

Pre Budget- Submission

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Introduction

Doctors for the Environment Australia (DEA) is an independent, non-government organization of medical doctors and students in all Australian states and territories. Our voluntary members work across all specialties in community, hospital and private practices. We work to prevent and address the health risks - local, national and global - caused by climate change and damage to our natural environment. We are a public health voice in the sphere of environmental health with a primary focus on the health harms from pollution, environmental degradation, and climate change.

DEA welcomes the opportunity to provide a Pre-Budget 2022 Submission to the Australian government at a time when human health and the environment are facing massive challenges which were unforeseen several decades ago.

Excessive resource consumption, massive fossil fuel use, land degradation and water mismanagement are unsustainable and are generating physical changes in our environment which adversely affect our health and our country's liveability. Greenhouse gas (GHG) emissions resulting in climate change, and its contribution to biodiversity loss and pollution threaten to negate the last 50 years of improvements in health and living standards placing the very future of healthy, vibrant and productive communities at risk.

The costs of inaction on climate change outweigh mitigation costs

Policy choices that fail to reduce climate change impacts or inadequately address mitigation measures are far from costless to our economy. Inaction on climate change does not result in uninterrupted economic growth, but instead results in significant economic losses. These losses far outweigh mitigation costs which, moreover, are increasing with each year of delayed or inadequate policy action.¹

Deloitte Access Economics reported that the estimated cost of climate-induced extreme weather events will increase to \$150 billion over the next decade and that urgently shifting to investing in climate adaptation and mitigation could save \$380 billion in GDP over the next 3 decades.²

The World Health Organisation has described climate change as the defining issue for public health in the 21st Century and warns that "the severity of impacts of climate change on health are increasingly clear". Urgent action is needed to reduce emissions to keep global warming at less than 2°C.³ If we fail to do this, tipping points are likely to be reached, after which further limits on global warming and climate change will be exceedingly difficult to manage, water and food security will be at risk and some areas of Australia will likely become uninhabitable.

In 2019 numerous⁴ major medical organisations in Australia,⁴ and many others around the world declared a *Climate Health Emergency* and called on governments for strong and effective action to reduce emissions and for recognition, preparation and management of the critical public health challenges ahead.

Measures to protect future health must be considered alongside the ongoing acceptance of medical and scientific expertise which leads the response to the COVID19 pandemic. The level of scientific expertise in the environmental fields of climate change, biodiversity loss and pollution is no less accurate, investigated, scrutinised or urgent. DEA urges the government to adhere to the scientific and medical knowledge of environmental experts in its adoption of measures in the forthcoming 2022 Budget.

¹ <https://www2.deloitte.com/au/en/pages/economics/articles/new-choice-climate-growth.html>

² <https://www2.deloitte.com/au/en/pages/economics/articles/economic-reality-check.htm>

³ <https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits>

⁴ <https://www.dea.org.au/climate-health-emergency-declaration/>

Although current community and political attention is prioritised to the COVID19 pandemic, there is every expectation that actions will shortly lead to limitation of infection and death rates, and resumption of normal trade and business. However, with little action on climate change and biodiversity loss, the future for Australia and the planet is dire, with untold health risks, business upheaval and environmental mayhem.

Overriding recommendations

The Australian government provides funding for:

1. development of a *national Climate Change and Health strategy* that would enhance the delivery of information on health impacts to the general public
2. preservation of biodiversity and its elevation to a key role in maintaining biological and human health by acting on the recommendations of the Samuel report on the Environmental Protection and Biodiversity Conservation (EPBC) Act 1999 (see below)
3. reduction of air pollution by phasing out use of fossil fuels in energy production and transport
4. transition of the healthcare sector to environmentally sustainable practices throughout with a net zero emissions target by 2040 for the sector, and the establishment of a National Sustainable Healthcare Unit
5. revision of the Murray-Darling Basin Plan and the Water Act, accepting that the Plan's purpose is to protect the Basin from irreversible environmental damage, and recognizing the anticipated effects of climate change on the Plan's water allocations for environmental purposes.

