

Action on Climate Change and Health; Governance and Strategy

Recommendations

1. The Australian Federal government recognises that climate change is a national economic, health and security threat which merits statutory action.
2. Climate change be dealt with as an emergency which requires the establishment of an independent statutory authority which has jurisdiction for a range of Commonwealth strategic actions.
3. Proposal from the Australian Panel of Experts on Environmental Law (APEEL) that a new independent statutory authority be called the Commonwealth Sustainability Commission (CSC) and be linked to a National Environmental Protection Authority (NEPA).
4. Membership of the Commonwealth Sustainability Commission comprise experts from a range of disciplines, integral to addressing climate change, appointed by government from nominations from expert bodies.
5. The Commonwealth Sustainability Commission would receive expert input from climate science and other disciplines or alternatively from an Australian Panel on Climate Change (APCC).
6. The environment and human health are both encompassed within the Commonwealth Sustainability Commission – National Environmental Protection Authority as the environment and health are indivisible.
7. Accordingly, health sciences and public health, including experts in aspects of environmentally related communicable diseases, should be strongly represented in the membership of the Commonwealth Sustainability Commission and the National Environmental Protection Authority.
8. Both mitigation and a broad reaching adaptation plan which encompasses resilience of the health system to climate change impacts must be included in the remit of the Commonwealth Sustainability Commission to address the health consequences of climate change.
9. The National Environmental Protection Authority deliver necessary climate and health strategies in consultation with states, which cover air and water quality, climate adaptation and environment communicable disease measures.
10. The Prime Minister and Cabinet have the responsibility for working with the states and territories through the Ministers to deliver this National Environmental Protection Authority strategy and particularly policy associated with air, water and climate mitigation. They will also be responsible for co-ordinating national adaptation policy for health across all states.

Background

To address the health impacts of climate change - the greatest global health threat of the 21st century - national leadership and reform of governance are urgently needed.

This policy paper details the need for federal leadership and new Commonwealth laws to guide climate change mitigation and adaptation, with a focus on present and future threats to human health. As reflected in the World Health Organization (WHO) position of *'Health in all Policies'*¹, human health and the environment are inextricably linked; not only is our health dependent on the health of ecological systems and the essential services they provide but also that environmental degradation has direct adverse consequences through exposure to pollutants and disease-causing agents. Consideration of health is therefore integral in any quest to reform environment laws.

Such laws would recognise that climate change is a national economic, health and security threat which merits statutory laws to guide implementation and governance.

Climate Change

Climate change is unequivocally occurring, and human activities are the dominant cause. It is part of the 'Anthropocene' epoch of human-induced global environmental change, which includes depletion of stratospheric ozone, land use change, chemical pollution, loss of soil fertility and biodiversity, global nitrogen and phosphorous cycle disruption and ocean acidification.

Climate change is being driven largely by an increase in greenhouse gas production due to the burning of fossil fuels for power generation, and from emissions from the transport, mining and agricultural sectors. Greenhouse gases, predominantly carbon dioxide, but also methane, nitrous oxide and water vapour, increase the heat-trapping capacity of the lower atmosphere, which results in global warming. Deforestation and land degradation through agriculture and pests have destroyed valuable 'carbon sinks', and together with ocean acidification have further reduced the ability of natural ecosystems to absorb CO₂ to maintain balance.

Global greenhouse gas emissions have increased annually over the past decade and the 1°C rise in global average surface temperature experienced since 1950 is associated with an increase in the severity and possibly the frequency of extreme weather events, global sea level rise, and sea ice loss in the Arctic. The trajectory is for a rise in global temperature of 1.5 - 2°C by 2050 and 3-4°C by 2100. Rises in temperature will be greater in the Arctic, possibly up to 7°C. Temperature rises of 4°C or more have not been experienced for 10-20 million years and the upper ranges are most likely not compatible with human habitation in many parts of the world. The rate of temperature increase is also unprecedented in the geological record, meaning that many species and ecosystems do not have time to relocate or adapt.

