, *Spinning emissions: Australia's climate projections are not what they seem* (Dec. 11, 2020), https://www.theguardian.com/environment/2020/dec/11/spinning-emissions-australias-climate-projections-are-not-what-they-seem.

[28] United Nations Environment Programme ("UNEP"), *Emissions Gap Report 2020* (2020), pp. 15-16, available to download at https://www.unep.org/emissions-gap-report-2020.

[29] Emissions in 2020 are projected to be 513 Mt CO_2e, and emissions in 2030 are projected to be 478 Mt CO_2e (which is 6.8% below 2020 emissions). Australian Government, *Australia's emissions projections 2020*, above n. 27, p. 13.

[30] *Id*., pp. 24-40, 47-50.

[31] *See, for example,* Climate Action Tracker, *Australia – fair share* (as at Sep. 22, 2020), https://climateactiontracker.org/countries/australia/fair-share/; D. Karoly and C. Hamilton, *The Climate Change Authority's special review on Australia's climate goals and policies: towards a climate policy toolkit – minority report* (Sep. 5, 2016), p. 6, http://www.climatecouncil.org.au/uploads/e11e0f33fae92ca7cc3239b91e0eb2ab.pdf (Australia's 2030 Paris target "is not consistent with its commitment to play an equitable role in holding the global temperature rise below 2°C, let alone 1.5°C.").

[32] Climate Targets Panel, *Australia's Paris Agreement pathways: updating the Climate Change Authority's 2014 emissions reduction targets* (Jan. 2021), pp. 6, 9-11, https://www.climatecollege.unimelb.edu.au/files/site1/docs/%5Bmi7%3Ami7uid%5D/ClimateTargetsPanelReport.pdf. *See also*, A. Morton, The Guardian, *Australia needs to cut emissions by at least 50% by 2030 to meet Paris*

goals, experts say (Jan. 27, 2021), https://www.theguardian.com/australia-news/2021/jan/28/australia-needs-to-cut-emissions-by-at-least-50-by-2030-to-meet-paris-goals-experts-say.

[33] "The atmosphere doesn't care how many people are contributing to emissions; it's the total quantity of emissions that matter." Honorary Associate Professor Dr. H. Saddler, quoted in ABC News Fact Check, *Are carbon emissions coming down in Australia?* (Dec. 20, 2018), https://www.abc.net.au/news/2018-12-17/fact-check-are-emissions-coming-down-inaustralia/10620194.

[34] *Id*. *See also*, Climate Analytics, *Australia's proposed 'Kyoto carryover' - nature, scale, implications, legal issues and environmental integrity of the Paris Agreement* (Dec. 2019), pp. 2-3, https://climateanalytics.org/media/report_australia_kyoto_carryover_dec2019.pdf.

[35] The G20 is the 19 countries and the European Union that together represent 80% of the world's economic output. *See* G20, *About the G20*, https://www.g20.org/about-the-g20.html.

[36] UNEP, *Emissions Gap Report 2019* (2019), Table 2.2 (p. 11), https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowe%20d=y; UNEP, *Emissions Gap Report 2020*, above n. 28, Figure 2.7 (p. 22). *See also* Climate Analytics, *Climate change: Australia vs the world – Australia's pollution profile & how to turn it around* (2018), p. 1, https://climateanalytics.org/media/australiaclimatefactsheets2018-australianeconomy-climateanalytics.pdf ("[A]chieving its Paris Agreement NDC target would still put Australia behind other major economies like the USA, China, Japan, and the EU [on a per-capita basis] - in contrast to claims by the Australian government that on a per person basis, the Australian target is one of the strongest.")

[37] UNEP, *Emissions Gap Report 2019*, above n. 36, p. 14; UNEP, *Emissions Gap Report 2020*, above n. 28, Table 2.4 (p. 18).

[38] International Energy Agency ("IEA"), *Coal information – overview* (2020), pp. 11-12, available to download at https://webstore.iea.org/coal-information-overview-2020-edition; IEA, *Natural gas information – overview* (2020), p. 9, available to download at https://webstore.iea.org/natural-gas-information-overview-2020-edition; Climate Council, *What the frack? Australia overtakes Qatar as world's largest gas exporter* (Jul. 25, 2020), https://www.climatecouncil.org.au/australia-worlds-largest-gas-exporter/.

[39] T. Swann, The Australia Institute, *High carbon from a land down under* (Jul. 2019), https://australiainstitute.org.au/wp-content/uploads/2020/12/P667-High-Carbon-from-a-Land-Down-Under-WEB_0_0.pdf.

[40] Prime Minister of Australia, *Media release – gas-fired recovery* (Sep. 15, 2020), https://www.pm.gov.au/media/gas-fired-recovery; Commonwealth of Australia, *Budget 2020-21 – Budget strategy and outlook – Budget paper No. 1* (Oct. 6, 2020), p. 1-27, https://budget.gov.au/2020-21/content/bp1/download/bp1_w.pdf. *See generally*, Climate Analytics, *Evaluating the significance of Australia's global fossil fuel carbon footprint* (Jul. 2019), https://climateanalytics.org/media/australia_carbon_footprint_report_july2019.pdf; R. Merzian and F. Green, The Guardian, *Australia has dodged global attention on fossil fuels because of assiduous diplomatic efforts* (Sep. 23, 2019), https://www.theguardian.com/environment/commentisfree/2019/sep/24/australia-has-dodged-global-attention-on-fossil-fuels-because-of-assiduous-diplomatic-efforts.

[41] G. Readfearn, The Guardian, *Clive Palmer coalmine near Great Barrier Reef must be blocked, conservationists say* (Feb. 26, 2021), https://www.theguardian.com/australia-news/2021/feb/27/clive-palmer-coalmine-near-great-barrier-reef-must-be-blocked-conservationists-say; Queensland Government, *Central Queensland Coal Project*, https://www.qld.gov.au/environment/pollution/management/eis-process/projects/current-projects/central-qld-coal-project; Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development ("IESC"), *Advice to decision maker on coal mining project – Central Queensland Coal Project (EPBC 2016/7851)* (Dec. 11, 2020), p. 2, https://iesc.environment.gov.au/system/files/iesc-advice-central-queensland-2020-118.pdf.