Economic advantages of measures to protect health

DEA and other Australian health organisations have long advocated for a health framework in planning, adaptation and mitigation of climate change risks on human health. Already we have experienced a huge toll on physical and mental health through extreme climate-induced events in Australia. The cost of intangible losses from the Black Saturday bushfires, which includes impacts on health is estimated to be over \$3.9 billion, with a further \$4.4 billion in insured losses which include the tragic loss of lives. Health costs alone from the 2019-20 summer bushfires were \$2 billion and other costs are yet to be determined, but are likely to exceed those of Black Saturday. The lifetime cost of mental health issues resulting from the 2010-11 Brisbane floods is estimated at around \$5.9 billion.⁵ These health and economic tolls are a national issue for which there needs to be national acknowledgement of the threats and a clear and ambitious plan for their minimisation.

Neither costs incurred in climate mitigation nor costs resulting from climate change can be assessed accurately if analyses of the costs of climate-sensitive health outcomes are not included. In one 2016 estimate, Australia's Productivity Commission found that between 2009–10 and 2012–13, \$11.0 billion was spent on disaster recovery, while only \$225 million was spent on climate mitigation.⁶ Many economic institutions have assessed that climate impact costs will be far greater than those of mitigation,⁷ and no credible assessment has yet concluded otherwise.

⁵ Deloitte Economics. The Economic cost of the social impact of natural disasters. Australian Business Roundtable March 2016 <http://australianbusinessroundtable.com.au/our-research>

⁶ Productivity Commission (2015), Natural Disaster Funding, Australian federal government Public Inquiry

⁷ <https://www.climatecouncil.org.au/wp-content/uploads/2021/01/hitting-home-report-V7-210122.pdf>

DEA recommends the following components of environmental care be strengthened.

1. Emissions reduction and renewable energy

Recommendations:

6. The Australian government, through legislation, support the policies of all Australian states, most of its major cities and dozens of its local councils in committing to net-zero GHG emissions by 2050.
7. The Australian government support all jurisdictions to adopt ambitious interim emissions reduction targets (ERTs) of the order of 50 – 75% by 2030.
8. Renewable energy uptake programs be strengthened nationally by coordinating with the states through the Australian Energy Market Operator (AEMO), and the Energy Security Board (ESB) with aggressive measures to improve the National Electricity Market (NEM).
9. Investment in the electricity grid to enable 100% renewable energy to replace reliance on gas and fossil-fuel power stations, such as appropriate transmission upgrades, battery infrastructure and other technologies
10. Promotion and incentives for purchase of electric (EV) rather than internal combustion energy (ICE) vehicles. Measures would include reduction in import duties for EVs, and higher duties for large and heavy ICE vehicles where light more energy efficient vehicles are adequate.

It is incumbent on the Australian government to fully honour its commitment to the Paris Agreement, which was not only a commitment to its original (and contested) National Determined Contribution, but was a pledge to adopt increasingly ambitious targets with time in an effort to keep global mean temperature rise to 2°C. Although many reports, scientists and policymakers continue to discuss rises of 2°C, the Intergovernmental Panel on Climate Change (IPCC) reported in 2018 that even warming of more than 1.5°C would be disastrous. The UN Environment Programme (2019) concluded that unless global GHG emissions fall by 7% each year this decade, restricting temperature rise to 1.5°C will be extremely difficult.^{8,9,10}

Multiple sectors contribute to GHG emissions. While energy production contributes the most, other sectors such as transport (land, air and maritime), industry, agriculture and forestry, and energy efficiency in the built environment all contribute significantly. The health sector alone is estimated to contribute approximately 7% of Australia's GHG emissions. Clear guidance, roadmaps and development of policies and incentives from federal government are required to facilitate all sectors to make the necessary emission reductions over the next decade. The need for action is too vital to be left entirely to market mechanisms which tend to be reactive rather than proactive.