Current Federal and state responsibilities for mitigation and adaptation

Mitigation is action to decrease the level of greenhouse gases released into the atmosphere, thereby reducing the rapidity and extent of climate change.

Adaptation is the process by which society attempts to anticipate and manage the impacts of climate change.

Mitigation

At the Federal Government level mitigation of greenhouse gas emissions and subsequent climate change is currently managed by the Department of the Environment and Energy. Over the past decade efforts to reduce emissions in accord with modest national targets and within international national expectations and agreements have been inadequate, mainly due to frequent changes in policy which have failed to facilitate a transition from fossil fuels to alternative forms of energy.

Furthermore, the Department of Environment and Energy has only marginal influence through the Environment Protection and Biodiversity Conservation (EPBC) Act as "The EPBC Act focuses Australian Government interests on the protection of matters of national environmental significance, with the states and territories having responsibility for matters of state and local significance".² Hence for example there is no federal control over vegetation's carbon sinks which are an integral part of effective climate change policy. Such carbon sinks are directly affected by State policies on land clearing.

Since environment and health are indivisible, replacement of the EPBC Act, by a wide-reaching system of Federal legislation would also have positive health outcomes.

With regard to delivery of appropriate mitigation measures, the options which can be legislated for under a secure system are detailed in the APEEL Climate Law Paper³ and of the options available we especially agree with recommendation 5.3

"A national carbon price offers a preferable regulatory option for achieving absolute, economy-wide emissions reductions than the current Emissions Reduction Fund (ERF) Policy. In designing domestic emissions reduction policies, Australia should consider the full carbon footprint of local activities including their offshore (Scope 3) emissions"

Adaptation

The responsibility for climate change adaptation resides mainly with the States. Australia lacks a co-ordinated national approach to climate change adaptation, with little specific leadership, governance or funding at the federal level.

The National Climate Change Adaptation Research Facility⁴ (NCCARF) was established in 2008 with a grant from the Commonwealth Government via the Department of the Environment and Energy.

Its aim is:

"to lead the research community in a national interdisciplinary effort to generate the information needed by decision-makers in government and in vulnerable sectors and communities to manage the risks of climate change impacts".

NCCARF conducted research that underpinned reports on the effects of climate change on health⁵ as well as establishing four networks to maintain and build adaptation research capacity in key areas; natural ecosystems (terrestrial and marine); settlements and infrastructure; social, economic and institutional dimensions; and vulnerable communities (incorporating human health). Funding of these networks was ceased in 2017.

Proposed Federal Responsibilities

This DEA policy paper details the need for Federal leadership and responsibility for a plan to guide climate change mitigation and adaptation and their health consequences by the provision of environment law reform.

These needs are encompassed in The Climate Law paper from APEEL

"The Climate Law Paper considers the limitations of existing climate laws in Australia - taking account of recent international developments such as the 2015 Paris Agreement - and canvasses options for reform. The paper maps existing legal and regulatory arrangements that address the climate change challenge, focussing on the issue of mitigation - the reduction of greenhouse gas emissions. Climate change law also encompasses questions of adaptation - the management of climate impacts and of human and ecosystem vulnerabilities to climate change, an issue more closely linked to land use policies, planning and biodiversity laws".³

Within the Australian Constitution various responsibilities are shared between the Commonwealth, states and territories. Matters of prime national importance are the prerogative of the Commonwealth; defence and immigration fall into this category. Major financial decisions are made centrally by the Reserve Bank of Australia (RBA), which reports to federal parliament.

Because progressive climate change presents such a significant threat and bleak future for Australia and the world, we must recognise the need for secure and decisive action unimpeded by the vicissitudes of successive governments, their political needs, budgets, ideologies and lack of public service expertise. The issue is a key national one like monetary regulation and policy and must be directed by a national statutory authority to assess information and deliver outcomes backed by law.