[42] C. McGlade and P. Ekins, "The geographical distribution of fossil fuels unused when limiting global warming to 2°C" *Nature* 517, 187-190 (2015).

[43] IESC, *Advice to decision maker on coal mining project – Central Queensland Coal Project (EPBC 2016/7851)*, above n. 41, pp. 1-3.

[44] *Id*., pp. 2, 5.

ATTACHMENT 1: Legal analysis of state party obligations to address climate change under the World Heritage Convention

MEMORANDUM

TO: World Heritage Centre and Advisory Bodies to the World Heritage Committee

FROM: Earthjustice

DATE: June 23, 2020

RE: **Climate change and World Heritage: relationship with the UNFCCC, state party obligations, use of the List of World Heritage in Danger, and the role of adaptation.**

Executive Summary

This note addresses issues raised in discussions with staff at the World Heritage Centre and Advisory Bodies over recent months and years in relation to:

(a) the relationship between the World Heritage Convention and the United Nations Framework Convention on Climate Change ("UNFCCC");
(b) state party obligations to address the threat of climate change, and the inadequacy of addressing site-specific mitigation only;
(c) the use of the List of World Heritage in Danger ("In-Danger List") to address climate change; and
(d) the role of adaptation.

We hope this work assists in the development of state of conservation reports and draft decisions, and the revision of the *Policy Document on the Impacts of Climate Change on World Heritage Properties* ("2007 Climate Policy").[1]

In summary:

1. The UNFCCC and Paris Agreement do not preclude other treaty bodies such as the World Heritage Committee from addressing climate mitigation issues where climate change affects matters within those other bodies' purview, and there is no evidence that the UNFCCC intended to supplant the authority of other treaty bodies. There is a very real risk that if the Committee continues to defer to the UNFCCC processes, World Heritage properties will be lost.

2. Where the impacts of climate change threaten a World Heritage property and its Outstanding Universal Value ("OUV"), the state party in which the property is situated must address the

[1] UNESCO, *Policy Document on the impacts of climate change on World Heritage properties* (2007) ("*2007 Climate Policy*"), available to download at https://whc.unesco.org/en/CC-policy-document/.

threat by aligning its actions with a global pathway that is consistent with limiting warming to the level at which the OUV is most likely to be sustained and to undertake its fair share of global emissions reductions necessary to achieve that goal. For the most climate-vulnerable sites, such as tropical coral reefs and glaciers, the limit of warming at which OUV, or key attributes that contribute to OUV, can be sustained is well below 1.5°C.

3. State parties must also refrain from taking actions that place them on a global pathway that increases warming above the level necessary to protect properties in other states.

4. Holding state parties accountable to these obligations does not require the World Heritage Committee to recommend specific emissions limits to state parties. Rather, it would be appropriate and sufficient for the Committee to recommend actions that would ensure a state party is aligning itself with the required emissions pathway. Such recommendations could include, for example, intensifying emissions reductions efforts, taking steps to promote renewable energy sources and to phase out domestic reliance on and export of fossil fuels, and discontinuing subsidies that promote activities that are inconsistent with low emissions pathways.

5. It is both manifestly inadequate and inconsistent with the Convention for the Committee to address site-level mitigation only and not national-level mitigation. The Convention, Operational Guidelines, and 2007 Climate Policy all recognize that threats to World Heritage properties exist beyond property boundaries and that national-level measures may be required to ensure adequate protection.

6. For many World Heritage properties, adaptation is not possible due to the speed and level of warming, and state party actions that only focus on adaptation are inadequate to fulfil their responsibilities under the Convention. For this reason, the World Heritage Centre and Advisory Bodies must *also* advocate for strong national-level mitigation.

7. We support the use of the In-Danger List for sites threatened by climate change, as contemplated by the 2007 Climate Policy. The actions a state party must take to fulfil its obligations to address the threat of climate change (addressed in section 2 of this memo) could form the basis of corrective measures, and the Committee would then review whether the state party is aligning its actions with an emissions pathway consistent with protecting the property's OUV and undertaking its fair share of global emissions reductions necessary to achieve that goal.

1. The relationship between the World Heritage Convention and the United Nations Framework Convention on Climate Change, and the position of United Nations human rights treaty bodies

In 1992, the UNFCCC was adopted with the objective of "stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[2] The agreements made under the auspices of the UNFCCC aim to strengthen the global response to climate change. In particular, the Paris Agreement aims to hold the increase in global average temperature to 2°C above preindustrial levels, with state parties agreeing to pursue efforts to limit the increase to 1.5°C.[3]

To date, other than urging state parties to ambitiously implement the Paris Agreement, the World Heritage Committee has left national-level mitigation issues to the UNFCCC. The 2007 Climate Policy notes that the World Heritage Centre and Advisory Bodies will "aim[] to avoid overlap and duplication with, and respect the individual mandates of, other international organizations and mechanisms" and that the Centre will focus its efforts on "actively promoting … the use of World Heritage properties in the activities of other conventions, international bodies and programmes working on climate change."[4]

However, nothing in the UNFCCC or the agreements made under its auspices preclude the World Heritage Committee or its Advisory Bodies from addressing the responsibilities of state parties under the World Heritage Convention to protect World Heritage properties by reducing their contributions to climate change. There is "no single international regime that stands alone in providing legal and institutional responses to climate change."[5] Instead, "many of the obligations of states that relate to climate change mitigation are not *prima facie* conflicting, but are rather overlapping or distinct."[6]

As Dr. William Burns, Professor of Research and Co-Director of the Institute for Carbon Removal Law & Policy at American University, has observed:

> There is no language in the text of the UNFCCC that evinces the intent of the Parties to displace potentially parallel mandates under other regimes to address climate change when this is deemed necessary to effectuate the objectives of those regimes. We must presume that the Parties would have included such language if this was their intent, because States, including many who are Parties to the UNFCCC, have done so in numerous other international environmental regimes where they wished to delineate the relationship of two or more regimes. For example, Article 311 of the United Nations Convention on the Law of the Sea (UNCLOS) provides that UNCLOS prevails between its Parties over the Geneva Conventions on the Law of the Sea. Conversely, Article XIV(4) of the Convention on International Trade in Endangered

[2] *United Nations Framework Convention on Climate Change* (1992) ("*UNFCCC*"), Art. 2.
[3] *Paris Agreement* (2015), Art. 2(1)(a).
[4] *2007 Climate Policy*, above n. 1, p. 4. In addition, the *Operational Guidelines for the Implementation of the World Heritage Convention* (2019) ("*Operational Guidelines*") note that the World Heritage Committee and Centre will "ensure appropriate coordination and information-sharing between the *World Heritage Convention* and other conventions, programmes and international organizations related to the conservation of cultural and natural heritage," including the UNFCCC: at [42], [44].
[5] Professor M. Young, "Climate change law and regime interaction," 2011 *Carbon & Climate Law Review* 147, p. 150.
[6] *Id*., p. 147.

> Species (CITES) provides that its Parties are relieved of their trade obligations for marine species under Appendix II of the Convention if they are also Parties to a marine conservation agreement in force at the time that CITES entered into force. Finally, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity provides that it "shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreements." To the extent that similar language was not included in the UNFCCC, the World Heritage Committee should not [feel] compelled to defer to the climate regime…. Of course, under the Vienna Convention on the Law [of] Treaties[,] drafters of an agreement can also specify that [it is] subordinate to the provisions of another treaty. However, the drafters of the World Heritage Convention did not include such language in the treaty; thus, [there is] no basis to believe that the drafters intended for the agreement to "stand down" when other treaties address similar issues.[7]

Dr. Alessandro Chechi, senior researcher at the Art-Law Centre of the University of Geneva, has reached similar conclusions.[8]

Furthermore, both Dr. Burns and Dr. Chechi also conclude that the doctrine of lex specialis derogat legi generali, which provides that the most detailed expression of state consent as it relates to a particular circumstance prevails as against broader standards, does not apply to the interaction between the UNFCCC and the World Heritage Convention.[9]

---

[7] Dr. W. Burns, "Belt and suspenders?: the World Heritage Convention's role in confronting climate change," 17 *Southeastern Environmental Law Journal* 359 (2009), pp. 387-388 (citations omitted).

[8] Dr. A. Chechi, "The cultural dimension of climate change: some remarks on the interface between cultural heritage and climate change law," p. 189, in, *Climate change as a threat to peace: impacts on cultural heritage and cultural diversity* (ed. S. von Schorlemer & S. Maus) (2014), https://www.peterlang.com/view/9783653968507/21_Chapter11.html ("WHC obligations are independent of the obligations under the UNFCCC and the Kyoto Protocol…. [T]he WHC and the UNFCCC are not mutually exclusive [because] … there is no language in the text of the UNFCCC that evinces the intent of the States Parties to exclude other legal regimes from addressing climate change when this is deemed necessary to effectuate the objectives of those regimes." (citations omitted)).

[9] This is because, among other reasons, "the principle of lex specialis is only apposite when legal norms clash" and "under international law there is a strong presumption that when creating new obligations, States will not derogate from their current obligations … unless the parties have expressed their intent to supplant the obligations of the earlier treaty with those of the latter. … There is no language in the text of the UNFCCC that evinces the intent of the Parties to displace potentially parallel mandates under other regimes to address climate change when this is deemed necessary to effectuate the objectives of those regimes." Burns, *Belt and suspenders?* above n. 7, at pp. 385-387 (citations omitted). Also, it is arguable that the "World Heritage Convention is the more 'specialized' agreement in the matter at hand [because it] focuses on the protection of individual cultural or natural sites from threats such as climate change, rather than the more generalized mandate of the UNFCCC…." *Id*., at p. 389. *See also*, Chechi, *The cultural dimension of climate change*, above n. 8, at pp. 186-187 ("[T]he *lex specialis* principle is only relevant when legal norms clash. But in the case of the relationship between the UNFCCC and the WHC, it does not seem applicable because there is no language in the former treaty that evinces the intent to displace potentially parallel mandates under other regimes to address climate change. It can be presumed that the parties would have included such language if this was their intent. Moreover, it has been rightly pointed out that the *lex specialis* is the WHC because it contains the more detailed and specific norms in matters of protection of cultural assets in contrast to the more generalized mandate of the UNFCCC to protect the climate system." (citations omitted)).

Instead, the UNFCCC recognizes in its preamble that states have rights and responsibilities pursuant to international law separate to the UNFCCC: "States have, in accordance with the … principles of international law, the sovereign right to exploit their own resources … and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction…."[10] Similarly, the Paris Agreement recognizes that states have obligations that relate to climate change separate to those under the Paris Agreement: "Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights…."[11]

Accordingly, although the UNFCCC and Paris Agreement address the global problem of climate change, those agreements do not exclude other treaty bodies from addressing climate mitigation issues where climate change affects matters within their purview, and the UNFCCC did not intend to supplant the authority of other treaty bodies, including the World Heritage Committee. Indeed, "State Parties to the WHC have an obligation independent of the obligations they may have under the UNFCCC … to prevent dangerous human-induced climate change and eliminate the threat of climate change to world heritage,"[12] and the World Heritage Committee "has the authority to craft measures to protect World Heritage properties imperiled by climate change."[13]

United Nations human rights treaty bodies have adopted this approach, recognizing that states have climate obligations under the treaties these bodies administer that are separate to the obligations under the UNFCCC and Paris Agreement. These treaty bodies are identifying how the impacts of climate change affect matters under their purview even when the treaty they administer does not explicitly address climate change, and are making recommendations to individual states to fulfil their obligations under the treaty by reducing their contributions to climate change. In 2018, the United Nations Committee on Economic, Social and Cultural Rights said, "Quite apart from … voluntary commitments made under the climate change regime …, all States have human rights obligations, that should guide them in the design and implementation of measures to address climate change."[14] In 2019, five United Nations treaty bodies jointly stated that, in order to fulfil their human rights obligations, states should adopt and implement emissions reductions policies which reflect the highest possible ambition, effectively contribute to phasing out fossil fuels, promote renewable energy, address emissions from the land sector including by combating deforestation, discontinue financial incentives or investments in activities and infrastructure that are inconsistent with low emissions pathways, ensure that public and private investments are consistent with a low emissions pathway, and regulate private actors including by holding them accountable for harm they generate both domestically and extraterritorially.[15]

---

[10] *UNFCCC*, Preamble.