Defined ERTs are accepted internationally as a catalyst to achieving the necessary emissions reductions. A national ERT or national coordinating effort is necessary to bring together government, business, trade unions, civil society, and communities to transform employment and provide

⁸ <https://www.unep.org/news-and-stories/press-release/cut-global-emissions-76-percent-every-year-next-decade-meet-15degc>

⁹ <https://www.climatecouncil.org.au/wp-content/uploads/2021/04/aim-high-go-fast-why-emissions-must-plummet-climate-council-report-210421.pdf>

¹⁰ https://www.iea.org/reports/net-zero-by-2050?utm_campaign=Carbon%20Brief%20Weekly%20Briefing&utm_content=20210521&utm_medium=email&utm_source=Revue%20Weekly

certainty for investment. Planning also has the potential to deliver more equitable and prosperous growth.

Australia's ERTs must include all GHGs. As well as carbon dioxide (CO₂), GHGs include methane, nitrous oxide (N₂O), certain refrigerants and sulphur hexafluoride. Methane now contributes nearly 25% of GHG activity globally and its influence is increasing. Although its atmospheric life of about 20 years is relatively short compared with CO₂, it is longer than the current critical time-line for emissions reduction. Nitrous oxide, a powerful long-lived greenhouse gas mainly from nitrogenous fertilizers, is also exerting an increasing greenhouse effect.

Renewable energy and the "gas-fired recovery"

The cost of renewable energy from solar and wind together with battery storage is now cheaper than both new and existing coal- and gas-fired power so there is no economic advantage in promoting the extension of fossil-fuel powered electricity generation or facilitating a "gas-fired post-COVID recovery".^{11,12} The adequacy of future supplies of gas is unclear¹³ and any potential shortage could be averted by steady reduction in community and industrial demand. All-electric homes using heat pump technologies and induction cook-tops are likely to be cheaper than gas-fired alternatives,¹⁴ and industry can gradually transition to hydrogen for major industrial applications.

A gas-fired recovery is incompatible with the Australian Government's commitment to net zero emissions by 2050 as outlined in their *Positive Energy Plan*.¹⁵

Energy efficiency and other measures

Energy demand can also be reduced by improving residential building energy efficiency. The current National Construction Code's rating through NatHERS assessment could be increased from a star rating of 6 to 7.5, providing marked reduction in energy use and substantial cost savings.

Other measures to be supported include funding for research and development of lower emissions building materials, and reduced tariffs for the multiple electric tools and machinery which are replacing ICE equipment in all areas of the household, construction and industry in general.

Support for Australia's food producers in seeking ways to reduce GHG emissions is vital as global warming and climate change will threaten the very ability to reliably produce food and associated goods.

2. National Climate and Health Strategy

Recommendations:

11. Develop a National Climate and Health strategy.
12. Guarantee specific climate action targets and health solutions through federal legislation.
13. Support and co-ordinate the ambitious climate mitigation aims of Australia's states and territories.
14. Increase Australia's foreign aid especially to our Pacific and South-east Asian neighbours.

¹¹ <https://www.pv-magazine-australia.com/2020/11/27/renewables-outshine-gas-in-race-to-replace-liddell/>

¹² https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf

¹³ <http://forecasting.aemo.com.au/Gas/AnnualConsumption/Total>

¹⁴ https://renew.org.au/wp-content/uploads/2018/08/Household_fuel_choice_in_the_NEM_Revised_June_2018.pdf

¹⁵ <https://www.positiveenergy.gov.au/>

Meaningful action on climate change and health requires sophisticated planning by all sectors of society and co-ordination at multiple levels.

Any discussion on health and natural disasters must acknowledge that climate change is an underlying driver of extreme weather and is a national economic, health and security threat which merits statutory action. Observations, reconstructions and climate modelling paint a consistent picture of ongoing, long-term climate change interacting with underlying natural variability. Associated changes in weather and climate extremes—such as extreme heat, heavy rainfall and coastal inundation, fire weather and drought—have a large impact on the health and wellbeing of our communities and ecosystem.¹⁶ Australia needs a comprehensive national assessment of risks to human health from climate change, such as those of the United Kingdom and the United States, and national spending on climate change health research, which has so far been miniscule. Accrual of information and a multisectoral approach are the bases of the Climate and Health Alliance’s (CAHA) framework for a national strategy to protect the health of Australians.¹⁷