The APEEL *Technical Paper 'Environmental Governance'*³ focuses primarily on environmental federalism and argues for a new generation of Commonwealth environmental laws that would lead to better and more dynamic outcomes than have been achieved under the current system.

DEA supports the recommendation of APEEL that

"the Commonwealth should establish a statutory body that will have jurisdiction for the new range of Commonwealth strategic functions as proposed. In particular, the Panel consider as appropriate an environmental counterpart to the economic strategy role of the Reserve Bank of Australia"

APEEL suggests that this new institution might be called the **Commonwealth Sustainability Commission (CSC)** and be linked to a **National Environmental Protection Authority (NEPA)**. The CSC would be a secure institution similar to the RBA which passes decisions to the NEPA for implementation.

In the view of DEA, the following aspects of the APEEL proposals need further consideration.

1. The provision of consensus climate change science

The question is how the complex scientific knowledge on climate and environment, and the necessary expertise on economics, health and other sectors will be embraced. It seems unlikely that the appointment system to the CSC as proposed by APEEL will fulfil this need and this problem is discussed further in Appendix 1 of this document.

DEA considers that no single organisation can provide the necessary expertise. An Australian Panel on Climate Change (APCC) has been suggested by DEA, by utilising the structure of the Intergovernmental Panel on Climate Change (IPCC) which has successfully encompassed all necessary inputs from science, economics, health, security etc.⁶

The APCC would liaise with scientific, health, economic and business organisations for communicating and processing information related to climate issues. Its assessments would be one of the prime sources of information for a CSC.

Clearly the development of a structure to deliver assessments on climate change science should be firmly in the remit of consultation between organisations such as the Australian Academies of Science, Bureau of Meteorology, university climate change departments etc., particularly in view of the perceived demotion of CSIRO input on climate change.⁷

2. Independence and Security of CSC -NEPA

Security of a CSC- NEPA system must be maintained in view of successive government's variable commitment to climate change action. For example, inappropriate appointments and reduction of funding for climate change research have occurred, and in the United States the recent example of President Trump's demolition of the climate change intent of the United States Environmental Protection Agency (USEPA) raises many questions.

Regarding political independence the view of APEEL is that:

".. routine regulatory functions should be able to be performed by the authority free from any form of ministerial oversight or direction"

DEA suggests that the government make appointments from a small selection of experts provided by each of the key organisations, such as the Australian Academy of Sciences etc listed above. Alternatively, the selections could be made using the expertise of the APCC.

We recommend that tenure has 4 years security.

These issues are further discussed in Appendix 1 of this document.

Health and Climate Change

Climate change has been declared the '*greatest health threat of the 21st century*'⁸ and addressing its health impacts is one of the World Health Organization's priorities.⁹

Climate change has direct effects on human health through extreme weather events; heatwaves, floods, storms and bushfires.

Indirect effects on human health include changes in patterns of infectious diseases, food and water insecurity, migration, and effects on social systems and mental health.

DEA has indicated that a secure and overarching authority such as a National EPA is vital to drive outcomes in health-related environmental issues including climate change.¹⁰ These aims are consistent with the APEEL proposals.

The conclusions of DEA's Health Factor Report¹⁰ (2013) were:

"Australians are suffering ill-health and Australia is incurring economic loss because of grossly inadequate assessment and management of the health harms caused by resource and other major developments."

"The Federal Government has tacitly accepted that state assessments are inadequate by establishing the Independent Expert Scientific Committee (IESC) to improve the collective scientific understanding of the water-related impacts of coal seam gas and large coal mining developments through a transparent process".

"In the interests of human health, Australia must take a national approach to assessing the health impacts of resource and other heavy industries. There are two alternatives for reform":

- 1. The establishment of a National EPA along the lines of the USEPA.*
- 2. The establishment of a body charged with oversight of States' environmental and health impact assessments for resource and other industry projects."*

The report detailed many examples of preventable harm to human health in all states from inadequate regulation.