[11] *Paris Agreement*, Preamble.

[12] Professor E. Thorson (now Professor E. Lyman), "The World Heritage Convention & climate change: the case for a climate-change mitigation strategy beyond the Kyoto Protocol," p. 11, in, *Adjudicating climate change: state, national, and international approaches* (ed. W. Burns & H. Osofsky) (2009), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=981643.

[13] Burns, *Belt and suspenders?* above n. 7, p. 387.

[14] United Nations Committee on Economic, Social and Cultural Rights ("CESCR"), *Climate change and the International Covenant on Economic, Social and Cultural Rights* (Oct. 8, 2018), at [3], https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=23691&LangID=E.

[15] United Nations Office of the High Commissioner of Human Rights, *Five UN human rights treaty bodies issue a joint statement on human rights and climate change* (Sep. 16, 2019), at [2]-[3] under the heading "States' Human Rights Obligations," https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=24998.

The February 2020 letter from Earthjustice and 75 other organizations and individuals that work to protect World Heritage sites globally includes examples of recommendations made by UN human rights treaty bodies to individual states to fulfil their human rights obligations in relation to climate change.[16] Briefly, these recommendations include:

- Intensifying efforts to reach the state's emissions reductions targets (Germany);[17]
- Reconsidering large-scale fracking projects and promoting renewable energy sources (Argentina);[18]
- Promptly taking measures to reduce emissions by establishing deadlines for the phasing out of domestic use and export of coal, and to accelerate the transition to renewable energy (Australia);[19]
- Reconsidering the increase in oil development and large-scale mining, and setting national emissions reductions targets with time-bound benchmarks (Ecuador);[20] and
- Reconsidering the funding of coal plants in other countries and ensuring they are gradually replaced by sustainable energy sources (Japan).[21]

The World Heritage Committee must now recognize that there is a very real risk that if it continues to defer to the UNFCCC processes, World Heritage properties will be lost.[22] We are currently on track for over 3°C of warming by 2100.[23] As the Office of the High Commissioner for Human Rights has said, "State commitments under the UNFCCC have so far failed to provide for and ensure the implementation of adequate mitigation and adaptation measures to limit climate change and its adverse effects on

---

[16] *See* https://earthjustice.org/WorldHeritageClimate.

[17] CESCR, *Concluding observations on the sixth periodic report of Germany*, E/C.12/DEU/CO/6 (Nov. 27, 2018), at [18]-[19], available to download at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=E/C.12/DEU/CO/6&Lang=En.

[18] CESCR, *Concluding observations on the fourth periodic report of Argentina*, E/C.12/ARG/CO/4 (Nov. 1, 2018), at [13]-[14], available to download at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=E/C.12/ARG/CO/4&Lang=En.

[19] United Nations Committee on the Rights of the Child ("CRC"), *Concluding observations on the combined fifth and sixth periodic reports of Australia*, CRC/C/AUS/CO/5-6 (Nov. 1, 2019), at [40], [41(b)], available to download at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC/C/AUS/CO/5-6&Lang=En.

[20] CESCR, *Concluding observations on the fourth periodic report of Ecuador*, E/C.12/ECU/CO/4 (Nov. 14, 2019), at [11]-[12], available to download at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=E%2fC.12%2fECU%2fCO%2f4&Lang=en.

[21] CRC, *Concluding observations on the combined fourth and fifth periodic reports of Japan*, CRC/C/JPN/CO/4-5 (Mar. 5, 2019), at [37(e)], available to download at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC/C/JPN/CO/4-5&Lang=En.

[22] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 13 ("Many World Heritage sites will never be preserved for transmission to future generations unless the State Parties, led by the World Heritage Committee, act more proactively than merely supporting site-specific mitigation.").

[23] United Nations Environment Programme, *Emissions Gap Report 2019* (2019), pp. xix, 27, https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y.

human rights … and the environment."[24] The "most judicious approach would be for the World Heritage Convention to concomitantly address climate change in the context of the sites that it is committed to protect."[25] "If the Convention is to have continued relevance and efficacy in the coming decades, the serious threats posed by climate change to World Heritage sites must be addressed. The most direct and effective way of doing this is by engaging the States Parties" in mitigation.[26]

2. The obligations of state parties under the World Heritage Convention to address the threat of climate change

This section describes the obligations of state parties under the World Heritage Convention to address the threat of climate change. It also responds to discussions we have had with staff at the World Heritage Centre and Advisory Bodies about the role of the 2007 Climate Policy in this discussion and the legal basis for the recommendations in the February 2020 letter from Earthjustice and 75 other organizations and individuals working globally to protect World Heritage properties.[27] This section demonstrates that the obligations imposed under the Convention require state parties with climate-vulnerable properties to align their actions with a global pathway that is consistent with limiting warming to the level at which the OUV of their properties will most likely be sustained and to undertake their fair share of global emissions reductions necessary to achieve that goal. For the most climate-vulnerable sites, such as tropical coral reefs and glaciers, the limit of warming at which OUV can be sustained is well-below 1.5°C. In addition, the Convention requires all state parties to refrain from taking actions that place them on a global pathway that increases warming above the level necessary to protect properties in other states.