Progression of global surface and ocean warming, increasing ocean acidity, sea-level rise, weather extremes, biodiversity loss and increasing extinctions mandate immediate action. The current federal government’s aim of reaching net zero emissions by 2050 does not recognize the degree of urgency required. This is a failure to acknowledge the scientific advice given by experts. Every year that climate action is delayed increases the cost of effective solutions. Had serious climate action begun in 2010, the cuts required to meet the emissions levels for 2°C mean temperature increase would have been around 2% per year on average, up to 2030. Instead, emissions increased and the required cuts from 2020 are close to 3% for a 2°C increase, and more than 7% per year on average for a 1.5°C increase.¹⁸ In 2010, the world thought it had 30 years to halve global emissions of GHGs. In 2022, we know that this must happen in less than ten years.¹⁹

States and territories have developed ambitious climate mitigation aims over the last 5 years, with several embedding these aims in legislation. With states assuming responsibility for climate action regardless of political orientation, how much easier would it be for the federal government to weave these actions into a coherent whole for the benefit of all. To assist our Pacific neighbours in combatting effects of climate change, Australia’s overseas development assistance should be restored to 0.5% of our Gross National Income (GNI). It is currently \$4 billion, or only 0.21% of our GNI. Of the \$4.2 billion aid allocated by Australia in 2018-19, \$1.4 billion was for the Pacific and a further \$1 billion for South-east and East Asia. In 2019 the Joint Standing Committee on Foreign Affairs, Defence and Trade also recommended that the Government commit to increasing the aid budget to at least 0.5% of GNI within 5 years.

3. Sustainable Healthcare Unit

Recommendations:

15. Establish a national Sustainable Healthcare Unit (SHU) to oversee reduction in healthcare’s carbon footprint and environmental impact, advance environmentally sustainable models of care and procurement, and collaborate with state-based SHUs.

¹⁶ <http://www.bom.gov.au/state-of-the-climate/>

¹⁷

https://d3n8a8pro7vhmx.cloudfront.net/caha/pages/40/attachments/original/1498008324/CAHA_Framework_for_a_National_Strategy_on_Climate_Health_and_Well-being_v05_SCREEN_%28Full_Report%29.pdf?1498008324

¹⁸ <https://www.unep.org/news-and-stories/press-release/cut-global-emissions-76-percent-every-year-next-decade-meet-15degc>

¹⁹ https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf

The Australian healthcare sector is one of the largest of our economy, with expenditure approaching 10% of GDP, and the future of high-quality healthcare relies on a delivery model that is both financially and environmentally sustainable. The carbon emissions of the sector are significant, estimated at over 7% of Australia's total GHG emissions.

A national SHU is fundamental to developing effective road maps to support environmentally sustainable practice in healthcare and reduce the sector's own significant emissions. Whilst there are already advances at a state level and by healthcare organisations and industry, there is no coordinated approach across jurisdictions in Australia. A national SHU would enable the healthcare sector's carbon emissions to be effectively addressed and decreased whilst maximising the associated financial, quality and environmental co-benefits.

There is rapidly growing support within the health profession for the Australian healthcare sector to significantly reduce its carbon footprint and position itself as a leading environmentally sustainable sector. Fundamental to such outcomes are increases in healthcare efficiency and effectiveness which would inevitably also deliver financial benefits. The United Kingdom's NHS has demonstrated significant success in this regard over the last few years, where environmental sustainability initiatives rose to £90 million saved annually.

Over 50 health and medical organisations, including the Australian Nursing and Midwifery Federation, the Public Health Association of Australia, HESTA, and the Consumers Health Forum of Australia, have joined with the AMA and DEA to call for the establishment of a national SHU to facilitate the healthcare sector in reducing its carbon emissions to net zero by 2040, incorporating an interim reduction target of 80% by 2030.²⁰

DEA's *Net Zero Carbon Emissions* report, released in December 2020, outlines the health, ethical and economic rationale for leadership from the healthcare sector and recommendations to achieve net zero emissions, including a national SHU as outlined by DEA.²¹

The UK's NHS has demonstrated again over the last year what can be achieved by developing and supporting nation-wide coordination with their new Greener NHS program.²² In a recent survey 87% of NHS staff supported the NHS's net zero commitments, and emission reductions achieved over the last year are equivalent to powering 1.1 million UK homes with electricity.²³

An Australian national SHU would enhance and disseminate actions already occurring whilst undertaking systematic benchmarking and planning to realise the necessary emission reductions and environmental and financially sustainable pathways for health care. It would enable coordination across jurisdictions (states, regions, hospitals, clinics) and between stakeholders (healthcare professionals, organisations/ facilities, industry and suppliers etc), allowing health care to capture the full benefits of sustainability initiatives.

