

FOREWORD



‘The average global temperature for 2015–2019 is on track to be the warmest of any equivalent period on record. It is currently estimated to be 1.1 °Celsius (± 0.1 °C) above pre-industrial (1850–1900) times. Widespread and long-lasting heatwaves, record-breaking fires and other devastating events such as tropical cyclones, floods and drought have had major impacts on socio-economic development and the environment ... Global emissions are not estimated to peak by 2030, let alone by 2020, if current climate policies and ambition levels of the Nationally Determined Contributions (NDCs) are maintained.’¹

¹ United Nations (UN) Science Advisory Group to the UN Secretary-General's Climate Action Summit, 22 September 2019, Press Release on the *United in Science* report, found at <https://unfccc.int/news/landmark-united-in-science-report-informs-climate-action-summit> accessed 7 November 2019.

In May 2019 the Australian Capital Territory (ACT) Government joined hundreds of other jurisdictions, including the United Kingdom and Canada, in becoming the first Australian territory or state to declare a climate emergency.

The importance of this declaration has been reinforced in every major report released in 2019.²

Business has renewed calls for action,³ specifically citing the role that cities can play.⁴ The insurance industry echoes these concerns, with the global reinsurance company Munich RE putting climate change at the top of its 2018 Corporate Responsibility Report 'materiality matrix'. Legal advice to company directors issued in 2016 on climate change risk was renewed in 2019.⁵ Defence experts keep reminding us of the security risks and commitment of personnel associated with climate change,⁶ and that climate change '...could exceed a more traditional regional military threat'.⁷ In November 2019, 11,000 scientists warned about the climate crisis.⁸

In this reporting period, in 2015, the United Nations also established the 17 Sustainable Development Goals (SDGs) with their 169 targets: 93 indicators relate to environmental matters, of which 30% still lack an agreed methodology.⁹ Responsible consumption and production (SDG 12) is characterised by the least data availability and has the lowest priority on countries' Voluntary National Reviews. In respect of all the targets for the state of the environment – biodiversity, ecosystem health, pollution and waste – either 'no data exists or no progress was made'. As we would expect, policy change, improved reporting, and increased funding has underpinned the success of other SDGs and United Nations' recommendations call for resourcing, monitoring and analysis, development of indicator methodologies, building integrated capacity and reducing data fragmentation.¹⁰