A. The obligations of state parties to protect and conserve World Heritage properties and sustain or enhance those properties' OUV

Under the World Heritage Convention, the global community of nations has recognized that "parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole."[28] As such, the Convention recognizes the "duty of the international community as a whole to co-operate" to protect such places.[29]

---

[24] Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, *Understanding human rights and climate change*, p. 8, https://www.documents.clientearth.org/wp-content/uploads/library/2016-11-21-amicus-curiae-brief-presented-by-clientearth-annex-a-b-c-d-ce-en.pdf.

[25] Burns, *Belt and suspenders?* above n. 7, p. 390.

[26] A. Huggins, "Protecting World Heritage sites from the adverse impacts of climate change: obligations for states parties to the World Heritage Convention," 14 *Australian International Law Journal* 121 (2007), p. 135, http://www.austlii.edu.au/au/journals/AUIntLawJl/2007/10.pdf.

[27] *See* https://earthjustice.org/WorldHeritageClimate.

[28] *Convention Concerning the Protection of the World Cultural and Natural Heritage* ("*World Heritage Convention*"), Preamble. *See also Operational Guidelines*, above n. 4, at [49] ("Outstanding Universal Value means 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.") and [77]-[78], which lists the criteria for OUV.

[29] *World Heritage Convention*, Art. 6(1).

However, the Convention does not leave the protection of World Heritage to the international community alone. Instead, it places primary responsibility for protecting and conserving each World Heritage property on the state party where that property is situated,[30] and state parties have a "breadth"[31] of "binding"[32] obligations to that end that must be performed in good faith:[33]

- Article 4 requires each state to "do all it can … to the utmost of its own resources" to protect and conserve its World Heritage properties.[34]
- Article 5(d) requires that, to "ensure that effective and active measures are taken" to protect and conserve World Heritage properties, each state party must "endeavor, in so far as possible, and as appropriate for each country," to "take the appropriate legal, scientific, technical, administrative and financial measures necessary."

The Operational Guidelines add content to these obligations, requiring state parties to:

- Protect and manage their World Heritage properties to "ensure that their [OUV], including the conditions of integrity and/or authenticity at the time of inscription, are sustained or enhanced over time."[35]
- Ensure "adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding. … Legislative and regulatory measures at national and local levels should assure the protection of the property from social, economic and other pressures or changes that might negatively impact the [OUV], including the integrity and/or authenticity of the property. States Parties should also assure the full and effective implementation of such measures."[36]
- Implement "effective management activities"[37] for each property and develop a management system that specifies how the OUV will be preserved and "ensure the effective protection … for present and future generations."[38]

The Convention does not place any limits or exclusions on the kinds of threats that a state party must address to fulfil its obligations to protect and conserve its own World Heritage properties. The

---

[30] *Id*., Art. 4 ("[T]he duty of ensuring the … protection, conservation … and transmission to future generations of [world heritage] situated on its territory, belongs primarily to that State."). *See also*, Preamble ("[I]t is incumbent on the international community as a whole to participate in the protection of [World Heritage], by the granting of collective assistance which, *although not taking the place of action by the State concerned*, will serve as an efficient complement thereto") (emphasis added).

[31] *2007 Climate Policy*, above n. 1, p. 4. *See also Operational Guidelines*, above n. 4, at [15], which outlines the responsibilities of state parties under the Convention.

[32] Huggins, *Protecting World Heritage sites from the adverse impacts of climate change*, above n. 26, p. 132; Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 9.

[33] *Vienna Convention on the Law of Treaties* (1969), Art. 26.

[34] Professor Thorson notes that, under Article 4, "State Parties accept the responsibility to expend resources and take all necessary actions possible to preserve World Heritage sites for future generations." Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 4.

[35] *Operational Guidelines*, above n. 4, at [96].

[36] *Id*., at [97]-[98].

[37] *Id*., at [117].

[38] *Id*., at [109]. *See also* [108]-[118]. The *Operational Guidelines* also require state parties to ensure the boundaries of the property provide effective protection, adequate buffer zones are provided where necessary, and that sustainable use does not adversely impact the OUV: *id*., at [99]-[107], [119].

Convention also contemplates that threats exist at both the site level and beyond. For example, the Preamble notes that World Heritage properties "are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction," and Article 6(3) contemplates that threats may arise from actions in the territories of other states. Also, as noted above, the Operational Guidelines contemplate that national-level measures may be required to protect properties from "social, economic and other pressures or changes."[39]

In addition, the content of a state party's obligation to protect and conserve its World Heritage properties must logically include addressing both existing and potential threats. This conclusion is supported by the criteria for a property's inclusion on the In-Danger List, which includes threats from an "ascertained danger," which is a "specific and proven imminent danger," and a "potential danger," which is a "threat[] which could have deleterious effects on its inherent characteristics."[40]

In requiring state parties to act "to the utmost of its own resources" and "as appropriate for each country," the Convention reflects the international legal principle of common but differentiated responsibility. This principle recognizes the differences in both the contributions of states to environmental problems and their economic and technical capacity to address them.[41] It is a way of determining each state's "fair share" of responsibility. As such, a state party's fair share – which are the "appropriate" actions that constitute its "utmost" effort to protect a World Heritage property – depends on that state party's contribution to the threat and its resources and capacity to address the threat.[42] The UNFCCC uses a similar approach.[43]

Finally, Article 6(3) recognizes that some threats to World Heritage cannot be addressed by national efforts alone[44] by requiring each state party "not to take any deliberate measures which might damage directly or indirectly" World Heritage properties situated in the territory of other state parties. This is a non-discretionary obligation.[45]

---

[39] *Id*., at [98].
[40] *Id*., at [179]-[180].
[41] *See, for example, Rio Declaration on Environment and Development*, Principle 7 ("States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command."); Centre for International Sustainable Development Law, *The principle of common but differentiated responsibilities: origins and scope* (2002), http://cisdl.org/public/docs/news/brief_common.pdf.
[42] For a more detailed discussion, *see* Earthjustice and Environmental Justice Australia, *World Heritage and climate change: the legal responsibility of states to reduce their contributions to climate change – a Great Barrier Reef case study* (Mar. 2017), pp. 9-11, www.earthjustice.org/worldheritageandclimatechange.
[43] *See UNFCCC*, Art. 3(1) ("The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.").
[44] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 4; Huggins, *Protecting World Heritage sites from the adverse impacts of climate change*, above n. 26, p. 126.
[45] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 8; Huggins, *Protecting World Heritage sites from the adverse impacts of climate change*, above n. 26, p. 134.

