

Climate Change and Reducing Carbon POSITION STATEMENT

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1. Background

Climate change refers to long-term changes in climate patterns at a global or regional level caused by rising temperatures in the atmosphere [1]. The Intergovernmental Panel on Climate Change (IPCC) confirms that global temperatures are, on average, 1.1°C higher than pre-industrial levels (1850-1900), with clear and detrimental impact on ecosystems, biodiversity, economies, society and human health.

Scientific research has shown that this rapid rise in global temperatures is linked to an increase in atmospheric greenhouse gases [2], carbon dioxide (CO₂) being the most abundant greenhouse gas.

The physical impacts of climate change are widespread across marine and land-based ecosystems. With temperatures continuing to increase the world's coral species is at risk with only 1% predicted to remain should temperatures reach 2 °C above pre-industrial levels [3] and extreme weather events threaten the balance of land-based ecosystems causing habitat destruction and biodiversity loss [4].

The Paris Agreement, a legally binding global agreement on climate change with clear targets and timelines, ratified by 196 countries including Australia, New Zealand and Papua New Guinea, requires signatories to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursue efforts to limit temperature increases to 1.5 °, recognising that this would significantly reduce the risks and impacts of climate change [5]. Achieving the 1.5 °C goal would require a reduction in net emissions by half by 2030, and to net zero by 2050 [6].

ZAA acknowledges the Paris Agreement, Australian and New Zealand Government obligations and the urgent need for carbon reduction to help minimise rising extreme weather events and impacts on ecosystems, biodiversity, animal welfare and people.

2. Position Statement

The Zoo and Aquarium Association Australasia (ZAA) recognises the current existence and increasing impacts of anthropogenic climate change. That is, climate change caused by human activity.

This has implications for the conservation of wildlife, the welfare of wild animals and the safety, wellbeing and sustainability of zoos and aquariums (including their people, animals, and property).

With the escalating impacts of climate change globally and the long-term nature of recovery, ZAA asserts that immediate and significant action is needed collectively by governments, industries, and communities at both the global and national level.

It is ZAA's position that, as key players for conservation, environmental sustainability and animal welfare, zoos and aquariums have a role to play in reducing their own carbon emissions and advocating for climate action to help protect ecosystems, wildlife biodiversity, animal welfare and people.

ZAA encourages members to consider their contribution to greenhouse gas emissions generated, either directly or indirectly, and to introduce processes for measuring, reduction, and reporting.

3. Regional Targets

3.1 Nationally Determined Contributions (NDCs)

- (a) The Paris Agreement requires all signatory countries to identify their NDCs and provide regular progress reports on their greenhouse gas emissions [7].
- (b) The Australian Federal Government's Climate Change Bill (5-Sep22) and NDCs outlines Australia's greenhouse gas emissions reduction targets **of a 43% reduction from 2005 levels by 2030, and net zero by 2050** [8].
- (c) Each Australian state has made a commitment to reach net zero by 2050, or earlier, with interim emissions reduction targets by 2030 of:
NSW 50%, VIC 50%, QLD 30%, SA at least 50%, WA 80% below 2020 levels and ACT: 65-75% vs 1990 levels. **TAS achieved net zero in 2015.**
- (d) The New Zealand Ministry for the Environment has confirmed Aotearoa New Zealand's NDCs to be **50% below gross 2005 levels by 2030**, meeting a provisional emission budget of 571 Mt CO₂ emissions over the period 2021-2030 [9].
- (e) The Papua New Guinea Government have confirmed their NDC position as 50% carbon neutral by 2030 and carbon neutral by 2050 [10].

4. Measuring Reduction and Reporting

4.1 Measuring the carbon footprint of your organisation

- (a) Measuring your organisation's carbon footprint will help gain a better understanding of your organisation's impact on climate. Benefits also arise from these measurements ie:
 - (i) Enhanced reputation
 - (ii) Energy savings
 - (iii) Preparation and resilience against future regulation; and
 - (iv) An innovation focus

(The Carbon Trust, 2018 [11])

- (b) Members may also participate in nature-based solutions either directly or via third party support ie reforestation, private land management support, bush regeneration etc. These activities can also be considered in an organisation's reporting.