OVER-ARCHING FUNCTION OF A NATIONAL SUSTAINABLE HEALTHCARE UNIT

- Co-ordinating targeted measurement of the healthcare sector's carbon footprint and environmental impact.
- Trend analyses, benchmarking and assessment of carbon reduction strategies within clinical pathways (including sustainable models of care), organisational processes, technology

²⁰ <https://www.dea.org.au/wp-content/uploads/2021/05/Open-Letter-to-the-Hon.-Scott-Morrison-MP-3.pdf>

²¹ https://www.dea.org.au/wp-content/uploads/2020/12/DEA-Net-Zero-report_v11.pdf

²² <https://www.england.nhs.uk/wp-content/uploads/2021/09/item4-delivering-net-zero-nhs-updated.pdf>

²³ <https://www.england.nhs.uk/greenernhs/2021/10/baby-steps-are-adding-up-to-deliver-the-worlds-first-net-zero-health-service-by-2045/>

advancements (such as telemedicine) and purchasing/manufacturing (such as pharmaceuticals and equipment).

- Leading and co-ordinating research, policy development, system changes and staff engagement/education to maximise effectiveness and successful implementation of initiatives at state, regional, health network/organisation, hospital and practice levels.
- Co-ordinating activities amongst state-based units and other health organisations/networks (including primary health networks) and stakeholders.

STRUCTURE FOR A NATIONAL SUSTAINABLE HEALTHCARE UNIT

A national Sustainable Healthcare Unit could be modelled on the initial Sustainable Development Unit (SDU) in the United Kingdom, which had a small (less than 10 full-time staff) multi-skilled team, including a director, operational director, communications manager, organisational development lead, project officer, technical/metrics lead and administrator.

The unit could be hosted by an existing health organisation (or within the Department of Health) to share use of offices, human resources, finance and IT systems.

Estimates of indicative costs:

- Establishment costs (development of governance structure etc.) - \$150-250,000.
- Implementation costs (assuming 5 staff and related infrastructure) - \$1-2 million per annum.

4. Air quality

The Australian Government should ensure that national air pollution standards are protective of human health. In May 2021 the National Environment Protection Measures (NEPM) standards were revised downwards, without conducting a review of the current literature on air pollution and health. Just 4 months later the World Health Organisation published revised standards after a thorough review, setting standards that are mostly much lower than the new NEPM levels.

Recommendations:

16. Fund \$9 million over 4 years for a public education campaign to increase community awareness of air pollution risks during pollution emergencies such as bushfire smoke, and promoting protective behaviours for vulnerable people.
17. Promote the use of zero pollution vehicles, and increase fuel excise by approx. 20c/litre on diesel to reflect the excess toxicity of diesel exhaust. Support state initiatives to introduce electric buses.
18. Introduce exhaust standards for off road diesel equipment including locomotives, with a 5 year catch up period to reach equivalent US standards.
19. Introduce anti-idling laws to restrict air pollution from stationary vehicles, starting with clean air zones around schools.

Ambient air pollution contributes to over 3000 premature deaths each year in Australia. Air pollution “hot-spots” exist in both cities and regional areas close to busy roads and intersections, freight routes, certain industries, mining activities and coal-fired power stations. Adverse health effects include those to the respiratory system of asthma and reduced lung function, to the unborn foetus, and to brain function, particularly in the elderly. Currently, because of the sparsity of monitoring,

and therefore a lack of adequate reporting, the public is generally unaware of the potential hazards and so cannot make decisions in the interests of their health.