Accordingly, the World Heritage Convention requires state parties to protect and conserve their World Heritage properties and sustain or enhance their properties' OUV by, among other things, doing all they can to the utmost of their resources to address existing and potential threats.

B. Applying these state party obligations to the threat of climate change

There is no doubt that climate change constitutes an existing and potential threat to World Heritage properties. As the 2007 Climate Policy recognizes, climate change is already causing adverse impacts on the OUV of a range of World Heritage properties.[46] As temperatures continue to increase, these impacts will intensify. In its special report on the impacts of global warming of 1.5°C, the Intergovernmental Panel on Climate Change assessed the impacts and risks for "selected natural, managed, and human systems," including systems found within, or that affect, World Heritage properties.[47] The Intergovernmental Panel on Climate Change concluded, for example, that at between 1.5-2°C of warming, warm-water corals, the Arctic region, terrestrial ecosystems, coastal flooding, and fluvial flooding would see either "very high risks of severe impacts/risks and the presence of significant irreversibility or the persistence of climate-related hazards, combined with limited ability to adapt due to the nature of the hazard or impacts/risks" or "severe and widespread impacts/risks."[48]

For many World Heritage properties, researchers have drawn scientifically based conclusions about the level of warming at which the properties can be conserved and their OUV sustained. For example, the survival of tropical coral reefs requires warming to be limited to well-below 1.5°C.[49] In fact, scientists have concluded that warming must be limited to 1.2°C to protect at least 50% of coral reef cells globally.[50] Accordingly, to protect and conserve coral reef properties and sustain their OUV, warming must be limited to well-below 1.5°C. In an April 2019 study, the IUCN concluded, in relation to the 46 properties with glaciers, that ice loss and glacier extinction "will strongly affect the integrity and value of many of these World Heritage sites" and "even directly question the recognized OUV."[51] That study found that, at 1.5°C of warming, 20 of the 46 glacial properties would lose over 80% of their 2017 ice

[46] *2007 Climate Policy,* above n. 1, p. 3.
[47] Intergovernmental Panel on Climate Change, *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* (2018), Figure SPM.2 (p. 11), Figure 3.20 (p. 252), https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf.
[48] *Id*.
[49] *Id.*, para. B.4.2 (p. 8), section 3.5.2.1 (p. 254) (which concluded that average coral cover on reefs across the globe will further decline by 70-90% at 1.5°C of warming and by over 99% with 2°C of warming); S. Heron *et al, Impacts of climate change on World Heritage coral reefs: update to the first global scientific assessment* (2018), pp. 3-4, http://unesdoc.unesco.org/images/0026/002656/265625e.pdf (which concluded that limiting warming to 1.5°C will allow 86% of World Heritage-listed coral reefs to escape twice-per-decade severe bleaching this century).
[50] K. Frieler *et al*, "Limiting global warming to 2°C is unlikely to save most coral reefs," 3 *Nature Climate Change* 165 (2013), p. 169, https://www.nature.com/articles/nclimate1674 ("To protect at least 50% of the coral reef cells, global mean temperature change would have to be limited to 1.2°C (1.1-1.4°C), especially given the lack of evidence that corals can evolve significantly on decadal timescales and under continually escalating thermal stress.").
[51] J. Bosson *et al*, "Disappearing World Heritage glaciers as a keystone of nature conservation in a changing climate," 7 *Earth's Future* 469 (2019), p. 476, https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018EF001139.

volume by 2100, compared with 33 properties at RCP4.5 (warming of around 2.5°C by 2100).[52] A similar analysis can be performed to determine the level of warming at which other climate-vulnerable properties can be protected and their OUV sustained, including low-lying properties or properties that are vulnerable to increasingly extreme weather events or that are being impacted by changing hydrological, chemical, and biological processes.[53]

As the 2007 Climate Policy recognizes, the Convention imposes obligations on state parties to address the threat of climate change: "In the context of climate change, [Article 4] will be the basis for States to ensure that they are doing all that they can to address the causes and impacts of climate change, in relation to the potential and identified effects of climate change (and other threats) on World Heritage properties situated on their territories."[54]

To fulfil the obligation to do all it can to the utmost of its resources to protect and conserve a climate-vulnerable property, sustain or enhance the property's OUV, and take "appropriate" measures necessary to protect the property, a state party must undertake some form of national-level climate change mitigation.[55] This requires a state party to align its actions with a global pathway that is consistent with limiting warming to the level at which the OUV will most likely be sustained and undertake its fair share of global emissions reductions necessary to achieve that goal.[56] This will ensure that state parties are actively taking long-term national-level measures to assure the protection of their properties from the negative impacts of climate change and implementing actions intended to protect their properties for future generations, as required by the Convention and Operational Guidelines. Anything else would not fulfil the obligations imposed under the Convention.

To continue with the example of tropical coral reef properties, state parties with such properties must do all they can to the utmost of their resources to align their actions with a global pathway that limits warming to well-below 1.5°C and must undertake their fair share of global emissions reductions necessary to achieve that.

The actions that a state party must take to align itself with a global pathway that limits warming to a level at which the OUV of its properties will most likely be sustained will necessarily vary depending on the property and the national circumstances of the state party. It is not necessary for the Committee to recommend specific emissions limits to state parties; states have discretion under Articles 4 and 5 –

---

[52] *Id*., at 475-476.

[53] See discussion of potential climate impacts on World Heritage properties in *2007 Climate Policy*, above n. 1, p. 3.

[54] *Id*., p. 7.