Since 2013 these harms have continued to escalate with distressing examples from one state in 2017; the reappearance of black lung disease; the human health and environmental harms from an underground coal gasification development and; the New Hope Coal mine expansion

which was approved by the Queensland Government and then received a damning assessment from the Land Court based on health and environmental harms.

Urgent reform of regulatory processes as well as urgent action on climate change are required to save lives; human health harms and deaths are already well-documented. To date, such reform has not been addressed by government although the growing economic impacts of environmental degradation and climate change will, hopefully, force attention and action.

The economic and health costs of climate change

Two factors bring the urgency for action to our attention; the health costs and the social costs of extreme weather events are well-documented, are significant, and evidence suggests that action now will save much larger costs later. Both are compelling arguments for the immediate establishment of a Statutory Authority.

Extreme weather events

In a report from the Australian Business Roundtable for Disaster Resilience and Safer Communities and prepared by Deloitte Access Economics in 2015¹¹, tangible costs of natural disasters/extreme weather events include damage to properties, infrastructure, health costs, crop losses and decreased productivity. Intangible costs are more difficult to measure but include loss of health and wellbeing in affected communities, and an increase in mental health issues, substance abuse, chronic and non-communicable diseases, and unemployment.

The Roundtable report states that, in 2015, the social costs of natural disasters in Australia were at least equal to the physical costs at a total of over \$9 billion. The total cost of disasters is expected to rise to an average of \$33 billion per year by 2050 unless steps are taken to increase resilience and address mitigation.

The 2009 Black Saturday bushfires in Victoria killed 173 people and injured a further 414. The Roundtable report states that the estimated intangible costs of this disaster were significantly higher than the tangible costs, at \$3.9 billion and \$3.1 billion, respectively. In addition, the deaths of 374 vulnerable people is attributed to the associated heat wave.¹²

The Queensland floods of 2010-2011 resulted in more than 78% of the state being declared a disaster zone, with 35 people killed and approximately 2.5 million otherwise affected.¹³ According to the Roundtable report, the tangible asset loss was \$6.7 billion and was exceeded by intangible losses of \$7.4 billion.

It is clear to the health profession in Queensland that many costs are likely to be ongoing, particularly those related to mental illness and social disruption,^{14, 15} and to the functioning of specialist medical services¹⁶.

Failure of rapid action on climate change

It is now recognised that by failing to adopt strong emission reduction policies, we are increasing the probability that world economies will be facing huge health and infrastructure costs from damage caused by more intense storms and weather extremes.¹⁷

Globally it has been estimated that the cost of climate-related disasters has led to economic losses of over US\$2 trillion in the past 20 years.¹⁸

Legislative Reform - NEPA

The provision of health to the Australian community is shared between State and Federal jurisdictions. The delivery of services is the responsibility of States and Territories, but the Commonwealth does involve itself in initiatives that need a national approach or coordination. These include ensuring compliance with WHO International Health Regulations and responding to pandemics and to health emergencies.¹⁹

Commonwealth responsibility does not extend to health and climate change. At present, the Minister for Health and the Department of Health have little input, expertise or authority to address the risks and management of current and future health impacts arising from climate change, as these are dealt with by the states.

In the absence of adequate Federal policy, some states have taken on responsibilities to reduce emissions, and have made good progress in managing the existing health consequences of climate change, for example, the *Heat Health Plan for Victoria*²⁰.

However, Australia lacks a co-ordinated national approach to climate change adaptation, and has little specific leadership, governance or funding at the Federal level. It is critical to build adequate resilience within communities and health care systems, allowing them to anticipate and adapt to environmental change.