- 2 United Nations Intergovernmental Panel on Climate Change (IPCC), Masson-Delmotte, V. et al., eds, 2018, *Special Report: Global Warming of 1.5 °C*, IPCC, Geneva, found at https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf, accessed 7 November 2019; Brondizio E.S. et al., eds, 2019, *Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers*, IPBES Secretariat, Bonn, found at <https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services>, accessed 7 November 2019; UN Food and Agriculture Organisation (FAO), 2019, *The State of the World's Biodiversity for Food and Agriculture*, found at <http://www.fao.org/3/CA3129EN/CA3129EN.pdf>, accessed 7 November 2019; IPCC Climate Change and Land Report found at <https://www.ipcc.ch/srccl-report-download-page/> accessed 7 November 2019; IPCC, 2019, *Special Report on the Ocean and the Cryosphere in a Changing Climate*, found at <https://www.ipcc.ch/srocc/home/>, accessed 7 November 2019; UN Science Advisory Group to the UN Secretary-General's Climate Action Summit, 2019, *United in Science: High-level Synthesis Report of Latest Climate Science Information*, World Meteorological Organization (WMO) and Science Advisory Group of the UN, found at <https://reliefweb.int/sites/reliefweb.int/files/resources/climsci.pdf>, accessed 30 October 2019; UNEP, *Emissions Gap Report*, 2019, found at <https://wedocs.unep.org/> accessed on 27 November 2019; *WMO Greenhouse Gas Bulletin*, 2019, found at <https://library.wmo.int/> accessed on 27 November 2019.
- 3 Global Commission on Adaptation, 2019, *Adapt Now: A Global Call for Leadership on Climate Resilience*, found at https://cdn.gca.org/assets/2019-09/GlobalCommission_Report_FINAL.pdf, accessed 7 November 2019; United Nations Press Release, 22 September 2019, '87 Major Companies Lead the Way Towards a 1.5 °C Future at UN Climate Action Summit', found at <https://unfccc.int/news/87-major-companies-lead-the-way-towards-a-15degc-future-at-un-climate-action-summit>, accessed 7 November 2019.
- 4 Goldman Sachs, Global Markets Institute, 2019, *Taking the Heat: Making Cities Resilient to Climate Change*, found at <https://www.goldmansachs.com/insights/pages/gi-research/taking-the-heat/report.pdf>, accessed 7 November 2019; Storrow, B., 25 November 2019, *Cities Look to Natural Gas Bans to Curb Carbon Emissions*, American Scientist, found at <https://www.scientificamerican.com/article/cities-look-to-natural-gas-bans-to-curb-carbon-emissions/> accessed 28 November 2019.
- 5 Hutley, N. and S.H. Davison, 29 March 2019, 'Updated Opinion on Directors' Duties and Climate Risk', Centre for Policy Development, found at <https://cpd.org.au/2019/03/directors-duties-2019/>, accessed 12 November 2019.
- 6 Clarke, M., 25 September 2019, 'Did He Say it or Not? Defence Chief's Climate Speech Warns of 'Serious Ramifications of Climate Change'', ABC News, found at <https://www.abc.net.au/news/2019-09-25/australian-defence-force-angus-campbell-climate-change-speech/11543464> accessed 25 September 2019.
- 7 Vice Admiral (Retired) Paul Maddison, Director of the UNSW Defence Research Institute, Canberra, personal comment made to Kate Auty, UNSW, 9 August 2019; Sturrock, R. and P. Ferguson, 2015, *The Longest Conflict: Australian Climate Security Challenge*, Centre for Policy Development, found at <https://cpd.org.au/wp-content/uploads/2015/06/Climate-Change-and-Security-Paper-FINAL.pdf> accessed 12 November 2019.
- 8 Ripple, W. J. et al., 2019, 'World Scientists' Warning of a Climate Emergency', *BioScience*, biz088, found at <https://academic.oup.com/bioscience/advance-article/doi/10.1093/biosci/biz088/5610806>, accessed 7 November 2019.
- 9 UN Environment Programme (UNEP), 2019, *Measuring Progress: Towards Achieving the Environmental Dimension of the SDGs*, found at <https://www.unenvironment.org/resources/report/measuring-progress-towards-achieving-environmental-dimension-sdgs>, accessed 14 November 2019.
- 10 It will be interesting to watch the progress of SDG Indicator development and implementation in the next reporting period, but at this time I have not been persuaded to embark on an SDG indicators assessment as to do so would not improve on the data and trend analysis used in this State of the Environment Report.

The Canberra community understands these issues. In 2018, 90% of the community knew it was ‘important’ to act on climate change.¹¹ Across Australia, in 2019, the Lowy Institute reported 61% of the community accepted that ‘global warming is a serious and pressing problem’.¹²

In this reporting period there have been many environmental and sustainability achievements in the ACT.

Our commitment to, and imminent achievement of, 100% renewable energy is respected by thoughtful sub-national governments. This leadership has created green jobs and some confidence in our ability to achieve a ‘just transition’. The community and ACT Government can build on this accomplishment with the 2019 Climate Change Strategy.¹³

The ACT Government has been actively consulting with the public on major environmental policy directions, including the *Living Infrastructure Plan: Cooling the City 2019*,¹⁴ the *Planning Strategy 2018*, the Canberra Nature Park Draft Reserve Management Plan 2019,¹⁵ *Moving Canberra 2019–2045: Integrated Transport Strategy*,¹⁶ the Draft Digital Strategy¹⁷ and the design of the ACT Wellbeing Framework.¹⁸ The Government has also updated its *Communications and Engagement Plan*¹⁹ and established a YourSay Community Panel. The first Independent Audits of the Gungahlin and Molonglo Valley Strategic

Assessments on Matters of National Environmental Significance (MNES) under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* were conducted by this office (Office of the Commissioner for Sustainability and the Environment, OCSE) and recommendations and corrective actions have been adopted. A Chief Engineer and new ACT Government Architect have been appointed, supported by a Design Review Panel and ongoing funding has been committed in respect of environmental NGOs.

Serious challenges to environmental management remain.