[55] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 3, 6 ("[B]ecause climate change is threatening world heritage, State Parties are obligated to take mitigation action pursuant to the substantive provisions and the spirit of the WHC. … [I]f climate change is causing deterioration of World Heritage sites, then climate change mitigation is at least one of the 'appropriate' legal, scientific, and technical undertakings because mitigation is necessary to prevent total deterioration of many vulnerable World Heritage sites."). *See also*, Huggins, *Protecting World Heritage sites from the adverse impacts of climate change*, above n. 26, pp. 133-136; Burns, *Belt and suspenders?* above n. 7, pp. 391-396; Chechi, *The cultural dimension of climate change*, above n. 8, pp. 187-190.

[56] *See also*, Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 10 ("Indeed, if State Parties are to protect World Heritage sites from climate change, then all Parties to the WHC may be obligated to implement a regime of so-called 'deep cuts' in greenhouse gas emissions.").

which must be exercised in good faith – to determine what actions they take to fulfil their obligations.[57] Rather, it would be sufficient for the Advisory Bodies, Centre, and Committee to rely on reputable sources that assess whether a state's actions and policies are consistent with limiting warming to 1.5°C or 2°C, including the United Nations Environment Programme's Emissions Gap Reports, the environmental performance reviews of the Organisation for Economic Co-Operation and Development, and the publications of non-governmental expert organizations such as Climate Action Tracker, Climate Analytics, and the Climate Change Performance Index. Examples of actions the Committee could recommend to ensure a state party is on the required emissions pathway include:

- intensifying the state party's efforts to meet and/or strengthening its emissions reductions targets under the Paris Agreement;
- taking steps to promote renewable energy sources by, for example, making long-term commitments to procure energy from low-carbon renewable sources or reforming national regulation to facilitate the deployment of renewable energy;
- taking steps to phase out the domestic reliance on, or production or export of, fossil fuels, particularly around World Heritage properties where aspects of OUV are sensitive to associated pollution;
- discontinuing subsidies, financial incentives, or investments that promote or enable activities and infrastructure that are inconsistent with low greenhouse gas emissions pathways;
- refusing to approve new or expanded fossil fuel development projects; or
- withholding financial, political, or other support for fossil fuel development projects.

As described in section 1 above, the obligations imposed under the Convention on state parties exist independently of commitments made under the Paris Agreement to hold the temperature increase to well below 2°C and "pursu[e] efforts" to limit warming to 1.5°C, and nothing in the UNFCCC or Paris Agreement precludes state parties from taking action separate to what those agreements require.

Of course, the actions of an individual state party will not solve the climate crisis. But this does not absolve state parties with climate-vulnerable properties of their responsibilities under the Convention to act in a manner that is consistent with protecting those properties and sustaining their OUV in the face of climate change.

Finally, Article 6(3) requires each state party to refrain from taking deliberate measures that might directly or indirectly damage the World Heritage properties of other states. In the context of climate change, this requires all state parties to refrain from taking actions that place them on a pathway that is inconsistent with limiting warming to the level necessary to protect properties in other states.[58] Given the scientific consensus that greenhouse gas emissions fuel climate change, states cannot characterize activities that are inconsistent with a low emissions pathway as unintentional measures that do not damage World Heritage sites:[59] "emitting greenhouse gases is a deliberate measure directly and indirectly damaging World Heritage sites."[60] As described above, however, it is the state party in which

[57] *Id*., p. 7; Huggins, *Protecting World Heritage sites from the adverse impacts of climate change*, above n. 26, pp. 132, 134.
[58] *See also*, Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 11 ("With respect to climate change, this obligation means that all State Parties must act to reduce or limit their greenhouse gas emissions whether or not climate change threatens World Heritage sites within their respective jurisdictions.")
[59] Huggins, *Protecting World Heritage sites from the adverse impacts of climate change*, above n. 26, p. 135.
[60] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 12.

the threatened site is located that has the particular responsibility to align its actions with a global pathway that is consistent with limiting warming to the level at which the OUV will most likely be sustained and to undertake its fair share of global emissions reductions necessary to achieve that goal.

C. Site-specific mitigation alone is not enough to address the threat of climate change

The apparent focus of the 2007 Climate Policy on mitigation of emissions at the site level only (*i.e.,* state parties "will consider undertaking site-level … mitigation … measures, where appropriate") is manifestly inadequate to address the threat posed by climate change and permits the state parties to avoid their obligations to protect World Heritage properties.

As noted above, the Convention and Operational Guidelines clearly contemplate that threats to World Heritage properties exist beyond property boundaries, and indeed beyond national borders, and that national-level measures may be required to protect properties. Even the 2007 Climate Policy recognizes that state parties need to work beyond the boundaries of World Heritage properties to protect them from climate change when it states that state parties "will work with the climate change policy and decision-makers within their own countries as the primary response to the challenges that climate change poses for World Heritage."[61] Similarly, the *Report on predicting and managing the impacts of climate change on World Heritage* ("2006 Report"), endorsed by the Committee in 2006, states that *"States Parties and site managers need to look beyond the individual site level and develop and implement regional and/or transboundary mitigation" strategies*.[62]

Furthermore, as the 2006 Report itself recognizes, *"[t]he benefit of mitigation at World Heritage sites is … likely to be negligible on a quantitative basis*."[63] The vast majority of global emissions occur outside World Heritage properties, and even the most stringent mitigation measures at site-level will do very little to reduce global emissions.[64]

Accordingly, for climate-vulnerable sites, site-level mitigation is "a wholly inadequate response to the threat of climate change" because it will not protect OUV, and it represents a failure to "implement State Parties' obligations to engage in climate change mitigation because [it does] not specifically address the cause of the threats to world heritage due to climate change."[65] As Dr. Burns has said, "[i]t strains credulity to believe that the drafters [of the World Heritage Convention] only contemplated site-specific intervention."[66]

---

[61] *2007 Climate Policy*, above n. 1, p. 5.

[62] World Heritage Reports 22, *Climate change and World Heritage – Report on predicting and managing the impacts of climate change on World Heritage* (May 2007), p. 34 (emphasis added).