The definition of resilience from the Intergovernmental Panel on Climate Change is

*The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the **preservation, restoration, or improvement** of its essential basic structures and functions.*²¹

and the WHO's definition of a 'climate-resilient health system' is

*A climate resilient health system is one that is **capable** to anticipate, respond to, cope with, recover from and adapt to climate-related shocks and stress, so as to bring **sustained improvements in population health, despite an unstable climate.***²²

The AMA supports "Regional and national collaboration across all sectors, including a comprehensive and broad reaching adaptation plan that is necessary to reduce the health impacts of climate change. This requires a National Strategy for Health and Climate Change.²³ There is also a case for including a communicable disease centre in these considerations.²⁴

Health as part of the CSC-NEPA system

It is the view of medical and public health organisations that health is inextricably linked to the environment and DEA recommends that a secure national policy must be delivered by legal reforms if human health is to be appropriately protected.

Statements and policies on national action on health and climate change have been made by the Australian Medical Association (AMA), Royal Colleges of Physicians (RACP), Royal College of General Practitioners (RACGP), the Public Health Association of Australia (PHAA), Rural Doctors Association of Australia (RDAA) and the Climate and Health Alliance (CAHA).

Furthermore, the urgency for concerted action on adaptation is recognised by non-medical organisations such as the Business Roundtable which recommends

- Post-disaster funding should better reflect the long-term nature of social impacts.
- Governments, businesses and communities need to further invest in community resilience programs that drive learning and sustained behaviour change.
- A collaborative approach involving government, business, not-for-profits and community is needed to address the medium- and long-term costs of the social impacts of natural disasters.

- Further research must be done into ways of quantifying the medium- and long-term costs of the social impacts of natural disasters.

Action on these recommendations from the Round Table has been prejudiced by actions such as the government decision to cease funding the four adaptation networks in mid-2017. NCCARF now only receives a small amount of money from the Department of Environment and Energy which has to be shared with CSIRO. This cut included NCCARF's Vulnerable Communities Network (VCN)²⁵ hosted by the School of Public Health at the University of Adelaide which aimed to improve communication and collaboration between researchers and practitioners. The research conducted by members of the VCN and others was used to inform national and sub-national adaptation planning, to ensure key threats to health are addressed and that those at greatest risk are the focus of adaptation strategies.

This is one of many examples which dictate the need for a statutory system.

So why will the health needs for mitigation and adaptation be appropriately embraced by the CSC-NEPA proposal?

- Health and the natural environment are indivisible, and DEA supports the WHO concept of 'Health in all Policies'.
- Health needs the security of policy conferred by the CSC-NEPA system.
- Advances in public health policy that depend on State and Federal regulation have been subject to delay causing premature deaths, illness and large costs to health and social services, particularly from ongoing cases of poor ambient air quality and subsequent air pollution.
- The sustainability of good health in Australia is intimately related to good land management, sustainable food production and the maintenance of carbon sinks, not just for carbon emission control but also to maintain soil and species biodiversity.
- There are health gains from appropriate policy in portfolios such as infrastructure (roads, transport, building design) and in health services themselves from building design, energy conservation and energy security as well as from decreased hospital consumable usage and improved waste management.
- A failure to include health in the CSC-NEPA system would result in the necessity for a second Statutory Authority.

DEA therefore supports a policy that the health aspects of environmental degradation and climate change should be the responsibility of a new Commonwealth statutory body as proposed by APEEL that will have jurisdiction for a new range of Commonwealth strategic functions.

Federal Responsibilities

The Prime Minister and Cabinet will have the responsibility for working with the States and Territories through the Ministers to deliver broad policy options based on consensus science and technology and particularly policy associated with air, water and climate mitigation. It will also be responsible for co-ordinating national adaptation policy for health across all states.

The plan to deliver these policy options needs to evolve from input from the many medical and allied health care organisations listed earlier, most of which have prepared such plans.

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APPENDIX 1

The role and function of CSC-NEPA

There are two issues for us to consider -

1. How consensus climate change science and relevant technical information will be delivered to this structure in a format which is understood and relevant.
2. How security of the National Environmental Protection Authority (NEPA) system can be maintained in view of successive governments variable commitment to climate change action. For example, inappropriate appointments and reduction of funding for climate change research have occurred. The recent example of President Trump's demolition of the climate change intent of the United States Environmental Protection Agency (USEPA) raises many questions.