Our population is expected to exceed 450,000 by 2022.²⁰ Population growth has the potential to impact biodiversity and MNES because of housing requirements.²¹ Our ecological footprint is too large. Drought conditions reported by the Australian Bureau of Meteorology (BOM) alert us to the need to carefully manage our water resources.²² Water-sensitive urban design is not a complete solution; we need to integrate water design into infrastructure planning and development. Waste reduction remains a challenge, and a circular economy is yet to emerge. Our transport emissions need to be capped and electric vehicles – for the purchase of which there are incentives – are only a partial answer. Across the city our use of public transport still rates at the lower end of the spectrum.²³

- 11 Schirmer, J. and B. Yabsley, 2018, *Living Well with a Changing Climate: Findings of the 2018 ACT Longitudinal Survey on Climate Change*, University of Canberra, found at https://www.environment.act.gov.au/__data/assets/pdf_file/0019/1316521/Longitudinal-Survey-ACT-Resilience-to-Climate-Change-Report.pdf, accessed 12 September 2019.
- 12 Lowy Institute Poll, 2019, Australian Opinion on Climate Change and Energy, found at <https://lowyinstitutepoll.lowyinstitute.org/themes/climate-change-and-energy/> accessed 12 November 2019.
- 13 Found at <https://www.environment.act.gov.au/cc/act-climate-change-strategy>, accessed 28 November 2019.
- 14 Found at https://www.environment.act.gov.au/__data/assets/pdf_file/0005/1413770/Canberras-Living-Infrastructure-Plan.pdf, accessed 18 November 2019.
- 15 Found at <https://www.yoursay.act.gov.au/act-parks/canberra-nature-park>, accessed 18 November 2019.
- 16 Found at https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/7715/4508/8347/INTEGRATED_TRANSPORT_STRATEGY_-181514.pdf, accessed 18 November 2019.
- 17 Found at https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/2315/6920/3414/Draft_ACT_Government_Digital_Strategy.pdf, accessed 18 November 2019.
- 18 Found at <https://www.yoursay.act.gov.au/wellbeing>, accessed 18 November 2019.
- 19 Found at <https://www.act.gov.au/yoursay/our-conversations> accessed on 18 November 2019.
- 20 Treasury and Economic Development Directorate, 2019, *ACT Population Projections 2018 to 2058*, ACT Government, Canberra, found at https://apps.treasury.act.gov.au/__data/assets/word_doc/0006/1305582/ACT-Population-Projections-Paper-FINAL.doc, accessed 30 October 2019.
- 21 OCSE, 2018, *Independent Audit of the Molonglo Valley Strategic Assessment*, ACT Government, Canberra, found at <https://www.envcomm.act.gov.au/investigations/independent-audit-of-the-molonglo-valley-strategic-assessment>; OCSE, 2018, *Independent Audit of the Gungahlin Strategic Assessment*, ACT Government, Canberra, found at <https://www.envcomm.act.gov.au/investigations/independent-audit-of-the-gungahlin-strategic-assessment>
- 22 OCSE, 2019, *The Heroic and the Dammed – Lower Cotter Catchment Restoration Evaluation*, found at <https://www.envcomm.act.gov.au/investigations/the-heroic-and-the-dammed-lower-cotter-catchment-restoration-evaluation>
- 23 Infrastructure Australia, 2019, *Urban Transport Crowding and Congestion, Supplementary Report to the Australian Infrastructure Audit 2019*: 160, found at <https://www.infrastructureaustralia.gov.au/publications/urban-transport-crowding-and-congestion>, accessed 30 October 2019.

This 2019 State of the Environment Report provides commentary, analysis and recommendations. Environmental data and trends are presented. Environmental policy is discussed. We have improved our science communication with a dedicated website, GIS mapping, and ESRI Story Maps. Environmental economic accounting is explored in commentary about the value of volunteering, water, and butterfly populations in the ACT.²⁴ Community resilience, action for sustainability, citizen science, and Ngunnawal Indigenous knowledge are included and celebrated.

Finally, the ACT Government's *Climate Change Strategy 2019–2025* calls upon the community to commit to change. Here in this Office we endorse that call to action. It is important to recognise that it is the responsibility of each and every one of us – in government and the community – to make changes to our lifestyles to ensure that we leave our environment in no worse state than we found it, and that we do this wherever we have agency.

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ACT Commissioner for Sustainability and the Environment



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²⁴ For guidance about environmental economic accounting, see the UN Statistical Commission website, found at <https://seea.un.org/content/seea-experimental-ecosystem-accounting-revision>, accessed 30 October 2019.