[63] *Id*., p. 37 (emphasis added). *See also*, *id*. ("To keep a realistic perspective, we must be aware that the total carbon dioxide sequestrated in World Heritage sites is probably limited because of the relatively limited area concerned.")

[64] *See also*, Chechi, *The cultural dimension of climate change*, above n. 8, p. 190 ("Even if a State would impose a total ban on GHG emissions within the boundaries of a WHC site, [the site] would continue to be threatened."); Huggins, *Protecting World Heritage sites from the adverse impacts of climate change*, above n. 26, p. 128 ("Reduction of global GHG emissions to mitigate climate impacts is by far the most effective and comprehensive way to protect World Heritage sites from climate change.").

[65] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 14.

[66] Burns, *Belt and suspenders?* above n. 7, p. 391.

3. Use of the List of World Heritage in Danger to address the threat of climate change

First, we note that the obligations on state parties under Articles 4, 5, and 6 to protect World Heritage properties arise when a property is placed on the World Heritage List. This means that effective climate change mitigation by state parties is required well before a site is inscribed on the In-Danger List.[67]

The 2007 Climate Policy contemplates that a property may be inscribed on the In-Danger List due to the impacts of climate change:

> While … Article 11(4) of the Convention does not specifically refer to climate change (which was not in serious contemplation in the early 1970s), the language is clearly sufficiently broad to include its effects.
> …
> Inclusion on the List of World Heritage in Danger under Article 11[(4)] is dependent on the threats to OUV. Where the threat comes from is irrelevant. In these circumstances, a site can be inscribed on the In-Danger List even where the impacts are beyond the control of the State Party concerned.[68]

We are aware that there are ongoing discussions about whether and how to use the In-Danger List to address the threat of climate change, and whether to create a separate list or sublist for sites threatened by climate change. Further, to the best of our knowledge, no property has ever been inscribed on the In-Danger List solely, or even primarily, due to the threat or impacts of climate change, despite many properties meeting the criteria for inscription on this basis. We understand that there are concerns about the difficulty of proposing corrective measures[69] and that such listings would result in increasing numbers of inscriptions on the In-Danger List.

We support the use of the In-Danger List for sites threatened by climate change, as contemplated by the 2007 Climate Policy. The actions that a state party must take to fulfil its obligations to address the threat of climate change – addressed in section 2 above – could form the basis of corrective measures, and the Committee would then review whether the state party is aligning its actions with an emissions pathway consistent with protecting the property's OUV and undertaking its fair share of global emissions reductions necessary to achieve that goal.

Furthermore, the use of the In-Danger List for sites facing a number of threats, including climate change, avoids having to separate out the different threats, a process which would likely be required if there was a separate list for climate-threatened properties. This is important because many climate-vulnerable properties meet the criteria for inscription on the In-Danger List due to multiple threats and, often, climate change amplifies non-climate threats and is thus a contributing factor to an in-danger listing. For example, the tropical coral reefs described in section 2 above are often threatened by overfishing, poor water quality, and coastal development, in addition to the existential threat of climate change. Similarly, low-lying areas with high biodiversity may be threatened not only by sea-level rise and other climate impacts, but also by logging or industrial encroachment.

---

[67] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 6.
[68] *2007 Climate Policy,* above n. 1, pp. 7, 12.
[69] *See generally*, *Operational Guidelines*, above n. 4, at [183]-[184].

Finally, because of the value of the In-Danger List for highlighting threats and mobilizing action, it is vital that, when a property is inscribed on the In-Danger List and the impacts of climate change are one of a number of threats, climate change be included in the official documentation of the inscription.

4. Brief comments on the role of adaptation

Adaptation can play an important role in protecting many World Heritage sites from some of the impacts of climate change. Strategies such as assessing the effectiveness of adaptation plans for specific properties at the various representative concentration pathways would also assist in identifying the climate impacts on individual sites and highlight the increasingly severe impacts at higher levels of warming.

However, the Centre and Advisory Bodies must also advocate for strong national-level mitigation action. For many World Heritage properties, adaptation is not possible due to the speed and level of warming and so their OUV will continue to deteriorate as warming continues – tropical corals reefs, glaciers, and low-lying cultural and natural sites are obvious examples.[70] For example, "while adaptation mechanisms could address floods resulting from glacial melt, only mitigation addresses the root cause of glacial melt trends – namely, an excess of greenhouse gases in the atmosphere. … [P]reventive actions, including mitigation, need to be taken to safeguard heritage."[71]

5. Conclusion: we are losing World Heritage properties and the World Heritage Committee, Centre, and Advisory Bodies must address mitigation

With the world on track for over 3°C of warming by 2100, there is a very real risk that World Heritage properties will be lost if the Committee continues to defer to the UNFCCC processes and focus only on adaptation and site-level mitigation. State parties must address the threat of climate change by doing all they can to the utmost of their resources, which requires them to align their actions with a global pathway that is consistent with limiting warming to the level at which the OUV is most likely to be sustained and to undertake their fair share of global emissions reductions necessary to achieve that goal. State parties must also refrain from taking actions that place them on a pathway that is inconsistent with limiting warming to the level necessary to protect properties in other states. For the most climate-vulnerable sites, such as tropical coral reefs and glaciers, the limit of warming at which OUV, or key attributes that contribute to OUV, can be sustained is well-below 1.5°C.

We recommend that the World Heritage Centre and Advisory Bodies use their unique position to protect the OUV of World Heritage properties from the threat of climate change. They should do this by ensuring that state of conservation reports and draft decisions, as well as the revisions to the 2007 Climate Policy, reflect the obligations imposed by the Convention upon state parties, and by making recommendations about the actions that each state party should be taking to align itself with a global pathway consistent with protecting World Heritage properties.

---

[70] *See* Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 5. *See also* Chechi, *The cultural dimension of climate change*, above n. 8, pp. 164-169, for discussion of climate change impacts on cultural heritage.

[71] Thorson, *The World Heritage Convention & climate change*, above n. 12, p. 6 (quotations omitted).