During the Black Summer fires there were an estimated 417 deaths due to excess particle pollution. The community is generally unaware of protective measures that vulnerable people can take: to stay indoors, wear the appropriate mask, and avoid exercising at times of high pollution. The most vulnerable can also benefit from indoor air purifiers supported by technical advice. Public health announcements during a bushfire crisis should be preceded by a community education campaign in the lead up to each fire season. DEA supports funding of the Air Smart education proposal originated by Asthma Australia.

Although there have been several federal Inquiries in the last 5 years with the intention of improving vehicular engine efficiency and levels of exhaust pollutants, there has been no meaningful outcome. Australia now holds the lowest rank out of the 35 OECD countries for fuel quality. While diesel vehicles are being phased out in many OECD countries due to the health impacts from diesel emissions, in Australia the proportion of diesel vehicles on the roads is increasing, and they are becoming more polluting as they age. Electric vehicles will reduce vehicular pollution enormously.

None of Australia's coal-fired power stations have been fitted with flue-gas "scrubbers" which remove 99% of sulfur dioxide emissions, nor have they installed selective catalytic reduction to reduce nitrogen dioxide emissions. Yet internationally, many similar power stations have been successfully retrofitted with these pollution-reduction technologies.

5. Biodiversity

The Australian Government should strengthen environmental controls without which we will continue to force species to extinction and create ecological mayhem from which it may be impossible to recover.

Recommendations:

20. The Federal Government recognises that biodiversity loss and ecosystem decline are key threats to human health and wellbeing.
21. The Federal Government accepts the key recommendations from the Samuel Report of the Environmental Protection and Biodiversity Conservation Act, which include developing national environmental standards, creating an independent federal regulator and improving transparency, data and information recording.
22. The Federal Government allocates adequate funding to enable the implementation of these legislative reform measures.
23. The Federal Government increases funding to support threatened species conservation and recovery actions.
24. In considering allocating funds to legislative reform and threatened species management, the Federal Government recognises that protecting biodiversity represents a least-cost way of ensuring that we can continue to experience nature's benefits into the future.

Human health is indivisible from healthy, biodiverse ecosystems as these provide and sustain the very fundamentals of good health - clean air, a secure water supply, reliable production of healthy and nutritious food, and a stable climate. As biodiversity and ecosystems decline or are lost, we are not only undermining these fundamentals of health, but also the contribution our natural

environment makes to our physical and mental well-being. The value of “ecosystem services” - the benefits the natural ecosystems provide to people - is immeasurable, while replacing them would be extremely costly, if not impossible.

Australia has an appalling record of species extinction and has undergone the largest decline in biodiversity of any continent since colonisation. Currently Australia has the second highest rate of biodiversity loss in the world.²⁴

Australia’s environmental management systems are clearly failing and are far from sufficiently robust to meet today’s complex and extensive environmental needs. Particularly concerning is the longstanding and ongoing failure of Australia’s key piece of environmental legislation, the Environmental Protection and Biodiversity Conservation (EPBC) Act. This Act underwent a statutory 10-year review last year, and the final report of this review (Samuel Report) recognised the serious environmental crisis we are facing and the ongoing deterioration of our natural capital.²⁵ Specifically, it noted: *“Australia’s natural environment and iconic places are in an overall state of decline and are under increasing threat. The current environmental trajectory is unsustainable.”* It also highlighted the gross inadequacy of the EPBC Act to fulfill its statutory objectives of conserving Australian biodiversity and promoting ecologically sustainable development, and the urgent need for major reform. The Samuel Report made a number of key recommendations which included the development of national environmental standards, the creation of an independent federal regulator for monitoring and to ensure compliance, better access to transparency and justice, and improved data and information recording. It is DEA’s view that together these recommendations represent essential safeguards and systemic reforms, and we thereby call on the Federal Government to adequately resource their implementation.