4.2 Measuring carbon emissions via the Greenhouse Gas Protocol (GHG Protocol)

- (a) The Greenhouse Gas Protocol (GHG Protocol) provides a step-by-step guide for calculating and reporting greenhouse gas emissions across operations and value chains [12].
- (b) The framework helps distinguish between direct and indirect emissions, categorising them into three scopes that can match to individual organisations.
- (c) To understand and measure carbon footprint, organisations need to identify their Scope 1 and Scope 2 emissions in the first instance. Scope 3 emissions is more complex and can be considered as a second phase in an organisation's net zero journey.
- (d) The World Association of Zoos and Aquariums (WAZA) has published a [Guide for Reducing, Measuring and Offsetting Carbon](#).

4.3 Partnerships

- (a) An organisation's carbon reduction plan should be considered in partnership across multiple stakeholders, particularly to explore Scope 3 emission reduction strategies.

5. Related Documents

Helpful references to support knowledge development and action plans:

- [United Nations Climate Action](#): The Paris Agreement
- [The Paris Agreement](#) (United Nations Framework Convention on Climate Change)
- [Greenhouse Gas Protocol](#) standards, guidance, tools and training for businesses
- [WAZA Guide](#) Reducing, Measuring, and Offsetting Carbon at your Zoo or Aquarium
- [WAZA Sustainability Strategy 2020-2030](#) Protecting Our Planet

6. Definitions

In this policy, unless the context requires otherwise:

Board means the board of management of the Association.

Board Member means a member of the Association's Board.

Constitution means the constitution of the Association, as amended from time to time.

Executive Director means the Executive Director of the Association.

Member means a member of the Association, as defined in the Association's Membership Policy, and may include an employee, officer or agent of a Member of the Association.

Organisation means an unincorporated entity, or an entity incorporated under Commonwealth, State or Territory legislation.

Association means the Zoo and Aquarium Association Inc. (ABN 71 836 556 156).

7. Proviso

The intent of this policy is to provide a framework for the majority of activities undertaken by Association members/subscribers. Any issue/concern which arises that is not covered by this policy, but falls within the purpose of the policy, will be included and addressed by the Association Board, or their delegate, in the best interest of the Association and its membership.

8. Approval and Review Details

| Approval History | Details |
|--|---|
| Approval Authority | Association Board |
| Relevant Committee and/or Stakeholders | Relevant advisory committee and/or Stakeholders |
| Original Approval Date | 19/03/2024 |
| Last Review Date | 19/03/2024 |
| Next review date | 19/03/2027 |

This document should be reviewed within three (3) years of the date of approval or last review.

Amendment HistoryApproved / Amended /
Rescinded / Reviewed

Authority

Date

Description / Notes

9. References:

- [1]: <https://education.nationalgeographic.org/resource/climate-milestone-earths-co2-level-passes-400-ppm/>
- [2]: <https://www.climate.gov/news-features/understanding-climate/climate-change-annual-greenhouse-gas-index>
- [3]: <https://library.wmo.int/records/item/57035-global-climate-in-2015-2019#.Xxg-e6gzaUn>
- [4]: <https://wmo.int/publication-series/state-of-global-climate>
- [5]: <https://www.un.org/en/climatechange/paris-agreement>
- [6]: IPCC 2021 *Climate Change 2021: The Physical Science Basis*. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. V. Masson-Delmotte et al, Eds. Cambridge University Press. In Press.
- [7]: <https://www.un.org/en/climatechange/paris-agreement>
- [8]: <https://www.dccew.gov.au/climate-change/international-climate-action>
- [9] <https://environment.govt.nz/facts-and-science/climate-change/new-zealands-projected-greenhouse-gas-emissions-to-2050/#nationally-determined-contribution-under-the-paris-agreement>
- [10]: <https://unfccc.int/sites/default/files/NDC/2022-06/PNG%20Second%20NDC.pdf>
- [11]: <https://www.carbontrust.com/our-work-and-impact/guides-reports-and-tools/a-guide-to-carbon-footprinting-for-businesses>
- [12]: <https://ghgprotocol.org/>