Regarding political independence, the view of the Australian Panel of Experts on Environmental Law (APEEL) is that:

".. routine regulatory functions should be able to be performed by the authority free from any form of ministerial oversight or direction"

1. Can the CSC deliver the Science?

The question is how the complex scientific knowledge on climate and environment, and the necessary expertise on economics, health and other sectors will be embraced, for in the view of Doctors for the Environment Australia (DEA) it seems unlikely that the appointment system to the Commonwealth Sustainability Commission (CSC) as proposed by APEEL will fulfil this need.

DEA believes that no single organisation can provide the necessary expertise. An Australian Panel on Climate Change (APCC) has been suggested by DEA, by utilising the structure of the Intergovernmental Panel on Climate Change (IPCC) which has successfully encompassed all necessary inputs from science, economics, health, security etc.ⁱ

The IPCC assessments provide much regional information of relevance to Australia. These could be utilised and enhanced by the Australian participants and additional Australian-based appointees to the APCC when providing regular or on-demand reports to a CSC, a National Environmental Protection Authority and to the Federal government.

It is of importance that the IPCC scientist-authors' work be translated into summaries suitable for policy-making audiences.ⁱⁱ Applied to Australia this would be important for elected representatives who have the impossible task of grappling with burgeoning complex, technical and scientific information which they have to understand to make decisions.

The APCC would liaise with scientific, health, economic and business organisations for communicating and processing information related to climate issues. Its assessments would be one of the prime sources of information for a CSC.

Clearly the development of a structure to deliver assessments on climate change science should be firmly in the remit of consultation between organisations such as the Australian Academies of

ⁱ see TOR "m" in <https://www.dea.org.au/wp-content/uploads/2017/08/Current-and-future-impacts-of-climate-change-on-housing-buildings-and-infrastructure-08-17.pdf>

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Science, Bureau of Meteorology, University Climate Change departments etc particularly in view of the perceived demotion of CSIRO input on climate changeⁱⁱⁱ In their report '*Australian climate science capability review*', the Australian Academy of Science indicates "*There are weaknesses in coordination and resourcing arrangements for Australian climate science that create avoidable inefficiency*". It then suggests five options for coordination.^{iv}

2. Independence and Security of CSC

We note

"APEEL acknowledge, however, that no statutory authority can be completely independent. It will usually be appropriate for appointments to be made by, or on the recommendation of, the government." (fn. 174, p.69).

There is also the following statement at fn.168, p.67:

"APEEL envisage that appointees to the Commission would be chosen by reason of their personal qualities, not as a representative of any organisation or government, and that, between them, members would bring to the Commission a wide range of expertise and experience about the tasks it will be required to perform."

However, DEA suggests that the government make appointments from a small selection of experts provided by each of the key organisations, such as the Australian Academy of Sciences etc listed above. Alternatively, the selections could be made using the expertise of the APCC.

We recommend that tenure has 4 years security.

With regard to funding security, we note APEEL says

"...this paper recognises that the appropriation of funds to support such schemes is inevitably a responsibility of the Commonwealth more generally and that the Commission will be required to work with whatever resources are made available to it for this purpose; see further below, the recommendations for how adequate resources might be generated (fn170, p.67).

And also fn.174, at p.69

"Even if the authority has the benefit of a 'one-line' appropriation in the Commonwealth Budget, issues will necessarily arise in relation to the size of that appropriation. Tied up with this question is the Authority's staffing levels and, therefore, its capacity to perform its functions. Inevitably, these must be matters for discussion on a recurring basis and ultimately, the government's view will, and should, prevail."

However, DEA is confident that the standing, role and functions of the CSC and therefore the NEPA will become apparent to all, and abolition of funding would become a task commensurate with abolition of the Reserve Bank of Australia.

ⁱⁱⁱ <http://www.abc.net.au/news/2017-08-03/australia-needs-more-climate-scientists-review-urges/8767004>

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