DEA also calls for the allocation of specific funding to support threatened species conservation and recovery actions. There is empirical evidence that the more a country spends on conservation, the fewer species it loses.²⁶

Biodiversity expenditure in Australia has remained between AUD \$400 million and \$500 million per year (less than 0.05% of GDP) since 2010, equating to less than five cents for every \$100 of Australian Commonwealth spending.²⁷ This is clearly an inadequate level of funding to address Australia’s extinction crisis given ongoing species loss, the ongoing decline of most listed species, and the increasing number of species being identified as threatened every year. Australia remains one of only four developed countries in the top 40 underfunded countries in terms of conservation expenditure.²⁸

In considering the allocation of funding to implement legislative reform and to improve biodiversity conservation, DEA strongly advises that the costs are not subject to short term expediencies. Species and ecological decline, through their detrimental effects on human health, productivity and sustainability, will have far greater long-term impacts on the national economy.

²⁴ Waldron, A., et al. Reductions in global biodiversity loss predicted from conservation spending. *Nature* 551,364–367 (2017). <https://doi.org/10.1038/nature24295>

²⁵ <https://epbcactreview.environment.gov.au/resources/final-report>

²⁶ Waldron, A., et al. Reductions in global biodiversity loss predicted from conservation spending. *Nature* 551,364–367 (2017). https://doi.org/10.1038/nature2429_5

²⁷ Australian Conservation Foundation (2018). Environment spending in Australia https://d3n8a8pro7vhAmx.cloudfront.net/auscon/pages/5288/attachments/original/1517524145/Government_Environment_Spending_in_Australia.pdf?1517524145

²⁸ Waldron A, Mooers AO, Miller DC, et al (2013). Targeting global conservation funding to limit immediate biodiversity declines. *Proc Natl Acad Sci USA*. 110; 12144-12148.

As an example of the fiscal gains that can flow from environmental protection, the Victorian Government's Biodiversity Strategy to 2037 notes that the benefits that Victoria's national parks and conservation reserves provide to Victorians are valued at well in excess of one billion dollars every year.²⁹ From a health perspective, visits to parks are estimated to save Victoria somewhere between \$80 million and \$200 million from avoidance of disease, mortality and lost productivity annually. Victoria's Biodiversity Strategy to 2037 also quotes a Future Economy Group report which has estimated that by 2028, healthier natural capital could provide between \$15 and \$36 billion in economic benefits for Victoria on the one hand, while on the other, continuing decline of natural capital could result in an economic loss of between \$16 and \$78 billion.

It is vitally important that the Federal Government recognises that investment in protecting biodiversity and addressing threats is money well spent.

6. Preventive Health expenditure

Recommendations:

25. Establish a national Centre for Disease Control (CDC) to better monitor, identify and manage emerging threats from communicable and non-communicable diseases.
26. Recognize that preventive health care is the cornerstone of a robust, effective and efficient health care system and needs increased expenditure to at least 5% of the health budget.
27. Public health education and nutritional guidelines to promote a predominantly plant-based diet with reduced meat intake and provision of clear information about healthy and sustainable food choices.
28. The health benefits of green and active transport infrastructure with the consequent health savings be considered in the planning and policies of cities and communities.

The current COVID-19 pandemic highlights once again the need for a national body – a national Centre for Disease Control (CDC) - to coordinate responses to diseases which threaten all Australians. The centre should be adequately funded to sustain research, develop expertise and provide experience in managing communicable and non-communicable diseases. Experience would not be limited to local diseases but would encompass knowledge and understanding of global disease behaviour in preparation for spread to Australia. Recent experience with COVID-19 has borne out the need for a rapid and meticulous response guided by scientific and medical expertise. Australia is the only country in the OECD which does not have an established national authority delivering scientific research and leadership in communicable disease control. The Australian Medical Association has been calling for a national CDC since 2017, the adoption of which would likely have facilitated a more effective and rapid response to the current pandemic.

National action on climate would also benefit from a national CDC because of the anticipated changes in disease patterns with increasing severity of climate change.

While Australian health care is primarily responsible for the treatment and management of illness, current Australian health services direct only about 1.34% of the health budget towards

²⁹ Victorian Government. Protecting Victoria's Environment - Biodiversity 2037.

https://www.environment.vic.gov.au/_data/assets/pdf_file/0022/51259/Protecting-Victorias-Environment-Biodiversity-2037.pdf

prevention.³⁰ Most of this is spent on dedicated programs such as reducing smoking and alcohol and providing immunisations. By purely focusing on established diseases, we miss the opportunity for primary prevention to modify the “causes of the causes” of ill health in our society. World’s best practice suggests that preventive health expenditure should be around 5-6% of total health system expenditure, as is available in New Zealand, Canada and the UK.³¹

Preventive health is the cornerstone of a robust, effective and efficient health care system. Preventive health care is the means of saving future costs generated by chronic diseases such as diabetes, hypertension, obesity and mental disease. Costs encompass the increased medical and hospital attendances, pharmaceutical requirements and many other medical, surgical and support services created by complications of these disorders. Preventive medicine produces better health outcomes at costs far lower than those incurred in the management of established chronic disease. For example, it is estimated that preventive interventions in Australia for cerebrovascular disease and diabetes would generate returns of around \$13 for every \$1.40 spent.³²

Action on climate change has many preventive health co-benefits that improve health and well-being. For example: moving from a fossil fuel-based energy system to renewables will reduce emissions, improve air quality and have better health outcomes; investment in active transport infrastructure will reduce vehicular emissions and encourage exercise; adoption of plant-based diets and reduced consumption of red meat will both reduce emissions and improve health.

7. Disaster and emergency preparedness

Recommendations:

29. Strengthen the public health sector to respond to extreme weather and climate emergencies
30. Support vulnerable members of society, particularly Aborigines and Torres Strait Islanders in coping with effects of climate change
31. Continue public education of risks of extreme weather events such as extreme heat, storms and floods
32. Ensure recommendations of the National Natural Disaster Arrangements (NNDAA) 2020 Royal Commission are enacted.

Current national health coordination arrangements for disaster planning are fragmented, with a lack of coordination between states, and metropolitan and regional divides - with a significant omission being dissemination and receipt of information to front-line health care workers. In most jurisdictions, emergency service responses and government department disaster planning occur in silos separate from hospital and primary care disaster planning and separate from GPs and health clinics. There is a need for federal integration of health care responses through a national body tasked with decision making in health emergencies. In other countries, the US Centre for Disease Control and the UK’s Public Health England exist as national health protection agencies involved in disaster response. In Australia, responsibility lies with the states and territories, with knowledge and expertise fragmented between eight separate jurisdictions. It is obvious that natural disasters do not respect state boundaries.

³⁰ https://fare.org.au/wp-content/uploads/Preventive-health-How-much-does-Australia-spend-and-is-it-enough_FINAL.pdf

³¹ <https://www.oecd-ilibrary.org/docserver/f19e803c-en.pdf?expires=1611465710&id=id&accname=guest&checksum=C6EC341268D92DA0DFED16A3BD0B9C5F>

³² <https://www1.racgp.org.au/newsgp/professional/global-report-provides-powerful-economic-argument>

As during the COVID19 pandemic, the public health sector is the cornerstone of healthcare in environmental emergencies, aided by community health services such as primary care providers, allied health professionals, general practitioners and pharmacists. Clearly, all these services need to be fully informed and funded for emergency work. For example, Primary Health Networks which had taken on coordination of primary healthcare providers in emergencies were recognized by the royal commission into the National Natural Disaster Arrangements 2020 as being inadequately funded and poorly informed of disaster management systems. Clearly deficiencies such as these need to be addressed.

Currently, the Minister for Health and the Department of Health have little input or authority to address the risks and management of current and future health impacts arising from climate change. Mitigation of climate change is currently accepted at the federal level as the responsibility of the Department of the Environment and Energy. This is indicative of the government's lack of recognition of the vital links between the environment and human health, and the disconnect between environmental policies that negatively impact the health of Australians. DEA calls on government to accept responsibility for ensuring coordination and consistency of adaptation measures which impact health across the nation, with appropriate standards, research and funding to ensure compliance by state and territory authorities. These measures must be accompanied by efforts to develop and deliver robust climate change mitigation policies.

Climate change does not affect sectors of the community equally. Australia's indigenous community is especially vulnerable, both physically and mentally, as their spiritual connection with country is being severed by harsher climatic conditions. The Australian government needs to take more visible measures to assist Indigenous communities in dealing with climate challenges.